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Shaoguang Wang *Modern China* 2009; 35; 370 DOI: 10.1177/0097700409335381

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Adapting by Learning

The Evolution of China's Rural Health Care Financing

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Adaptive capacity is essential for any human social system, because human societies are full of unique circumstances, genuine uncertainty, novel complexity, structural instabilities, and conflicts of values and interests, and, more important, the environment under which the systems exist is always changing, while everyone, including policy makers and policy experts, operates under conditions of "bounded rationality." Learning is the base of adaptive capacity. The first section of the article distinguishes four learning models by their location along two dimensions: the promoters of learning (policy makers or policy advocates) and the sources of learning (practical experience or controlled experiments). By studying the evolution of health care financing in rural China over the past 60 years, the remaining five sections attempt to illustrate how policy makers react to newly emerging problems, imbalances, and difficulties by "fine-tuning" or altering policy instruments, or adopting a new goal hierarchy according to lessons drawn from past and present experience as well as deliberate policy experiments. The resilience of the Chinese system lies in its deep-seated one-size-does-notfit-all pragmatism.

Keywords: learning model; adaptive capacity; China model; cooperative medical system; health care financing

The year 2008 marked the 30th anniversary of the launch of China's reform and so-called drive to open up. Admittedly, China still faces a multitude of problems, but as a country of more than 1 billion people, it has sustained economic growth at an average annual rate of 9.9% for the past 30 years and drastically reduced the population below the poverty line. At the same time, it has largely maintained political stability. Such an achievement can hardly be explained by sheer luck. Therefore, an increasing number of domestic and foreign pundits have begun to ponder China's recipe for success (Ramo, 2004; Lin, 2007; Yao Yang, 2008). In his recent

work, Sebastian Heilmann does not allude to the "China model" but points out that China's "experimentation under hierarchy" is a "distinct mode of governance." As a result, China has acquired an extraordinary adaptive capacity that enables the country to eliminate obstacles that have long plagued its economic development, adapt to changing internal and external circumstances, and seize any transitory opportunity to create the institutional conditions for economic growth (Heilmann, 2008).

Adaptive Capacity and Learning Models

So-called adaptive capacity is the capacity of a system to discover and remedy existing defects, obtain new information, learn new knowledge, try new methods, respond to new challenges, and improve system operation in the face of uncertainty as the environment changes (Folke, Colding, and Berkes, 2003). Adaptive capacity is essential for all human societies because they all face unique circumstances, genuine uncertainties, novel complexities, and conflicts of values and interests, while everyone, including policy makers and policy experts, operates under conditions of bounded rationality. People cannot make the best choice because they are unable to predict all possible emerging situations and the potential consequences of their own actions. What they can do is first to diagnose and treat the most urgent issue and eventually find a satisfactory but not necessarily optimal solution by comparing different options identified through trial and error. For a country like China that has been undergoing rapid and multiple transitions, adaptive capacity is of vital importance because it has to navigate through uncharted and dangerous waters, facing the risk of capsizing at any time.

The adaptive capacity of China's political system is surely the most critical component of the "China model," if such a model exists at all. Otherwise, it would be impossible to explain how China has been able to overcome countless institutional and policy obstacles once regarded as threatening catastrophe if mishandled.

Social scientists know little about adaptive capacity, but one thing is certain: learning is the basis of adaptive capacity (North, 1990). The many policy and institutional learning-related concepts in the social sciences (Heclo, 1974; Rose, 1991; May, 1992; Wolman, 1992; Hall, 1993) mean roughly the same thing though they are given different names. In essence, policy and institutional learning means using the experiences and lessons

	Table 1	
Four	Learning	Models

	Source of Learning		
Promoter of Learning	Practices	Experiments	
Policy makers	1	2	
Policy advocates	3	4	

about a policy or an institution at another time/place to adjust the policy or institution at this time/place. For the sake of discussion, I distinguish four learning models (Table 1) by their location along two dimensions: the promoter of learning and the source of learning.

Promoters of learning can be divided into two major categories: policy makers and policy advocates. Why are policy makers interested in learning? As neatly put by Hugh Heclo, who pioneered the study of the effects of learning on policy and institutional evolution, "politics finds its sources not only in power but also in uncertainty—men collectively wondering what to do" (1974: 305). As a result, policy makers will try every means to diagnose the nature and severity of the problems facing them and seek the potentially most effective methods of solving the problems. This requires learning. Especially in the event of policy failure and institutional failure, policy makers are more prone to act on the impulse to draw inspiration from their own or others' past experiences.

In addition to policy makers, there are others who are also likely to become the promoters of learning, including bureaucrats, policy experts, media practitioners, and social stakeholders (Dolowitz and Marsh, 1996). In the event of sharing similar attitudes toward certain issues, these people may form a tangible or intangible "advocacy coalition" in a specific policy area. The advocacy coalition will learn through various means to seek evidence in support of its proposition. Meanwhile, it will also persistently promote its learning results to policy makers to influence the direction of policy and institutional change (Sabatier and Jenkins-Smith, 1993).

Sources of learning can also be divided into two categories: practice and experimentation. The former includes the past and present practical experiences and lessons drawn from different regions in the home country as well as from foreign countries. The latter refers to controlled experiments conducted on a small scale to discover effective problem-solving tools. In human society, it is normally impossible to conduct experiments similar to

those done in a laboratory. In some specific policy areas, however, it is possible to conduct controlled experiments at different observation points or at different time intervals at the same observation point. Experiments where key policy or institutional parameters are controlled can help discover which policy and institutional options are desirable and feasible. As long as a system treats experimentation as a path to learning, it must allow for failure. Otherwise, no one would have any incentive to conduct experiments in the first place. Of course, practices and experiments cannot be completely separated. Different practices often become the basis for policy and institutional experiments.

The four learning models in Table 1 are by no means mutually exclusive. It is likely that any one country will learn by using more than one model. The adaptive capacity of a system depends on whether it can make full use of all models to learn. Logically speaking, a system with a strong adaptive capacity should have the following features:

- The system is arranged in a way to make policy makers very sensitive to any emergent problems, difficulties, and imbalances, and willing to take responsibility for responding to the challenges.
- Policy makers firmly believe that the best way to find the path to solving policy and institutional problems is to learn through practice and experiment rather than simply emulate foreign models or fashionable theories.
- 3. While preserving political unity, the system allows for decentralized decision making in as many areas as possible and thus creates an institutional condition for seeking different problem-solving methods through decentralized practices and experiments. In other words, the system fosters diverse sources of learning without losing overall coordination.
- 4. It allows or encourages decentralized horizontal diffusion of new things generated from practice and experiment before conducting centralized vertical diffusion, especially in the early stages of decision making.

Based on the foregoing theoretical analysis, how should we assess the adaptive capacity of China's political system? In his recent work, Heilmann implies that China has paid special attention to the second learning model (Table 1) or "experimentation under hierarchy" in his words. As early as at the beginning of the post-Mao era, however, Everett M. Rogers (1983), a pioneer of diffusion of innovation theory, believed that China deserved to be called a model of decentralized policy or institutional innovation and diffusion. In other words, China is also well versed in the other three learning models.

Chen Yun's famous saying "groping for stones to cross the river" has been recognized, but many people merely regard it as a "gradualist" tactic. Actually, the speed of "crossing the river" is not the crux of the issue. "Gradualism" is only a necessary condition for smoothly "crossing the river." If one acts rashly, one might fall into the river before having learned to adapt. However, "gradualists" may not land on their feet either if they fail to learn and adapt while "crossing the river." Only simultaneously learning and adapting constitutes a sufficient condition for safely "crossing the river."

