China

Area	9,640,821 km²
Population[i]	1,335,000,000
• Urban population (%)	46.6
• Rural population (%)	53.4
Age structure	
• 0-14 years (%)	20.5
• 15-64 years (%)	71.5
• 65 years and over (%)	7.9
Infant mortality rate (per 1,000 live births) both sexes[ii]	18
Life expectancy at birth (years) female	74.9
Life expectancy at birth (years) male	71.4
Maternal mortality ratio (per 100000 live births)[iii]	45
GDP per capita	
• Current USD[iv]	3,267
• PPP (current international $)[v]	5,971
• Constant local currency	22,698 yuan
Total social security expenditure as % of GDP	4.19
Public social security expenditure as % of GDP	3.87
Public social security expenditure as % of total government expenditure	18.61
Unemployment rate (%)[vi]	4.3
Human development index (HDI) rank[vii]	92
HDI poverty indicators – Human poverty index rank	36

Note: In this case study, US$1.00 = 6.77 RMB/yuan at the official exchange rate and US$1.00 = 3.8 RMB/yuan PPP.

Developing a Basic Rural Medical Security System

8

China

Zhengzhong Mao
Wei Fu
Xuefei Gu
Yuanping Wang

Summary

The rural New Cooperative Medical Scheme (NCMS) and the Medical Assistance Scheme (MAS) have been established separately since 2002. They are the main medical security schemes targeting rural residents and the poor in China.

Rural New Cooperative Medical Scheme (NCMS):

- Target population: all rural residents;
- Enrolment: on a voluntary basis;
- Provides reimbursements for enrollees' health spending on inpatient care, outpatient service, some selected catastrophic diseases, pregnancy's institutional delivery, and physical examinations. The approximate reimbursement rate of inpatient care was 39.82 per cent in 2009;
- 833 million enrollees by the end of 2009; the enrolment rate was 94 per cent of the target population and about 62 per cent of the whole population in China;
- Has a multi-channel financing mechanism. Both central and local governments subsidize the enrollees. The households of the enrolled farmers also contribute. Donations from the social sector constitute another funding source.

Medical Assistance Scheme (MAS):

- Target population: the rural poor;
- Provides financial assistance as well as exemptions for catastrophic health expenditures and some frequently occurring diseases for the poor and low-income groups;
- Funds come mainly from government revenue (central and local governments, including public welfare lottery) and from social-sector donations.

Both Schemes have made great improvements in helping rural households, especially rural poor households, to cope with the financial burden from combating disease. The proportion of out-of-pocket expenditure has come down from nearly 80 per cent to about 60 per cent. Farmers' out-of-pocket spending as a share of per capita net income decreased from 74 per cent to 44 per cent with the introduction of the Schemes.

However, out-of-pocket share of inpatient cost is still as high (approximately 60 per cent, 70 per cent several years ago), which is beyond the affordability of the poor. Thus, the New Cooperative Medical Scheme (NCMS) alone cannot solve the issue of accessibility and equity for the poor. In fact, among its members, the poor use many fewer services than

Summary (cont'd.)

the non-poor. This situation will not change unless the Medical Assistance Scheme (MAS) becomes integrated with the NCMS and pays all or part of the co-payment for the poor so that their out-of-pocket share can drop to 20 per cent or below.

In 2009, total NCMS expenditure was about 92.29 billion yuan and MAS expenditure was about 5.99 billion yuan. Compared to the overall GDP (33,535.3 billion yuan), however, NCMS and MAS expenditures are inappreciable. All of these expenditure amounts represent net benefit expenditures for the beneficiaries (administrative expenditure, which is financed by the fiscal payment and which has not been published, is not included).

	2004	2005	2006	2007	2008	2009
NCMS expenses (100 million yuan)	26.4	61.8	155.8	346.6	662.0	922.9
MAS expenses (100 million yuan)	4.4	7.8	--	28.1	38.3	59.9
Gross domestic product (100 million yuan) at current year	159,878	183,217	211,924	257,306	300,670	335,353

Source: 2010 Chinese Health Statistical Digest, Ministry of Health (available at: http://www.moh.gov.cn/publicfiles//business/htmlfiles/zwgkzt/ptjty/digest2010/index.html).

Information on the Authors

Zhengzhong Mao, Professor, Chair of the Department of Health Economics, Sichuan University.
Wei Fu, Ministry of Health.
Xuefei Gu, China Health Economics Institute, Ministry of Health.
Yuanping Wang, China Health Economics Institute, Ministry of Health.

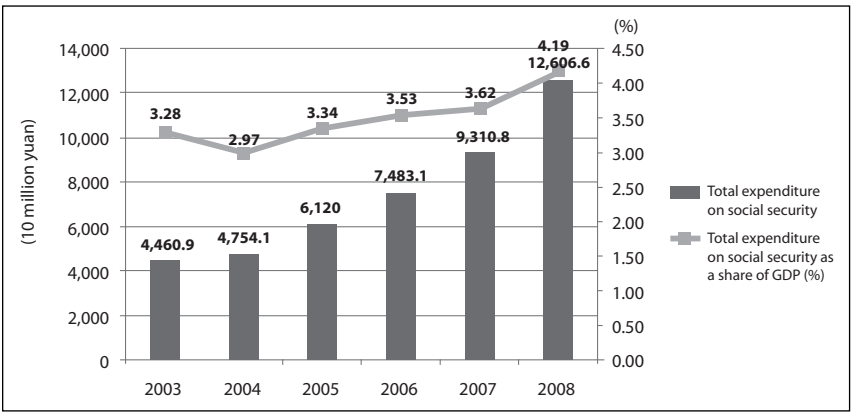
Introduction

The first decade of the new century has witnessed great progress in China's medical security system in rural areas. Moreover, China faces new opportunities, given that its medical security system has been acknowledged as one of the priorities in the ongoing health-care reform. This case study presents an overview of the rural medical security system in China, offering a broad context to facilitate understanding of its development and current state.

Context

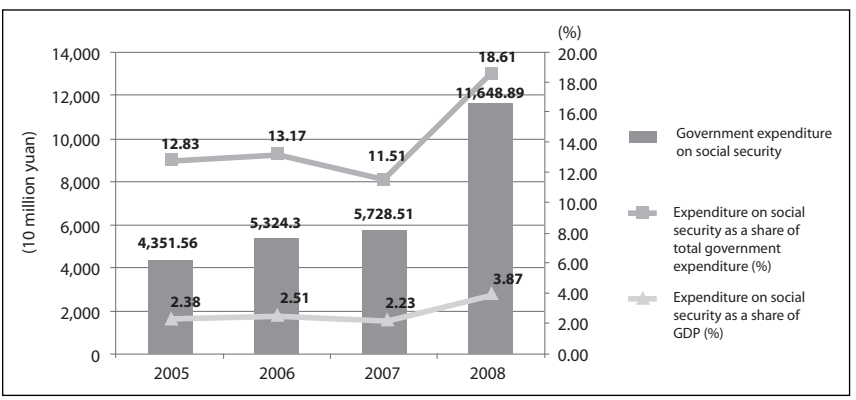
In the 30 years since reform, China has made remarkable strides on almost all fronts of human development, including poverty alleviation, education, health and social security. At the same time, total expenditure on social security and its share

of GDP have been growing rapidly (fig. 1). From 2003 to 2008, total expenditure on social security rose from 44.6 billion yuan to 126.1 billion yuan (by a factor of 2.83) while its share of GDP rose from 3.28 per cent to 4.19 per cent. Government social security spending as a share of GDP and of total government expenditure also increased dramatically from 2005 to 2008, as shown in graphs 1 and 2.



Graph 1 | Changes in total social security expenditure and its share of GDP.

Sources: Expenditures on social security include 2003-2008 expenditures on a new rural cooperative medical scheme published in the *2010 China Health Statistics Summary* on the official website of the Ministry of Health; and expenditures on pension insurance, medical insurance, unemployment insurance, labour injury insurance and maternity insurance published in the *2003-2009 Statistical Statement on Labour and Social Security Undertakings* on the official website of the Ministry of Human Resources and Social Security. Expenditures on social welfare and social assistance are those released in the *2003-2009 Statistical Report on Civil Affairs Development* on the official website of the Ministry of Civil Affairs. Data on GDP is from the *2009 China Statistical Yearbook* of the National Statistics Bureau.



Graph 2 | Total social security expenditure as a share of total government expenditure and of GDP.

