Developing and implementing equity-promoting health care policies in China

A case study commissioned by the Health Systems Knowledge Network

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January, 2007

Background to the Health Systems Knowledge Network

The Health Systems Knowledge Network was appointed by the WHO Commission on the Social Determinants of Health from September 2005 to March 2007. It was made up of 14 policy-makers, academics and members of civil society from all around the world, each with his or her own area of expertise. The network engaged with other components of the Commission (see http://www.who.int/social_determinants/map/en) and also commissioned a number of systematic reviews and case studies (see www.wits.ac.za/chp/).

The Centre for Health Policy led the consortium appointed as the organisational hub of the network. The other consortium partners were EQUINET, a Southern and Eastern African network devoted to promoting health equity (www.equinetafrica.org), and the Health Policy Unit of the London School of Hygiene in the United Kingdom (www.lshtm.ac.uk/hpu). The Commission itself is a global strategic mechanism to improve equity in health and health care through action on the social of determinants of health at global, regional and country level.

Acknowledgments

This paper was reviewed by at least one reviewer from within the Health Systems Knowledge Network and one external reviewer. Thanks are due to these reviewers for their advice on additional sources of information, different analytical perspectives and assistance in clarifying key messages.

This paper was written as part of the work of the Health Systems Knowledge Network established as part of the WHO Commission on the Social Determinants of Health. The work of the network was funded by a grant from the International Development Research Centre, Ottawa, Canada. The views presented in this paper are those of the authors and do not necessarily represent the decisions, policy or views of IRDC, WHO, Commissioners, the Health Systems Knowledge Network or the reviewers.

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Summary

The purposes of the report are to examine disparities of health and health care between rural and urban areas, regions, and population groups, and to analyze the equity-promoting health policies, in China. Being the largest country in the world in terms of population size, China has experienced radical transitions in socio-economic development and health care system since its economic reform from later 1970s. While the income gap has widened between population groups, the disparities of health and health care between segments of areas and population have increased over the past two and half decades. The rural population, the population in western provinces, and low-income population suffer heavier disease burden and utilize less health care services than those with high-income and those in high-income areas. User fee is one of the major barriers for access to health care for the poor under a financing system in which majority of finance for both curative and preventive services come from out-of-pocket payment. Inadequate provision of social health insurance and medical assistance is also crucial for health care accessibility problems. The root cause for the inequity in health and health care is inequitable policy and system in which the disadvantaged population has not been sufficiently supported for development.

From the beginning of 21st century, the Chinese government has adjusted its development policy from "GDP-led" to "people-centered". To achieve balances in social and economic development between rural and urban areas, regions, and population groups is the key strategy for realizing a harmonious society. With this context, health being recognized as human right and one of the development aims has been paid more attentions by the government than before. Health policies are redirected with more focus on improvement of equity in health and health care. The top Chinese leaders have promised to establish a health care system with universal coverage of essential health care services.

The Chinese government has started to implement a number of policy interventions related to equity-promoting. Among those polices, establishment of a new rural cooperative medical scheme, operation of medical assistance programs, free provision of selected public health programs, and development of community health care system, are essential for improving equity in health care, from the aspects of health

financing and delivery systems. Those policies to some extent have achieved positive impact on health care utilization and reduction of financial burden of diseases for the poor. However, compared to expected outcomes from those policies, lots of challenges facing the government exist to improve design and implementation of the policies. Enforcement of regulations and strengthening of inter-sectoral coordination are essential for making the existing equity-promoting health policies more effective.

1. Introduction

China had a population of 1.3 billion in 2003, accounting for nearly 20% of the global population (NBS, 2004). Since the implementation of the family planning policy in the mid 1970s, fertility rates have declined dramatically. Moreover, urbanization has continuously been increasing over the past years. While the Chinese social and economic systems are improved overall, disparities in major development indicators between regions and population groups have rapidly increased.

The Chinese system is characterized as a "two-tier" system, divided into rural and urban health care systems. In urban cities, publicly owned health providers dominate the provision of health care, for example only 2% of the hospitals were privately owned in 2003 (MoH, 2004). In rural areas, a majority of village clinics are operated by private individuals. But at the township and county level, the majority of health entities are operated by the government.

Preventive and curative cares are provided by separated health providers. Township health centers, centers for disease control, and maternal and child health stations at the county level and above, are the main providers of preventive care. Curative services are mainly provided by clinics and hospitals. In addition, a number of health institutions responsible for the provision of health care for specific diseases such as tuberculosis and malaria are available at the county level and above. Between 1978 and 2003, the number of doctors increased from 1.03 million to 1.87 million with a 2.4% annual growth rate. The number of doctors per thousand inhabitants increased from 1.08 in 1978 to 1.48 in 2003. The number of hospital beds per thousand inhabitants increased from 1.93 in 1978 to 2.34 in 2003 (MoH, 2004).