This article explores how China "gropes for stones to cross the river." By using the technique of "dissecting a sparrow," it dissects a policy/institutional area, namely, the rural health financing system. China's rural health financing system since 1949 has undergone four stages fraught with vicissitudes: (1) the rise of the cooperative medical system (hereafter CMS, 1949-1968); (2) the universalization of the CMS (1969-1978); (3) the decline of the traditional CMS (1979-1985); (4) the exploration of new models of CMS (1986-2008). During the past 60 years, the CMS has evolved more or less in line with China's overall policy/institutional direction. It is therefore important to review what has happened in this area. The purpose of this article is not to assess the pros and cons of each health financing system but to analyze how policy makers and policy advocates pursue learning through practice and experimentation to adjust policy tools and policy objectives and to respond to the changing environment.

The Rise of the CMS

Before 1949, user-pay was the only health financing option available in rural China, which deprived the vast majority of farmers of the opportunity for health care. Consequently, China's infant mortality rate was as high as 250 per 1,000 births (Yip, 1992) and the average life expectancy was barely 35 years (Seifert, 1935).

Soon after the People's Republic of China was established, the new regime laid down a guideline for health care: "serving the workers, peasants and soldiers" (Xu Jie, 1997). Even during the Korean War, the new government made rapid progress in developing rural medical organizations. By the end of 1952, the number of county-level health institutions rose to 2,123 from 1,400 in 1949, covering more than 90% of regions nationwide (Yao Li, 2007a). Despite progress in health care provision, however, there was no significant change in health financing. The user-pay health system still dominated rural China prior to 1955.

In 1955, an all-round upsurge of cooperative transformation swept across rural China, which served as a catalyst for institutional innovation in rural health care. More specifically, mutual-aid cooperatives in production, capital, farm implements, and technology inspired farmers to expand the cooperative approach into the area of health financing. It is fair to say that "the rural cooperative medical movement might never have happened without the agricultural cooperative movement" (Zhang Zikuan et al., 1994).

In the literature, there has been disagreement as to where the earliest cooperative medical scheme emerged. Evidence shows that different forms of health care financing cooperatives emerged in the year 1955 in Shanxi (Yue Qianhou and He Puyan, 2007), Henan (Song Binwen, 2004), Jiangsu (Wang Qingyuan and Xu Debin, 2005), and Zhejiang (Qian Wenyan, 2006). It is perhaps pointless to argue where the "first" CMS was born. During the all-round upsurge of rural cooperativization, health care financing cooperatives would have emerged sooner or later. One thing is clear, however: this new practice came from farmers rather than policy makers and experts.

Take Mishan village, in Gaoping county, Shanxi, as an example. Gaoping county was a so-called old liberation area that had come under the control of the Communist Party in 1945. In 1953, three private drugstores and ten private doctors in Mishan village formed the county's first voluntary united clinic. In May 1955, during the heyday of cooperative transformation, the Mishan United Clinic converted itself into a United Health Care Station. Unlike a united clinic, the health care station was established and financed by three parties: the agricultural production cooperative, farmers, and doctors. Its funding came from three sources: "health care fees" paid by farmers, the public welfare funds contributed by the agricultural cooperative, and medical proceeds (mainly charges for medicine). By paying an annual "health care fee" of RMB 0.5, a farmer was entitled to receive preventive health care services and was exempted from all kinds of fees (for registration, home visits, injections, etc.) except for drug charges.

Mishan's CMS soon received a great deal of attention from the government. Officials from the Ministry of Health and the provincial Department of Health went several times to Mishan to conduct field investigations and concluded that Mishan had "established a reliable socialist organizational basis for providing preventive health care in rural areas." With the approval of the State Council, the Ministry of Health began to disseminate the Mishan experiences (Zhang Zikuan, 1992). By 1957, China had more than 10,000 cooperative medical stations (Xu Jie, 1997).

The commune movement launched in the summer of 1958 provided a more robust institutional infrastructure for cooperative health financing. Article 18 of *The General Regulations* of China's first people's commune—the Chayashan Satellite People's Commune, Suiping county, Henan—stated the following:

The Commune shall adopt a cooperative medical system under which members shall pay annual fees based on household size and will not pay any additional charges when visiting a doctor. The commune hospital shall refer special patients it cannot treat to an appropriate hospital for further treatment and cover their travel expenses and medical expenses. For the time being, no referral shall be made for geriatric diseases and patients with chronic diseases. When the economy becomes strong enough, the Commune will provide free health care.¹

This was the first time "the cooperative medical system" was mentioned in China. On September 13, *Health News*, a newspaper under the Ministry of Health, published an article titled "Let the Cooperative Medical Scheme Blossom Everywhere," which claimed that the scheme

is a new medical system for the people and a communist-type public welfare undertaking. It is convenient for the people and boosts production. Meanwhile, it can help implement prevention as the first principle and strengthen prevention and treatment. Thus it should be vigorously promoted nationwide. [Li Decheng, 2007: 19]

By the end of September, at least 963 communes in Henan, accounting for more than 70% of the communes in the province, had set up a CMS (Cao Pu, 2006).

During the commune movement, Jishan county, Shanxi, was held up as a "red banner of rural health." In January 1959, Sun village of this county began to implement a CMS under which each member was to pay an annual health care fee of RMB 2 and receive free medical service. Any difference was to be subsidized by public welfare funds. Subsequently, this practice was rapidly disseminated across the county (Yue Qianhou and He Puyan, 2007). In November 1959, the Ministry of Health submitted to the CPC Central Committee A Report on the On-the-Spot National Meeting on Rural Health Care at Jishan County, Shanxi and its appendix Opinions on Several Issues Pertaining to the People's Commune Health Services. The report stated the following:

The People's Communes have two major medical systems at the present time. One is user-pay medical service on an individual basis; the other is collective medical service for commune members. Those who attended the meetings unanimously considered it more appropriate to adopt the collective health care system for commune members based on the present level of productivity and people's awareness. . . . The collective health care system has been sometimes referred to as a "collective health care" approach or the "cooperative medical system." [Zhang Zikuan, 1992: 3]

This was the first time that the phrase "cooperative medical system" was mentioned in a central government document. The *Opinions* advised,

A small number of economically affluent communes can continue to offer community-run free health care but we should not rush to disseminate this practice. In addition, some communes have adopted a user-pay health care system; we should not change that overnight either. Instead, it should be gradually transformed into the collective health care system based on the communes' level of economic development and people's awareness. [Zhang Zikuan, 1992: 23]

Nevertheless, due to the strong push of the CPC Central Committee and the direct intervention of Chairman Mao, the rural CMS grew rapidly. The proportion of production brigades (administrative villages) providing cooperative medical services increased from 10% in 1958 to 32% in 1960 and to 46% in 1962 (Figure 1), according to Anhui Medical University School of Health Management, which has conducted long-term tracking research on the rural CMS.

After 1962, the central government drastically readjusted its policy orientation, including its attitude toward the rural medical system. In August 1962, the Ministry of Health issued *Opinions on Adjusting Rural Grassroots Health Organizations*, criticizing "some communes for their disposition to provide free medical services." This document stated, "The medical institutions originally established and funded by communes or production brigades can be transformed into entities run by doctors in the event any difficulties are encountered in operating them on an as-is basis." After the transformation, those entities were supposed to provide user-pay medical services and to assume sole responsibility for their profits and losses (Xu Jie, 1997). With a drastic decline in collective investment, except in a small number of affluent areas, most communes and brigades halted or suspended the cooperative medical scheme. Consequently, cooperative health care coverage plunged into a downward spiral. By 1964,

Figure 1
Proportion of Villages Adopting the CMS (1955-2008)

Source: The author's databank.

fewer than 30% of communes and brigades still maintained a CMS (Cao Pu, 2006).