Source: The data on fiscal social security expenditure is taken from the Social Security and Employment spreadsheet in the *2005-2008 National Financial Settlement Report* of the Ministry of Finance.[1] The government health expenditures relating to social security were announced in the *2009 Study Report on China's National Health Account*.[2] Fiscal expenditure data are from the *2005-2008 National Financial Settlement Report* of the Ministry of Finance while GDP data are from the *2009 China Yearbook on Statistics* of the National Statistics Bureau.

[1] It includes items such as social security and employment services, civil affairs management, allowance to social security fund, supplement to national social security fund, retirement pension, allowances on enterprise reform, employment subsidy, death annuity, reintegration of decommissioned soldiers, social welfare, service for the disabled, urban subsistence allowances, other urban and township social relief, rural social relief, subsistence relief in time of natural disasters and Red Cross services.

[2] These expenditures include basic medical insurance for urban employees, basic medical insurance for urban residents, new rural cooperative medical scheme, urban and rural medical assistance scheme, health operating expenses of public service units, and medical expenditure allowances targeting enterprise employees.

In the meantime, China's sustainable and rapid economic growth helps to offer more jobs, increase income and alleviate poverty. Using the latest official rural poverty line of 1,196 yuan, which was announced by China in 2009, it can be said that the country had a rural poor population of 35.97 million by the end of that year. According to the World Bank report,[viii] 254 million Chinese people still consumed less than US$1.25 a day in 2005 (purchase power parity), giving China the second-largest number of poor people after India.

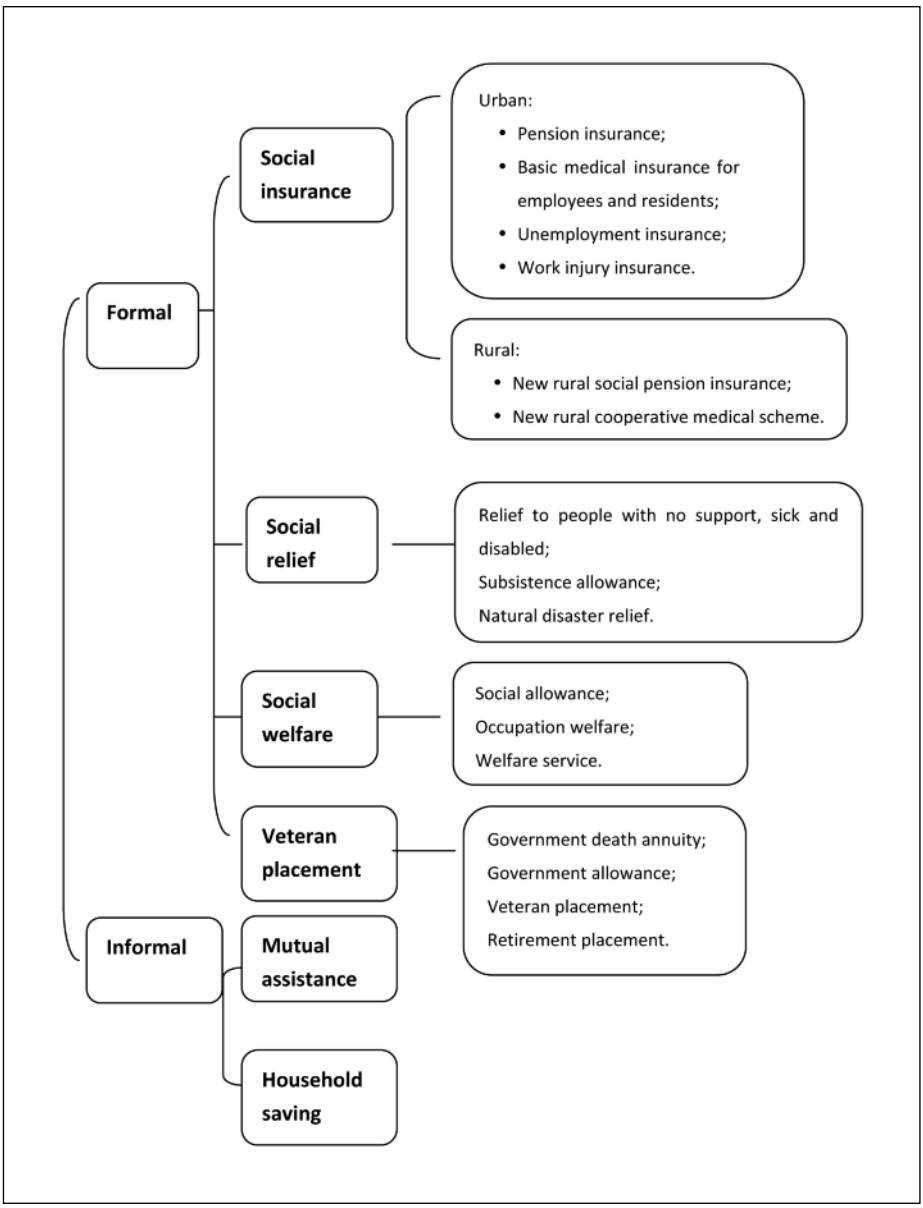
Progress in social economic reform has led to a better livelihood, higher educational attainment and a longer life for the Chinese people, as demonstrated by the dramatic rise of China's human development index (HDI). In 2009, the HDI was 0.793: 0.773 for life expectancy, 0.923 for education and 0.683 for GDP. These figures stand in contrast to those of 2000, when the HDI was 0.726: 0.80 for life expectancy, 0.76 for education and 0.61 for GDP.

THE SOCIAL SECURITY SYSTEM IN CHINA

During the first decades of the economic reform, the political focus was on economic development through market forces. Consequently, social development, including the health sector, was left behind.

The guiding concept of the central government has changed, however. With the official Scientific Outlook on Development as a guiding philosophy for national development, a harmonious society became the goal for social advancement, and a focus on people became the core concept for government administration in the twenty-first century. Universal access to social security has become a solemn political commitment for the government, making a social security system covering cities and the countryside an integral component of the bid to improve livelihoods, promote social economic advancement and maintain social stability. Social security undertakings have made strong headways in China. At present, social security covers social insurance, social welfare, veteran placement, social relief and a housing service, among which social insurance constitutes the core (fig. 1). In cities, China has established a five-pillar social insurance system covering pension insurance, basic medical insurance targeting urban employees and urban residents, unemployment insurance, work injury insurance and maternity insurance (table 1). It has also rolled out social assistance programmes such as subsistence allowances and medical assistance programmes. In the countryside, China has in place the rural New Cooperative Medical Scheme and is currently advancing a subsistence allowance system. In addition, the Government is exploring a rural pension insurance system.

Figure 1 | The social security system in China.



Source: Li Zhen, *Theory of Social Security*, China Labor and Social Security Publishing House, 2000; White paper titled China's Social Security and Its Policy, Information Office of the State Council of the People's Republic of China, September 2004.

Table 1 | Population groups covered by different social security mechanisms.

	Mechanism	Name	Population Covered
Social insurance	Pension insurance	Basic Pension Insurance for Urban Employees	Employees reaching mandatory retirement age (60 years for male and 55 for female officials, and 50 years for female workers), with a 15-year or longer record of individual contribution.
		Company annuity	Where conditions permit, companies may offer company annuity to employees on top of mandatory basic pension insurance.
		New rural pension insurance	Rural residents 16 years of age and older (students not included) who are not enrolled in basic pension insurance.
	Medical insurance	Basic medical insurance for urban employees	Employees and retirees of all types, including government agencies, public service units, enterprises, civil society organizations and private non-business units. Employees in the informal sector may choose to enrol.
		Basic medical insurance for urban residents	Urban students (college students included), children and other non-employed urban residents.
		Supplementary medical insurance	Where conditions permit, enterprises may offer supplementary medical insurance on top of mandatory basic medical insurance.
		Medical allowance system for civil servants	Civil servants and employees of public service units enjoy government medical insurance.
		New rural medical cooperative insurance	Rural residents.
	Unemployment insurance	Unemployment insurance system	Enterprises, public service units and their employees; individuals paying unemployment insurance contributions for over one year; those whose employment has been suspended involuntarily; those who have already registered for unemployment and intend to find a new job.

Table 1 | Population groups covered by different social security mechanisms (cont'd.).

