



HAL
open science

The Function Analysis of Informationization in New Rural Cooperatives Medical Service Management

Yuefeng Zhou, Min Liu

► **To cite this version:**

Yuefeng Zhou, Min Liu. The Function Analysis of Informationization in New Rural Cooperatives Medical Service Management. Third IFIP TC 12 International Conference on Computer and Computing Technologies in Agriculture III (CCTA), Oct 2009, Beijing, China. pp.305-311, 10.1007/978-3-642-12220-0_44 . hal-01055435

HAL Id: hal-01055435

<https://inria.hal.science/hal-01055435>

Submitted on 12 Aug 2014

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



Distributed under a Creative Commons Attribution 4.0 International License

THE FUNCTION ANALYSIS OF INFORMATIONIZATION IN NEW RURAL COOPERATIVES MEDICAL SERVICE MANAGEMENT

Yuefeng Zhou, Min Liu²

1,2College of Economics and Management, Dalian University

Abstract: The establishment of new rural cooperative medical system is an important action for comprehensive affluent society. It is an important measure for Central Party Committee and State Council to solve "three rural" issue effectively and to overall urban and rural, regional, coordinated economic and social development, building a well-off society in the new situation. It has important role to alleviate farmers to see a doctor expensively, see a doctor difficultly, reduce the burden on farmers and improve their level of health protection and quality of life, solve the problem of poor because of illness and the problem of returning poor due to illness, promote the production and rural economic development and stability in the rural areas. This article will analyze the function of informationization in new rural cooperative medical service management selectively.

Keywords: the new rural cooperative medical service, informationization, function analysis

1. INTRODUCTION

The question of "Three agriculture" has been the most important question for developing our country and building socialism. The key for constructing the harmonious society, achieving the comprehensive better-off society in our country is countryside, the difficulty is also to solve rural question. Especially farmer's healthcare question immediately has influence to our country's economic development and social stability. "The Central Party Committee and the State Council's Decision about how to further strengthen rural sanitation Work" proposed that we should establish new rural cooperative medical service system to reduce farmers' disease economic burden. Therefore, along with the rapid development of our country comprehensive well-off construction,

various areas gradually are also carrying out the new rural cooperative medical service system; in order to solve farmers' difficulties in seeing a doctor, seeing a doctor expensively, solve the problem of poor because of sickness and the problem of returning poor due to sickness". The new rural cooperative medical service system is organized and supported by the Official organization; the farmers could participate in voluntarily. The fund of system is collected by individuals, the collective and the government in every way. It is a system that farmers help each other and it is for treating serious sickness primarily. In the implementation of this system, farmers participate in the cooperative medical system with the family as the unit and pay certain fee, village collective (if the village has collective property) and All levels of government subsidize certain fund proportionally, all the Fund compose family account and the overall plan account. First farmers have to pay the medical expense personally, and then go to the office of cooperative medical management to obtain the compensation. In brief, the implementation of new rural cooperative medical service system is a popular sentiment project and policy which benefits to everyone in countryside.

2. THE NECESSITY OF NEW RURAL COOPERATIVE MEDICAL INFORMATIONIZATION CONSTRUCTION

First, in general countryside area, because of the disorder management of farmers' medical Fund and the low capabilities of the fund management, it causes farmers not trust to the policy, all of that cause new rural cooperative medical service system decline in the 80s, which is once largely succeed and has an effect internationally. Second, to the traditional medical management, not only the work load is big and tedious, the working efficiency is low. The applicant to reimbursement for farmers to see a doctor is difficult, the procedural is complex. It does not favor the prompt compensation for farmers who go to see doctors. Once more, the management of new rural cooperative medical service system involves new rural cooperative medical service Control section, the organization, the fixed-point Medical organization, farmers and so on. Its coverage is broad; the personnel are complex; the fixed-point Medical organization disperses, and the related information is large, and each aspect has close connection each other, depending on traditional management tool, it is difficult to combine these resources validly. Finally, the development and application of informationization technology has become the prime motor to promote the national economy and social development. Moreover, in order to achieve the goal that the new rural cooperative medical service system covers the entire countryside resident basically until 2010, With the guidance of scientific development concept, and based on the standard management, The

National Medical department also explicitly pointed out that we must establish new rural cooperative medical service information system adapting to the national health information system comparatively effectively in "medical department's instruction opinions about how to construct new rural cooperative Medical service information system", in order to improve work efficiency and do convenience to farmers. In whole, the new rural cooperative medical service management must realize informationization management.

3. NEW RURAL COOPERATIVE MEDICAL INFORMATIONIZATION CONSTRUCTION

New rural cooperative medical informationization construction takes the scientific development concept as instruction. using present information technology, we should establish the computer network among new rural cooperative medical service Control section, the fixed-point Medical institutions and other related departments, all the work should be done on-line by computer, realize standard management. The construction of new rural cooperative medical service informationization is to develop many systems in three stratification planets, take the farmer electron healthy database as a center, realize all the work be done by internet, the construction content mainly can be summarized as "a database center, three planet, many systems".