This report is prepared for the Health Systems Knowledge Network of WHO Commission on the Social Determinants of Health. Its purposes are to present evidence demonstrating disparities in health and health care between rural and urban

areas, regions, and population groups, and to examine development and implementation of policies for closing the disparities. After a brief introduction to health care policies prior to economic reform in China, the third and fourth sections are to analyze health and health care disparities and to present strategies that are taken for promoting equity in health and health care.

Data for this report mainly come from published studies, policy documents, technical reports, and national statistical yearbook. Selection of sources of information to be used in the report has considered two aspects. One aspect is the scale of the studies. For example, report of the national health services survey has been intensively used, because it is the nation-wide survey by Ministry of Health (MoH) in 2003 with a sample of 57,000 households and 200,000 individuals from 95 rural counties and urban districts. The other aspect is conductors of the studies. This report tries to use information from studies supported by international organizations including WHO, the World Bank, and DFID.

2. Health care policies prior to 1980s

It has been widely recognized that great success in health care system had taken place in China between 1950 and 1980. With the extremely limited health resources, health status of Chinese population was significantly improved. The life expectancy at birth increased from 35 years in 1949 to 67 years in 1979 (Guo, 1989). The most serious public health problems including endemics of the plague, cholera, leprosy, and tuberculosis were effectively controlled, which contributed to improvement of the health status for whole society, especially for those living in rural area.

Between 1950 and 1965, a “three-level” health care system was established in both rural and urban areas. Village clinics, township health centers, and county hospitals were constructed in the rural area to provide primary health care. In the urban cities, community health canters (street clinics) and district hospitals were organized for providing primary health care. The urban tertiary hospitals were responsible for provision of medical services for referral patients from both urban and rural areas. From mid 1950s, Cooperative Medical Scheme (CMS) in the rural area was established for rural population with the contributions from collective economy and individual farmers; Government Health Insurance (GHI) and Labor Health Insurance (LHI) were established for employees and their dependents in urban cities.

Between 1965 and 1979, the rural health care system was rapidly expanded which was significant for improving access to health care for the rural population. By the

end of 1978, there were nearly 5 million barefoot doctors working in rural village clinics and 90% of the rural inhabitants were covered by CMS (Fu, 1999). During this time period, the government reduced prices of drugs for three times that increased affordability of the people for health care (Liu et al, 1996).

China had used 2% of the world's health resources to provide 22% of the global population with accessible basic health care prior to 1980s. The success of China's health care system during this time period was mainly attributed to factors as follows (Guo, 1989; Liu 1999; Bloom 1997).

- Leading role of the government. The highest ranking officials paid great attentions to health and health care system from the beginning of 1950s. Chairman Mao Zedong called to promote health status through initiating mass campaigns against serious public health problems; the former premier, Zhou Enlai, participated in the making of health plans and led the National Committee of Health. The government allocated funding for constructing primary health facilities and supporting operation of health care delivery.
- Emphasis on primary health care. Health resources including finance and personnel were prioritized in provision of preventive care and delivery for rural population. In rural areas, millions of villages health workers were available after short trainings to provide basic preventive and curative care.
- Rapidly expanded coverage of health insurance schemes. In a very short time period, health insurance schemes in both rural and urban areas were organized by the government. Those insurance schemes to some extent had positive impact on access to and utilization of health care.
- Inter-sectoral cooperation and participation. An effective mechanism was set up for coordinating health-related activities between line departments of government agencies. The local government and communities participated in health promotion programs.

The major problems in health care system prior to 1980s include poor quality of medical care and insufficient health resources to meet increased health needs (SDRC, 2005).

3. Economic and health care transition

3.1 Economic development and widened disparities

Overall economic development and disparities

The economic reform from a planned to a market economy started in the late 1970s in China. Over the past two decades and a half, China has experienced dramatic changes in both economic and social sectors. In particular, China has achieved great success in sustaining a high gross domestic product (GDP) growth and improved living conditions for all its people. Between 1980 and 1997, GDP per capita was doubled in fixed prices. In 2003, per capita GDP reached 1,000 US Dollars in nominal value.