Mechanism		Name	Population Covered
Social insurance (cont'd.)	Work injury insurance	Work injury insurance system	Enterprises and private dealers with employees.
	Maternity insurance	Maternity insurance system	Urban enterprises and their employees. In some regions, female employees of government agencies, public service units, civil societies and enterprises are covered.
Social relief		Subsistence support to groups	The elderly, the disabled and minors with no statutory supporters or with statutory supporters incapable of offering support; with no labour ability; with no sources of revenue.
		Subsistence allowance system	Urban and rural residents with per capita household income lower than the local minimum living standard; residents with no sources of livelihood and no statutory supporters.
		Medical assistance	Urban and rural poor people afflicted by illness.
		Disaster relief	Disaster-stricken people.
		Relief to homeless and beggars	Urban homeless and beggars.
Social welfare		Social welfare services	The elderly, orphans, the disabled and other population groups.
Veteran placement		Veteran placement system	Targets of placement, mainly soldiers and their dependants.

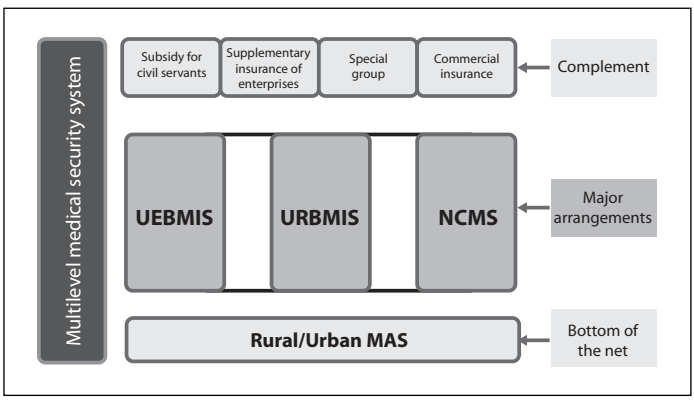
Source: Edited according to *Social Security Status and Policies in Chin*a (the White Paper on Social Security in China), Information Office of the State Council of the People's Republic of China, September 2004.

Development of the Medical Security System

China has set up a multilevel medical security system. The major players are the Urban Employees' Basic Medical Insurance Scheme (UEBMI), the Urban Resident Basic Medical Insurance Scheme (URBMIS) and the New Cooperative Medical Scheme (NCMS). The Medical Assistance Scheme (MAS)

covers both rural and urban poor populations at the bottom of the safety net, and various other health insurance organizations provide supplementary protection (fig. 2). One of the major goals of the ongoing health-care reform is to accelerate the development and improvement of various medical insurance schemes and ultimately to achieve universal access to essential health care.

Figure 2 | Framework for China's Medical Security System.



The *Decision of the State Council on Establishing the Urban Employees' Basic Medical Insurance Scheme* (UEBMIS), promulgated by the State Council in 1998, proposed to set up the Urban Employees' Basic Medical Insurance Scheme (UEBMIS) and a multilevel medical security system and listed the tasks and principles of supportive reform in the health-care system. Afterwards, UEBMIS expanded to urban informal workers, workers in mixed-ownership enterprises and the private sector as well as rural migrant workers. The Scheme is financed by both employers and employees (about 6 per cent of total salary from the employer and 2 per cent from the employee). The contribution is allocated into individual saving accounts and a municipality-level or county-level social pooling fund. The benefit includes both inpatient and outpatient care.

The Urban Resident Basic Medical Insurance Scheme (URBMIS) was piloted in 79 cities nationwide after the State Council released *Guiding Opinions of the State Council about the Pilot Urban Resident Basic Medical Insurance Scheme* in 2007. The voluntary enrolment Scheme targets urban students (including university students), children and other non-working urban residents. Its contributions are collected based on household size, pooled at the city level and subsidized by the Government. In 2009, URBMIS, which protects its members from catastrophic expenditure in outpatient and inpatient care, achieved universal coverage ahead of schedule.

Since the implementation of UEBMIS and URBMIS, the enrollees in the two Schemes have increased rapidly. At the end of 2009, people with the urban basic medical insurance totalled 401.47 million:

219.37 million of them were UEBMIS members and 182.1 million were URBMIS members. The yearly revenue of urban basic medical insurance funds amounted to 367.2 billion yuan (US$54.239 billion, or US$96.632 billion PPP), and total disbursement reached 279.7 billion yuan (US$41.315 billion, or US$73.605 billion PPP). The accumulated surplus in the pooling fund added up to 288.2 billion yuan (US$42.570 billion, or US$75.842 billion PPP). With stronger capacity, the urban basic medical insurance system has increased its coverage and reimbursement level.

The financing of different medical security schemes has been on the rise, as shown in table 2.

Table 2 | Financing of China's medical security system (in billions).

	2005			2006			2007			2008		
	RMB	US$ Official Rate	US$ PPP	RMB	US$ Official Rate	US$ PPP	RMB	US$ Official Rate	US$ PPP	RMB	US$ Official Rate	US$ PPP
Yearly revenue of UEBMIS	140.554	20.761	36.988	174.710	25.806	45.976	221.424	32.707	58.269	288.550	42.622	75.934
Yearly revenue of URBMIS										15.493	2.288	4.077
Contribution by government										7.449	1.100	1.960
Contribution by individuals										6.775	1.001	1.783
Yearly revenue of NCMS	7.534	1.113	1.983	21.359	3.155	5.621	42.796	6.321	11.262	78.458	11.589	20.647
Contribution by government	4.235	0.626	1.114	15.048	2.223	3.960	32.591	4.814	8.577	65.571	9.686	17.256
Contribution by individuals	2.873	0.424	0.756	5.801	0.857	1.527	9.576	1.414	2.520	12.068	1.783	3.176
Interest and others	0.427	0.063	0.112	0.510	0.075	0.134	0.629	0.093	0.166	0.819	0.121	0.216
MAS	0.890	0.131	0.234	1.954	0.289	0.514	4.249	0.628	1.118	6.800	1.004	1.789
Total	**148.978**	**22.006**	**39.205**	**198.023**	**29.250**	**52.111**	**271.020**	**40.032**	**71.321**	**389.302**	**57.504**	**102.448**

Source: Health Expenditure Report 2009, China Health Economics Institute, Ministry of Health.

Establishment and Development of the Rural Medical Security System: the New Cooperative Medical Scheme and the Medical Assistance Scheme

One of the major achievements in China's medical security system is the establishment and constant improvement of the rural New Cooperative Medical Scheme (NCMS) and the Medical Assistance Scheme (MAS).

Establishment and Development of the New Cooperative Medical Scheme (NCMS)

In the 1960s, the traditional (or so-called "old") Cooperative Medical Scheme was developed rapidly throughout the country and it covered almost all rural residents by the 1970s. Its risk-pooling was at the village level, with funding coming from a village's collective savings, and villagers managed the Scheme themselves. The Scheme played an important role in providing farmers with primary health care. However, it broke down in most rural areas because its financing base (the collective economy) was weakening. In the 1990s, the Government of China managed to resume the Scheme but it did not succeed and the Government grappled with the issue of rural medical security.

The Decision on Further Strengthening Rural Health Care, issued by the Central Committee of the Communist Party of China (CPC) and the State Council in 2002, proposed to establish the NCMS and the MAS in rural areas. In 2003, the Ministries of Health and Foreign Affairs issued a joint *Opinion on Establishing the New Cooperative Medical Scheme*, specifying the organization and implementation of the Scheme. It identified the NCMS as a voluntary medical mutual-help scheme for farmers that was organized, guided and supported by the Government and financed by individual, collective and government monies, and it covered mainly catastrophic health expense using pooled funds. Compared with the old Cooperative Medical Scheme (CMS), the NCMS is characterized by the following:

- **an ad hoc organization and management system with a clear division of labour and responsibilities** (fig. 3). The NCMS administrative departments were set up within the health administrations from the central to the local level. The NCMS Management Office was established at the county level and given responsibility for management of NCMS funds, monitoring the performance of contracted health-care providers, and reviewing and reimbursing applications and other daily tasks. The NCMS Management Office was staffed with full-time workers and supported financially by local funds;
- **a multi-channel financing mechanism.** Both central and local governments should subsidize the enrollees, and the households of the enrolled farmers should also contribute. In addition, social-sector donations are a funding source. Subsidies from the central government have increased from 10 yuan (US$1.477, or US$2.632 PPP) per capita in 2003 to 60 yuan (US$8.863, or US$15.789 PPP) per capita in the central and western regions in 2010. The average per capita contribution collected from all channels has increased from 30 yuan (US$4.431, or US$7.895 PPP) in 2003 to 150 yuan (US$22.156, or US$49.474 PPP) currently;
- **a benefit package focusing on inpatient services (inpatient expenditure).** Localities can nonetheless make their own decisions as to whether to include outpatient services in their benefit packages. Since 2008, the Ministry