Rural health conditions and the urban-rural disparity drew Mao's attention in 1964 to 1965. This turned out to be a period in which the Chairman paid the greatest attention to health care. In those two years, he lashed out at the Ministry of Health no less than four times, the most famous of which was his *June 26 Directive*. In a conversation with his medical staff on June 26, 1965, Mao accused the Ministry of Health of working only for 15% of the population, namely, urban residents, while leaving peasants with few doctors and little health service. He called for "shifting the focus of health work to the countryside" (Yao Li, 2007b).

It is widely believed that Mao's *June 26 Directive* drew national attention to rural health care, thereby resulting in a quick recovery of the CMS that had ground to a standstill after 1962 (Cao Pu, 2006; Xia Xingzhen, 2003). This is simply untrue. Although Mao paid unprecedented attention to rural health care around 1965, he concentrated his attention on providing medical services for farmers and training medical practitioners

for the countryside, while organizing mobile medical teams to be sent to the countryside to realize both objectives. However, mobile medical teams did not provide free medical services for farmers but instead "charged fees at reasonable rates" (Party Committee of the Ministry of Health, 1965). In other words, Mao's *June 26 Directive* did not bring about much change in rural health financing. As a matter of fact, the proportion of production brigades providing cooperative medical services further declined to 20% in 1968, which was lower than the level in 1964 (Figure 1). The CMS did not become truly universal in rural China until after 1969.

Universalization of the CMS

In the summer of 1968, reporters of *Wenhui Daily* conducted a field investigation in Jiangzhen Commune, Chuansha county of Shanghai and published a report titled "Gauging the Direction of the Revolution in Medical Education from the Growth of 'Barefoot Doctors' in Jiangzhen Commune." The report was referred to Mao Zedong by Yao Wenyuan, who was then in charge of the national propaganda machine. After Mao revised the report, it appeared in *Red Flag* and was republished by *People's Daily* on September 14 (Mao Zedong, 1968). Henceforward, "barefoot doctors" became well-known all over the world. However, "barefoot doctors" addressed only the issue of whether rural basic medical services were inexpensive without touching the issue of health financing. Medical services could hardly be universalized no matter how inexpensive they were without sharing risks.

One month after the "barefoot doctor" investigation report was published, Yao Wenyuan submitted to Mao another report about the CMS operated by Leyuan Commune, Changyang county, Hubei. Since 1966, Dujiacun Brigade of Leyuan Commune had implemented a cooperative medical scheme under which each farmer paid the cooperative a medical fee of RMB 1.00 per year and the production brigade contributed RMB 0.5 for each participant. As the brigade clinic was engaged in raising herbs and making herbal medicine, the costs of cooperative medical services were very low. Peasants only needed to pay an RMB 0.05 registration fee each time they saw a doctor. The herbal medicine was provided free of charge. The peasants loved this kind of CMS. In 1967, the CMS was adopted by every brigade in Leyuan Commune.

After reading the "barefoot doctor" story in *People's Daily* in mid-September 1968, Ni Bingwan, a staff member of the Medical Administration Section of the Health Bureau of Changyang county, considered it worth-while to disseminate Leyuan Commune's cooperative health care experiences nationwide. After conducting a 20-day field investigation at Leyuan Commune with two of his colleagues in early October, Ni wrote an investigative report. The report highlighted the major benefits of the CMS, the most important of which was that it "resolved the difficulty facing poor and lower-middle peasants who cannot afford to see a doctor or buy medicine."

Once *People's Daily* received the report, it held a symposium on the outskirts of Beijing to collect rural residents' feedback on Leyuan Commune's experience. The symposium reached a consensus that the CMS was a good way of overcoming the rural residents' difficulty in seeing a doctor and buying medicine and it was worth disseminating nationwide. Referred by Yao Wenyuan and approved by Mao Zedong, *People's Daily* published an article titled "CMS Welcomed by Poor and Lower-Middle Peasants" on December 5, 1968, together with an Editor's Note hailing "the CMS as a great revolution on the medical battlefront as it has overcome the difficulty facing rural residents who cannot afford to see a doctor or buy medicine" (Revolutionary Committee of Changyang County, Hubei, 1968). Subsequently, the article was republished by all newspapers and periodicals nationwide. During the next eight years, Leyuan Commune received more than 50,000 visitors from every corner of the country seeking information on its experience (Hu Zhendong, 2006).

To vigorously promote the CMS, *People's Daily* opened a special column, "Discussion on the Rural Medical System," and published 107 editions of the discussion in eight consecutive years thereafter (Cao Pu, 2006). Local newspapers also published a multitude of articles aimed at introducing, discussing, and disseminating information about cooperative medical services and barefoot doctors. In addition, there was also a large number of books published for the same purpose. Under this powerful media campaign, China saw an upsurge in the rejuvenation of the rural cooperative medical scheme after 1969. By 1976, the CMS had been adopted by 92.8% of production brigades nationwide and covered 85% of the rural population (Figure 1).

The CMS had three major characteristics that also constitute three necessary conditions for its existence. First, the CMS expenses were shared by collectives (public welfare funds) as well as individuals (fees). Second, cooperative medical services were not legally mandatory, but in communes and brigades that adopted the system, participation was compulsory and user fees were deducted by the collectives before income distribution at the end of the year. Third, cooperative medical services relied on low-cost

barefoot doctors who helped reduce medical costs to an affordable level by raising herbs and making Chinese herbal medicine on their own.

Even during the most radical period of the Cultural Revolution, however, the Chinese government never imposed a single model of the CMS nationwide. Instead, the cooperative medical scheme varied significantly by brigade, commune, county, and region. First, the risk-sharing pool differed as the CMS might be run by a brigade, a commune, or by both. The brigade-run system was most common. Second, the portion of collective contribution to the medical funds differed. It normally ranged from 30% to 90% of the funds. Only in a few cases were all medical costs covered by the collectives; in most localities farmers were required to pay a certain amount of fees, usually in the range of RMB 1 to 3 per person per year (Fu Jianhui, 2005; Gu Jiaen, 2006).

It is worth noting that even during its heyday the CMS never covered all communes and brigades nationwide because the government never forced all of them to implement the scheme. Moreover, the CMS did not proceed smoothly even in areas where it was adopted. During the years 1969-1971, the CMS flourished everywhere though without a solid foundation. The proportion of rural areas adopting the CMS fell to 62% in 1972 and 54% in 1973 (Figure 1). Subsequently, grassroots rural entities took the initiative in controlling costs, toughening procedures, strengthening management, and eliminating waste. Only when extensive experience in these respects had been accumulated could the CMS coverage rebound to 92.8% of brigades in the nation by 1976.²

In the 1970s, China was still a poor country, but it had nearly universal health care coverage that provided basic medical security for the majority of rural residents. This resulted in a significant improvement in the Chinese people's health indicators. For example, the average life expectancy surged from 35 years before Liberation to 68 years in 1980, while the infant mortality rate fell from approximately 250 per 1,000 births before Liberation to less than 50 per 1,000 births in 1980. China's health care services were internationally recognized for their fairness and accessibility (Newell, 1975; World Health Organization [WHO] and United Nations Children's Fund, 1975; Stiefel and Wertheim, 1983; Jamison, 1984; World Bank, 1993) and became a model for the WHO to enhance the primary health care movement globally (WHO, 1978).

