Community-based health insurance in China: bending to the wind of change
M. Mahmud Khan, Naisu Zhu, & Jack C. Ling

China's Cooperative Medical System, a community-based health insurance scheme, declined markedly after the economic restructuring of rural communities and the development of a private market in the health sector during the late 1970s. However, a study of the modified system in Taichang County, where it remains popular, has revealed that insurance premiums (calculated as a percentage of household income), copayments, the inclusion of non-agricultural workers, and strong political support not only favoured the system but also increased its efficiency and effectiveness.

During the 1970s, China's Cooperative Medical System, a community-based health insurance scheme, reached 90% of the country's rural population. Subsequently, in the wake of economic reforms including the development of a private market in the health sector, the system declined. The reasons that have been suggested to explain this are outlined below and can be categorized as economic, political and managerial.

- The transformation of the collective economy into an individualized market system has been considered the crucial economic factor. An economic incentive structure based on individual productivity made it difficult to organize finance for community projects. Moreover, the need for capital in rural industries reduced the availability of funds for social programmes. Rapid economic growth led to an increased demand for specialized services, and this had an adverse influence on the utilization of health auxiliaries.
- The Cooperative Medical System was considered to be a product of the cultural revolution, in the aftermath of which political support was consequently withdrawn (1). It has also been argued that the system imposed an unreasonable financial burden on rural people.
- Management was weak and the training of barefoot doctors was inadequate. Health auxiliaries had no incentive to upgrade their skills. The insurance premium remained low, yet the benefit package included all village health services. The exclusion of certain costly hospital care services discouraged participation in the health insurance programme as incomes increased.

It is often assumed that the decline in the Cooperative Medical System occurred because of incompatibility between community-based health insurance and a private market in health care services. However, an examination of the situation in Taichang County reveals that the system can be
adapted to the new economic environment and made more acceptable to the rural population.

Taichang County, a densely populated region some 40 miles from Shanghai, experienced a high rate of economic growth after the economic reforms of 1978 and is now one of the most developed parts of the country. Here, in contrast to what happened in many other counties following the decollectivization of the rural economy, the Cooperative Medical System continued in all the villages. The key to success lay in adapting the system quickly to a changing environment. The health insurance programme was protected and, indeed, strengthened.

In order to understand the situation in Taichang it should be noted that in rural China the delivery of health care is organized at the following three levels:

- Village health centres are run by village doctors, for whom the licensing requirements include at least 10 years of education and one year of medical training in a county health school.
- Township health centres, most of which have a small hospital with up to 30 beds and an outpatient clinic and serve between 10,000 and 50,000 people, are managed by physician assistants with three years of medical education.
- State-owned county health centres, serving between 200,000 and 600,000 people as a rule, are staffed by fully qualified physicians and supervised directly by the county health offices.

**Expanded population coverage**

In Taichang, membership of the health insurance programme was extended to the employees of rural industries, which, following the economic reforms, expanded rapidly. These employees were relatively young and healthy, and their incorporation into the system did not produce a proportional increase in the utilization of the services. The industries benefited the system financially, generating a significant part of the population's income.

The Cooperative Medical System was also extended from the villages to the townships, giving a larger risk pool, a lower probability of bankruptcy, and an increased choice of providers for the patients. The township health centres thus became involved in the insurance scheme. Average overhead costs were reduced, and higher utilization of the township centres by rural people was encouraged.

**Changes in benefits and coinsurance rates**

Copayments of 30% or more were introduced for the services provided in most villages and townships, allowing higher cost recovery at the local level and raising the incomes of village doctors, whose willingness and ability to upgrade their skills were thereby increased.

The most recent policy change has involved expansion of service coverage for hospital care in the county or teaching hospitals. In township health centres and county hospitals the copayment rates have been set at a higher level, usually 60% or thereabouts. Some townships and villages have devised graduated
scales of reimbursement to patients for costs incurred at the higher tiers of the system. Thus in Xingtang township, 40% of costs are paid if the total is less than 300 yuan (about US$ 35) and 70% are paid for expenditure exceeding 3000 yuan (about US$ 350). This arrangement makes the programme attractive even to comparatively affluent households.

**Premiums**

Formerly, individual contributions to the system remained constant and generated about half the total expenditure, the other half being met by the village administrations. It became clear that a fixed premium could not continue in the face of rapidly rising health care prices and costs.

