Restraining Factors and Improving Paths for the Operation Mechanism of New Rural Cooperative Medical System in China

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Abstract The new rural cooperative medical system has achieved periodical achievements since its establishment. Nevertheless, there are many factors hampering the development of the new system, such as the high cost, the difficulties in fund procurement, the lack of management, the narrow coverage of benefit, the ineffective constraint to the designated medical institutions, the high fund balance rate, and the poor medical facilities and services in rural areas. Countermeasures are put forward to solve these problems, including improving the system design, expanding the coverage of the system, expanding the fund sources, reducing the financing costs, strengthening the fund supervision, enhancing the supervision of designated medical institutions, and improving the capacity of health services in rural areas.

Key words New rural cooperative medical system, Restraining factors, Improving paths, China

New rural cooperative medical system, short for the new cooperative, was first implemented in some cities and provinces in the year 2003. So far, a health care system covering all the rural population has been basically established. Management measures are gradually improved and the preliminary results are achieved. Obviously, there are some restraining factors needed to be improved during the implementation. In this research, achievements of the new cooperative are listed; restraining factors in the operating mechanism of new cooperative are analyzed; and improved paths for the new cooperative are put forward.

1 Achievements of the new cooperative

According to the data in the 2008 *China Health Statistical Yearbook*, major indices of the new cooperative show a good development momentum in the years 2004 -2009, but the coverage of compensation and benefits is relatively narrow (Table 1). Per capita funding amount of the new cooperative has been gradually improved from 30 yuan in the year 2004 to 150 yuan in the year 2010, which rises sharply and indicates that the intensity of government subsidies is gradually strengthened (Table 2)[1].

Table 1 Related indices of the new rural cooperative medical system in China in the years 2004 -2009

Year	Participation rate//%	Participation population $\times 10^8$	Number of counties coveraged	Fund procurement $\times 10^8$ yuan	Number of beneficiaries $\times 10^8$	Practical hospital compensation ratio//%	Coverage of compensation//%
2004	75.20	0.80	333	40.29	0.76	4.67	3.17
2005	75.66	1.79	678	75.35	1.22	23.41	3.27
2006	80.66	4.10	1 451	213.59	2.72	27.8	3.89
2007	86.20	7.26	2 451	427.96	4.53	30.96	4.83
2008	91.50	8.15	2 729	784.58	5.85	38.13	6.27
2009	94.19	8.33	2 716	944.35	7.59	41.45	7.41

Table 2 Funding amount per capita for the new rural cooperative medical system Yuan

Year	Individual	Local government	Central government	Total
2003 -2005	10	10	10	30
2006 -2007	10	20	20	50
2008 -2009	20	40	40	100
2010	30	60	60	150

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2 Restraining factors in the operating mechanism of the new cooperative

2.1 Shortcomings in the system design

2.1.1 The comprehensive arrangement for serious diseases leads to the narrow coverage of benefits. The new cooperative is a mutual-assistance medical system taking the comprehensive arrangement for serious diseases as the main content. Objective of the design is to reduce the phenomenon of farmers' poverty caused by major and serious diseases. However, farmers who get major and serious diseases are relatively few. In the years 1998 and 2003, the national health services survey shows that there are only 3% -4% rural population get

treatments in hospital. Thus, the comprehensive arrangement for serious diseases has in fact given up the security responsibilities of basic medical needs of farmers, because common diseases and frequently-occurring disease are the major reasons affecting the health of farmers, which is not under the insurance of the new cooperative. Moreover, many serious diseases are caused by common diseases not treated in time. Table 1 reports that the coverage of compensation of the new cooperative rises from 3.17% in the year 2004 to 7.41% in the year 2009, which is still low. The coverage of benefits has seriously restricted the enthusiasm of the peasants. And the sustainability of the new cooperative can hardly be guaranteed in the long run.