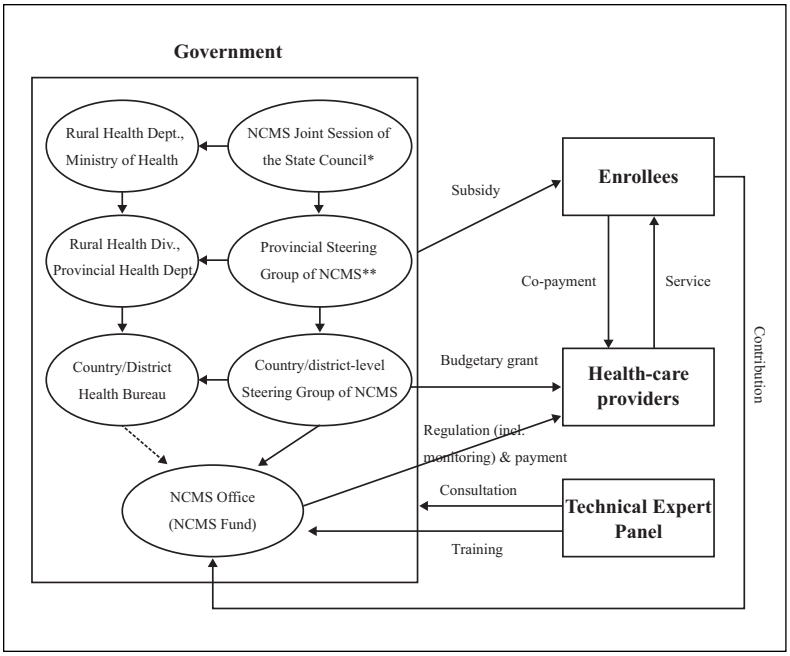


Figure 3 | Framework of the NCMS.

*Comprised of leaders from 12 ministries, including the Ministry of Health, the Ministry of Finance, the Ministry of Human Resources and Social Security, the Ministry of Civil Affairs and the National Development and Reform Committee.

**Comprised of leaders from 12 provincial departments, including Health, Finance, Human Resources and Social Security, Civil Affairs and the Development and Reform Committee.

of Health has encouraged localities to combine inpatient and outpatient pooling in order to discover an effective way to cover outpatient reimbursement, extend the scale of benefit packages and enhance the reimbursement level;

- **the principle of voluntary enrolment.** The NCMS enrolment is family-based and voluntary. Meanwhile, public monitoring and transparency are also stressed; and
- **establishment of a pooling fund at the county level** (the average population of a county is about 300,000). Since 2008, the Ministry of Health has advocated that places where conditions allow elevate their management and pooling fund to the municipal level.

Establishment and Development of the Medical Assistance Scheme

The Medical Assistance Scheme (MAS), funded by the Government and voluntary donations from social sectors, offers special financial assistance to the poor and other households that suffer or cannot afford large medical expenses. This medical security scheme helps target groups to gain access to necessary health care and improve their health status. It is a formal institutional arrangement led by the Government. The Ministry of Civil Affairs is responsible for its implementation.

In November, 2003, the Ministry of Civil Affairs, together with the Ministries of Health, Finance and Agriculture, issued the *Opinion on Implementing the Rural*

Medical Assistance Scheme, identifying its objectives, principles, coverage, forms of assistance, application and approval procedures, financing and management of the fund, and organization and implementation. The document outlined a standard, well-established medical assistance scheme to be implemented in the rural areas of all counties by 2005. The details of the Scheme are as follows:

- **target group**: those from Wu Bao (the "five guarantees" households), Di Bao (households eligible for China's minimum-living-standard security system) and other poor farmers complying with the threshold requirements set by local governments;
- **diversified financing**: MAS funding comes mainly from government revenue (central and local governments, including public welfare lottery) and donations from social sectors;
- **multilevel assistance**: In the NCMS pilot areas, the MAS first pays individual contributions for its beneficiaries so as to get them enrolled and able to receive the NCMS benefits; second, it provides beneficiaries with additional financial assistance (second reimbursement) if the financial burden from combating disease is still so high that their basic subsistence is threatened. Moreover, in some places, the MAS gives Wu Bao, poverty-stricken households and other special groups additional subsidies for outpatient service besides the household saving accounts for outpatient care in the NCMS. In places without the NCMS, the MAS offers an appropriate amount of subsidies directly to those who suffer from health expenses so great that the basic livelihood of their household is badly impacted.

IMPLEMENTATION OF THE RURAL MEDICAL SECURITY SYSTEM

The New Cooperative Medical Scheme (NCMS) and the Medical Assistance Scheme (MAS) were rolled out rapidly, soon covering all the rural areas of the country.

IMPLEMENTATION OF THE NEW COOPERATIVE MEDICAL SCHEME

In its annual report for 2008, the World Health Organization (WHO) evaluated a medical security scheme in terms of three dimensions: width (population that it covers), depth (service that it covers and its generosity) and its disbursement as a share of health spending. It collected the NCMS data from 563 counties. Given that all of them began implementing the NCMS between 2003 and 2005 (excluding counties/districts of Beijing, Shanghai and Tianjin), WHO reviewed the implementation of the NCMS based on those data as well as announced national data.

Financing and Coverage

By the end of 2009, with 833 million

members, the NCMS had reached an enrolment rate of 94 per cent and had almost achieved universal coverage in rural areas. It had covered 55.2 million poverty-stricken people, a 94 per cent coverage rate. Total contributions had amounted to 94.435 billion yuan (US$13.949 billion, or US$24.851 billion PPP), 113 yuan (US$16.691, or US$29.737 PPP) per capita, of which 74.822 billion yuan (US$11.052 billion, or US$19.690 billion PPP), or 79.2 per cent, had been from government.

According to the NCMS data in the 563 counties, coverage has been expanding steadily, reaching 94.55 per cent in 2009 (table 3). In particular, the coverage among poor people has exceeded 95 per cent (table 4). Per capita contributions also rose to 126.51 yuan (US$18.69, or US$33.29 PPP) in 2009 (table 5).

The NCMS is non-compulsory, or voluntary, so adverse selection has always been a concern. However, it is not a problem in practice since almost all the farmers have enrolled. The expansive coverage is attributed to three factors: a government subsidy accounting for about

Table 3 | Coverage of the NCMS in the 563 counties (as a percentage).

Year	Overall	Eastern Region	Central Region	Western Region
2005	74.92	79.03	71.84	68.47
2006	83.49	86.80	81.18	78.30
2007	89.33	90.87	88.38	86.82
2008	93.25	94.01	92.83	92.24
2009	94.55	94.96	94.55	93.71

Table 4 | NCMS coverage among the poverty-stricken population in the 563 counties (as a percentage).

Year	Overall	Eastern	Central	Western
2005	70.41	69.54	69.61	71.43
2006	87.61	89.70	86.07	86.67
2007	89.14	93.69	86.27	86.94
2008	89.71	94.96	88.26	86.47
2009	96.25	97.83	94.78	95.83

Table 5 | NCMS contribution in the 563 counties (yuan per capita).

Year	Overall			Eastern			Central			Western		
	RMB	US$	US$ PPP	RMB	US$	US$ PPP	RMB	US$	US$ PPP	RMB	US$	US$ PPP
2005	37.78	5.58	9.94	43.85	6.48	11.54	30.20	4.46	7.95	28.70	4.24	7.55
2006	53.03	7.83	13.96	58.92	8.70	15.51	46.42	6.86	12.22	43.79	6.47	11.52
2007	65.61	9.69	17.27	75.16	11.10	19.78	53.65	7.92	14.12	53.71	7.93	14.13
2008	104.45	15.43	27.49	118.22	17.46	31.11	89.41	13.21	23.53	87.84	12.97	23.12
2009	126.51	18.69	33.29	145.35	21.47	38.25	102.63	15.16	27.01	105.93	15.65	27.88

80 per cent of the total fund; government publicity and advocacy; and the incentive of tangible benefits to members.