4. THE FUNCTION ANALYSIS OF INFORMATIONIZATION MANAGEMENT IN NEW RURAL COOPERATIVE MEDICAL SERVICE SYSTEM

The implementation of the new rural cooperative medical service system is a complex system; the service involves many departments' cooperation and coordination. The function of informationization will be presented on the chain link's main body in medical service system, the main body is named benefit counterparts, which mainly include Medical service Control sections, various fixed-points Medical institutions, farmers, village-level doctors, governments, sanitation and ant-epidemics departments and enterprises of drugs production and Circulation. Following, we will analyze the function of informationization aiming at each benefit counterparts separately.

4.1 To farmers

First: the informationization construction facilitates the reimbursement of farmer medicine expense. Before informationization construction, when farmers saw a doctor, they must take receipts to the office of new rural cooperative medical management and then convert them into cash waiting a long time, the process is quite complex. However, after informationization, when farmers are going out of hospital, they can attain reimbursement directly in the fixed-point Medical institution. All of procedurals are operated by computer directly. The method of Informationization management facilitates farmers to reimburse greatly, and also reduces the unreasonable expense.

Second: facilitates farmers to handle the procedure of extension examine and reduce unnecessary examine expense. There is an electronic health file which record farmers' basic health and personal history, cure history in the new rural cooperative medical informationization management system. When farmers go to see a doctor, doctor can assign out the patients' health records during the diagnosis. Especially when patients want to go to another hospital, the records about their health history can be transferred by computer. Therefore, patients do not do repeated inspection and repeat tests which cost much money and time. Finally to farmers, they can see a doctor at one place, but get reimbursement at another place. So it brings great convenience to farmers.

Third: benefits farmers to understand their own disease condition and diseases can be treated better. With the construction of long-distance consultation and the medical service advisory service system, Some diseases that can not be treated by village-level doctor can be discussed by outside areas medical experts through long-distance consultation system, they may provide better Therapeutic schedule for patients, then farmers' diseases can be treated well. Thus it avoids the situation which the farmer went see a doctor randomly and also benefits farmers to understand their own disease condition.

4.2 To fixed-point medical institutions

First: The application of informationization raises the level of hospital internal management service enormously. The internal management of the hospital includes patient management, hospital management, nurse station management, financial management, patient records management and so on; there is a large amount of information which should process. However, after informationization management, each work becomes very simple, only clicks the button, we can complete the work. Informationization management greatly improves the quality of management, work efficiency and service levels, thereby raising serious hospital out-patient and hospitalization rates.

Second: it is advantageous in raising the medical officers' medical service level. Online studying has become the mainstream for learning; the construction of distance learning system brings great convenience to medical officers to learn related medical technology. The medical officers may watch the medical video frequency at home for studying medical technology, when they meet difficult problems, they can exchange opinions with online experts, they can discuss together, and through discussion they can raise their own medical level. Then they will provide better medical service to general farmers.

Third: solves the drugs prompt supply problem and reduces the drugs cost. This system sounds warning automatically with the construction of drug control allocation management system. When the drugs stock reduces to the safety stock, this system will send the drugs table of contents demand to the hospital purchase center and remind the hospital purchase center to buy related drugs promptly. Through the construction of this system, on the one hand, it will safeguard the prompt supply of hospital drugs, on the other hand, the hospital may know the drugs used medication situation of other various Medical institutions through internet, with the information of that, many medical institutions can buy drugs together, thus reduces the medicine price.

Fourth: Raises the outpatient rate of hospital and increases the hospital income. Through the construction of automatic extension examine system, many patients with no-treated diseases in the Village-level hospital can be sent to the related fixed-point Medical institution automatically. So it will increase the fixed-point Medical institution's sick person enormously, enhance Hospitalization rates, and also enhance the hospital income correspondingly.

4.3 To medical service Control section

First: Regulates the internal management and raises working efficiency. Regarding a county, there is large population, in addition, the implementation of new rural cooperation medical system is operated by the family; the work load to manage Materials is too big, thus the efficiency is low, and the work quality cannot obtain guarantee. Now, with information management system, the administrative officers can be released from the tedious work. The procedure of reimbursement and calculation of expense can be completed with the computer; information management system regulates department's internal management, raises working efficiency obviously.

Second: facilitates the medical service Control section to supervise the fixed- point Medical institutions. It records each expense list of farmers detailed in the new rural cooperative medical informationization system, so officers could supervise the condition of drugs use and expense condition on-line directly through internet. In order to safeguard the

Fund security and make the Fund coming from farmers use to farmers, to maximize the effectiveness of the Fund, to solve farmers' anxiety that Fund may be misused and embezzled. With informationization management, it also can guarantee safety of farmers who use drugs, at the same time, increase the transparency of the Fund service condition.