2.1.2 Both the upholding expenditure determined by revenue and the voluntary participation have led to the high balance rate of the new cooperative. Expenditure of the new cooperative is determined by revenue, and the state has no special fund to guarantee the risks. At the present, county is the basic unit of the new cooperative. Cooperative medical fund of a county should bear the risks of the new cooperative. Therefore, to ensure the safety of the fund, local government designs a payment standard with high minimum line and low maximum line. And lowering the benefit levels has led to the high balance rate of the new cooperative (Table 3).

Table 3 Funds balance rate of the new rural cooperative medical system in China

Year	Total funds raised at that year $\times 10^8$ yuan	Fund expenditure at that year $\times 10^8$ yuan	Fund balance rate//%
2004	40.29	26.40	34.47
2005	75.35	61.75	18.04
2006	213.59	155.81	27.05
2007	427.96	346.63	19.00
2008	784.58	662.31	15.58

In addition, the new cooperative adopts the principle of voluntary participation, which becomes a problem during specific work. Firstly, the fund payment system is hard to be implemented, because how many people will participate in the designed system is unknown. Secondly, the principle of voluntary participation causes the instability of financing or even leads to adverse selection. In other words, people with good health are unwilling to participate in the new cooperative due to the low expected return; while most people participated in the new cooperative are the high-risk populations.

2.2 The great difficulties and high cost of financing and the defects in management

2.2.1 There are few stable and efficient sources of funding. The major fund sources of the new cooperative are government of individual. Under the current system, government input is the main channel. Currently, the central government is responsible for half of the government subsidy; and the rest half is born by provincial, city and county governments. Due to the uneven economic development between regions, governments in developed region are able to bear the financial burden; and some local governments even pay for the part of farmers' fund. However, in less developed regions, local governments sometimes can not provide the funds in time. At the same time, a large amount of farmers in poverty are unable to pay the 30 yuan medical insurance. Therefore, the people who are the poorest and need helps can not obtain government subsidy.

2.2.2 The high-cost financing, as well as the prepayment and funds borrowing, has seriously affected the sustainability of financing. The new cooperative adopts the principle of voluntary participation. And the financing method is mainly collecting money by rural cadres from the farmers, which costs a lot of manpower, resources and time. The working cost is high and resistance of farmers is easily caused, which is a challenge to the durable and long-term development. Besides, the existing financing also brings along the problems of prepayment and funds borrowing. In most of the regions, the participation rate of the new cooperative is one of the references to judge the work of cadres. Therefore, some grass-roots cadres even pay the fees for farmers and become the underwritten when they can not achieve the target. This phenomenon brings along the problem of funds borrowing, because the underwritten will use any means to obtain the funds of new cooperative. During this whole process, farmers do not enjoy any benefit; and the farmers' subsidies provided by the central government and local governments are changed into other uses.

2.2.3 The new cooperative fund is poor in management; corresponding regulatory authorities are lacked. At present, the management of the funds of the new cooperative is chaotic. On the one hand, financial management system of the cooperative fund is imperfect; fund accounts are not separated from the management accounts, causing the over use of management fees. According to the relevant regulations of the new cooperative, new cooperative funds should be used for its specified purpose only. But the rural cadres use the funds without authorization and some even do not return the funds. On the other hand, some areas promise to publish the accounts, and to implement democratic supervision. However, they usually can not keep their promises. In some areas, the fund management and supervision committees are established which is composed of relevant government departments and representatives of farmers. However, these committees have not exerted their function of supervision.

2.3 Lacking effective constraint for the designated health-care institutions At present, effective constraint for the designated health-care institutions is lacked. Particularly, the passive reimbursement of medical bills has led to the disappearance of self-regulating system in medical cost control, which could easily trigger the moral hazard and over service of medical institutions. Investigation shows that some designated health-care institutions have the problems of irrational drug use and treatment. After the implementation of the new cooperative, the average total hospitalization expense and the clinical expenditure have gone up sharply. Prescription drugs and inspection items have greatly exceeded the essential drugs list and the regulated inspection item. Thus, the price rise of medical treatment offsets the policy subsidy and the efficiency loss occurs. According to the investigation results published by the Ministry of Public Health at the end of the year 2004, growth speed of medical charge is greater than that of per capita income in China. Although the medical charge increases, the majority of farmers

are not satisfied with the services. According to the data in Jiangsu, Jiangxi, Yunnan and Inner Mongolia, 38.63% peasant households think that the medical charge is unreasonable, 24.39% peasant households believe that the medical technology is at a low level and 20.04% think that the service attitude is poor[2].