Benefits Offered

The NCMS reimburses members' spending on inpatient care, outpatient service, some selected catastrophic diseases, medical child delivery, and physical examinations (table 6). Inpatient care is the major focus of the Scheme. For instance, in 2009, reimbursement for inpatient care took up 82.6 per cent of the total fund. In contrast, reimbursement for outpatient care, selected catastrophic diseases and medical childbirth took up 13.2 per cent, 1.29 per cent and 1.32 per cent of the fund, respectively.

Table 6 | Services covered by the NCMS, 2008-2009 (number of reimbursements in thousands).

Year	Inpatient Care	Outpatient (Pooling*) Service	Selected Catastrophic Disease	Pregancy's Institutional Delivery
2008	51,086.3	486,161.4	3,366.5	3,231.6
2009	61,721.4	489,935.8	5,037.3	3,702.5
Increase (%)	20.82	0.78	49.63	14.57

*The number is concerned only with counties that pool outpatient risk at the county level. The other counties use a savings account model for outpatient services.

Reimbursement to Beneficiaries

Using the example of inpatient care, tables 7, 8 and 9 provide data relating to reimbursements paid to beneficiaries of the NCMS.

With more financing, farmers' use of inpatient service has increased and so has the actual reimbursement rate. The proportion of out-of-pocket expenditure has decreased from nearly 80 per cent to about 60 per cent. It is still a low reimbursement rate, however. A comparison of out-of-pocket spending as a share of farmers' per capita net income before and after reimbursement shows that the share was 74 per cent beforehand and 44 per cent afterwards. In

Table 7 | Hospitalization rate in the 563 counties (as a percentage).

Year	Overall	Eastern	Central	Western
2005	3.05	2.82	3.18	3.60
2006	4.04	3.79	4.02	4.83
2007	4.85	4.58	4.69	5.80
2008	5.76	5.27	5.81	6.96
2009	6.64	6.03	6.75	8.12

Table 8 | Actual reimbursement rate of inpatient care in the 563 counties (as a percentage).

Year	Overall	Eastern	Central	Western
2005	22.79	21.97	24.25	25.75
2006	26.06	24.20	29.50	31.40
2007	29.46	28.00	31.26	34.49
2008	36.11	33.72	40.03	40.73
2009	39.82	38.04	41.67	44.78

Table 9 | Inpatient expenditure and income: distribution of out-of-pocket spending as a share of per capita income before and after reimbursement (as a percentage).

Year	<0.5*		0.50-1.0		1.0-1.5		1.5-		Mean	
	Before	After	Before	After	Before	After	Before	After	Before	After
2005	9.15	23.76	54.48	59.05	25.23	12.80	11.15	4.39	0.97	0.75
2006	13.14	36.32	60.22	53.84	20.80	8.76	5.83	1.08	0.86	0.62
2007	14.88	47.85	63.08	46.06	18.83	5.37	3.24	0.72	0.80	0.56
2008	16.73	60.61	64.21	35.62	14.22	3.42	4.86	0.36	0.79	0.50
2009	21.46	70.35	62.13	27.61	13.42	1.87	2.99	0.19	0.74	0.44

*Means that out-of-pocket expenditure is less than 0.5 per cent of income.

more than 70 per cent of counties, the rate was under 50 per cent after reimbursement. However, in 19 per cent of counties, the rate was still more than 150 per cent. Generally speaking, the NCMS benefits alleviate farmers' financial burden from combating disease.

Implementation of the Rural Medical Assistance Scheme (MAS)

The rural Medical Assistance Scheme (MAS) covered all counties as early as 2005. The revenue and disbursement of rural MAS monies have increased continuously (table 10) as has the number of its

Table 10 | Revenue and disbursement of rural medical assistance, 2005-2009 (in millions of yuan, US$, US$ PPP).

Year	Revenue			Disbursement			Subsidy for NCMS Contribution			Financial Assistance for Major Disease Expenditure		
	Millions of yuan	Millions of US$	Millions of US$ PPP	Millions of yuan	Millions of US$	Millions of US$ PPP	Millions of yuan	Millions of US$	Millions of US$ PPP	Millions of yuan	Millions of US$	Millions of US$ PPP
2005	1,090	161.00	286.84	780	115.21	205.26	95	14.03	25.00	480	70.90	126.32
2006	2,300	339.73	605.26	1,310	193.50	344.74	260	38.40	68.42	880	129.99	231.58
2007	4,100	605.61	1,078.95	2,810	415.07	739.47	480	70.90	126.32	2,050	302.81	539.47
2008	5,070	748.89	1,334.21	3,830	565.73	1,007.89	710	104.87	186.84	2,740	404.73	721.05
2009	8,040	1,187.59	2,115.79	6,460	954.21	1,700.00	1,050	155.10	276.32	4,940	729.69	1,300.00

Source: Statistical Report on Civil Affairs, 2005-2009, Ministry of Civil Affairs.

beneficiaries receiving medical assistance for inpatient spending and subsidies for NCMS contributions (table 11). This shows that the Government attaches great importance to the health care of the poor. The Scheme has constantly improved by adopting a lower threshold, using streamlining procedures, achieving better fund efficiency, offering more health service utilization, and decreasing the disease burden among the target group. The *Opinion on Improving the Urban and Rural Medical Assistance Scheme* adopted by the Ministry of Civil Affairs, the Ministry of Health, the Ministry of Finance and the Ministry of Human Resources and Social Security in 2009 proposed a "one-stop-shop" service and real-time settlement of medical spending, reimbursement and assistance in order to (a) increase the number of low-income groups beyond Wu Bao and Di Bao households, and (b) transfer its major focus from assistance only for "catastrophic health expenditure" to common and frequently occurring diseases. From the national data (table 12), medical assistance still remains at a low level and its role in the medical security system has yet to be improved.

Table 11 | Beneficiaries of rural medical assistance, 2005-2009 (in millions).

Year	Total Number of Beneficiaries	Those Receiving NCMS Contribution Subsidy	Those Receiving Major Disease Expenditure Assistance
2005	8.545	6.549	1.996
2006	15.590	13.171	2.419
2007	28.944	25.173	3.771
2008	41.919	34.324	7.595
2009	47.357	40.591	6.766

Source: Statistical Report on Civil Affairs, 2005-2009, Ministry of Civil Affairs.

Table 12 | Rural medical assistance benefit per case, 2005-2009 (in yuan, US$, US$ PPP)

Year	Per Capita Subsuidy for NCMS Contribution			Financial Assistance for Major Disease Expenditure per Case*		
	In yuan	US$	US$ PPP	In yuan	US$	US$ PPP
2005	11.1	1.64	2.92	240.5	35.52	63.29
2006	19.7	2.91	5.18	366	54.06	96.32
2007	19.1	2.82	5.03	543	80.21	142.89
2008	20.7	3.06	5.45	360.3	53.22	94.82
2009	25.9	3.83	6.82	676.6	99.94	178.05

Source: Statistical Report on Civil Affairs, 2005-2009, Ministry of Civil Affairs.

*According to the statistics of the Ministry of Civil Affairs, major disease prevention is the main (but not only) target of financial assistance for inpatient spending.

Integration of the New Cooperative Medical Scheme and the Medical Assistance Scheme

Given the low reimbursement rate of the New Cooperative Medical Scheme (NCMS) and the big share of out-of-pocket spending, affordability still keeps the poor from using health services. To ensure that they obtain adequate benefits

from the NCMS and the Medical Assistance Scheme (MAS) and to improve equity, it is necessary to integrate the two Schemes in designing a benefit package, management and service.

In terms of designing a benefit package, reimbursement and assistance scheme, the two can be integrated at the following four levels (inpatient services are taken as an example):

- **Level 1**: Getting the MAS target group enrolled in the NCMS. This is the basic condition for integrating the two systems and for making sure that the MAS target group can benefit from the NCMS;
- **Level 2**: Reducing or eliminating the NCMS deductible for MAS beneficiaries. This can improve their accessibility to inpatient services and deepen their coverage;
- **Level 3**: Medical assistance after NCMS reimbursement, that is, reducing co-payment by assistance. The MAS target group can benefit more if there is synergy between the two Schemes; and
- **Level 4**: Provisional assistance for spending that is higher than the ceiling of NCMS compensation. For those who are not in the target group of MAS but who have great financial difficulties even after they receive cap reimbursement from the NCMS, MAS reimburses their health spending beyond the ceiling for another two times through provisional assistance or other sources of charity. This is done to prevent the group (a potentially impoverished population) from slipping below the poverty line. Assistance before the population falls below the poverty line is more cost-effective than regular assistance afterwards.

