

Research on the Improvement of Prevention and Control Capacity of Rural Communities from the Perspective of Epidemic Prevention and Control

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Abstract—As the basic unit of grassroots social governance, rural communities are a bridge between the Party and the government to connect and serve the masses. This paper explores the impact of rural community governance on major epidemic prevention and control from the aspects of governance subjects, governance mechanisms, and governance methods, and actively explores specific ways to improve the prevention and control capabilities of rural communities, so as to provide theoretical resources and practical basis for the high-quality development of rural communities.

Index Terms—Community governance; Epidemic prevention and control; Rural communities

I. INTRODUCTION

At the beginning of 2020, the outbreak of the new crown pneumonia epidemic posed severe challenges to the national governance system and grassroots governance capabilities, and under the great attention and precise command of the Party Central Committee and the State Council, and under the coordination and rapid response of multi-party linkage, phased results in epidemic prevention and control have been achieved, and Chinese experience has been provided for the international community to fight the epidemic.

In the process of achieving phased victories in the prevention and control of the new crown pneumonia epidemic in rural communities, the shortcomings of rural communities in responding to public health emergencies have also been exposed, which is highlighted by traceism in prevention and control behavior, and has compressed the space for the effectiveness of prevention and control in rural communities. Therefore, we must not only base ourselves on the present, scientifically and accurately win the epidemic prevention and control war, but also take a long-term view, sum up experience, draw lessons, and in view of the shortcomings and shortcomings exposed by the epidemic, pay close attention to making up for shortcomings, plugging loopholes, strengths and weaknesses, improve the major epidemic prevention and control system and mechanism, and improve the national public health emergency management system.

Through the research on rural community governance in this epidemic event, lessons learned and new research strategies for improving prevention and control capabilities

are proposed, which provides a strong reference for rural communities in China to respond to public health emergencies and better promotes the modernization of rural community governance.

II. ANALYSIS OF PROBLEMS AND CAUSES OF MAJOR EPIDEMIC PREVENTION AND CONTROL CAPACITY IN RURAL COMMUNITIES

(1) Problems in the prevention and control capacity of major epidemics in rural communities

1) The circulation of epidemic information is not timely, and the concept of protection is not strong

Most of the rural communities belong to more remote areas, and the latest epidemic prevention information can only be transmitted to the community from the central government to the provinces, cities, districts, towns and townships, and some rural communities are located in the geographical location of the islands, which makes the information flow and transmission more closed, and the information cannot be transmitted to the village to the household in time.

In addition, residents in rural communities have poor hygiene and living habits, and do not have a strong concept of protection when a special infectious disease such as the new crown pneumonia epidemic occurs. Rural people have a strong atmosphere, on weekdays, neighbors visit more neighbors, visit relatives, have the habit of chatting in the streets and alleys, go out without masks, and gather activities from time to time, which is easy to provide opportunities for virus infection, and also makes it difficult for rural communities to prevent the epidemic.

2) Poor governance capacity of rural communities

The principle of handling affairs in rural areas is mainly based on moral norms, legal awareness is relatively weak, and the construction of the rule of law in rural areas is not perfect. When the epidemic prevention and control measures are issued by the higher authorities and the implementation process is extended to the rural areas, it is easy for community staff to be simple and rude in their methods and methods, and it is easier to conflict with residents. Affected by the society of acquaintances, rural society has the traditional concept of "human favor is greater than the rules", and some rural communities have problems such as insufficient vigilance of key personnel, lack of strict checkpoint inspection, and lack

of implementation of masks when entering and leaving public places.

3) The construction of epidemic prevention and control teams is backward

Rural communities have a shortage of staff, less training in related operations, and some work will be carried out in a formalistic manner. Rural community staff are aging, low education knowledge background, most of the personnel have not received professional emergency management, epidemic prevention knowledge and other training, the insight and handling ability of public health emergencies are relatively weak, in the implementation of the new crown pneumonia epidemic prevention and control work, it is easier to put themselves into the risk of infection, need to be equipped with professional medical personnel, police personnel.

4) Lack of medical public goods

In terms of resource allocation, rural communities have always lagged behind urban communities, and in the field of public health, they are mainly manifested in the backward health infrastructure, the shortage of public health personnel, and the imperfect public health emergency system. There is a lack of public health infrastructure such as intensive care, isolation and control, and there is a lack of epidemic prevention materials. There is a serious shortage of manpower, and staff can only be supplemented by temporary recruitment of junior college students and recruitment of volunteers in professional fields from the society.

(2) The causes of problems in the prevention and control capacity of major epidemics in rural communities

1) The pattern of diversification is not perfect

The modern governance pattern should be diversified, and it is necessary to form a comprehensive body led by the party committee and government, with the participation of organizations from all walks of life and residents extensively, but the main force of epidemic prevention and control in rural communities is still street community cadres, party members, etc., ordinary residents' participation in community governance is not high, and benign interaction residents with the participation of multiple subjects have not yet formed, which is mainly reflected in: residents' sense of "master" is not strong, social organizations do not participate in the initiative enough, and the interaction between the community and residents is less.