A review of the evolution of rural medical services during the Mao era indicates that rural China started from scratch with few doctors and little medicine and ended up with a CMS characterized by low costs and wide coverage. In this process, inputs from the grassroots played a vital role.

The Decline of Traditional CMS

When the Cultural Revolution officially ended in August 1977, nobody predicted that the CMS would swiftly decline. On the contrary, it was listed in the constitution of 1978 as a cause that needed to be enhanced by the nation to safeguard people's health rights. In 1979, the Ministry of Health and other four ministries even jointly released Rural CMS Regulations (Trial), which was the first regulatory document enacted by government authorities in this regard. The Regulations defined the CMS as "a socialist medical system established by the members of the People's Communes through collective forces on a voluntary and mutual-aid basis." It further pointed out, "The constitution prescribes that the country actively support and develop CMS and tailor medical work to the needs of protecting the health of commune members and developing agricultural production" (Ministry of Health, 1979).

In fact, the second half of 1978 already saw cracks emerge in the CMS. Document 37 issued by the CPC Central Committee on June 23 barred communes and brigades from "allocating and transferring human, financial and material resources to conduct non-productive construction" and asked them to "cut non-productive expenditures" (Wu Lixing and Zhang Yanwu, 2006). Subsequently, some localities regarded cooperative health care as a system of "the poor eating the rich" and "adding to the burden of the people." Consequently,

rural cooperative medical services drastically declined in some northeastern provinces and were blown away by a gust of wind even in many brigades that were economically strong. . . . As cooperative medical services were shut down, barefoot doctors were dismissed as nonproductive personnel or brigade clinics were contracted to barefoot doctors who assumed sole responsibility for profits or losses; in many brigades, the peasants found it difficult and expensive to see a doctor. [Zhang Zikuan, 1982: 31]

Other places reported similar problems (Fujian Health Administration, 1979). In 1980, for instance, "the cooperative medical services of many brigades were halted or ground to a standstill" across Henan province so that some people called for urgent action to salvage the CMS (Fang Jian, 1980).

Nationally, the proportion of brigades covered by the CMS fell from 92.8% in 1976 to 52.8% in 1982, a 40% drop in six years. During this period, some provincial governments (e.g., Heilongjiang, Jilin, Qinghai, and

Fujian) enacted regulations aimed at "unswervingly promoting cooperative medical services," but the central leadership was busy implementing the household responsibility system and failed to take a stand on the issue. Then the constitution of 1982 deleted any mention of "the cooperative medical system." As a result of the abolition of the people's communes in 1983, the rural CMS collapsed and its coverage plunged to just 11% of China's villages (Figure 1).

In the mid- through late 1980s, cooperative medical services still existed in suburban Shanghai and southern Jiangsu, where the collective economy was well developed.³ Elsewhere, however, such services were retained in only a few localities, such as Macheng county in Hubei and Zhaoyuan county in Shandong (Rural Economy Team, 1986). As the CMS broke down, the vast majority of village clinics became privatized and the user-pay medical system became dominant again.

Why did the once-booming cooperative medical services cease to exist after the reform? The most important reason was the change in the economic basis on which the CMS operated. Only under the institutional environment of a collective economy could the funds for cooperative medical services be withdrawn and retained directly from the collective economy to ensure a smooth financing path. After the household responsibility system was put in place, the collective economy was very weak or even nonexistent in most villages except in some regions where collective enterprises flourished. It was therefore no longer feasible in most localities to support cooperative medical services by withdrawing and retaining collective public welfare funds. The importance of the collective economy can be seen by a 40% decrease in CMS coverage as of 1983 when the people's commune system was abolished. In the 1980s, when cooperative medical services shrank across most of the nation, southern Jiangsu retained more than 85% coverage, but this level could hardly be sustained in the 1990s when the collectively owned village and township enterprises there were restructured through "privatization." The experience of southern Jiangsu confirms that the collective economy was the backbone of the traditional CMS.

In addition, the term *barefoot doctors* was dropped and their nature was changed. The *Rural Cooperative Medical Regulations (Trial)* ratified in 1979 stated that "barefoot doctors should work both as farmers and as doctors and participate in collective distribution" and they should "actively gather, grow, make and use Chinese herbal medicine and make full use of local sources of medicine to prevent and treat diseases." Only under such conditions could the CMS provide basic, low-cost medical services for farmers. As a result of the breakdown of the collective economy, however,

most villages could not afford to pay barefoot doctors reasonable salaries and had no alternative but to sell or contract village clinics to individual doctors, offering as a motivation the possibility of making a profit. Meanwhile, it was no longer possible to collectively grow, gather, and make Chinese herbal medicine after the land had been contracted to individual households. The foregoing two changes increased health care costs. In early 1985, Health Minister Chen Minzhang officially announced that the term *barefoot doctor* would no longer be used (Chen Fei, Zhang Zikuan, and Chang Hongen, 2007).

In much of the 1980s, China's top leaders decided to let the rural CMS take its own course. Although they never expressly rejected the rural CMS, some health officials denounced the system as an offspring of the Cultural Revolution, which had been completely repudiated. These people advocated dissolving the CMS and contracting village clinics to barefoot doctors. They asserted that this was an "inevitable trend" of development (Li, 2007). When the CMS collapsed, they happily declared, "This is a great progress." They believed that "the user-pay medical system is here to stay for some considerable time in China" (Zhang Zikuan, [1985] 1993, [1987] 1992).

Doubts about the CMS caused policy makers to ignore past experience, which affected the formulation of rural health reform policies (Subcommittee of Medicine, 1995). In the early 1980s, carefully worded official documents tried by every means to avoid using the term CMS and replaced it with other terms such as *pooling medical resources* (Cao Guoming, 1993). As the central leadership assumed an ambiguous attitude, local officials were no longer interested in supporting cooperative medical services. In a farmer's words, "With no push from the top and no action in the middle, the base simply fell apart" (Zhang, [1987] 1992: 9).

Exploring New Models of CMS

That policy makers took an ambiguous stand on the CMS does not mean China's public and private sectors stopped exploring suitable rural health financing models. On the contrary, debates emerged in the mid-1980s as to what financing system should be adopted for rural health care. One school of thought argued that China's rural health financing system should adapt to the "world trend" of health insurance; another school contended that it was imperative to reinforce China's unique CMS (Zhou Tingyu, 1987). The central leadership remained equivocal.

In line with the new policy of invigorating the domestic economy and opening to the outside world, the CPC Central Committee, in September 1985, issued a document, *Guidelines for Formulating the Seventh Five-Year Plan for the National Economy and Social Development*, which called for exploring a variety of new social security models. Subsequently, the Ministry of Health formulated the *Outline of Health Reform during the Seventh Five-Year Plan Period*, which stated that China's rural health care system should be restructured gradually according to the economic conditions and public willingness of each locality by adopting either the CMS or any other approach. The *Outline* underscored the necessity of actively exploring and developing a health financing system suitable for rural areas (Ministry of Health and State Administration, 1987).

The Ministry of Health itself leaned toward implementing a health insurance system in rural areas. In 1985, it endorsed the World Bank's proposal of establishing a health insurance scheme in rural China and agreed to conduct a "China Rural Health Insurance Experiment" in Jianyang and Meishan counties in Sichuan with the technical assistance of the RAND Corporation. To push forward the experiment, the ministry organized an academic seminar on rural health insurance in Emei county, Sichuan, the purpose of which was to promote the message that it was imperative to implement a health insurance system in rural China.