As for management and service, in the best-case scenario, MAS beneficiaries should pay out of pocket only when they are discharged from the contracted health-care facilities. They should not need to pay the entire cost in advance and wait for reimbursement later. In addition, the MAS and the NCMS should be integrated seamlessly in areas such as fund management, supervision of providers and information management. The measures mentioned above will reduce management costs, enhance efficiency, make the benefits more user-friendly and clear the institutional barriers to service use for MAS beneficiaries. A case study of this type of integration in Changshu City, Jiangsu Province, is described below.

The city introduced the NCMS in 2003 and maintained its coverage at more than 98 per cent in recent years. After seven years of practice and innovation, it has expanded the NCMS to urban areas and established an urban-rural integrated scheme (BMI-NCMS Scheme) that covers all citizens with local Hukou (residence permits) but excluded by the Urban Employees' Basic Medical Insurance Scheme (UEBMI).

In 2010, the total annual contribution to the scheme was 400 yuan (US$59.08, or US$105.26 PPP) per capita. Of this amount, 150 yuan (US$39.47 PPP) come from city-level finances, 150 yuan (US$39.47 PPP) from township-level finances (including 10 from village collectives), and 100 yuan (US$26.32 PPP) from the members themselves.

Changshu City adopted the model of inpatient pooling plus outpatient pooling. The benefit includes reimbursement for common outpatient costs, chronic outpatient expenses for special diseases, inpatient expenditures and physical examination spending.

The Medical Assistance Scheme (MAS) is integrated with the New Cooperative Medical Scheme (NCMS) effectively:

- **MAS target group**: the Wu Bao households, Di Bao and potential Di Bao targets, the severely disabled, the target group for special care, children whose parents are employees and extremely poor, university students from poor families, and those who suffer extreme hardship due to annual health costs above 50,000 yuan (US$13,157.89 PPP);
- **subsidies for the individual contributions to the BMI-NCMS**: the potential Di Bao targets and the severely disabled excluded by the Di Bao system must pay their own contribution. The individual contributions of the remaining MAS target population are covered by the township-level Finance Office where the beneficiaries live;
- **assistance for common outpatient spending**: for MAS beneficiaries, there is no deductible in the BMI-NCMS when they apply for reimbursement of their common outpatient cost covered by the BMI-NCMS benefit package. Their outpatient spending beyond 1,500 yuan (US$394.74 PPP) (the annual reimbursement cap per capita in the BMI-NCMS) can be reimbursed again by the MAS fund. The rate is 90 per cent for Wu Bao, Di Bao and university students from poor families and 60 per cent for potential Di Bao targets, the severely disabled excluded by the Di Bao system, special-care targets and children whose parents are extremely poor employees;
- **assistance for inpatient costs and chronic outpatient expenses for special diseases**: for MAS beneficiaries, there is no deductible in the BMI-NCMS. MAS offered financial assistance for beneficiaries' actual out-of-pocket costs. The reimbursement rate of MAS is 90 per cent for Wu Bao, Di Bao targets and university students from poor families and 60 per cent for potential Di Bao targets, the severely disabled who are excluded by the Di Bao system, special-care targets and children whose parents are extremely poor employees;

- **assistance procedures**: the Wu Bao households, Di Bao and potential Di Bao targets, the severely disabled, the special-care target group, children whose parents are extremely poor employees, and university students from poor families bring their medical smart card and related papers with them when seeking care in designated service providers. They need to pay only their actual out-of-pocket cost. This means that they can obtain reimbursements and assistance in real time. The city-level BMI-NCMS management centre settles the cost, which is covered by the MAS fund, with designated providers in accordance with relevant regulations;
- **provisional assistance**: the MAS provides appropriate assistance to BMI-NCMS members who have regular difficulties assuring their livelihood due to an annual health cost over 50,000 yuan (US$13,157.89 PPP). The assistance amount ranges from 2,000 yuan (US$526.32 PPP) to 100,000 yuan (US$26,315.79 PPP);
- **results of assistance**: the hospitalization rate among MAS targets was 32.3 per cent, higher than that of the non-target group. According to table 13, when the beneficiaries sought medical care in local township-level, city-level and non-local providers, the ultimate reimbursement rates were 73.09 per cent, 65.42 per cent and 47.52 per cent, respectively. Their financial burden was greatly reduced. As for the chronic outpatient cost for special diseases, the ultimate reimbursement rate was 83.95 per cent (table 14), which solved the problem of large outpatient expenditure for the target group quite well.

Table 13 | Reimbursement for the inpatient cost of the Medical Assistance Scheme beneficiaries in Changshu City, 2009.

Type of Provider	Number of Hospitalizations	Cost per Episode (in yuan) (US$ PPP)	Reimbursement from BMI-NCMS per Episode (in yuan) (US$ PPP)	Assistance from MAS per Episode (in yuan) (US$ PPP)	Total Reimbursement per Episode (in yuan) (US$ PPP)	Ultimate Reimbursement Rate (%)
Township-level	1,861	2,981.22 (784.53)	1,600.76 (421.25)	578.14 (152.14)	2,178.91 (573.40)	73.09
City-level	1,421	9,941.89 (2,616.29)	4,430.96 (1,166.04)	2,073.38 (545.63)	6,504.34 (1,711.67)	65.42
Non-local	81	18,205.80 (4,791.00)	5,607.72 (1,475.72)	3,042.80 (800.74)	8,650.51 (2,276.45)	47.52
Total/Total average	**3,363**	**6,289.07 (1,655.02)**	**2,893.15 (761.36)**	**1,269.30 (334.03)**	**4,162.45 (1,095.38)**	**66.19**

Table 14 | Reimbursement for chronic outpatient expenses of the Medical Assistance Scheme beneficiaries in Changshu City, 2009.

Type of Provider	Number of Outpatient Assistance Visits	Cost per Visit (yuan)	Reimbursement from BMI-NCMS per Visit (yuan) (US$ PPP)	Assistance from MAS per Visit (yuan) (US$ PPP)	Total Reimbursement per Visit (yuan) (US$ PPP)	Ultimate Reimbursement Rate (%)
Township-level	151	71.08 (18.71	19.60 (5.16)	29.44 (7.75)	59.04 (15.54)	83.07
City-level	11,071	443.28 (116.65)	204.76 (53.88)	168.02 (44.22)	372.78 (98.10)	83.99
Non-local	19	4,937.55 (1,299.36)	2,578.50 (678.55)	1,475.00 (388.16)	4,053.51 (1,066.71)	82.1
Total/Total average	**11,241**	**446.43 (117.48)**	**206.28 (54.28)**	**168.50 (44.34)**	**374.78 (98.63)**	**83.95**

Major Lessons Learned from China's Experience

Since 2003, when China introduced the NCMS and the MAS, the country has established a medical security system covering more than 800 million farmers in 2,716 counties (districts). The establishment, implementation and improvement of the system have been advanced in a well-organized way without any significant accidents or setbacks. The achievement is widely acclaimed by people from all walks of life in China. The MAS has become an umbrella programme, protecting each poor individual with a similar pace and momentum. Reviewing the past experience, these lessons have emerged:

1. **Guided by its official Scientific Outlook on Development, the Government shows great political will to promote the rural health sector and the medical security system. This is the fundamental driving force behind the rapid establishment and development of the NCMS and the MAS in vast rural areas.**

   Chinese farmers usually work on their family-based land, live dispersedly and – despite their large numbers – lack a channel through which to express and represent their interests. This is why, despite the problem's long existence, Chinese society has not paid adequate attention to the absence of farmers' medical security.

   Thanks to the Scientific Outlook on Development, rural social development (including the medical security system) has been improved. Guided by the philosophy of the report, the Government of China has spent a great deal of money on establishing the medical security fund and has mobilized a

huge number of human resources and materials to develop a management organization system for the NCMS. All of the efforts reflect the basic principle of the NCMS: "government-led". In fact, in 2003 when the NCMS was established, it was the first time that the Government had subsidized the demand side (20 yuan per capita) with its fiscal revenue, put a medical security fund in place and purchased health care for farmers. In 2009, government subsidies for the NCMS amounted to 74.822 billion yuan. At present, a county-level management team of 38,671 staff members is in charge of the daily management and implementation of the Scheme. The central government also subsidized each central and western province with 6 million yuan for an information management system. What is more, there are steering groups of the NCMS from the State Council present at all levels of implementation, from the provincial level down to the county/district level. They are responsible for the formulation of policies and for overall guidelines so as to make sure that the Scheme is always on track.