The premium is now subject to annual adjustment as a percentage of disposable household income, and consequently the total collected increases every year in line with economic growth. Because farm incomes rose comparatively slowly, premium rates were set at a lower level for workers in this sector than for industrial workers. It is worth noting that the redesigned health insurance programme derives a small part of its funding from the industrial sector by way of the village welfare funds.

**Political and administrative support**

A management office for the Cooperative Medical System has been established in each township health centre, whose manager, usually a former barefoot doctor, is paid by the township government. The head of the township health centre acts as the deputy manager of the office. The manager monitors the various units closely to ensure that the programme remains financially sound and continues to provide health insurance. As a demonstration of political will and support for the scheme, the township governors have become the directors of the management offices.

**Utilization and finance**

Copayment rates and premiums in the restructured system vary significantly from place to place. In 1990, for example, copayment rates at health centres ranged from 20% to 70% in the county’s 21 towns. In the same year more than three-quarters of visits to health establishments took place at village level. Only about a fifth were at town health centres and under 5% were at the county hospital, where, however, the system spent 21% of its funds. Had no copayment been required the total cost to the system would have been roughly double what it actually was, and both popular participation and political support would have been adversely affected.

Schemes in the Cooperative Medical System were, for the most part, jointly funded by individual members and village or township communities. Only about 4% were funded exclusively by village or township welfare funds and 7% were funded by individuals alone. Village industries donated approximately 1% of costs. The village welfare funds, which accounted for 45% of the total contributions, obtained their resources through taxation of collective activities and industrial enterprises rather than the agricultural sector. The money gathered in this way grew rapidly as rural industries expanded, allowing increased allocations to the Cooperative Medical System. By 1990, 18 village welfare
funds had become so affluent that they were able to stop collecting individual premiums or contributions.

**Prospects**

The experience of Taichang County shows that a reformed programme can do much more than survive where market incentive mechanisms have replaced resource allocation through command: it can actually prosper and gain political support. Taichang’s Cooperative Medical System may provide a model of health care for rural China in the future.

Health insurance programmes are likely to be financially viable if they draw on the thriving rural industrial sector. Improved living standards have led to a heightened interest in health care, and people in rural economies have become increasingly willing to pay for health insurance. Cost escalation has increased the demand for health insurance that gives access to both primary care in villages and hospital treatment.

The reformed Cooperative Medical System in Taichang appears to have succeeded because it is regarded as a model of community participation in health care, a model for cooperation among health professionals, and a model for matching health personnel and services with available financial resources. The following requirements seem to be crucial for the continued strength of the system:

- the benefits package and the level of premium should be attractive to the rural population;
- the structure should incorporate economic incentive mechanisms so that the rate of cost escalation can be controlled;
- the structure should be flexible enough to adjust quickly to changing market conditions;
- political will should exist at the central or regional level to consolidate popular support for the programme.

The experience of Taichang suggests that economic growth and the presence of rural industries, although important, are not the most critical factors in the success of rural health insurance programmes. Units of the Cooperative Medical System are clearly able to survive even in the absence of support from village welfare funds, provided that the benefits package is suitably designed.

An important reason for the success achieved in Taichang appears to be the administrative and political support of the township governments, whose officials are directly elected by the people. Voters raise the issue of health insurance in pre-election meetings, and political pressure is probably exerted on officials to meet the needs of the population. Moreover, in 1990 the subsidy from township governments was under 1% of the expenditure of the system, and this made the programme highly desirable from the political standpoint.

The Cooperative Medical System, as it has developed in Taichang, appears to be an appropriate health insurance model for financing rural health care services in the developing world. It should be considered an important alternative structure in rural areas where the market mechanism may not be able
to attract fully qualified physicians in the near future. Although its success formerly required strong political support at the national level, its recent popularity in China has been driven by market forces and democratic institutions rather than by political direction. The idea that it needs a very specific socialist environment may not be strictly valid.

In Taichang the Cooperative Medical System has remained strong for the last 30 years, despite the emergence of a free market structure for health services and other major political changes. The reformed system is likely to be widely applicable in other countries where experiments in rural health insurance have faced very similar problems to those encountered in Taichang. Developing countries should give serious consideration to the redesigned system as a way of providing health care for rural populations.

The changes that have been implemented in Taichang do not require a special economic environment and could be adopted in most rural counties of China, making community health insurance programmes more effective and better able to adjust to rapidly evolving market conditions.

Reference