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Reforming the Rural Cooperative Medical System in China: *A Summary of Initial Experience*

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Introduction

At the end of the 1970s, China boasted a rural cooperative medical system that was in place in about 95 per cent of villages. This system involved community participation and cost-sharing, and enabled access to basic health care to farmers. However, a decline in this system occurred as the result of widespread market economic reforms. These reforms basically involved a shift from a communal to a household production system. As a result the collective way of financing rural health care was jeopardised. However, the Government of the P.R. of China remained aware of the need to arrange for some form of social protection against health care expenses, so that access to care could be secured. In March 1994, it initiated a project to re-establish the rural cooperative medical system (RCMS).

This article[5] gives, first, an overview of the RCMS policy since 1950. Then the key features of the implementation of the RCMS project are presented. Thirdly, we reflect upon possible adjustments in the RCMS implementation. We conclude in the fourth section.

1 RCMS Policy 1950-1993

Concerning the health services for the rural population[6] the cooperative organisation of rural health financing began in the early 1950s, through the initiatives of communes and brigades in rural areas.[7] During the 1960s and 1970s this method, which came to be termed 'cooperative medical systems' (CMS) was encouraged by the Government and the Communist Party. By the mid-1970s, it was esti-

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[5] The present article is based on the same authors' detailed account of the RCMS Project; see Carrin and Ron *et al.* (1996).

[6] For an overview of financing of health services for other population groups, see Gu and Tang (1995).

[7] Tang *et al.* (1994, p.10).

mated that 95 per cent of China's villages had a CMS, administered by the brigade and with the village health clinic as the basic health care provider.

A major break in the development of the rural cooperative health systems occurred in the early 1980s, however. Several reasons can be highlighted. First, economic reform virtually stopped all further advance of the CMS. The resulting shift from the collective (village) to a household production system meant a significant drop in the original source of revenue for the system. Government also reduced its financing of recurrent health care costs, especially at the village and township level, expecting that user fees for health services would increase.[8] The introduction of the market mechanism also contributed to a freeing of prices in the medical sector. Prices of health services soared, and in many places RCMS revenues could no longer cover costs. Second, in some cases, bankruptcy of RCMS schemes occurred, due to a significant degree of adverse selection.[9] Third, the State Council did not promulgate the drafted regulations just mentioned. Hence, a lack of regulations and weaknesses were at the roots of the breakdown. Fourthly, it also appears that local political support to the RCMS schemes had declined.[10] In fact, many schemes had been established during the Cultural Revolution period. As soon as the Communist Party stopped backing the revolution, many communities dropped their support for the CMS because of its association with this political upheaval.[11] Generally, the collapse of the RCMS led to a decreased access to preventive and curative care. By 1993, it was estimated that the RCMS covered only 10 per cent of the rural population, or 100 million individuals, in only 4.8 per cent of the villages.[12]

In recognition of the serious problem of the reduced coverage, in 1993 the Government of the P.R. of China initiated a series of steps to improve access to health care in rural areas. The RCMS project was launched by the MoPH and the Research Centre of the State Council, to carry out applied research. From the beginning, the immediate objective of the RCMS project was to design, implement and test a number of health insurance schemes in several poor counties. The approach was based on the positive historical experience of the RCMS in the past, but it also recognised the need to develop different RCMS models, rather than the 'one model, one standard' approach of the past.

Table 1 **Selection of Pilot Counties**

Province	Counties
Beijing	Fangshan, Pinggu
Jiangxu	Qidong, Xinghua
Zhejiang	Xiaoshan, Haining
Henan	Wuzhi, Xinmi
Hubei	Changyang, Wuxue
Ningxia	Yongning, Lingwu
Jiangxi	Yongxiu, Yihuang

Table 1 shows an overview of the 14 pilot counties in seven designated provinces. Following selection of the provinces and counties, three townships were selected for the pilot RCMS in each county.