Table 1 Major indictors for economic and social development in China

Indicators	1990	1995	2000	2003
Population (Million)	712.2	847.1	1178.6	1404.0
Urban %	26.4	29.0	36.2	40.5
Rural %	73.6	71.0	63.8	59.5
Economic development				
Per capita GDP (yuan)	1634	2831	4153	5410
Per capita income in urban (yuan)	1510	2498	3680	5075
Per capita income in rural (yuan)	686.3	920	1320	1566
Social development				
Illiteracy rate %	15.9	12.0	6.7	n.a
Enrollment rate of schooling children %	97.8	98.5	99.1	98.6
Life expectancy at birth*	68.6	n.a	71.4	n.a
Infant mortality rate	52.3	36.4	32.2	25.5
Maternal mortality ratio	88.9	61.9	53.0	51.3

Data source: National Bureau of Statistics (NBS) 2004; n.a: not available;
*data from Ministry of Health (MoH) 2004

It was reported that the Gini coefficient increased from 0.32 in 1995 to 0.45 in 2002 (Li, 2004). The income ratio of urban residents over rural residents increased from 2.2 in 1990 to 2.9 in 2003 (NBS 2004). Within the same region, the income gap between the poor and the rich is large, with about five times higher income for the richest group (top 10% of the population) than the poorest group (bottom 10% of the population) (NBS, 2004).

Government revenues and expenditures

Table 2 shows the government revenues and expenditures by province in 2003. The revenues and expenditures are from the governments at provincial and below level. The poorer provinces, for example Gansu Province that is located in the western region, had per capita government revenue 337 yuan, being 20% of the country average; its per capita government expenditure was 60% of the country average.

Table 2 Per capita government revenue and expenditure of selected provinces in China in 2003

Province	Per capita government revenue (Yuan)	Per capita government expenditure (Yuan)	% of government revenue in GDP

Country average	**1680.4**	**1907.5**	**18.5**
Beijing	4069.6	5046.7	16.18
Jiangsu	1077.7	1414.6	6.40
Shandong	782.2	1107.6	5.74
Anhui	344.4	791.6	5.56
Henan	349.7	741.3	4.79
Guizhou	321.9	858.8	9.18
Gansu	336.8	1152.5	6.72
Ningxia	517.8	1823.8	7.79

Data source: NBS 2004

Besides the disparities in financial capability amongst provinces, the counties within a province exist great different capabilities in generating public funding for investment in public service unit including health sector. In 2003, in a overall rich province, for example Guangdong Province, per capita revenue of the county government in Shunde was 3,120 yuan, while in Qujinag was 490 yuan; and in a overall poor province, for example Gansu Province, per capita revenue of county government in Shandan was 216 yuan, while in Dangchang was 34 yuan (RSO, 2004). This means if we take county as the analysis unit, the disparities in public funding capabilities would be much larger than analysis by province.

The central government has established a fiscal transfer payment system for long time in China. In recent years, the amount of fund transferred from rich region to poor region through the central government has increased. The transfer payment accounted for 4.3% of the GDP in 2002 (China Development Research Foundation, 2005). However, compared to the need for balancing the disparities and for developing necessary public services including education and health, it is strongly recommended to increase the transfers ((China Development Research Foundation, 2005).

3.2 Disparities in health and health care utilization

Health status

The overall health status in China has continued to be improved after 1980s. Infant mortality declined from 52.3 per 1，000 live birth in 1990 to 25.5 per 1，000 live birth in 2003, maternal mortality ratio decreased from 88.9 per 100,000 live birth in 1990 to 51.3 per 100,000 live birth in 2003. In 2003, the infant mortality rate in rural area (28.7‰) was 2.4 times higher than urban area (11.3‰); the maternal mortality ratio in rural area (65.4 per 100,000 live birth) was 2.5 fold of urban area (27.6 per 100,000

live birth) (MoH, 2005). Disparities of health status between eastern (developed region) and western (developing region) existed. In Gansu, a province in western region, the life expectancy was 4 years shorter than that of the country average, its maternal mortality ratio was 92 per 100,000 live birth, in 2003 (ASEM, 2006).

According to the national health services survey, prevalence of diseases within two weeks prior to the survey was higher in poor rural area than the rich rural area. In 2003, the age-adjusted prevalence rates of diseases were 140 ‰ in low-income rural counties and 112 ‰ in high-income rural counties (CHSI, 2004). Within the same region, the disparities of prevalence of diseases were higher in rural area than that in urban area. The prevalence of diseases was 166‰ for urban inhabitants in the western provinces (country average 153‰) and 152‰ for rural inhabitants in the western provinces (country average 140‰) (CHSI, 2004). On average, the disability days caused by diseases were 41 days longer per 1,000 people in poor rural counties than the rich rural counties (CHSI, 2004).

Within either urban or rural area, poorer health statues can be observed for low-income population groups. A study on 73,497 individuals conducted in Hunan province in 1998 reports that the low-income population suffered more health problems using the indicator of disease concentration index (Meng, 2003). In urban cities, it is the similar situation in which the poor suffers more frequent and severe health problems. In a study in four urban cities, it was found that prevalence of diseases of the urban poor was 13 percentage higher than that of the general population, and the prevalence of chronic diseases was 10 percentage higher for unemployed people than for employees (UHPP, 2002).