2. **Coordination among different departments provides an institutional guarantee of the smooth progress of the NCMS and the MAS.**

   The development of the rural medical security system is not a mission of the Ministry of Health alone but one involving many departments, including the Ministry of Finance, the Ministry of Civil Affairs, the Ministry of Human Resources and Social Security, and the National Development and Reform Committee. Balancing obligations and interests among them is always on the agenda. The NCMS Joint Session of the State Council selected the Ministry of Health to organize the implementation of the Scheme and asked other ministries to support it. The Department of Rural Health was set up within the Ministry of Health to guide the NCMS nationwide. The Ministry of Finance is responsible for financing, monitoring and managing the NCMS fund. The Ministry of Civil Affairs is in charge of the issues relating to the poor in rural areas. The Ministry of Human Resources and Social Security, together with the Ministry of Health, is responsible for studying how to recruit staff, as well as establishing and operating the organization and management system of the Scheme. The National Development and Reform Committee plays a major role in developing the NCSM information system and the service delivery system. The NCMS social security department and health department should often have consultations in order to coordinate the urban and rural security systems.

   Those departments are well coordinated for three reasons. First, in accordance with the Scientific

Outlook on Development, rural medical security is the common responsibility of many departments and it is an important part of balance and sustainable development. Second, an appropriate leadership mechanism, the NCMS Joint Session of the State Council, is also an effective coordination instrument. By means of the Joint Session, departments can exchange their ideas frankly, which ensures the consistency of the guidelines. Third, the related departments share common interests in the development of the NCMS and do not have any fundamental conflicts. Therefore, coordination is not that difficult.

A case in point is the integration of the NCMS and the MAS. The civil affairs and health departments have worked hand in hand to pilot their integration in some places so that the rural poor can enjoy as much access to health care as do the non-poor. The MAS fund pays not only an NCMS premium for its beneficiaries but also part of their co-payment. As a result, service use among the poor is as high as or even higher than among the non-poor. The two departments have rolled out the pilot programme throughout the country.

3. **Voluntary enrolment with respect for farmers' decisions and the multi-channel financing mode must be respected by the NCMS.**

While the Government is responsible for "organizing and guiding" farmers to participate in the NCMS, farmers can make the ultimate decision, which will be fully respected by the NCMS. In practice, almost all the farmers choose to participate, which is largely attributable to the big share of government subsidies in the programme. In 2003, when the NCMS had just been introduced, the government subsidy for each enrollee was 20 yuan, accounting for 66.7 per cent of the total contribution. In 2009, the contribution totalled 94.435 billion yuan (US$24.851 billion, PPP), and 74.822 billion (US$19.690 billion, PPP), or 79.23 per cent, was the government subsidy. Meanwhile, farmers' enrolment is family-based but their contribution is on a capitation basis. In 2009, the per capita premium was 23.5 yuan (US$6.18 PPP). The Department of Civil Affairs also paid 917 million yuan (US$241.32 million PPP) for the premiums of poor members. Moreover, NCMS has other financing options, such as donation.

The voluntary nature of the programme and its multi-channel financing mode are not sustainable unless the farmers begin to reap more generous benefits and always decide to participate.

4. **Rational and democratic decision-making provides technical support to the orderly and setback-free development of NCMS.**

The NCMS and the MAS are significant security schemes affecting

hundreds of millions of farmers. Even slight carelessness may lead to setbacks, to government's loss of credibility and to the weakening of the recognition of farmers.

When establishing and rolling out the NCMS, China adopted a strategy of "gradual roll-out after piloting to glean lessons and experiences". During the process, synergy between government officials and researchers has been given full priority. A technical guidance panel was set up at the very beginning. The panel has undertaken significant investigation, research and on-site supervision, and it has reported problems to programme administrators, enabling orderly adjustment. It has conducted continuous studies and monitoring in areas such as financing, design of benefit packages, fund management and safety, regulation of providers and cost containment. Moreover, it has studied the eastern, central and western regions and informed the decision-makers of its findings. The Joint Session selected some experienced experts to collect information in five chosen provinces and transmit it to the Joint Session. These measures ensure that the relevant policies are stable, coherent and feasible.

Most NCMS employees had insufficient knowledge and experience. To catch up to the fast pace of the two Schemes, the Ministry of Health invited experts and experienced officials, and organized repeated large-scale training sessions. The training courses cover areas such as the NCMS institutional design, its organization and management, financing, management of medical risk, design of benefit packages, provider regulation, cost containment, fund safety and management, and management information systems.

5. **The improvement of the service delivery system goes hand-in-hand with the progress of the medical security system and brings the latter into play to protect the health rights and interests of the people.**

   To ultimately guarantee access to health care for all, financial mechanisms such as the NCMS are indispensable but not enough. An equally important area is the supply of health services. Delivering services should go hand in hand with medical security.

   In the past, the allocation of Chinese medical resources was imbalanced: most were concentrated in big cities and big hospitals. To reverse the situation, the Government has developed a rural medical security system and invested a great deal in a rural service delivery system.

   (a) Improving Rural Medical Infrastructure

   China has been implementing the *Development Planning of Rural Health Service Delivery System* since 2006. From 2004 to 2009, the Government spent 21.684 billion yuan (US$5.706 billion

PPP) to renovate or newly build 36,000 rural health facilities. Among them, 24,000 are township health centres. As a result, rural providers have better conditions and stronger service capacity.

In 2009, the central government earmarked funds amounting to 20 billion yuan (US$5.263 billion PPP) for the construction of 986 county hospitals, 3,549 central township health centres and 1,154 community health service centres.

Rapid progress in the post-earthquake reconstruction of the health service system in Sichuang, Gansu and Shaanxi has accelerated the upgrading of rural medical systems in the three provinces. By the end of November 2009, 1,531 projects had started, 760 had been completed and paid-up investment had reached 12.36 billion yuan (US$3.253 billion PPP).

(b) Strengthening the Team of Rural Medical Workers

From 2005 to 2009, the central government invested 2.145 billion yuan (US$0.564 billion PPP) in the training of health professionals, specifically training for township health centre directors, apprentices and village doctors in the central and western regions.

(c) Encouraging Urban Providers to Support Rural Ones

From 2005 to 2009, the central government set aside 1.04 billion yuan to carry out a partner assistance programme benefiting the county hospitals and township health centres in 592 national-level poverty-stricken counties and some provincial-level ones. As of 2009, 900 tertiary hospitals had been partnered with 2,200 county hospitals.

With a medical security system, farmers have more demand for health care. Only through a competent service delivery system can the demand be satisfied and the farmers' health rights actually be protected. In general, since the introduction of the NCMS, county hospitals and township health centres have provided service to about 82 per cent of hospitalized patients, which suggests success in the development of rural medical institutions.

Which department should manage the NCMS? This question was once controversial. The State Council decided that the Ministry of Health should be responsible for the NCMS, which is undoubtedly justified. Moreover, experience has proven that the existing management pattern is helpful for balancing the medical security

fund and service delivery, for strictly controlling costs and for guaranteeing the fund's safety. Based on the data from the Centre for Health Statistics and Information (CHSI) and the NCMS Research Institute, a comparison was made of the national average inpatient cost and the average for NCMS members. In 2005, the annual average inpatient cost of NCMS members was 3,260 yuan (US$857.9 PPP) while the national average was 4,662 yuan (US$1,226.84 PPP). In 2009, the two figures were 3,590 (US$944.74 PPP) and 5,464 (US$1,437.89 PPP) (both in nominal price), up by 9.2 per cent and 17.2 per cent, respectively. In 2005, the average hospitalization cost at county hospitals was 3,556 yuan (US$935.79 PPP) for NCMS members and 3,381 yuan (US$889.74 PPP) for the country as a whole. In 2008, the two figures were 3,791 yuan (US$997.63 PPP) and 4,115 yuan (US$1,082.89 PPP), up by 6.6 per cent and 21.7 per cent, respectively.

