

# Reflections on the Current Situation and Development of Village Clinics and Village Doctors in Tianmen City, Hubei Province

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## ABSTRACT

This article takes village clinics in Tianmen City, Hubei Province as the object, using field interviews, literature research, and data analysis to study the reasons for the decrease in the number of rural doctors in village clinics in Tianmen City and the problems in the development of rural clinics. This study found that the number of rural doctors decreased year by year and the level of medical treatment was insufficient; the coverage rate of medical equipment in village clinics was not high; the communication channel between village doctors and villagers was narrow; the implementation of national policy on village doctors was not ideal. So we put forward measures to optimize the construction of village clinics and village doctors, such as creating a good practice environment for doctors, strengthening supervision, rationally choosing the construction location of village clinics, broadening the communication channels between villagers and village doctors, and establishing a feedback platform for village doctors.

**Keywords:** village clinics, current situation, improvements

## 1. INTRODUCTION

With the vigorous development of new socialist countryside construction, the construction of a sound rural public health system has become an important task of governments at all levels[1]. As the bottom layer of the three-level network of rural health, the construction of village clinics is directly related to the life and health of farmers and social harmony and stability. Although under the promotion of macro policy, the construction optimization degree of village clinics has been significantly improved, some rural doctors still face many problems. Many rural doctors are under heavy work pressure, their income is at a low level in the medical industry, their professional work quality and their medical service ability are not high, which is not conducive to the development of rural medical services in the country. Tianmen City, as a small provincial municipality in Hubei Province, has received insufficient attention to health related issues at the grassroots level. There are fewer relevant studies on problems in grassroots village clinics. In view of this situation, we went to 4 village clinics in different 4 towns in Tianmen City to conduct on-site interviews and consult relevant data for investigation and analysis from October 2019 to December 2019. We tried to explore practical and effective measures to improve the construction level of village clinics in Tianmen City, and put forward corresponding countermeasures and suggestions.

## 2. RESEARCH OBJECT AND RESEARCH METHOD

### 2.1. Research Object

From October 2019 to December 2019, we visited 4 village clinics in 4 different townships in Tianmen City to investigate the number of village clinics and rural doctors in Tianmen City in recent years, the age of rural doctors, training times, pass rate of assessment, insurance situation, the allocation of village clinics facilities and the feedback of villagers in field interviews.

### 2.2. Research Method

We selected 4 village clinics in Tianmen City for in-depth interviews, including interviewing rural doctors and visiting villagers. At the same time, we summarized the problems existing in the construction of village clinics in Hubei Province by using the method of literature research, and analyzed the data from the 2018 Hubei Health Statistical Yearbook and the recent Tianmen statistical yearbook. And then draw a chart to present the results.

### 3. CURRENT SITUATION OF VILLAGE CLINICS IN TIANMEN CITY, HUBEI PROVINCE

#### 3.1. General Situation of Rural Clinics

According to the 2019 Hubei Health Statistics Yearbook, Tianmen City currently has 794 village clinics and 1,030 village doctors. On average, each village clinic is equipped with 1.3 village doctors. There are 780 administrative villages within the jurisdiction of Tianmen City, Hubei Province. Among them, the number of administrative villages with village clinics is 768, and the coverage rate of administrative village clinics is 98.46%.

#### 3.2. Equipment Allocation of Village Clinics

Among 794 village clinics in Tianmen City, only the inspection bed and Western medicine cabinet coverage rate is 100%. The equipment with a higher coverage rate is the disposal desk, and the equipment with the lowest coverage rate is a stretcher. The specific equipment coverage is shown in Table 1.

**Table 1.** Medical equipment coverage of village clinics in Tianmen

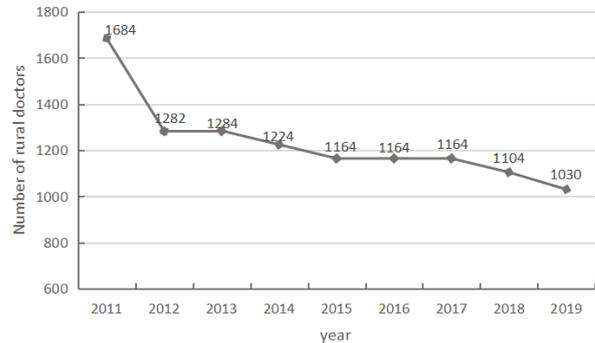
Type of equipment	Quantity	Coverage Rate
Simple respirator	89	11.21%
Portable autoclave	263	33.12%
Refrigerator	377	47.48%
Examination (observation) bed	1466	100%
Aseptic cabinet	189	23.80%
Chinese medicine cabinet	144	18.14%
Western medicine cabinet	887	100%
Stretcher	29	3.65%
Disposal desk	589	74.18%

#### 3.3. Changes in the Number of Rural Doctors

In recent years, due to a large number of rural population flowing to developed cities, the environment of rural doctors is not ideal and the aging of rural doctors is gradually increasing, resulting in the number of rural doctors decreasing year by year.