4.4 To Village-level doctor

First: Facilitates Village-level doctor to settle accounts. Since the information management of new rural medical service system, all of procedurals are completed on the platform of new rural cooperative medical service information management, such as swiping cards, keeping account and transferring accounts. So long as the Village-level doctor takes the receipt to the office of new rural cooperative medical service system management, the receipt can be converted into cash directly.

Second: Enhances the outpatient rate of Village-level hospital, information management of system solves the question that many farmers go to see a doctor in big hospital frequently but not the public health center, community hospital and village medicine room, increase the income of village medicine room outpatient service.

4.5 To the government and disease guard department

Information management provides scientific basis for the government and disease guard department to make hygienic decision. Through the construction and the application of new rural cooperative medical information management system, we can establish the life-long effective computerization health files for general farmers. Based on the computerization health files, we can form the region farmer disease spectrum, and disease spectrum provides most reliable materials to make public health decision for government. With this system Simultaneously, we may also establish informationization mechanism to prevent epidemic disease early and the public health thunderbolt's rapid reaction and the stitch in time, we may take the anti-epidemic measures in view of the high disease incidence rate disease, we may prevent the dissemination of infectious diseases and reduce diseases' occurrence, from the early time, we can pay great attention to safeguard the farmer health.

4.6 To enterprises for pharmaceutical production and circulation

The computerization health files show the market orientation to the business for pharmaceutical production and circulation. Research and development of any kinds of new drugs is based on market-oriented, it

not only takes cost but much time to research the market demand, the results of survey will directly affect accesses to the future development of production. So market research for pharmaceutical manufacturers is a major challenge. However, farmers' computerization health files indicate the direction for them, manufacturers only need to carry on analysis to the file, and then they may understand the market direction basically. Going with what is desired, it will bring the huge benefit finally to manufacturers. Likewise, flowing of drugs is also a big difficult problem, enterprises for circulation must collect massive materials and analyze, only then, and they can have a clear goal to transferred drugs to. However, collecting these materials is not easy, the data is scattered, and the work load is so big. The establishment of farmers' medical service computerization health files has brought gospel for it, enterprises for Circulation also only carry on analysis to files, and they may know the market direction at ease. In brief, the establishment of computerization health files has brought enormously convenient to manufacturers and enterprises for drugs Circulation.

5. SUMMARY

In short, through the construction of new rural cooperative medical information, we can: (1) realize Information and network management of farmers' electronic health material and the sharing of the farmers' information to each fixed-point medical institution. It's convenient for farmers to see a doctor and transfer another hospital, realize" treating in one place, but applying for reimbursement in another place", improve the capacity of social security of farmers, reduce the gap between farmers and urban residents, and it's favorable to promote the balance urban and rural development. (2) The establishment of all life effective electronic health information of farmers is helpful to enhance farmers' awareness of health care, realize disease rely on prevention-oriented, solve the Pyramid structure problem: overcrowding in major hospitals, but less people in institutions of Health and Community Hospital (80% farmers enjoy 20% health care resources, the status quo of Dr. See a cold), so as to enhance the level of people's health.(3) norm business management of the fixed-point medical institutions, improve working efficiency and service level. It's favorable for medical management to supervise and manage the fixed-point medical institutions, ensure safety of fund, and drugs manufacturers and suppliers have a clear market-targeted, so they can shoot to targets directly. (4) it's useful for government to make decision about public health policy. At the same time, it also can establish information mechanisms for epidemic early warning , rapid response and timely processing about public health emergencies(for example: through connecting the phone of villagers to village medical

room, sudden illness can be alarmed on village doctors' computer or mobile phone by pressing a key, and the location of the patient, the most recent line are showed),and then the first defense line will be established to resist and control of communicable diseases. The new rural cooperative medical information technology brings significant benefits to the entire business chain, so, In order to promote the sustainable development of the new rural cooperative medical system, countries and regions should strengthen the informationzation construction of the New-type rural cooperative, and make this policy carry out.

REFERENCE:

- Sun Qing Jiu, Song Yong and so on. Discussion about new rural cooperative medical service informationization construction [J]. *China health economy*, 2004.3 (3): 25~26
- Xu Runlong, Yu Xinle, Yu Jianying. The report of new rural cooperative medical service informationization construction in Xiao Shan area, Hangzhou, Zhejiang Province [J]. *China rural sanitation enterprise management*, 2004.12(12):29~30
- WangShoujue. Research on informationization management of the new rural cooperative medical system [D]. Shanghai Transport University, 2007.06
- Yang Yi Feng. The research on strengthening the new cooperative medical system funds management [D]. Shanghai Transport University, 2008.05