"China Rural Health Insurance Experiment" was the first controlled experiment conducted in the area of rural health care. It was undertaken in two phases. During Phase 1, Chinese and American experts formed a task force to design rural health insurance schemes after conducting 26 months of investigation and research in Jianyang and Meishan counties. In the early stage of Phase 2, the task force conducted pilot experiments in four administrative villages; in the latter stage of Phase 2, the task force undertook experiments in 26 administrative villages. The controlled nature of the experiment was reflected in testing seven different insurance schemes in different administrative villages so as to examine the pros and cons and feasibility of each.

Compared with the traditional CMS, "China Rural Health Insurance Experiment" has some distinctive features. First, risk sharing was based on the township rather than the administrative village to enlarge the insurance pool and boost risk-bearing capability. Second, in the areas where the experiment was conducted, villagers participated in the health insurance scheme on a voluntary rather than mandatory basis; but to avoid "moral hazard" and "adverse selection," the unit of participation was the household rather than the individual. Third, insurance premiums could be assumed by collectives or individual households, or shared by both. Fourth, focusing on

catastrophic diseases, the insurance schemes covered more inpatient expenses and fewer outpatient expenses (Cretin, Williams, and Sine, 2006). As we will see in the following paragraphs, the four features of this experiment influenced thinking on later rural health reforms even though the health insurance scheme itself was eventually rejected.

In addition to the experiment conducted by the Ministry of Health, there was a plethora of health insurance practices pursued nationwide in the late 1980s. Examples included a general health insurance program in Jinshan county of Shanghai and in Jianli county, Hubei; a preventive care insurance plan for mothers and children in Pengxi county, Sichuan; maternal and child health insurance in Jinzhai county, Anhui, Jicheng county, Shanxi, and Shangshui county, Jiangsu; and a dental insurance scheme for elementary and middle school students in Yuncheng county, Shanxi (Commentator, 1987). Jintan county in Jiangsu experimented with both a general health insurance scheme and a single-item insurance scheme on a pilot basis (Jintan County Health Administration, 1987). Based on a survey of 62,571 peasants in twenty counties, the Rural Health Care System Research Team of the Expert Committee on Health Policy and Management of the Ministry of Health recommended, in January 1988, four rural health insurance schemes (Luo Yigin, 1989). Subsequently, experiments in various rural health insurances schemes were conducted in more localities (Li Xile and Shao Bingxiao, 1994).

It is worth noting that the health insurance experiments conducted in many areas still smacked of CMS even though some experts vigorously advocated that individuals participate in different insurance plans at their own cost amid the "transition from CMS to a rural health insurance system" (Hu Xintai, 1987). Under the health insurance scheme of Yuhang county in Zhejiang and Jintan county in Jiangsu, for example, more than 90% of insurance costs were covered collectively with only a symbolic amount of money paid by individual participants (Cheng Yunfei and Zhang Chengmo, 1987). These counties regarded the call for introducing "health insurance" as an opportunity to "add new contents" in order to "enhance the vitality" of the CMS (Jintan County Health Administration, 1987). In addition, the CMS was retained in some areas such as Guangji county in Hubei, Changshu city and Taicang county in Jiangsu, Zhaoyuan county in Shandong, and the suburban counties of Shanghai (Cai Shengga, 1987). Meanwhile, the user-pay medical system was implemented in the vast majority of rural areas in China.

The diversity of practices makes it possible to explore the merits and feasibility of different health financing systems. In addition to the health insurance experiments mentioned above, academics began to conduct

comparative studies of different health financing systems in the mid-1980s. In 1987, working together with the Department of Medical Administration of the Ministry of Health, Anhui Medical University conducted a comparative study of the CMS and user-pay system by surveying around 40 villages with matching conditions (per capita income, illiteracy rate, age composition, topography, and nationality factors) in Hubei, Shandong, and Beijing, a half of which practiced CMS and the other half a user-pay system. This survey found that CMS was superior to the user-pay system in fifteen out of the nineteen indicators (Research Group, 1988). During 1988-1990, the Ministry of Health set up a task force to make a comparative study of the feasibility and effectiveness of several rural health financing systems using the data collected from a sample survey of twenty counties in sixteen provinces. The study again confirmed the superiority of the CMS (Research Taskforce of China's Rural Medical and Health Care System, 1991). In addition to such nationwide surveys, there were numerous local surveys conducted at the regional, county, and township levels. Without exception, all surveys reached the same conclusion: the CMS was superior to the userpay system, and the vast majority of farmers favored the CMS over others (Zhou Shougi, 1987).4

At the 58th World Health Assembly in 1986, the Chinese government pledged to "afford everyone entitlement to basic health care by 2000" (Wu Yanming, 1988). It was of course impossible to fulfill this pledge within fourteen years while keeping the user-pay medical system unchanged for most rural residents. Research results showed unmistakably that only by restoring the CMS could China provide its farmers with adequate access to basic medical and preventative health services.

To drive this point home, Zhu Aorong, a professor who had long engaged in research on the rural medical system, rebutted point by point many arguments against the CMS and attributed its downfall to "health regulatory authorities censuring the CMS as a product of 'leftism' and using the propaganda machine to demonize it nationwide" (1988: 53). He used survey data to prove that the CMS was supported by rural residents, while refuting the idea that "the CMS has become outdated and it is only health insurance that represents the 'world trend'" (1988: 53). He recommended the central government reestablish cooperative health care as the basis of China's rural medical system.

Facing the fact that more than 90% of farmers had no medical security, those who were concerned with the rural health problem gradually reached the same conclusions. First, the user-pay medical system not only deprived poor rural residents of the opportunity to access basic health care but also

caused farmers to fall back into poverty if they got sick or seriously injured (Feng Xueshan et al., 1994). Second, health insurance was not suitable for rural China because the insurers were not interested in rural health insurance due to low profit margins, while farmers did not trust the insurers and blamed them for complex and incomprehensible red tape.⁵

Against this background, starting from the end of 1988, the central government began to repeatedly reiterate its pledge to realize universal rural health care coverage by 2000 and to lay a solid foundation for universal health coverage by "restoring and improving the rural collective health financing system." By 1991, the central authorities began to extensively use buzzwords such as *cooperative medical system* and *collective health financing* and *cooperative health insurance* in official documents (Li Peng, 1991). The frequent use of *cooperative medical system* in central government documents helped put an end to the decade-long dispute on the CMS. However, the vague terms *collective health financing* and *cooperative health insurance* suggest that the central policy makers were still hesitating or hovering between CMS and a health insurance system and hoping to find to way to combine them.

Nevertheless, the subtle change in the central government's attitude provided an opportunity for CMS advocates. At the end of 1991, former health minister Qian Zhongxin (1991) wrote a foreword, "Rejuvenating the Cooperative Medical System," for an issue of the journal *China Rural Health Care Management*. The journal also published an article written by Professor Zhu Aorong, Wu Yanming, and Ye Yide, which claimed,

On behalf of more than 900 million farmers, we sincerely and urgently request the ruling Communist Party and State Council leaders to pay as much attention to the CMS concerning the birth, illness, senility and death of 900 million farmers as to family planning, education and science and technology, to make a decision and communicate it to political leaders at all levels, and concretely to press ahead with the cooperative medical system nationwide. [1991: 24]

This article also pointed out that the CMS was "fundamentally different" from health insurance and recommended replacing "cooperative health insurance" with a "cooperative medical system" in any policy statement (Zhu Aorong et al., 1991). Those scholars directly appealed to top policy makers because they knew that the Ministry of Health officials had "overemphasized the lack of decision-making power and taken a wait-and-see attitude" (Zhou Shouqi, 1990). Restoring the CMS required more than a change of mind on the part of the Ministry of Health officials—it required explicit support from the highest levels of the party/state.

