

Emergency Management in Public Health in China—taking the Kunming Entry-Exist Inspection & Quarantine Bureau as an Example

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Abstract

Taken Kunming entry-exist inspection & quarantine bureau (KEIQB) as an example, this paper discussed the system of emergency management in public health. Despite the effectiveness of "3+1" control line model, there are some disadvantages in present health emergency management in KEIQB, such as lacking of government-led role, professional team and citizen participation, to some extent, which wasted limited resources and caused emergency management inefficiency. Therefore, this paper provided some practical suggestions for those problems.

Keywords: Emergency management, Public health, Control line, Government-led

1. Introduction

Emergency management in public health is a hot topic discussed by many scholars all over the world. Emergency management can be defined as the process of developing and implementing policies that are concerned with four stages including mitigation, preparedness, response, and recovery. It involves many activities such as preventing possible emergencies in public health, or planning to ensure an adequate response and recovery if an emergency occurs. The public health system itself is a complex network of organizations and individuals, which strives to improve the quality of public health delivery. These entities include public health agencies at local, state

levels, academia, business, communities, etc.

Recently China has suffered many public health crises, such as SARS in 2003, Bird Flu in 2004, Melamine-polluted Milk Powder in 2008, and the H1N1 flu pandemic in 2009, which have not only affected public health, but also social stability. Therefore, the Chinese government has promulgated a number of laws and regulations to deal with sudden incidents with the aim of protecting public health and people's property from loss, for example, "The Law on Prevention and Treatment of Infection Diseases", "The Public Health Emergencies of Emergency Regulations". To some extent, those regulations and laws have helped local governments and public agencies establish a suitable system for local emergency issues. However, we need to ask what are the key characteristics of local emergency management in public health? What are problems for this system? This paper will examine the emergency management system for Kunming Entry-Exist Inspection & Quarantine Bureau (KEIQB) and to analyze how it works.

2. Literature Review

Chinese scholars have discussed the topic of emergency management in public health from different perspectives. Taking H1N1 flu pandemic as example, Xu (2010) analyzed the disadvantages of the emergency management system in China. He pointed the problems of poor cooperation between different government agencies, invalid risk evaluation, and inefficiency of citizen participation, which

made for poor performance in the emergency management in public health. Liu (2007) established an information disclosure system of public health emergencies, to help people better control crises of public health. From a social management point of view, Wang and Bie (2011) examined the key stages of emergency management in public health, and provided suggestions for the Chinese government to deal with public health emergencies during crisis prodromal, breakout, chronic and resolution procedures. Based on a university case study, Tang (2010) proposed a five-element model to manage public health emergencies, which involves effective strategic management, strong leadership, efficient resource guarantee, rapid information communication, and coherent organization culture.

3. Emergency management system in Kunming Entry-exist Inspection & Quarantine Bureau

Kunming Wu-Jia-Ba International Airport (hereafter called KWIA) is the biggest airport in Yunnan Province, in China. There are twenty-six international air routes connected with many countries in East Asia, such as Japan, Thailand, Singapore, Laos, Philippines, etc. The throughput of passengers reached 210 million in 2011, which ranks KWIA 6th in domestic international airports in China. As a key public agency, Kunming Entry-Exist Inspection & Quarantine Bureau (KEIQB) provides the main services for public health in KWIA.

In 2009, the H1N1 influenza epidemic spread all over the world. According to the requirements by Chinese State Quality Inspection Bureau, all airports needed to check all airplanes and passengers, quarantine, disinfection, monitoring temperature, and collect health declaration cards. Based on this requirement, KEIQB had to adjust its internal work procedure in order to ensure public health. Short of staff working directly with customers, KEIQB reassigned staff from cargo inspection department to improve the quality of quarantine. Since most international flights from Kunming are from southeast Asia, less developed countries where people's English is poor, KEIQB rewrote the health declaration card in Burmese, Thai, Vietnamese to guide passengers, at the same time KEIQB provided

special services, special channels for passengers to ensure security clearance in the shortest possible time.

Considering the very serious nature of the situation, KEIQB designed a new effective system to prevent and control the H1N1 flu pandemic. A series of personalized service activities were undertaken during entry-exit inspection and quarantine procedures. These maximized the convenience of passengers, and all these measures won the support from all the airlines and passengers. According to KEIQB Statistics Report in 2010, from May 1, 2009 to December 31, 2009, KEIQB found a total of 389 patients with fever or symptoms, after investigation, 110 cases were transferred to local health departments or hospitals, which were diagnosed as influenza cases in 9 cases, and 1 case of dengue fever.

4. The key characteristics of emergency management system for KEIQB

Formulating new regulations for public health

Since China became a member of the World Trade Organization (WTO) in 2001, according to international health regulation, the Technical Barriers to Trade (TBT) and Sanitary & Phytosanitary Measures, the Chinese Quality Supervision Bureau has revised 320 articles for health and quarantine monitoring, and formulated special frontier health and quarantine regulations with the aim of protecting public health in China.

Reforming procedures of quarantine and inspection

For nearly 3 years, KEIQB has vigorously reformed procedures of quarantine and inspection, to strengthen the standard management for health centres, to put more attention on technical creation for health supervision, and has employed a scientific assessment system for sanitary treatment, properly used in airport radioactive detection. By doing so, KEIQB is trying to establish itself as an International Sanitary Airport, and achieve the target of "fast, light, the tight inspection". Now, KEIQB has increased the customs clearance speed, improved the detection rate for infectious disease and radioactive detection exceeds the standard requirement.