2.4 Backward rural medical facilities and poor service capabilities Shortage of funds is a direct result of the market-oriented reform of township hospitals and the decentralized management of township governments. Hospitals are designated as the public institutions, having a fixed number of funds. Under the limited township finance, the subsidy is small and can not be issued on time, so that the construction of township hospitals lags far behind and some hospitals even have no basic equipments and instruments. In the year 2004, among the equipments which are worth more than 10 thousand yuan, hospitals at county level only account for 19.81% and most of them are less than 500 thousand yuan, and the hospitals at township level only occupies 10.74% [3]. It is obvious that the backward medical facilities can not meet the needs of patients. Farmers have to go to big hospitals in cities when they get sick, which needs a large amount of traffic, food and accommodation fees. Besides, the reimbursement ratio is relatively low in urban hospitals. The poor hardware facilities and the low cultural quality of medical staff in township enterprises have restricted the improvement of the service level. According to the investigation, about 80% of the rural doctors have rural medical certificates, and the rest 20% have no medical license. Education level of rural doctors is mainly the technical secondary school, accounting for 76.6%. Only 8.3% are graduated from junior college and above. And 14.3% rural doctors have no professional qualifications[2].

2.5 Lacking effective legal assurance during the policy implementation At present, implementation of the new cooperative is based on the various decisions, notices, and guidance made by the central government and relevant departments. These papers only have directive significance in the macroscopic sense, but have no legal effect. So far, no special regulation has regulated the specific acts, powers, obligations and duties of the interested parties. The lack of legal system leads to the empty legal basis for the new rural cooperative during practice, and brings along various problems, such as unstable fund source, inconsistent security standards, and randomness in security management. Moreover, it leads to the poor constraint force, reduces the credibility of the new cooperative, and increases the costs in system operation. At present, some areas have already developed a number of local laws and regulations with significant limitations, which plays an active role in the practical implementation of the new cooperative and provides experiences for the legislation. Therefore, national laws and regulations for the new cooperative should be made as soon as possible.

3 Improvement path of the new cooperative

3.1 Improving the system design; expanding the coverage of benefit Expanding the coverage of benefit is a major precondition for stabilizing the participation rate and ensuring the development of the new cooperative. According to the narrow coverage of benefit at present, following measures should be adopted:

3.1.1 Vigorously implement the medical mode integrating hospitalization overall planning and outpatient services overall planning. According to the statistics of relevant departments in the year 2009, there are about 30% counties, cities and districts conducting the overall planning of outpatient services, which eases the problem of low compensation ratio to a certain extent. However, the current overall planning of outpatient services has regional restrictions and the compensation ratio is still low commonly. And the chronic diseases needing long-term treatment are not covered in the insurance. In order to expand the coverage of benefit, the medical mode integrating hospitalization overall planning and outpatient services overall planning should be implemented in China; and the compensation ratio should be improved appropriately, so that the patients with common disease or frequently-occurring disease can be treated as early as possible. Physical examination should be implemented and the health records should be established.

3.1.2 Reasonably select the compensation mode; improve the medical fund expenditure system of the new cooperative. Selecting the reasonable compensation mode is one of the key links of the medical fund expenditure system in the new cooperative. Thus, based on field survey, the proper compensation line, compensation ratio and top line should be made according to the sound statistical methods, so as to ensure the fundamental interests of farmers to the utmost extent. At the same time, the fund balance of the new cooperative should be treated based on the relevant regulations of government. According to the spirit of the national work meeting of rural health service in the year 2009, government should try to improve the maximum payment to the 6 times of per capita annual income of farmers, and to increase the reimbursement ratio by 5 percentage points in 50% areas. If the fund balance is relatively abundant in some areas at the end of the year, secondary compensation or physical examination can be carried out for farmers.