To fix and repair the CMS as the foundation of the rural health care system, the central government appropriated RMB 20 million to support the overhaul of rural cooperative medical services in 1991. The budgetary appropriation rose to RMB 75 million the next year. Meanwhile, 28 provinces and municipalities matched the central budgetary allocation with RMB 2.5 billion appropriated from local treasuries over the next two years. The government's capital infusion gave a shot in the arm to the rural CMS when it was on the verge of death (Bo Xianfeng and Dong Jianzhen, 1993). As a result, the CMS entered into an "Indian summer" in 1992 (Figure 1).

After Deng Xiaoping made an inspection tour of South China in 1992, however, the market-oriented reformers regained the upper hand. In September, the Ministry of Health (1992) reset the tone with *Opinions on the Deepening of Health Reform*, saying, "In rural areas, we should vigorously push forward cooperative health insurance." The point was driven home by the director general of the Department of Health Policy and Legislation of the ministry when he said, "Generally speaking, China must follow the health insurance approach, which has been adopted by more than a hundred countries worldwide. Of course, our tactics will be different, but the basic strategy must be the same" (Zhi Junbo, 1992: 2). As a consequence, CMS coverage shrank drastically (Figure 1).

In 1993, the CPC Central Committee issued *Decisions on Several Issues Related to Establishing the Socialist Market Economic System*, which called for developing and improving the rural CMS in lieu of "rural health insurance." In that year, based on a nationwide investigation, the Office of Research under the State Council as well as the Ministry of Health submitted a research report titled "Speeding up the Reform and Construction of the Rural Cooperative Medical System." The report set an objective of raising the national rural CMS coverage to 50% during the Ninth Five-Year Plan period (1996-2000) (national coverage was less than 10% at that time). How to solve the problem of finances? The report recommended "setting up a mechanism of raising funds jointly from the state, collectives, and individuals." The crux of the issue was how the state would "make a joint investment." Would the government use its funding to support the CMS? The report did not elaborate in this respect (Yuan Mu and Chen Minzhang, 1994).

During the period 1994-1996, the Office of Research under the State Council and the Ministry of Health conducted a special survey on the CMS in fourteen counties in seven provinces, especially in Kaifeng county and Linzhou city in Henan. In July 1996, at a national workshop on rural CMS held in Linzhou, State Councilor Peng Peiyun (1996) refuted various

"erroneous notions" in a bid to eliminate ideological obstacles to cooperative health care. Health Minister Chen Minzhang said,

The central government now takes a very supportive position on developing and improving the CMS. The question is not whether to go ahead with the CMS but how to get it well done. We should put developing and improving the CMS at the top of the agenda of rural health care. [1996: 7]

How? Chen Minzhang was fully aware that "financing is the focal and difficult point of cooperative medical services." However, at this point, the official guideline was still to follow a "user-paid, collective-subsidized, and government-guided and supported" approach.

Subsequent to the workshop, local governments launched hundreds of pilot projects to promote CMS. All of a sudden, CMS appeared to have gained strong momentum (Zhang Chaoyang and Yu Jun, 1997). By the end of 1996, the proportion of administrative villages offering cooperative medical services had risen to 17.59% (the highest level since 1983), up 6.41% from a year earlier (Figure 1).

The CMS regained traction at that time. At the National Health Work Conference held in December 1996, policy makers reached a consensus that the key to strengthening rural health care was to develop and improve the rural CMS. After the meeting, the CPC Central Committee and the State Council issued *The Decisions on Health Reform and Development*, making it clear that the state encouraged all rural areas nationwide to establish and develop the rural CMS on a privately-run/government-supported and voluntary-participation basis with funds raised mainly from farmers and subsidized somewhat by collectives. The role of governments was merely to "support" such endeavors (CPC Central Committee and State Council, 1997).

From mid-1996 to mid-1997, the Chinese government took numerous initiatives aimed at restoring and developing cooperative medical services and it hoped to launch a new movement to rebuild the CMS. The results were, however, disappointing. By the end of 1997, cooperative medical services covered only 17% of the administrative villages nationwide, virtually no change from a year earlier, and the proportion of rural residents participating in the cooperative medical scheme was merely 9.6%. "The Second National Health Service Survey," undertaken by the Ministry of Health in 1998, indicated that the proportion of rural residents participating in the cooperative medical scheme fell to 6.5% in 1998 (Zhang Deyuan, 2005).

The government's support for cooperative medical services after 1996-1997 was beyond doubt. Why, then, was it still difficult to restore the CMS?

One reason was that while the central policy makers encouraged rebuilding the CMS, various central ministries enacted regulations barring any forced attempt to raise cooperative medical funds from farmers, thus pouring cold water on the emergent cooperative medical scheme. For this reason, even in Kaifeng and Linzhou, the two cities selected by the Office of Research under the State Council and the Ministry of Health for pilot programs, the cooperative medical scheme was halted (Wang Shidong and Ye Yide, 2004).

More important, traditional CMS might not have been possible even with consistent government policy support because rural communities without a collective economy could no longer run the CMS solely by collecting funds from farmers. However, the government failed to realize this point at that time. In the 1990s, the government reaffirmed the importance of CMS mainly because it did not depend on government funding. In statutes enacted prior to 1996 on cooperative health financing, the central government repeatedly emphasized that "funds [were to be] raised mainly from farmers together with subsidies from collectives and policy support from governments at all levels." Actually, state budgetary allocation to rural cooperative medical services was meager (RMB 35 million in 1999, or less than RMB 0.5 per capita) (Liu Yajing, 2004). The problem was that without financial support from the government it was virtually impossible to universalize cooperative medical services nationwide. Before the central government finally decided to lend financial support to cooperative medical services, it had to acquire the willingness and ability to do so.

What shattered the illusion of restoring the CMS without government funding was a series of surveys and controlled experiments conducted in poverty-stricken regions (Table 2). If the practices and experiments conducted across rural China in the 1980s helped the government realize the necessity of rebuilding the CMS, then the practices and experiments conducted in the 1990s led it to conclude that the traditional CMS was fraught with grave deficiencies. The government had no alternative but to provide financial support; otherwise, it would never be able to realize its objective of "setting up various cooperative medical systems in most rural areas by 2000."