2 Key Features of RCMS Implementation

2.1 Variation in country design

The variations in the RCMS design between countries is overshadowed by variations within counties, by townships. Of the seven provinces, none have the same RCMS model in all pilot townships of the two selected counties. Seven counties have designed the same model for each of the three pilot townships. In the remaining counties, variations are found by township, from minor variations in contribution amount to major variations in benefits, population coverage and management. The major elements in the design and their variation are described below.

2.2 Population coverage

By October 1995, the RCMS design within the framework of the project had been implemented in 13 of the 14 pilot counties; see Table 2. The popu-

[8] Liu *et al.* (1995, p.1087).

[9] Cheng and Xingzhu (1995, p.5).

[10] Gu and Tang (1995, p.186).

[11] Feng et.al. (1995, p.1111).

[12] State Council (1994).

Table 2 **RCMS Population Coverage by Township**

Province	County	Range of percentage of population covered
Beijing	Fangshan	not implemented
	Pinggu	not implemented
Jiangxu	Qidong	68-85
	Xinghua	38-61
Zhejiang	Haining	32-54
	Xiaoshan	67-91
Henan	Xinmi	31-64
	Wuzhi	100
Hubei	Wuxue	100
	Changyang	94
Ningxia	Yongning	76-100
	Lingwu	80
Jiangxi	Yongxiu	83-90
	Yihuang	not reported

lation coverage data should be considered in the light of two factors: the RCMS may have existed before the project in a particular township, and second, if new, the date of implementation may differ by several months across counties. The insured population includes farmers and enterprise workers registered as residents of the specific rural areas. Cadres and government workers are currently not included in the RCMS.

2.3 Management level

The level of RCMS management shows less variation: 12 counties have township level management, while one has county level and one has village level management.

In most townships, the contribution collection function is carried out by village leaders on a once-a-year basis. The funds are then transferred to the township level management. The village leaders collect from farmers' homes at a time decided by the RCMS management and village leader. This essentially means that those who did not choose or were unable to register at the time of collection may not have an opportunity to do so until the collection time for the following year. Also note that registration tends to be based on the village list of farmers, and is therefore not adapted to a family registration including all family members.

Township and village enterprises (TVE) and private enterprises transfer the contribution for workers directly to the RCMS management. In some cases this is done on a monthly basis, but the payment for enterprises may also be made on a semi-annual or annual basis. It appears, however, that registration functions such as the issuing of registration cards is planned on a yearly basis, at the same time each year.

2.4 Contributions to the RCMS

The sources of RCMS revenues are the contributions from farmers, from village, township or county government, and workers' contributions. All schemes have individual farmer contributions. The lowest contribution is ¥5 per farmer per year, whereas the highest is ¥20. There is some tendency for individual contributions to be higher, the higher the income level in the county. Government contributions, at all levels, vary between ¥1 and ¥4. Low individual farmer contributions are not necessarily compensated by high government contributions however. In 10 counties, the RCMS schemes receive subsidies from township and village governments. Three schemes receive grants from county government. Only two schemes receive subsidies from all levels of government.

In 10 counties, TVEs are major employers. Employers and/or workers from these enterprises contribute to the RCMS, either via a percentage

contribution on workers' income or via a flat contribution. In about half of these counties, contributions derive from applying a percentage on workers' income; this percentage varies from 3 to 5 per cent of income. In several counties, employers and workers equally share contributions.

A remark is in order about the extent to which contributions are pooled into one RCMS fund. In most townships, contributions are grouped into one RCMS account. However, in eight of the 42 townships, separate accounts for farmers and workers have been established. One of the possible explanations for this behaviour might be that the limits of financial solidarity between workers and farmers have been trespassed. The latter can happen when the average worker's contribution far exceeds the average farmer's contribution. The absence of willingness to pool funds is exacerbated when workers judge that farmers declared income is far below their real income and therefore their capacity to pay RCMS contributions is underestimated.

2.5 Benefits and reimbursement structure

In all counties, the health insurance benefits are stated as reimbursement levels for the various types of services. In most counties, enterprise worker reimbursement levels are higher than for farmers, reflecting the higher contribution rates.