3.1.3 Gradually change the voluntary principle into the appropriate mandatory principle. The new cooperative is in fact a public voluntary health insurance system with state subsidies. There are some disadvantages during implementation. For instance, the adverse selection behavior and the unfixed participators have caused the difficulties in accurate estimation of funds. After achieving certain results, the voluntary participation mode of farmers might be changed into a coordination of both voluntary and mandatory participation, which is called the appropriate mandatory principle. Considering the large income gap among farmers and the unbalanced regional economic development, it is suggested that different polices should be made according to the local conditions of rural areas. Developed areas can adopt the voluntary principle, because they have the ability to resist the disease risks. Farmers in less developed areas should be forced to participate in the new cooperative. And the peasant households who are under absolute poverty should all be brought into the new cooperative and government should pay for them. At the same time, government should further strengthen the connection with rural medical aid system in com-

pensation scheme, bring the low income people and the poor households in rural areas into the medical aid system, and meet the basic medical needs of the poor.

3.2 Expanding the financing channels; reducing the financing cost; and strengthening the fund supervision

3.2.1 Expand the financing channels in order to establish the stable and long-term funding mechanism. Firstly of all, government should increase financial support for the new cooperative. Governments at all levels must list the expenditure in cooperative medical funds into the plan of the expenditure of national income; and government at all levels should offer the amount of funds in time. Secondly, the fund sources should be expanded. Government should actively guide the charities and social groups to invest in the new cooperative, actively exert the functions of commercial insurance, the Red Cross, and the charities, and finally promote the establishment of the diversified new cooperative integrating government guidance, collective endowment, social donation and individual participation. The Red Cross in Jimo City and Jining City of Shandong Province has made great contributions in the financing of the new cooperative. Taking Jining City as an example, in the year 2004, the Red Cross in Jining City holds a charity event in the whole city. At the end of the year 2005, about 40 thousand people under poverty have participated in the new cooperative in Jining City with the help of the Red Cross, which increases the participation rate by 5 –6 percentage points and greatly promotes the construction of this system[4].

3.2.2 Reduce the financing and management cost. At present, since the cost of financing by rural cadres is high, the following financing modes might be considered: the first is the delegate-type financing mode. With the voluntary basis of farmers, government may entrust the rural credit cooperatives to withhold the payable fund of farmers. The second is the contract-type financing mode. Government may withhold the funds from agriculture-related subsidies. Besides, commercial insurance can be introduced into the management of the new cooperative, in order to fully exert the professional advantages of insurance company in actuarial techniques, service network, risk management and other fields. After introducing the insurance company into the new cooperative, Xinxiang City of Henan Province has greatly reduces the management cost. In the year 2004, China Life Insurance Company starts to undertake the compensation services of the new cooperative for 3 380 thousand farmers in 8 counties and regions of Xinxiang City. Before it, a total of 544 government staffs are engaged in this work and their annual expenditure reaches 10 million yuan. However, after transferring the work to the China Life Insurance Company, finance fend population reduces into 50 and the annual cost is only 1 500 thousand yuan[5]. Besides, Fanyu mode and Jiangyin mode have both obtained good achievements. Government realizes the public management function through buying the service of insurance company, so that the function change from establishment to management is achieved.

3.2.3 Strengthen the supervision of the fund use of the new cooperative. At present, there are more than 800 million farmers participated in the new cooperative; and the total fund have exceeded 90 billion yuan in the year 2009. Therefore, it is very important to strengthen the supervision of the fund use. According to the experiences, special management of the new cooperative funds should be carried out; and the embezzlement is not permitted. Government should regularly publish the specific income and expenditure to the public, and ensure the farmers' right to know. At the same time, according to the local conditions, grass-roots government should establish a fund management and supervision committee composed of relevant government departments and representatives of farmers, which supervises the use and management situation of the new cooperative.