In addition, a different rural medical system was adopted in Tibet. Prior to 1997, the residents of the Tibet Autonomous Region enjoyed free health care services provided by public medical institutions subsidized by the central government. After 1997, using central fiscal transfers, the government of the Tibet Autonomous Region set up cooperative medical funds, subsidizing each farmer and herdsman at the rate of RMB 15 to 30 per year if he or she took part in CMS. Participants themselves only needed to

Table 2 Selected Rural Health Care Experiment Projects, 1985-2005

Project	Organizers	Time	Location	Key Findings
China Rural Health Insurance Experiment and Research	Ministry of Health, RAND Corp.	1985-1991	Jianyang and Meishan counties, Sichuan	Insurance premium rates can be set in the range of 1-2% of the per capita income of farmers, but it is very difficult to collect insurance payments from farmers.
China Rural CMS Reform	State Council, MOH, WHO	1993-1998	14 counties in 7 provinces	Government and collective financial support can boost farmers' enthusiasm for participating in the cooperative medical schemes; otherwise such schemes can barely survive.
Health Financing and Organization in China's Rural Poverty-Stricken Regions	China Health Economics Training and Research Network, Harvard University	1992-2000	114 counties in 14 provinces	 In poverty-stricken areas, most households can afford to pay less than RMB 10 cooperative medical fees per person per year. Government funds infusion played a significant role in smoothly carrying out the project.
CMS Reform and Development under the Conditions of Market Economy	MOH, United Nations Children's Fund	1999		Government funding holds key to the sustainability of medical security for farmers.
Strengthening Basic Health Services in China's Rural Poverty-Stricken Regions	Chinese government and World Bank	1998-2005	71 poor counties of 7 central and western provinces	Government funding is a necessary condition for running the cooperative medical scheme.
The Best CMS Practices in Rural China	Commission of Planning and Finance, MOH, WHO, and UNDP	2000-2002	Areas where the CMS has been well established	Developing cooperative medical services shall be defined as "government behavior."

Note: MOH = Ministry of Health; WHO = World Health Organization; CMS = cooperative medical system; RMB = renminbi; UNDP = United Nations Development Programme

contribute RMB 10 to 20 per person per year. For households that could not afford to pay the fee, the county/township government and village organization would split the cost between themselves at a specific ratio. This medical system covered the vast majority of the population in Tibet. The Tibetan experience showed that cooperative medical services could be universalized even in poverty-stricken rural areas so long as the government provides strong financial support (Mao Zehe, 2002).

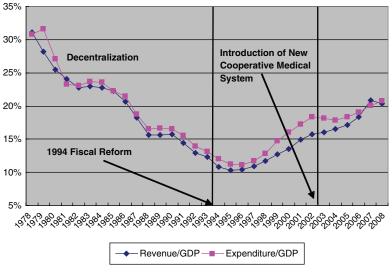
All the foregoing experiments and the Tibetan experience pointed to the same conclusion: establishing and maintaining a rural CMS with extensive coverage requires financial support from the government. This completely shattered the illusion of rebuilding a CMS "funded primarily by individual farmers."

Around the mid-1990s, a consensus emerged among rural health care researchers: the government should assume rather than deny or eschew responsibility for funding the cooperative medical scheme. Otherwise, the universalization of cooperative medical services was unlikely. However, this consensus was not immediately incorporated into government policy because the government was experiencing a horrendous financial crisis at that time: the government's fiscal revenue as a percentage of GDP barely exceeded 10% and the proportion of the central government's fiscal revenue in GDP was merely 5% (Wang Shaoguang and Hu Angang, 2001). At that time, even if the government accepted responsibility for farmers' health security, it was financially incapable of funding the cooperative medical scheme.

The tax-sharing reform initiated in 1994 swiftly reversed the perilous trend of declining governmental extractive capacity. As shown in Figure 2, the Chinese government's fiscal revenue as a percentage of GDP rose to 16% by 2002, while the central government's fiscal revenue as a proportion of GDP rose to 9%. Only then did the government gain the fiscal capability to fund the rural cooperative medical scheme. Thus, the drastic change in the government's rural health care policy at that time came as no surprise.

In October 2002, the central government issued *The Decision on Further Boosting Rural Health Care Work* expressly calling for "gradually establishing a new rural cooperative medical system," which, it was hoped, would "largely cover all rural residents by 2010." To realize this objective, the central government pledged that from 2003 on, its treasury would subsidize funds at the rate of RMB 10 per year for each farmer in mid-western regions who participates in the new cooperative medical scheme; local treasuries were to match that with no less than RMB 10 for each participant. Each participant was to contribute another RMB 10 to the scheme. In addition, the

Figure 2
Chinese Government's Fiscal Revenue/Expenditure
as a Percentage of GDP (1978-2008)



Source: The author's databank.

Decision pledged to provide medical assistance for poor rural residents who could not afford the fee (CPC Central Committee and State Council, 2002).⁶

In January 2003, the State Council forwarded *The Opinions of the Ministry of Health, the Ministry of Finance and the Ministry of Agriculture on Setting up the New Rural Cooperative Medical System*, calling on each province, autonomous region, and municipality directly under the central government to select at least two or three counties to implement the new CMS (hereafter NCMS) on a pilot basis in 2003, and then to expand the area of coverage after gaining experience. In the meantime, the State Council set up an Inter-Ministry NCMS Liaison Office chaired by Vice Premier Wu Yi. Due to uneven economic and social development across regions, the office first selected the provinces of Jilin (north), Zhejiang (east), Hubei (central), and Yunnan (west) to implement the NCMS on a pilot basis and subsequently applied their experience nationwide. At that point, the development of China's rural cooperative health care entered a brand new stage—the stage of NCMS.

Compared with the traditional CMS, the NCMS has the following distinctive features:

- It changes the nature of cooperative medical services: the NCMS is a government-led, mutual-aid/mutual-relief health financing system that operates under the organization, guidance, and support of the government, whereas the traditional CMS was mainly organized by village communities on their own.
- 2. It boosts government financial support: the NCMS is funded by government-led multiparty financing and supported with annual budgetary appropriations from the central and local governments, whereas the traditional CMS was funded mainly by fees paid by participants and subsidies provided by the collective economy at the village level (with the government not assuming any funding responsibility).
- 3. It is designed mainly to tackle problems caused by catastrophic diseases: the NCMS focuses on addressing the problems facing farmers who have fallen back into poverty due to catastrophic diseases, whereas the traditional CMS mainly dealt with common ailments and minor injuries.
- 4. It enlarges the size of risk pooling: the unit of risk pooling under the NCMS is the county, while it was the village under the traditional CMS.
- 5. It promotes the simultaneous establishment of a medical assistance system by setting up special-purpose funds to provide medical assistance for poor rural households and so-called five-guarantee families (Zhu Qingsheng, 2004).

The above features of the NCMS are a crystallization of the practices and experiments conducted over the past decade. Evidence shows that after losing the support of the collective economy, the traditional CMS had become a tree without roots. If the government only advocated CMS, but did not fund it, it is unlikely CMS could be rebuilt on a large scale. Only government funding can sustain the cooperative medical scheme.

The NCMS is, of course, imperfect and fraught with problems. Therefore, exploration is still going on. To ensure the NCMS proceeds in a healthy way, the central government has since its inception laid down the principles of truly benefiting the people, acting according to local conditions, coaching by example, and proceeding on a failsafe path of conducting trials and summarizing experiences before going ahead with nationwide implementation. A National NCMS Pilot Work Conference was held in September 2005. Based on progress made to that point, the central government decided at the meeting to cover all of rural China with the NCMS by 2008, two years ahead of its original schedule. Meanwhile, the government

subsidy for each NCMS participant doubled from RMB 20 to RMB 40 (Wu Yi, 2005). At the National NCMS Work Conference held in February 2008, the government decided to redouble the subsidy to RMB 80 per participant per year effective from 2008 (Zhou Tingyu, 2008). By the end of June 2008, the NCMS covered nearly all the administrative villages of the country (Mao Qun'an, 2008). Thus, the cooperative health care system finally reached an all-time high after nearly 60 years of development through twists and turns.

Conclusion

By tracing the evolution of China's rural health financing system, we can see how Chinese policy makers and policy advocates learn through practice and experimentation to respond to the changing environment by adjusting policy objectives and policy tools. Table 3 summarizes China's policy/institutional learning models.