Prevalence of both acute and chronic diseases was higher for female than the male. In 2003, the prevalence of acute diseases of the female was 30‰ higher than that of the male; the prevalence of chronic diseases of the female was 40‰ higher than the male (CHSI, 2004). In the poor area, the infectious diseases are more serious. For example, the prevalence of hepatitis B and tuberculosis in western provinces was 2 folds higher than in eastern provinces (ASEM, 2006).

Health care utilization

Disparities in health care utilization between urban and rural areas, between regions, and between income groups existed in China. Table 5 demonstrates the differences in health care utilization between urban and rural areas, showing that about 13% of

patients did not take any treatments when they were ill, about five percents higher for rural patients than for urban patients (CHSI, 2004). Nearly 40% of those were attributed to financial barrier with slight higher in rural area. Nearly 30% of patients did not use inpatient care when they were advised by doctors to be hospitalized. The predominant reason (70%) for not use of the inpatient care was affordability, about 20% higher for rural patients.

Table 5. Percentages of patients without any treatments and causes in China in 2003

	Country	Urban	Rural
Outpatient (%)	13.1	9.7	14.5
Financial reasons (%)	38.2	36.4	38.6
Not necessary (%)	40.5	40.7	40.4
Not convenient (%)	0.7	0	0.8
Others (%)	20.6	22.9	20.2
Hospitalization (%)	29.6	27.8	30.3
Financial reasons (%)	70.0	56.1	75.4
Perceived no necessary (%)	19.5	30.7	15.1
Others (%)	10.5	13.2	9.5

Data source: CHSI, 2003

Differences in health care utilization between population income groups were found in a number of studies. In the national health services survey, it was found that the proportion of population who did not use inpatient care when needed was 20% higher for the lowest-income groups than the highest-income groups; and in urban cities, the proportion of population who did not use inpatient care when needed was 24% higher for lowest-income population than highest-income population (CHSI, 2004). In a study with a sample of 18,877 individuals in the rural area of Henan Province, income was the major barrier for low-income people not to health care (Zhu, et al., 2001). Utilization of infectious disease control programs varied between different economic areas. For example, the detection rate and coverage of observed treatment for tuberculosis was much lower in poorer counties than in richer counties (Meng et al. 2004).

Utilization of maternal and child health care varied between urban and rural areas. For example, coverage of hepatitis B vaccination was 93.0% in urban cities and 76.7% in rural counties, respectively, in 2003 (CHISI, 2004). Overall, the immunization coverage for children was 10-25% higher in more wealthy area than

poorer area in China (Sun and Meng, 2004). About 96% of pregnant women in urban cities received ante-natal care, while this figure was 86% in rural counties, in 2003 (CHSI, 2004). Within the rural area, utilization of ante-natal care was 30% higher in more wealthy counties than poorer counties (ASEM 2006). In 2003, 92.6% of childbirth was delivered in hospitals in urban cities, and 62.0% delivered in hospitals in rural counties. In some poor counties, only 30% of childbirths were delivered in hospitals (Li, 2005). Majority of the childbirths in poor counties were delivered at home with unqualified maternal wives.

Studies for examining gender differences in health care are very limited in China. A study in four rural counties of Gansu Province reports that 54% of female patients did not use inpatient care when they were advised by doctors to be hospitalized, while the proportion for male patients was 43% (ASEM, 2006). The principal reason for not using inpatient when needed was financial difficulties in affording the medical expenditures.

Financial burden of diseases

Proportion of medical expenditures in total household expenditures has increased, especially for rural families. Between 1998 and 2003, the proportion of medical expenditure in total household expenditure increased by 3%. In 2003 in the rural area, nearly 13% of household expenditure was for medical care. Disease expenditure had become more influential for poverty between 1998 and 2003. One-third poverty families in rural area were caused by disease expenditure in 2003 (table 6) (CHSI, 2004).

Table 6. Financial burden of disease in China in 1998 and 2003

Indicators	Country		Urban		Rural	
	1998	2003	1998	2003	1998	2003
Per capita medical expenditure (yuan)	92	158	130	245	73	128
% of medical expenditure in total household expenditure	8.1	11.1	7.1	9.3	9.0	12.9
% of poverty families caused by disease expenditure	15.2	30.0	4.4	25.0	21.6	33.4

Data source: CHSI, 2004

Within the same region, poor families had heavier financial burden due to disease expenditures than the rich families. In the rural area of western provinces, 7.4% of household incomes were spent on diseases for lowest-income families, while 3.6% of the household incomes went to treatment of diseases for highest-income families

(Tang and Le, 2006). In the cities of Chengdu and Shenyang, the poor families needed to use their 13% of the household expenditures for health care, a 5 percentage higher than the rich families (UHPP, 2006). The national health services survey revealed that in rural counties, the proportion of health expenditures in total non-food expenditures was 28.9% for the lowest-income families, while it was 17.6% for highest-income families (CHSI, 2004).