Developing an effective team

To improve the capability of professional team, KEIQB has set up a committee of experts for public health, and strengthened training courses and practical experience. KEIQB has developed an effective quarantine team with high quality and rich professional knowledge under the guidance of core values of “accountable, brave, commitment, sacrifice”.

Establishing “3+1” control-line model

According to the principles of “government in charge, decentralization, integration, cooperation”, KEIQB has established “3+1”

control lines in the border area to prevent disease spread (see Figure 1), namely, a control line of Yunnan Entry-exit Inspection and Quarantine Bureau itself, which is the most important line to control serious problems; the second control line is the cooperation among Yunnan customs, Yunnan Frontier Inspection, Yunnan Local Health and Agriculture Departments; the third control line is cooperation between Yunnan Border Local Government and Border people; and last control line is an international cooperation with relevant Border Countries, such as Vietnam, Myanmar and Laos.

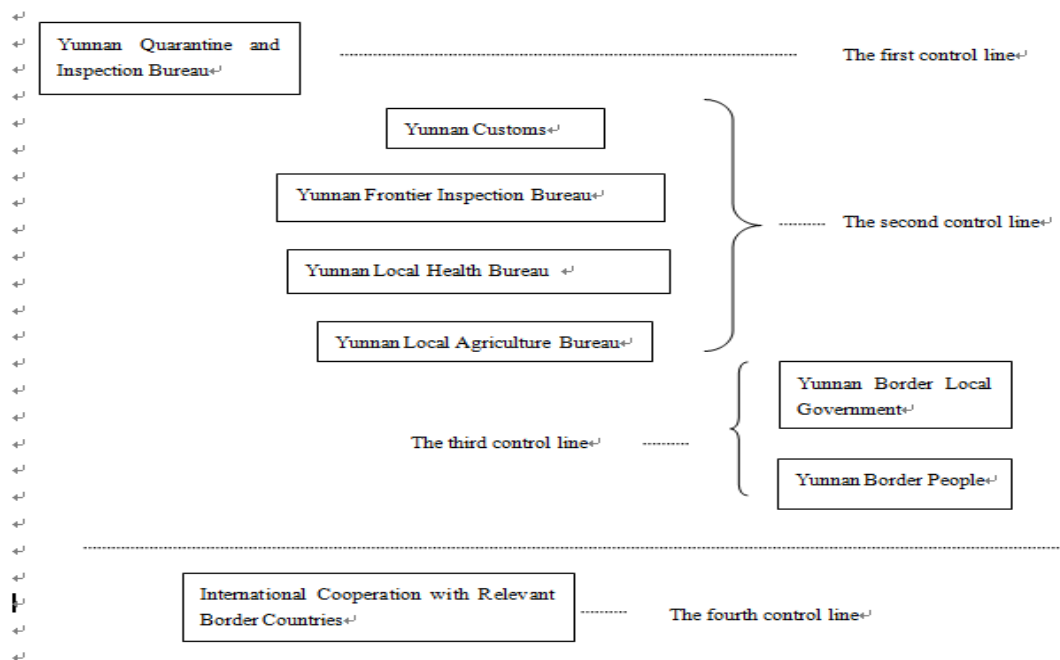


Figure 1: “3+1” control-line model

5. The challenge of emergency management system for KEIQB

Although it has achieved good results recently, there are still some challenges facing KEIQB which we can summarize as follows:

The government has not played a key role in emergency management

When a crisis occurs, government normally plays a big part in emergency management. However, there was no effective leading role

played by Yunnan Province. Yunnan Local Health Bureau did not respond quickly and did not coordinate different agencies to cope with emergency at the same time, such as in SAS emergency event.

There are no clear responsibilities for different agencies in emergency management

In terms of public health supervision, the local health bureau, KEIQB, and the quality supervision bureau, all have responsibilities to

monitor health quality. However, there is no clear assignment between them when a health emergency occurs, which might cause serious problems, such as delaying treatment, wasting time and resources.

Emergency grants have not been used promptly and effectively during emergency management

With the development of the economy, the Chinese government has prepared special funds to cope with emergencies. Despite that, local areas always receive the emergency grant from the government too late after an emergency occurs. Due to information asymmetry, different state agencies sometimes input lots of money into the same thing, which wastes limited resources, for example, Yunnan health Bureau, KEIQB, Yunnan Frontier Inspection Bureau all spent money on face mask, thermometer, liquid soap and some medicines.

There is no professional medical team in emergency management

KEIQB, Yunnan Frontier Inspection, and Yunnan Customs are important agencies in protecting public health, but there are not enough professionals in those agencies, in particular a professional medical team. In 2011, there were only ten staff graduated from medical school in KEIQB, no more than ten percent of all staff. Meanwhile, training opportunities are limited for staff too, which are potential obstacles for keeping the public safe.

6. Conclusions

In order to respond emergency event effectively, based on literature review, there are some key recommendations made by this paper:

Firstly, strengthening government power to coordinate between agencies, including vertical coordination and horizontal coordination. Vertical coordination means central government to support financially or technically local government to cope with emergency; Horizontal coordination means to strengthen cooperation between agencies at the

same level, especially to assign responsibilities clearly.

Secondly, establishing interactive information system. On one hand, interactive information system is helpful to prevent rumor and gossip spreading widely, to build a good emergency management mechanism; On the other hand, it can effectively transfer information to relevant agencies, help the government to make corresponding policies to control worse situation further developed.

Thirdly, creating system for citizen participation. Non-governmental organizations, community and citizen are important supporters for emergency management. As we know, emergency can threat personal security and cause huge loss, therefore, to establish effective citizen participation system can make useful contributions on emergency management, for example citizens and NGO can donate money and goods, and provide professional skills, which will benefit for people in needs physically and mentally when emergency occurs.

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