Challenges

In spite of great progress, Chinese rural medical security is still faced with many challenges:

1. **The coverage is still shallow and a sustainable financing mechanism has yet to take shape.**

In 2009, the total per capita contribution was only 113 yuan. The actual reimbursement rate was just 41 per cent even though 87 per cent of the total funds were used in reimbursement for hospitalization. The outpatient compensation per visit was only 18 yuan (US$4.74 PPP). There are two ways to enhance the benefit. One is to increase the contribution; the other is to control the rising cost of health care.

At present, the contribution amount (from government and farmers' households) and its increase are dependent on administrative decisions, which are nonetheless influenced by many uncertainties. The NCMS fund cannot rise along with economic and farmers' income growth unless there is a mechanism for increasing financing that is based on laws and regulations. As such, it is urgent to formulate laws and regulations on the rural security system that tie increases in the NCMS subsidy to economic growth. In 2009, the fiscal revenue of the central government amounted to 6.8477 trillion yuan (US$1.8018 trillion PPP) while the NCMS subsidy was 29.662 billion yuan (US$7.8058 billion PPP), only 0.39 per cent of the former. A proportion of 0.8 per cent of the fiscal revenue will be needed if the NCMS reimbursement rate for hospitalization rises to 70 to 80 per cent and to 60 per

cent for outpatient service. There should be regulations for planning the steps to be taken. This is the essential condition for the sustainable and healthy development of the NCMS.

A farmer's annual individual contribution is about 30 yuan (US$7.89 PPP), accounting for only 0.6 per cent of his/her net income, assuming a farmer's per capita net income was over 5,000 yuan (US$1,315.79 PPP) in 2009. There should also be some rules stipulating that the individual contribution will increase with a rise in income at a given rate. Most experts agree that the appropriate ratio of contribution to income is 1 to 2 per cent.

2. **Curbing the unreasonable rise of medical costs and fostering more effective service purchase are long-term projects.**

   With more investment in the rural health sector, enhanced service and technical capacity, medical costs tend to rise. As the fee-for-service payment system is currently prevalent, providers have an incentive to offer too many services. Cases of malpractice (over-prescription and over-examination) happen now and then. The average cost rises too rapidly (by over 10 per cent) in some places. Therefore, cost containment is a major challenge for the NCMS. On the one hand, some places have begun pilot reforms on the payment system by replacing fee-for-service with a case-based or per-diem payment for inpatient service and with a capitation-based payment for outpatient service. On the other hand, many localities accelerate computerized management and strengthen supervision of providers using modern information technology instruments. However, all pilot reforms are still at an exploratory phase. A great deal more needs to be done to find out how to make better use of NCMS funds, how to render health-service purchasing more effective and how to benefit members more. Meanwhile, the quality of service has often been neglected. Attention should also be paid to the balance between cost and quality.

3. **Further progress is needed to achieve equity and accessibility for the poor and the migrant worker.**

   For members, the out-of-pocket share of inpatient cost is still as high as approximately 60 per cent (even 70 per cent several years ago), which is beyond the affordability of the poor. Thus, the NCMS alone cannot solve the issue of accessibility and equity for the poor. In fact, among members, the poor use many fewer services than the non-poor. This situation will not change unless the MAS and the NCMS become integrated and the MAS pays all or part of the co-payment for the poor so that their out-of-pocket share can drop to 20 per cent or less.

However, given the current size of the MAS fund, this is impossible.

A rough estimate of the funding need of the MAS was carried out. According to the statistics of the Ministry of Civil Affairs, there were 62.677 million MAS beneficiaries in 2009. The financial assistance disbursed added up to 8.04 billion yuan (US$2.116 billion PPP), that is, 128.3 yuan (US$33.76 PPP) per capita.

The NCMS data from the 563 counties show that, for members, the average inpatient cost per episode was 3,780 yuan (US$994.74 PPP) and the actual reimbursement rate was 41 per cent in 2009. If this were also the case with MAS beneficiaries, their out-of-pocket cost per episode would be 2,230 yuan (US$58.68 PPP) after compensation by the NCMS. The two Schemes together cannot cover 80 per cent of their total cost unless the reimbursement rate of the MAS is 39 per cent, or 1,474 yuan per episode. Supposing the hospitalization rate were 9.9 per cent, there would be 6,205,023 MAS beneficiaries hospitalized, claiming 9.15 billion yuan (US$2.408 billion PPP). Currently, within disbursed MAS funds, the ratio of outpatient compensation to inpatient reimbursement is about 3:7 (excluding the cost of non-communicable chronic diseases and catastrophic health expenditures). Based on this, the MAS fund for compensation would be 13.07 billion yuan. In 2009, the Ministry of Civil Affairs helped 43.66 million farmers with their NCMS contributions. Supposing the per capita contribution were 30 yuan (US$7.89 PPP), the total disbursement would be 1.3 billion yuan (US$0.342 billion PPP). In this case, the MAS fund would have needed 14.37 billion yuan (US$3.782 billion PPP) in 2009, while its actual revenue was 8.04 billion (US$2.116 billion PPP). This suggests a shortfall of 6.33 billion yuan (US$1.667 billion PPP).

Even if the MAS has more financing, without effective integration with the NCMS, it cannot maximize its benefit to the poor. At present, only a few counties integrate the two effectively. Administrative instruments are needed to promote their integration throughout the country.

Rural migrant workers number about 120 million. Being away from home, they usually have a greater demand for medical service. Yet, owing to a lack of management capacity, the NCMS often refuses to reimburse, or reimburses at a very low rate, the medical expenses (for example, outpatient costs) that occur where migrants work. This negatively impacts migrant workers' service use and benefits. It is hoped that, with a national information network, members will receive compensation even in a place other than where they enrol. However,

under the current circumstances, it is hard to achieve such a system.

4. **The NCMS should improve its own management capacity to meet the needs of the growing rural security system.**

   At present, every NCMS employee serves about 38,000 members. Many workers are in need of technical training. Moreover, the average operating cost per county is only 600,000 yuan (US$157,894.7 PPP) and there is an average of 310,000 members per county. Given these circumstances, it is not surprising that providing high-quality medical security services is difficult.

   Rural medical security is a long-term project. The prerequisites for its stable development include adequately qualified workers, the provision of various training opportunities for them and sufficient funds to cover operating costs. Unfortunately, these elements currently are not in place.

   The NCMS benefit package, too, has yet to be improved. Questions outstanding include how to allocate funds among inpatient compensation, outpatient compensation and reimbursement for catastrophic health expenditure, and how to maximize the depth of coverage without running a deficit. In recent years, some counties consistently ran a deficit while others ran an overly high surplus simultaneously. Clearly, there is significant room for the adjustment of the benefit package.

   The development of management information systems for rural medical security is imbalanced between localities. Some places have not made ample progress in the past several years. Provincial-level management information systems, in particular, lag behind, posing a barrier to offering convenient compensation services to members. Therefore, the need to accelerate the development of management information systems is quite pressing.

5. **Integration of the urban and rural medical security systems**

   Balanced development calls for urban-rural integration, yet there is a gap in contribution amounts between the rural and urban medical security systems. In addition, residents in the two areas have different typical reasons for seeking medical care. Urban citizens prefer high-level urban hospitals while farmers usually go to grass-roots providers. To integrate the urban and rural systems, extra attention should be paid to protecting farmers' interests and preventing urban residents from taking advantage of farmers. Urban-rural integration suggests support from urban areas to rural areas and from industry to agriculture. Nevertheless, in some places, this principle is violated. As a result, the service use and benefits of farmers lag far behind those of urban residents. How should the urban and rural medical security systems be integrated? What impact

will integration have on the institutional management of the system? All of these uncertainties remain to be addressed.

China is currently undergoing health-care reform. The essential goal is to guarantee access to health care to all equally and to promote health for all. One of the major components of the initiative is boosting the development of the medical security system. This brings new vitality and new opportunities to the improvement of the rural system. China is capable of tackling challenges and overcoming difficulties so as to make the rural medical security system a success.

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[i] National statistics, 2009.

[ii] WHO, Global Health Observatory, 2008.

[iii] WHO, UNICEF, UNFPA and World Bank, Global Health Observatory, 2005.

[iv] *World Bank, World Development Indicators* 2008 and *Global Development Finance* 2008.

[v] Ibid.

[vi] Registered unemployment rate in cities and townships, 2009.

[vii] UNDP, *Human Development Report* 2009.

[viii] World Bank, 2009, World Bank 2005 survey-based estimates.