Due to introduction of user fees for public health programs, poorer area/families bear more financial burdens for utilizing those services than more wealthy area/families. It was found that for utilizing schistosomiasis and tuberculosis control programs including diagnosis and treatment services, financial burdens were much heavier for the poor than for the rich. In a study in four rural counties in Shandong Province on tuberculosis control program, it found that the poorer and richer patients spent similar amount of money for paying tuberculosis diagnosis services and drugs (Meng et al., 2004). The poorer patients suffers heavier financial burden for seeking health care.

Distribution of health human resource and hospital bed

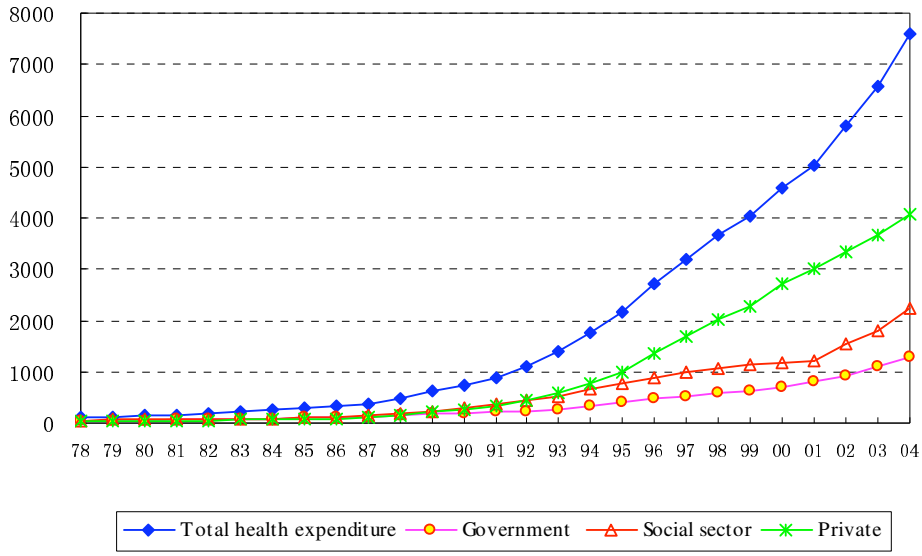
By the end of 2004, there were 5.4 million health workers, 67.7% of whom were located in urban cities and 32.3% in rural area (MoH, 2005). In 2004, one thousand urban people had 4.8 health workers and one thousand rural people had only 2.2 health workers (MoH, 2005). Most of the unqualified health workers work for the rural population. In general, if the rural people want to utilize tertiary medical care provided by intensively trained health professionals, they need to go to urban cities. In township health center, 22% of the health workers had no formal medical education (MoH, 2006). Most of the village health workers in rural area received only short-time training before their practice. In Hebei Province, a mid-income province, it reported that only 2.9% of the 90,000 village health workers received two and above two years medical education, and only 12% of township health workers received more than three years medical education in 2005 (Xue, 2006). According to national health services survey, 53.5% of the outpatient services were provided by village health workers (CHSI, 2004). In terms of distribution of hospital beds, one thousand urban population had 3.42 hospital beds, while one thousand rural population had only 0.76 hospital beds equipped in township health centers (MoH, 2005).

Health financing

Figure 1 illustrates the total health expenditures in China between 1978 and 2004.

During this time period, the growth rate of health expenditure was 12% that was higher than the GDP growth (9.4%). Proportions of government expenditure in total health expenditures declined from 32% in 1978 to 17% in 2004 (NHEI, 2005).

Figure 1 Total health expenditures in China from 1978 to 2004



Data source: NHEI, Report of China Health Expenditures, 2005

In 2004, per capita health expenditure of urban inhabitants was 1,262 yuan, while in rural area the per capita health expenditure was 302 yuan. Between 1998 and 2004, proportion of health expenditures allocated to rural population decreased by 13%, meanwhile the proportion rural inhabitants decreased by 8.5%. Per capita health expenditure of rural population was 1/3 of urban population in 1998 and 1/4 in 2004 (see table 3).

Table 3 Comparison of health expenditure between rural and urban areas

Indicators	1998	2000	2002	2004
% of rural inhabitants	66.7	63.8	60.9	58.2
% of health expenditure for ruralarea	48.2	42.8	40.4	34.9
Per capita health expenditure of rural inhabitants	194.6	214.9	259.3	301.6
Per capita health expenditure (rural/urban)	0.31	0.26	0.26	0.24

Data source: China Statistical Yearbook; NHEI, Report of China Health Expenditures, 2005

Amongst the provinces with different social and economic levels, there exit large difference in health expenditures. In Zhejiang Province that is one of the rich provinces, the per capita health expenditure was 671 yuan, while in Ganus, a poor western province, per capita health expenditure was 228 yuan, in 2002 (He, 2005).