3.3 Increasing supervision strength of the designated medical institutions

3.3.1 Further strengthen the supervision of the designated medical institutions; establish the entry, exit and regulatory mechanisms for the designated medical institutions. Government should examine the service quality, the facilities condition, and the health care skills, publish the drug price of the designated medical institutions, and establish the health care stain files, and construct the supervision system. At the same time, government should also evaluate the service of designated medical institutions, and let the farmers participate into the evaluation and supervision.

3.3.2 Reasonably introduce a competition mechanism; break the medical monopoly; and restrain the price rise of medical expenses. Reasonably introducing a competition mechanism helps the designated medical institutions to offer medical services with reasonable price and reliable quality. On the one hand, it creates a competitive situation within the new cooperative, breaks the geographical restrictions of designated medical institutions, ensures that farmers can get medical treatment in any institutions they want, and realizes the competition and optimization within the designated medical institutions. On the other hand, competitive pressure from the outside is formed. For instance, developing private medical institutions and drug retailer, which provides part of the medical services, helps to break the monopoly of designated medical institutions. If necessary, supervision department should clamp down the designated medical institutions against the regulations of cooperative medical system, and develops the private medical institutions obeying the medical regulations with high medical technology into the designated medical institutions.

3.4 Effectively improving rural health services Government should offer favorable financial policy in order to accelerate the construction of rural health care infrastructures. For years, investment structure of health resources has always been irrational. 80% of the health resources are concentrated in cities; but the rural areas with 70% population only account for less than 20% of the health resources[3]. In January 2009, the State Council of China tries to input 850 billion yuan to promote the equalization of public health care service. Firstly, the third-grade health service network should be improved in rural areas. The healthcare reform points out that about 2000 hospitals at county level will enjoy special state aids within the 3 years, 5 000 township health centers will be reconstructed, and every administrative village will have clinics. Secondly, rural health care team should be strengthened. Under the support of

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points to greatly expand the intermediary service of collecting capital of charging and service; actively develop rural financial consultation, agency insurance sales and agriculture-related financing business.

4.2.4 We should perfect the subsidizing mechanism of agricultural credit. The government should channel considerable low-interest policy funds into village by the rural branch of bank and agricultural credit cooperatives; at the same time offer special loans for poor farmers; by re-discount window of central bank, the financial capital is paid to financial institutions with preferential interest rate, such as bank of agricultural development or commercial bank; then these organizations offer loans for target farmers , or special groups, special regions and special programs at the interest rate designated by government, by the rural branches, cooperatives or united groups of loan.

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the central finance, a total of 360 thousand staffs in village clinics and 360 thousand staffs in township hospitals will be trained by the government within 3 years, as well as the 1 370 thousand medical and health workers, so as to improve the clinical skills of rural health personnel. And the construction and management of rural medical team should be paid special attention to. Thirdly, management of health institutions should be strengthened in rural areas. Government should pay attention to the aspects of regulation, supervision and improvement, make technical specifications and regulatory framework, strengthen the regular guidance, supervision and inspection, standardize service behaviors, improve the medical quality, and ensure the medical security. At the same time, vigorously promoting the rural integrated management is an important measure to improve the medical service. Integrated management of township hospitals and rural clinics can promote the joint development of rural areas.

3.5 Establishing relevant laws and regulations for the new cooperative The legal status of the new cooperative should be endowed by legislation, so that there are laws to abide by during the collection, management and supervision of the funds, and the risks in the cooperative medical fund can be eliminated. Moreover, the rights, obligations, and behaviors of the interested parties should be defined clearly, especially the management responsibility and economic responsibility of governments. The actual needs of the new cooperative should be connected with the relevant laws, in order to offer necessary legal protection for the sustainable development of the new cooperative.

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