The number of rural doctors in Tianmen City decreased from 1684 in 2011 to 1030 in 2019, with a drop rate of 38.84%. In 2011, the number of permanent rural residents in Tianmen City was 746400, with 2.26 village doctors per thousand population. In 2018, the number of permanent

rural residents in Tianmen City was 582700, with 1.77 village doctors per thousand population. The number of village doctors per thousand population decreased by 21.68%. See Fig. 1 for specific changes in the number of village doctors.



**Figure 1.** Changes chart of the number of rural doctors and health workers in Tianmen City

#### 3.4. Basic Information on Rural Doctors

This paper will describe the current situation of rural doctors in Tianmen City from the number of various doctors, registered nurses and rural doctors, the rate of qualified assessment, the number of training, the number of staff and the participation in insurance. There are 259 practicing (Assistant) doctors in Tianmen City, including 2 rural general practice assistant doctors, and 18 practicing (Assistant) doctors on the list, with an enrollment rate of 6.95%. At present, there are 1030 rural doctors, 639 qualified rural doctors, the qualified rate is 62.04%; the number of health workers is 27, and the training times in the year are 4,252, with an average of 4.02 times per person per year. Among the practicing assistant doctors and rural doctors, 299 people participated in the endowment insurance for urban residents, and 28 people participated in the old-age insurance for employees, with the overall coverage rate of 25.37%. The average annual income of each village clinic is 7,700 yuan, which is far lower than 18,900 yuan in Hubei Province. Most of the income comes from medical treatment and medicine.

#### 3.5. Field Survey and Interview Results

##### 3.5.1. The number and quality of doctors participating in the interview

In order to thoroughly understand the situation of village clinics in Tianmen City, four village clinics in different towns of Tianmen City were randomly selected. Among the 4 village clinics, the age of village doctors was 48, 55, 62 and 58 years old respectively, with an average age of 55.75 years. Among the four village clinics, there was only

one village doctor in each clinic, three were male and one was female. In two of the village clinics, the spouse of the village doctor acts as the doctor's assistant, while only one village doctor is responsible for of the village clinic in the other two. Among the 4 village doctors, 2 of them with technical secondary school education, have health school learning experience of health school, and 2 of them learned from the elders of their families, who practice medicine based on years of experience. Among the four village doctors, only one village doctor always keeps a large number of medical books and often takes time to study; the other three seldom continue to study because of old age and poor eyesight.

### *3.5.2. Hardware facilities and equipment of village clinics*

Among the four village clinics interviewed on the spot, the building area of the village clinics reached the national standard of 60 square meters, and the diagnosis room, treatment room, observation room and pharmacy were set up separately. Three of the four are equipped with computers, but according to doctors, they seldom use computers to build electronic medical records, and only use computers when they really need help. In terms of medical equipment configuration, only two village clinics have electronic thermometers and electronic sphygmomanometers. The other two village clinics still use the "old three" (mercury sphygmomanometer, stethoscope, mercury thermometer). One village clinic has a Chinese medicine cabinet, and three village clinics provide Chinese medicine decocting service. All four village clinics provided drug sales and infusion services. The average number of beds was 1.25.

### *3.5.3. Villagers' feedback from interviews with village clinics*

The villagers reported that the problems they encountered when they came to the village clinic were as follows: (1) When patients came to see a doctor, the village doctor left because of other affairs, and more patients had to wait for more than 30 minutes. The main reason why villagers come to the village clinic is that it is convenient, time-saving and quick, and does not delay family affairs. (2) The prices charged by village doctors are sometimes high and sometimes low. There is no uniform standard. The prices are set by the village doctors. Villagers have no bargaining power, and there is insufficient supervision over the selling prices of medicines. (3) A small number of villagers reported that the village clinic was too far away from their residence and it took 40 minutes to walk, which brought inconvenience for them to see the doctor.

## **4. MAIN PROBLEMS IN THE DEVELOPMENT OF VILLAGE CLINICS**

### ***4.1. The Quantity and Quality of Rural Doctors Need to be Improved***

According to the comprehensive results of literature research, interview and report data analysis, the aging problem of rural doctors is serious [2]. The aging of village doctors has reduced the learning enthusiasm of village doctors, making it difficult to improve the medical level, and other problems still exist. At present, the income of most rural doctors mainly comes from a small amount of public health service funds, subsidies for the difference in drug sales, and diagnosis and treatment fees. In recent years, a large number of rural people have gone out to work, which has reduced the number of permanent residents in rural areas and has had an impact on the income of rural doctors. The low income of village doctors and the lack of stable old-age security make it difficult for rural doctors to attract young people. Only 13% of young medical college graduates are willing to work as rural doctors for 5 years, and only 3% are willing to be village doctors for 10 years [3]. This shows that the number of village doctors in China will not be guaranteed in the future, some villages may no longer have village clinics. The existing rural doctors have the problems of low educational level, aging and lack of reserve talents, which are the most serious development problems faced by the construction of rural health personnel team in China. This will lead to the decline of accessibility and effectiveness of rural public health services, and will become the bottleneck of sustainable development of rural basic medical and public health services.