Between 1980 and 2004, government health budget had increased. However, the

proportion of health budget in total government expenditures decreased from 2.37% in 1980 to 1.85% in 2004 (NHEI, 2005). In 2004, about 40% of the total government health budget was allocated to rural areas where the population accounted for 65% of the total population. Per capita allocation of government budget in rural area was 1/3 of the urban area (NHEI, 2005). Within the same region, allocation of the government health budget varies very much. For example, in Gansu provinces, richer counties had a two fold higher government budget for health sector than that in poorer counties in 2003 (ASEM, 2006).

Health insurance coverage

Table 4 demonstrates the coverage of various types of health insurance schemes by urban and rural areas in selected years (CHSI, 2004). Between 1993 and 2003, about 70% of Chinese population had no any types of health insurance schemes. In 2003, about 45% of population in urban cities and 80% of population in rural counties were not covered by any health insurance schemes. In 2003, the CMS (social health insurance) covered less than 10% of the rural population.

Table 4. Coverage of health insurance schemes in China in 1993 and 2003

Types of insurance	Country		Urban		Rural	
	1993	2003	1993	2003	1993	2003
Urban health insurance scheme *	15.5	11.4	53.5	39	2.7	1.8
Rural cooperative medical scheme	7.7	8.8	1.6	6.6	9.8	9.5
Other social health insurance	6.6	2.0	17.4	4.0	3.1	1.3
Commercial health insurance	0.3	7.6	0.3	5.6	0.3	8.3
None	69.9	70.3	27.3	44.8	84.1	79.0

Data source: CHSI, Report of National Health Services Survey in 2003
*: The figure combines government and labor health insurance schemes

From 2003, the CMS was implemented in pilot counties and extended rapidly. By the end of March, 2006, the CMS covered 42% of the rural population. The CMS coverage was 77.5% in rich provinces and 44.7% in poor provinces in 2003 (National CMS Office, 2006). This indicates a rapid expansion of coverage of rural health insurance scheme for the rural population compared to the situation in 2003.

In urban cities, the urban social health insurance scheme reform has generally reduced the coverage. By the end of 2005, 138 million urban people were covered by the urban health insurance scheme, accounting for 30% of the rural inhabitants (MOLSS, 2006), which decreased compared to that in 2003. This implies that 70% of

the urban population had no social health insurance. Most of those are dependents of the employees and self-employed workers. However, it should be noticed that while coverage of the current urban health insurance scheme declined, its benefit package has been extended and can be sufficiently delivered compared with the schemes before the reform. Before the reform, many urban health insurance schemes operated by individual institutions were not able to afford the reimbursement to the insured.

Even if the rural health insurance scheme (CMS) currently has a higher coverage than the urban health insurance scheme, the benefit packages of the two schemes diversify very much. For instances, the premium per enrollee in CMS was on average 40 yuan, while the premium per enrollee was nearly 1,000 yuan, in 2005; and health providers to CMS insured are mainly village and township health stations, while the providers are high level hospitals for the insured covered by urban health insurance scheme. Therefore, the two schemes are highly separated from the aspects of both scope and quality of health care.

3.3 Determinants of the disparities in health and health care utilization

There are many factors determining the existence of disparities in health and health care between regions, urban and rural areas, and economic population groups in China. As in many other countries, the root cause for those disparities would be the difference in social and economic development that is partly influenced by overall social development strategies. In Chinese context, the development policies are separated for rural and urban areas. The rural social and economic development has not been put an equal agenda as for urban cities, especially before early 2000s. Before 1980, the livings of the urban residents largely relied on the low price policy of agricultural products produced by the rural farmers. While the urban residents could enjoy government subsides and be supported by state-owned enterprises, the rural population mainly depended on the agricultural products. In addition, the rural farmers were not allowed to mobilize to urban cities for earning incomes. Even though the policy for separating the urban and rural population has been to some extent changed after early 1980s, for example, the rural people can go to labor market in urban cities, the disadvantaged position of the rural people in competing resources has led to slower growth of economic development for the rural area than the urban cities, which result in widened gap in income between those two population groups. Some scholars have attributed the inequality in access to resources including health care and education between urban and rural areas to consequence of unfair social

development policies (Hu et al., 2003).

Meanwhile the separate development policies for rural and urban areas has led to enlarged inequality in resource distribution between the two areas, the fiscal decentralization reform from mid-1980s in China has deepened the gap in social and economics development between different regions. Since the economic reform from early 1980s, most of the government efforts have concentrated on the eastern region including Beijing, Shanghai, and Guangdong. Even if the central government has issued "developing the western region strategy", it would take long time to narrow the gap between western and eastern regions. The fiscal decentralization policy under this situation has made the poor areas face more financial constraints in supporting social development programs without an effective fiscal transfer payment system. Decentralization of finance is also implemented in health sector in which the primary health facilities including township health centers in the rural area and community health center in the urban cities are mainly supported by the same level of government. Public funding from the local governments in the poorer area is relatively more constrained for health sector than more wealthy area. From the studies which examining the effect of fiscal decentralization on operation of health programs, the general conclusion is that financial decentralization has negatively affect provision of primary health care in poor area (Tang and Bloom 2004; Meng et al., 2004).