Most (12 of the 14) counties have some village level benefits, covering consultations and/or drugs, at a low reimbursement level of 20 per cent of the charge or as a fixed amount (such as exemption from charges up to ¥1 or ¥2). Effectively, it would appear that a patient would still have to pay about 80 per cent of the village health clinic charge for a single event or contact.

Variation in benefits for township and county level outpatient and inpatient care is very wide. In some townships, only consultations and operations are covered, in others, drugs and diagnostic services for outpatients and inpatients are also partially reimbursed. Most RCMS have fixed different levels of reimbursement for the various types of services, and for different levels of charge, from a low 20 per cent to a high 70 per cent. For example, 20 per cent may be reimbursed for inpatient care, but excluding drugs, up to a ceiling of ¥1,000, and then 30 per cent may be reimbursed above that amount, to the next ceiling, usually with a specific maximum total reimbursement per admission or per person per year. Drugs may have a different rate, and even specific types of X-rays may have different reimbursement rates. This reimbursement as a benefit is complicated and probably not easily understood by the insured person.

To make a general appraisal of reimbursement level, it would appear that effective reimbursement for services provided in township, county and higher level facilities is around 30 per cent of the total charge. Some RCMS models use the risk fund for very high charges for the very seriously ill patients. In most cases, the patient has to pay the full charge and then seek reimbursement from the RCMS office, usually located in the township health centre. The reimbursement is made once a month, and only once every quarter in one county.

2.6 Provider payment arrangements

At village level, there seems to be basically two types of service contracts between the RCMS and the providers. One arrangement is whereby all of the earnings of the village health doctor is based on consultation fees as well as a percentage of the drug fees. The second contract is a combination of a fixed salary plus a percentage of drug fees. In some counties, pharmaceutical companies pay a commission to the village health doctor based upon the value of total prescriptions.

Billing for services in hospitals is on a fee-for-service basis. Hospital doctors' earnings seem to be mostly based upon a contract stipulating a fixed salary, and an allocation based on a fraction of hospital fee revenues. It is likely that in many instances doctors also benefit from a special allowance paid to them (or paid indirectly via the health centre or the hospital) by pharmaceutical companies.

2.7 Information system

In each pilot county, a database with two main components is established, with a basic information component, and then a diagnosis and expenditure component. The basic information component contains at least the following items: township and vil-

lage number, individual registration number, name, sex and age of the head of the family and family members, and the contribution. The latter is entered both for farmers and enterprise workers.

Input of data concerning diagnosis of illnesses of members, and the resulting total cost, depends on the information returned to the RCMS management committees by the county health bureaux. Generally, counties still have to start this component, as they only acquired the computers recently and started by entering the basic information data. This second component will be particularly valuable for the monitoring of quality of health care at all levels, as well as differences in diagnostic and prescribing behaviour between providers.

3 Reflections for Adjustment in RCMS Implementation

3.1 Definition of beneficiaries

The economic development in rural areas is of such a nature that new occupations have arisen, such as that of worker in a TVE, or that of a self-employed small businessman. These may all be residents in rural areas, yet they can hardly be qualified as farmers. In addition, in several townships migrant workers are present. It would be beneficial to RCMS development if a terminology could be developed that better reflects the real occupational activities undertaken. The latter is important because the RCMS management needs to establish the benefits and contributions for each category.

3.2 Level of contributions and pooling

Generally one could envisage increasing contribution levels for both workers, farmers and others in several counties. From household surveys it was learned that a main cause for negative attitudes towards RCMS was the low benefit level. Higher benefits are thus warranted to attract more members, but these in turn would require higher contributions.

Pooling of risks and contributions is an essential ingredient of social health insurance. Presently, in several counties, the RCMS keep separate accounts for farmers and workers. The latter obviously limits risk-sharing.

3.3 Benefits

It would further the link between the RCMS and health development on the whole, if one were to define first the types of benefits and, subsequently the reimbursement (or co-payment) structure. In general, one would recommend a total or large reimbursement (zero or small co-payment) for preventive services, in view of their benefits at the individual and society level. Primary curative services also merit the highest reimbursement (lowest co-payment) rate possible. Not only would it stimulate access to basic care, but good primary care services can also reduce the need for more costly hospitalisation.