### ***4.2. The Medical Equipment is Simple and the Quantity of Medicine is Insufficient***

In terms of nature, the medical industry itself has a certain degree of risk, and the quantity and quality of medical infrastructure and medicines can reduce this risk to a certain extent [4]. At present, the coverage rate of sterile cabinet, Chinese medicine cabinet and other medical equipment in rural clinics is low, and the existing medical equipment is relatively backward. At the same time, the quantity and quality of drugs are seriously insufficient. In addition, the medical level of rural doctors is limited, which makes a potential safety hazard in rural doctor's daily work, and their sense of occupational security is rapidly reduced, which leads to the psychological change of post or career change. At the same time, because of the insufficient quantity of drugs, village doctors in clinics had to purchase non-zero margin drugs by themselves from pharmaceutical companies, which could make a certain degree of drug income in the process of drug sales. Therefore, this behavior might cause patients' distrust of

village doctors, and more villagers go to higher-level hospitals with transparent prices [5].

#### ***4.3. Unreasonable Site Selection and Poor Accessibility***

According to the World Health Report 2000 issued by the World Health Organization, the accessibility of health services is interpreted as the degree of difficulty in realizing the most basic medical and health needs of residents, that is, the convenience of residents to medical and health institutions [6]. The residents of ZT village who participated in the field visit said that the village clinic is located at the head of the village, while the village area is large and the population is scattered. The villagers who lived at the end of the village need to walk about 30-40 minutes to reach the village clinic. According to the fourth national health service survey, residents within 1 km from the nearest medical institution or within 15 minutes walking distance have better accessibility. This shows that the location of a few village clinics in Tianmen City was unreasonable, and a few villages have not set up village clinics, which caused inconvenience of medical treatment for some villagers.

#### ***4.4. The Communication Channel between Villagers and Village Doctors is Narrow***

According to villagers' feedback, some villagers thought that the village doctor's affairs are busy and didn't inform the villagers in time when going out to deal with the affairs, which might cause the villagers coming in vain. The village doctors have flexible visit time, but the communication with the villagers is not close enough, so the villagers cannot get the diagnosis and treatment in time and waiting time is too long. The main function of village clinics is the timely treatment of common diseases, and the most important characteristics of village clinics are the accessibility of time and geography. The villagers' difficulties in seeking medical treatment are caused by untimely communication and narrow communication channels, which further aggravates the situation that villagers tend to go to higher level township hospitals and county hospitals.

#### ***4.5. The Implementation of National Policies is not in Place***

In 2015, the general office of the State Council of the CPC Central Committee issued the implementation opinions on Further Strengthening the construction of rural doctors team, which clearly proposed to improve the pension policy of rural doctors and establish a mechanism for resolving the professional risks of rural doctors [7]. The national government is making great efforts to improve the professional environment of rural doctors. However, in

recent years, the number of rural doctors in various provinces, cities and prefectures is still declining year by year, which is caused by the inadequate implementation of policies. The overall insured rate of rural doctors in Tianmen City is only 25.37%, and conflicts and disputes in the practice of rural doctors are still frequent. After the promulgation of the superior policy, the implementation of the lower level policy is very unsatisfactory. There are still a lot of requirements and policies in the document, which are not well implemented in the grassroots village clinics. It is urgent to establish a feedback platform for rural doctors, so that the upper level can understand the practical difficulties of rural doctors.

### **5. SPECIFIC MEASURES TO IMPROVE THE CONSTRUCTION LEVEL OF VILLAGE CLINICS**

#### ***5.1. Strengthen Standardized Training and Create a Good Practice Environment***

The technical level of rural doctors is the key to rural health work [8]. First, for the training of rural doctors, we should focus on actual results, improve the current training mode of "replacing training with knowledge", and establish a complete and systematic training mode of continuing education. We should formulate training plan for rural doctors, and carry out standardized training for rural doctors on common diseases and frequently occurring diseases. We should also formulate standardized diagnosis and treatment manual for rural doctors and standardize the diagnosis and treatment process.