2) Comprehensive coordination and overall planning are not timely

The responsibility for epidemic prevention and control lies at the grassroots level, and the grassroots work involves various aspects such as health, medical treatment, grassroots level, education, enterprises, and social stability, and requires the joint coordination and participation of various departments such as the Health and Disease Control Center, hospitals, health centers, education bureaus, public security bureaus, and organization departments.

3) The foundation for epidemic prevention and control is weak

Rural communities Due to the weak foundation, a series of problems such as weak legal awareness, single prevention and control methods, difficulty in mobilizing volunteers, and lack of residents' emotional counseling methods have been exposed, mainly due to the lack of emergency management mechanisms, poor rural medical and health conditions, and imperfect laws and regulations on rural community management.

III. STRATEGIES FOR IMPROVING THE PREVENTION AND CONTROL CAPACITY OF MAJOR EPIDEMICS IN RURAL COMMUNITIES

(1) Build collaborative governance and diversified rural communities

1) Strengthen the leadership core position of rural community Party organizations

Strengthen the building of party organizations in rural communities, do party building work in a down-to-earth and meticulous manner, and improve the centripetal force and appeal of party organizations. Improve the level of rural work, strengthen the political construction, quality building, and capacity building of the members of the new rural community leading groups after the change of office, increase the intensity of education and training on the professionalism of rural community workers, focus on building a group of highly professional, energetic, and well-structured community workers, and improve the overall quality and work level of the rural community cadre team.

2) Give play to the exemplary vanguard role of Party members

In the severe test of fighting the new crown pneumonia, it is necessary to give play to the exemplary role of party members as pioneers, highlight the advanced nature of party organizations and the combat effectiveness of party members. On the one hand, grassroots party organizations in rural communities should strengthen the study and education of party members, strengthen the "four awareness", strengthen the "four self-confidence", and achieve "two safeguards", adopt the form of party members doing all the work, so that party members can take the prevention and control of the epidemic as the touchstone and grinding stone for practicing their original mission and embodying responsibility, and take the lead in implementing various epidemic prevention and control measures. On the other hand, it is necessary to strengthen the daily management of the party member team, adhere to the daily and strict daily life, continue to enhance the original awareness, put the interests of the people first, and deepen the idea of serving the people, in order to stand up at critical moments such as the occurrence of major epidemics.

3) Cultivate the strength of rural social organizations to participate together

First of all, it is necessary to optimize the pattern, strengthen guidance in rural communities, cultivate social organizations, focus on the development of disaster prevention and mitigation, public welfare charity, agricultural production, psychological counseling, legal aid and other

fields, and improve the rural social governance system. Second, rural communities should increase interaction with social organizations, assist social organizations in improving internal organizations, give social organizations a certain platform space and funding guarantee, stimulate the self-regulation function of society, and strive to explore an institutionalized and modeled path of political and social coordination. Finally, rural communities should guide social organizations to learn to sink, go deep into rural communities, participate in providing and organizing community services, and give real play to the role of social organizations in emergency rescue and disaster relief and emergency rescue.

4) Promote the return and cultivation of rural elites

First of all, to improve the capacity of existing community workers, it is necessary to provide channels for academic promotion and study, and carry out more targeted rural work and community work training. Second, it is necessary to optimize policies, encourage the post-80s and post-90s to run for community cadres, adopt a scientific and reasonable evaluation and assessment mechanism, and open up a channel for them to rise. Finally, we should promote rural infrastructure, education, medical care and other supporting facilities, eliminate the concerns of returning elites, and enhance the attractiveness of rural areas.

(2) Build smart rural communities with sound systems

1) Enhance the awareness of emergency management and build a long-term mechanism

First, it is necessary to strengthen the emergency management mechanism within rural communities. Improve existing emergency response plans, leading groups, and publicity plans, optimize the command system at the district, neighborhood and rural community levels, establish a standardized and long-term emergency prevention and control mechanism, and build a solid line of prevention and defense against rural public health emergencies. The second is to improve the concept of emergency management in rural communities. Establish the concept that "prevention of emergencies is also development, and reducing the loss of public health emergencies is growth", and incorporate emergency management, especially emergency management of public health emergencies, into a long-term and persistent work of rural communities. The third is to improve the level of rural emergency management. Regularly and irregularly carry out security risk investigations, organize emergency drills, and strengthen emergency resource scheduling and the implementation of various measures.

2) Improve the medical and health system

First, attach importance to rural health and medical work. The state finance should be tilted towards rural community health service centers, optimize the intelligent decision-making system for district-level public health events, narrow the gap between urban and rural medical and health construction, increase capital investment, and improve the level of informatization. The second is to improve the construction of rural doctors. Improve the treatment and living security of rural doctors, promote the incentive mechanism, and expand the development space of rural doctors, so as to ensure the talent team of rural doctors.