Looking at Table 3, we can make seven general observations:

- 1. Grassroots practices have always been the most important source of learning during the past six decades, transcending the divide between the Mao era and the post-Mao era. The earliest CMS models in the 1950s originated in grassroots practices instead of being designed by policy makers and experts. During the Cultural Revolution, it was widely believed that the famous models of barefoot doctors of Chuansha county (Shanghai) and the CMS of Changyang county (Hubei) were the work of Chairman Mao. In fact, the pair first emerged at the grassroots level before grabbing the attention of top leaders. Grassroots practices provided the inspiration for central policy makers and policy advocates and served as the driving force for policy/institutional innovations. In addition to learning lessons from domestic practices, China also paid special attention to learning lessons from the experience of other countries after the reform and opening to the outside world (Zou Lixing and Meng Jianguo, 1995; Yang Huifang and Chen Caigeng, 2004).
- 2. The bottom-up approach has thrived because the Chinese political system has allowed and even encouraged a diversity of practices. Even during the most radical period of the Cultural Revolution, the Chinese government never required the implementation of a single, uniform model of CMS. In fact, the CMS varied by brigade, commune, county, and province. Moreover, even during its heyday, the CMS never covered all brigades and communes in the nation because the government never forced its adoption nationwide. The diversity of practices made it possible for

Table 3
China's Policy/Institutional Learning Models

	Sources of Learning		
Promoters of Learning	Practices	Experiments	
Policy makers Policy advocates	 Experiences of Mishan Village, Gaoping county, Shanxi (1955) Experiences of Chayashan Satellite People's Commune, Suiping county, Henan (1958) Experiences of Jishan county, Shanxi (1959) Experiences of Leyuan Commune, Changyang county, Hubei (1968) Project "China Rural CMS Reform" (1993-1994) Project "The Best CMS Practices in Rural China" (2000-2002) A comparative study of the CMS and user-pay system in Hubei, Shandong, and Beijing (1987) A comparative study of the rural health care system in 16 provinces (1988-1990) Numerous investigations and research on the examples of existing CMS (1985-2002) The first phase of the project of "Health Financing and Organization in China's Rural Poverty-Stricken Regions" (1992-1996) Tibetan experiences (1997-2002) 	Project "China Rural Health Insurance Experiment and Research" (1985-1990) Project "China Rural CMS Reform" (1993-1998) The second phase of the project of "Health Financing and Organization in China's Rural Poverty-Stricken Regions" (1996-2000) The project of "Strengthening Basic Health Services in China's Rural Poverty-Stricken Regions" (1998-2005)	

Note: CMS = cooperative medical system.

- decision makers to examine the merits and feasibility of different health financing systems.
- 3. After the 1980s, controlled experimentation conducted within a narrow scope has become another important source of learning how to identify viable policy objectives and effective policy tools. Such experimentation often requires using modern surveying and statistical techniques.
- 4. Prior to the 1980s, the promoters of learning were primarily policy makers who were highly sensitive to the needs and desires of ordinary people

- and willing to take responsibility for responding to new challenges. Guided by the "mass-line," they kept abreast of the latest developments by periodically conducting investigations at the grassroots level in person or by reading public or internal reports submitted by health authorities and news agencies at various levels.
- 5. After the 1980s, the promoters of learning began to include policy advocates (including central government agencies, local governments, international organizations, and domestic and foreign academic institutions), which have played an increasingly important role in policy/institutional evolution. Sometimes different advocacy coalitions emerged to push different policy agendas. For example, a heated debate broke out in the 1980s over the CMS versus health insurance. This shows that China's political system has become increasingly open and inclusive.
- 6. As the sources of learning have expanded from grassroots practices to systematic experiments, and the promoters of learning have extended from policy makers to policy advocates, China's policy/institutional learning and adaptive potential have been further enhanced.
- 7. When one contradiction is solved, new ones will inevitably arise, and as a result, learning and adapting are an endless process. Compared with the 1980s and 1990s, today the NCMS has distinctive advantages, but it still faces a plethora of problems. China continues to experiment in the area of rural health financing.

If the foregoing observations can be corroborated by dissecting other "sparrows" (other policy/institutional areas), we will be able to gain a better understanding of China's political system. Heilmann (2008) reckons that China's "experimentation under hierarchy" is a "distinct mode of governance." It endows the Chinese regime with extraordinary learning and adaptive capacity and enables it to respond calmly to all sorts of challenges under a radically changing environment. However, Heilmann's observation only involves the second learning model of the four models listed in Table 1. This article shows that China is well versed not only in "experimentation under hierarchy" but also in the other three learning models. In other words, China's policy/institutional learning and adaptive capacity are far stronger than what Heilmann suggests. For example, Heilmann asserts that "experimentation under hierarchy" has advantages in the economic policy area but does not help improving the provision of social and public goods. In particular, he cites basic health care as an example. This article indicates that his judgment is somewhat premature. China is fully capable of using various learning models to explore better ways of providing health care (and even the entire welfare system) to its citizens.

Influenced by Western mainstream ideology, many people believe that the sole criterion for classifying political systems is whether competitive elections exist. This article suggests that perhaps political systems can also be classified by their learning/adaptive capacity. A strong learning/adaptive capacity seems to have little to do with competitive elections. Based on this alternative criterion, the Chinese political system belongs to the category of high adaptive capacity while many boisterous electocracies (Guinier, 2008) fall in the category of low adaptive capacity. Dynamically speaking, adaptive capacity is perhaps more important than anything else. Without adaptive capacity, a rich country will become poor and a strong country will become weak; with adaptive capacity, a poor, backward, and unequal country can jump unto a trajectory of prosperity and happiness. During the past 60 years, China has made its way through turbulent uncharted waters with reefs lurking on all sides. In the future, China will continue to make its way toward socialism through learning and adapting.

Notes

- 1. The *General Regulations* (http://hi.baidu.com/yh909106/blog/item/4861c32b4b3420-f8e6cd40cb.html) was drafted by the staff of *Red Flag* and provincial and local officials. When Mao Zedong saw the draft on August 7, 1958, he was overjoyed "as if he had found a precious treasure." On August 17, when an enlarged Politburo meeting was held at Beidaihe, he wrote a memo instructing "every comrade to discuss this document. It appears that this document can be distributed to provinces and counties for reference." On September 1, The *General Regulations* was published in *Red Flag* magazine and became a template for setting up communes nationwide (Yang Shengqun and Tian Songnian, 2000).
- 2. The areas not covered by the CMS were mainly border areas, minority nationality regions, alpine areas, old revolutionary base areas, fish farming areas, and pastoral areas (Xia Xingzhen, 2003).
- 3. This judgment was based on the articles published by magazines such as *Health Economics*, *Journal of Shanghai Medical University*, and *China Rural Health Care Management*.
- 4. These surveys were published in the magazines and journals such as *China Health Economics*, *China Primary Health Care*, *China Rural Health Care Management*, *China Hospital Management*, *China Villages Doctors*, and *China Primary Health Care*.
- 5. Many grassroots medical practitioners opposed replacing CMS with health insurance (Miao Baoying and Wang Zhenhuan, 1991).
- 6. It is clearly not true that "rural health reform was only pushed to the top of the national policy agenda when the SARS epidemic in 2003 triggered massive public criticism," as suggested by Heilmann (2008).
- 7. The Chinese government announced in January 2009 that the government subsidy for each NCMS participant would increase to RMB 120 by 2011.

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