In general the reimbursement (co-payment) levels need to be increased (decreased) in the RCMS pilot schemes, in order to raise the attractiveness of health insurance. Moreover, the reimbursement structure can be simplified towards a standardisation of the reimbursement level for the different services.

3.4 Management: registration and information system

The RCMS management committees are advised to reflect upon a more open registration policy. Currently, several RCMS schemes limit their registration to one or two specific times during the year. Of course, potential members who are keen to join outside these registration periods need to wait to register. To make RCMS more attractive, one may think of a policy where registration is possible in any week of the year, possibly several times during the week. Registration can also be encouraged by the use of a marketing approach, e.g. via newspapers, leaflets, television or radio announcements.

3.5 Provider payment

It was indicated above that most provider contracts provide powerful incentives to prescribe, as earnings of health personnel at all levels are linked to drug consumption. This permanently establishes the risk of over prescription. At township and county level, incomes are also related to fees for other services, such as laboratory services, X-rays and surgery. Again certain excessive treatment or surgery may be found.

The question is which types of contracts could be compatible with a greater rationality in medical

treatment, while at the same time be acceptable to providers. RCMS management could explore various types of contracts in the future, whereby health personnel are assured of acquiring an adequate income level. One is to make a contract containing a fixed but improved salary. Alternatively, a contract could determine that income is linked uniquely to the provision of a package of health services to members; in other words providers could be paid on a capitation basis. A third contract could contain a fixed salary component plus a capitation amount. Finally, it could also be stipulated that the savings from a more rational approach to prescription, diagnostic treatment, medical treatment and surgery will be partially shared with health personnel.

4 Conclusions

The nature of the RCMS project needs to be well understood. It involves research, through various methodologies such as household surveys, collection and analysis of health care expenditure across 14 counties in seven provinces. The process studied is the implementation of the RCMS, which has taken on different levels of importance across the counties and in the selected pilot townships in these counties. The latter has to be understood in the light of the fact that, even though the counties are all rural, the population structure by occupation and income varies.

It should be noted that the strength of this project is in its intervention input and continuity in following progress. There is now more systematic thinking about the management of RCMS, through workshops and discussions where ideas can be exchanged. A concrete interim output is that each county has had to define its model, write the details of the scheme and in fact develop a programme at county and particularly township level. It should be recalled that the lack of written plans and regulation was given as one of the factors which facilitated the collapse of the RCMS.

References

Carrin, G., Ron, A., Yu, J., Wang, S.C., Yang, H., Zhang, T.H., Zhang, L.,C., Zhang S. and Ye Y., 1996, 'The reform of the rural cooperative medical system in the People's Republic of China. Initial design and interim experience', **WHO Macroeconomics, Health and Development Series** No 20

Cheng, C. and Xingzhu, L., 1995, 'The Chinese rural cooperative medical system: its historical change and current development', unpublished paper presented at the Regional Conference on Health Sector Reform in Asia, 22-25 May 1995, Manila

Gu, X.Y., and Tang, S.L., 1995, 'Reform of the Chinese health care financing system', **Health Policy**, Vol 32: 181-191

Liu, Y., Hsiao, W.C.L., Qing, L., Xingzhu, L. and Minghui, R., 1995, 'Transformation of China's rural health care financing', **Social Science and Medicine**, Vol 41 No 8: 1085-1093

State Council, 1994, 'To speed up the reform and development of rural cooperative medical system', March

Tang, S.L., Bloom, G., Feng, X.S., Lucas, H., Gu X.Y., and Segall, M., 1994, 'Financing health services in China: adapting to economic reform', **IDS Research Report** 26 Brighton: IDS

Feng X.S., Tang S.L., , Bloom G., Segall M. and Gu, X.Y., 1995, 'Cooperative medical schemes in contemporary rural China', **Social Science and Medicine**, Vol 41 No 8: 1111-1118