3) Sink emergency prevention and control resources to ensure work operation

First, overall planning and dispatch will sink forces to the front line. It is necessary to sink the strength of department personnel and enrich it in rural epidemic prevention and control work, unified scheduling, and overall planning for the work of checkpoint duty and investigation personnel assigned to each rural community. Second, medical supplies are given priority to rural communities. It is necessary to give priority to rural areas in terms of medical protection and medical materials, and promptly equip necessary protective equipment to ensure that rural communities implement prevention and control work. [6] discussed about an eye blinking sensor. Nowadays heart attack patients are increasing day by day. "Though it is tough to save the heart attack patients, we can increase the statistics of saving the life of patients & the life of others whom they are responsible for. The main design of this project is to track the heart attack of patients who are suffering from any attacks during driving and send them a medical need & thereby to stop the vehicle to ensure that the persons along them are safe from accident. Here, an eye blinking sensor is used to sense the blinking of the eye. spO2 sensor checks the pulse rate of the patient. Both are connected to micro controller. If eye blinking gets stopped then the signal is sent to the controller to make an alarm through the buffer. If spO2 sensor senses a variation in pulse or low oxygen content in blood, it may results in heart failure and therefore the controller stops the motor of the vehicle. Then Tarang F4 transmitter is used to send the vehicle number & the mobile number of the patient to a nearest medical station within 25 km for medical aid. The pulse rate monitored via LCD .The Tarang F4 receiver receives the signal and passes through controller and the number gets displayed in the LCD screen and an alarm is produced through a buzzer as soon the signal is received. [7] discussed about a system, GSM based AMR has low infrastructure cost and it reduces man power. The system is fully automatic, hence the probability of error is reduced. The data is highly secured and it not only solve the problem of traditional meter reading system but also provides additional features such as power disconnection, reconnection and the concept of power management. The database stores the current month and also all the previous month data for the future use. Hence the system saves a lot amount of time and energy. Due to the power fluctuations, there might be a damage in the home appliances. Hence to avoid such damages and to protect the appliances, the voltage controlling method can be implemented.

4) Drive transformation with new technology and improve service efficiency

On the one hand, establish an information grid service system. On the basis of the grid governance structure, accelerate the construction of rural telecommunications, mobile and other informatization, through high-definition monitoring, at home isolation and isolation points, remotely view the dynamics of quarantined personnel, reduce the probability of face-to-face contact to be infected, and also implement online self-registration to fill in information, rural

community staff can obtain information by background viewing, and further promote the intelligent and informatization of epidemic grid prevention and control. On the other hand, increase the online dissemination of epidemic prevention and control policies. In order to let rural community residents receive the policy in the first time, it is necessary to make full use of network information technology to break through the drawbacks of rural "information islands". We can use WeChat, Weibo, Douyin and other online platforms to increase policy dissemination.

(3) Governance is governed by the rule of law and modern rural communities are built with both rigidity and softness

1) Optimize rural regional planning and fine community spatial governance

Planning departments should comprehensively assess the basic environment of rural communities, rationally layout various types of epidemic prevention facilities in combination with regional spatial characteristics, and build emergency support infrastructure and service facilities. Classify and control rural hazards, collect passenger, train, and flight records of residents' travel, as well as confirm the scope of contacts of cases, classify residents' households, physically isolate residents spatially, and set up regional epidemic prevention responsibility units to reduce the risk of internal infection and spread.

2) Improve village rules and regulations, and improve rural laws and regulations

Higher-level departments should issue rigid institutional constraints, clarify the division of responsibilities of rural communities in the emergency response to public health emergencies, and grant management and enforcement powers in accordance with law. Combined with the "integration of three governance", improve village rules and people's agreements under epidemic prevention and control in accordance with the law, standardize residents' behavior, and maintain the harmony, stability and order of rural communities.

3) Increase publicity on the rule of law and deepen rural propaganda and education

By strengthening the work of popularizing the law, the law in the field of public health is instilled in the residents in abiding by social order and performing their duties, so that the broad masses of peasants can gradually understand the legal rights to public health they enjoy and the legal obligations of public health that they should fulfill. Pay attention to the development of rural indigenous rule of law culture, refine the essence of traditional culture, make full use of the existing rule of law cultural resources in rural areas, and organically integrate the spirit of rural natural law with the national written law system. Strengthen the establishment of rural public health rule of law institutions, increase the level of rule of law in social governance, promptly provide rural agricultural farmers with public health and other related legal services, and meet the needs of rural rule of law construction.

IV. CONCLUSION

Under the influence of the global new crown pneumonia epidemic, people's production and life have been seriously affected, but China's epidemic has been effectively controlled first. The epidemic prevention and control work in rural communities has attracted the attention of foreign and domestic communities, and their governance experience has made great contributions to solving public health emergencies in China and even the world. With the development requirements of grassroots governance modernization, rural community governance subjects, governance content, governance structure, governance methods have changed, especially affected by the epidemic, the effectiveness and shortcomings of governance are exposed in front of the public, this paper believes that to pay full attention to rural areas in China, although the construction of rural communities in developed areas has begun to take shape, but the overall rural areas in modern governance still have a long way to go. How to quickly and effectively control the epidemic in rural areas, how to improve the epidemic prevention and control capacity of rural communities, and how to promote the modern governance of rural communities are the key points of focus at present.

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