Second, we should strengthen the free training of rural order oriented medical students, cultivate local rural students, and form a stable situation of "coming from the countryside and going back to the countryside". The "college student village doctor" system, which imitates college student village officials and is transferred after several years of training at the grassroots level, is not suitable for the characteristics of rural areas, which is mainly based on human feelings [2]. Thirdly, the government, the health bureau and the rural doctors should jointly build a special risk guarantee fund for rural doctors to resolve the risk of rural doctors' practice. Fourth, gradually bring rural doctors into the medical and health system, improve the pension system of rural doctors, improve the status of rural doctors to the status of rural teachers, and create a good environment for rural doctors. In order to ensure that the existing rural doctors will not lose and attract more reserve talents of rural doctors, various measures should be taken.

### ***5.2. Strengthen Supervision and Formulate Price Standard List***

Due to the limited scope of rural medical reimbursement, most of the village clinics are responsible for their own profits and losses. In this case, village doctors have to operate village clinics with an attitude of economic interests first. In the special market of doctors and patients, patients usually do not have any bargaining rights. A small number of village doctors have the behavior of asking high prices at random and give different prices to different people, which disturbs the order of rural medical practice. In order to avoid such a situation, the government should formulate policies to regulate the behavior of rural doctors, make drug prices transparent, urge rural doctors to post medical drug and service price lists, and strengthen the supervision and treatment of adverse phenomena. To ensure the continuous growth of rural doctors, we should not only improve the treatment and medical environment of rural doctors, but also improve the medical experience of villagers to form a good medical environment.

### ***5.3. Reasonable Site Selection and Effective Allocation of Health Resources***

According to the current national policy, in principle, rural doctors should be allocated reasonably according to the standard of no less than one doctor per thousand service population [7], and most administrative villages have met standard. However, in terms of site selection, the location of a small number of village clinics are very unreasonable. In a few administrative villages with a large area of jurisdiction, village clinics and private clinics are all set at the edge of the village, which makes it very inconvenient for people at the end of the village to seek medical treatment. The village committee should reasonably determine the location of village clinics according to the scope of the village jurisdiction, the population density distribution and the location of private clinics, so as to avoid the vicious competition between village clinics and private clinics, the village clinics should be set up close to the village center and not overlap with the private clinic area. Referring to the internationally recognized concept of 15 minute health service circle, village clinics and private clinics should be set separately to meet the medical needs of most people as far as possible, so that the majority of villagers can have a convenient medical experience[9].

### ***5.4. Broaden Information Communication Channels between Villagers and Village Doctors***

At the time of the information age, the circulation of various information is much faster than before. The new epidemic of COVID-19 has promoted communication on the network. Take advantage of this opportunity to establish a communication platform between village

doctors and villagers (such as WeChat group), so that village doctors can timely and effectively inform villagers of the time of treatment and temporary changes, and it is also convenient for villagers to communicate online with online consultation. Although the majority of rural residents are middle-aged and elderly people, in recent years, the use of mobile phone WeChat among middle-aged and elderly people within the age of 40-65 has reached 93%, and the information transmission between rural neighborhoods is fast. It shows that the establishment of a communication platform can greatly reduce the inconvenience of villagers seeking medical treatment.

### ***5.5. Strengthening Policy Implementation and Establishing Village Doctors' Feedback Platform***

In 2011 and 2015, the general office of the State Council successively issued two documents on strengthening the construction of rural doctors, both of which put forward specific objectives and implementation measures for the construction of rural doctors team, indicating that the state attached great importance to rural doctors, and was striving to gradually improve the practice environment of rural doctors and take measures to attract young medical reserve talents. However, the number of rural doctors is still falling instead of rising, which shows that the employment status of rural doctors is still not ideal. According to the survey, not all the policies of the higher authorities have been carried out among the grass-roots doctors. New contradictions among rural doctors are still emerging in endlessly. The state's policy makers at higher levels do not have a perfect understanding of the grass-roots situation, and there is a lack of direct communication channels between the state and grass-roots doctors. It is suggested that the rural doctors' feedback system should be established and the feedback mechanism should be improved so that the country can understand the real practice environment of grass-roots doctors, and carry out the secondary rectification and improvement of the policy not implemented, so as to ensure the rights and interests of rural doctors.

## **6. CONCLUSION**

The construction of village clinics and rural doctors in Tianmen City needs to be strengthened from the following aspects: further strengthen the standardized training of doctors, at the same time, create a good practice environment for village doctors, provide retirement protection, and attract reserve talents; In terms of site selection, reasonable site selection should be carried out, and the service and price of village doctors should be supervised, and the information communication channels between villagers and village doctors should be widened; the policy implementation should be strengthened, and the feedback platform of village doctors should be established

so that the upper level policy makers can understand the demands of the grassroots. Rural doctors are the first line of defense for rural people's health. It is a key step for China to build a "healthy China" by strengthening the team of rural doctors and improving the level of rural doctors[10].

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