Health policy is also crucial for existence of the inequality in health and health care. Before 1980, the major challenge in health sector facing Chinese government is shortage of health resource including health facilities and medical technologies. Since mid 1980s, expansion of health sector has been the major strategy for government in health systems development. While the expansion policy for health sector has mobilized more resources for health care and to some extent resolved the resource shortage problem, it has resulted in some negative effects on equity in health care. First, private finance is the major source for expanding the health sector which leads to affordability problem for paying health care for the poor. For a rapidly developed health sector, the government has left the major financing responsibility to the users. Second, medical cost has escalated mainly caused by the rapid expansion of health sector. Between 1990 and 2003, the monetary values of high medical technologies at township and above hospitals increased from 8 billion yuan to 126 billion yuan with a 24% annual growth rate (He, 2005). In addition, intensive use of expensive drugs also contributes to rapid increase in medical cost. Between 1993 to 2003, price per

outpatient visit and price per inpatient day increased by 4.7 folds (Department of Health Planning and Finance, 2004). In a user fee payment system, the poor would suffer more difficulties in access to health care because of an increased financial barrier. Third, the expansion of health sector is not balanced between rural and urban areas, and between tertiary and primary health care. High technologies and qualified health workers are intensively distributed in urban cities and tertiary hospitals, leading to limited availability of primary health care services that are much needed by the communities especially the low-income population.

A health system of relying on user fee for financing health care and escalation of medical cost needs to be reformed in order to improve equity in health care. Strategies including improvement of health security system through establishment of a universal social health insurance system and medical assistance fund system, and strengthening of primary health care system are really expected. However, as illustrated in previous section, coverage of the health insurance schemes in both rural and urban areas is low, and the gap in benefit packages between the rural and urban health insurance schemes is large. In addition, a widely implemented medical assistance fund system in China has not been effectively delivered. The existing exemption mechanism from user changes implemented in public hospitals is not effective for improving access to health care for the poor (Meng et al., 2002). A community health care system that is hoped to address the problem of cost escalation of medical care has not been effectively established.

From above analysis of determinants for inequality in health and health care, the radical strategy for improving the equity in health system is to have a effective pro-poor social development policy. In addition, health policy and systems reforms including improvement of social health insurance schemes, increase of support for medical assistance fund system, and development of primary health care system are crucial. Actually, as described below, the promoting-equity health care policies implemented in China have covered those areas.

4. Development of promoting-equity health care policies

4.1 Background for the promoting-equity health policies

Over the past years from early 2000s, the orientation of development policies in China has been adjusted. During 1980s and 1990s, the characteristic of development pattern in China is “GDP-centered” pursuing rapid growth of economy. The positive side from this pattern is that the overall living condition of all people has been greatly

improved, which would benefit to improvement of health status of the population. This also provides a foundation for government to use its relatively ample resources to support provision of public services. However, because of the unbalanced economic development between urban and rural areas, regions, and population groups, the vulnerable people have not enjoyed the same level benefit from the development, which has led to widened gap in access to resources including health care as analyzed in previous section. From early 2000, especially after the outbreak of SARS, Chinese government has shifted its development strategy from "GDP-led" to "people-centered", implying that while economic development is still the top priority for the government, keeping the balance of development is also central in the policy making.

The change in development policies is reflected in a statement by Chinese top authority aiming to create a society in which the development is coordinated and sustained. A "five balance" strategy is proposed for achieving the stated aim. The first balance is to achieve balance in development between rural and urban areas by reducing taxation for rural farmers and increasing transfer payments to rural areas. The second one is to keep balance in development between western and eastern regions. The third one is the balance between economic and social development mainly through expanding social security system to the vulnerable population. The fourth one is to balance economic development and natural environment. The last is to keep balance in development of domestic and international markets. The new development concept and the "five balance" strategy, emphasizing on close of gaps in development between rural and urban areas and regions, provides a firm political background in developing promoting-equity health policies.

Besides the overall change in development strategies of the government, pressure from the society for improving access to health care is another driving force for more equitable health policies. The topic of health and health care access has been one of the most important concerns from the whole society over the past years. In the people's representative conferences at various levels, to address health systems problems for improving access to health care has been one of the focuses in the social sector reform proposals to the government. In investigations of the general public, security of health care is the number one concern for the people. Most of the people are not satisfied with the provision of health care and arrangement of social health insurance schemes. Facing the complaints for health care from the society, policy makers have political pressure to make some changes in health sector.

Within the health sector, a voice for rethinking the direction of health sector reform becomes stronger. In an "efficiency-led" health sector reform during 1980s and 1990s, it is recognized that access to health care for the socially and economically disadvantaged population has not been reasonably improved in line with the rapid economic development. It is a responsibility of the government in ensuring provision of essential health care to all people, especially the poor. An "equity-oriented" health sector reform has been proposed by both academic people and policy makers.

Even though the social development policy has been adjusted towards improvement of equity in China, its overall impact on income and resource distribution is not clearly evident, partially because of a short duration of the policy development and implementation.

4.2 Policies for promoting equity in health

A number of health policies can be linked to efforts made by the government for addressing the inequity in health and health care in China. In a recent speech made by President Hu Jintao in October, 2006, an aim to establish a system of universal coverage of basic health care was proposed. In this key speech that would direct China's health policy reforms, to strengthen a pro-poor health care system through increased government support for primary health care providers, to improve existing social security system for health including social health insurance schemes and medical assistance fund system, and to establish an essential medicines system, are the major proposed strategies. In those strategies, policies of improving social health insurance schemes, medical assistance fund system, and establishment of community health care system have been already implemented for a time period. This report focuses on description and analysis of possible impact of those policies.

Rural cooperative medical scheme

Effort for reestablishing rural CMS during 1990s by the government was not seen significant progresses mainly because of lack of strong political and financial support from the government. In 2002, the Chinese Communist Party Committee and the State Council issued a policy document "Decision on Strengthening Rural Health Care System" (CCPC and State Council, 2002), calling for support to establishing CMS. One of the purposes of CMS is to improve access to health care for rural population and to reduce the poverty caused by catastrophic diseases. The CMS is now in the process of pilot and aims to cover 85% of rural population by the end of 2010.

The central government allocated a budget of 10 yuan per capita to the western

provinces at early stage. This is the first time for central government to allocate budget for CMS for economically disadvantaged areas.. The local government including provincial and county government allocated another 10 yuan pre capita to the fund pool. Individual farmers contributed 10 yuan per person for the premiums. From the beginning of 2006, the central and local government doubled the budget for CMS premiums. In the eastern provinces, the premiums are mainly collected from the local government and farmers. On average, a total of 50 yuan per capita a year were collected for the premiums.

In each of the CMS pilot counties, a CMS administration office is set up for managing the scheme. With the guiding principles from the central government, the provincial and county governments develop detailed implementation plan for operating CMS. In most of the schemes, both outpatient services and inpatient care are covered by CMS. Deductible, co-payment, and ceiling are used for controlling the insurance expenditures. On average, the co-insurance rate was 75% for CMS in 2005 (Mao, 2006). For those who cannot afford the premiums to CMS, the local government should take the responsibilities in offering subsidies for their enrollment through department of finance or department of civil affairs (Jiao, 2006).

It was found that the implementation of CMS has improved overall health care utilization and access and to some extent reduced the financial burden of diseases for the insured. A study in 32 counties conducted by MoH in 2005 reports that the population in CMS counties had a 5% higher utilization of outpatient care than the non-CMS counties (CHSI, 2007). In a study in pilot counties in Shandong Province revealed that the rural population covered by the CMS had an average of 10-15% higher health care utilization than the uninsured (Liu and Li, 2005).

However, it is revealed from a number of studies that the current CMS has not been effective in improving health care access and reducing financial burden of diseases as expected for the poor (CHSI, 2007). Compared with the high-income insured in CMS, the low-income insured utilized less health care and got less reimbursement from the CMS (Mao, 2006; Fu et al., 2004). High co-payment rate for the insured is the most important reason for the poor not to use inpatient care covered by CMS (Mao, 2006; Wang and Zheng, 2005). In addition, premium is collected regardless of economics status of the rural families and the policy for supporting enrollment of the poor is not really implemented in some counties (Jiao, 2006). It has been recognized that the current CMS needs to be improved in design and implementation for increasing health care utilization and reducing disease burden for all rural population.

In the long run, the CMS also faces the challenge of how it is connected to the urban social health insurance scheme. The separation of the two systems with much higher benefit package in urban health insurance scheme should be changed if a uniform health insurance scheme is to be established for both rural and urban population.

Medical assistance fund and exemption programs

In November of 2003, the Ministries of Civil Affairs, Health, and Finance jointly issued a policy for establishing a medical assistance fund system (MAF) in both rural and urban areas (Ministry of Affair, 2003). The operation budget of MAF comes mainly from the central and local government. Transfer payment from central government for MAF is specifically budgeted for western provinces. In general, the beneficiaries in MAF are families and individuals whose incomes are below the poverty line. In rural CMS pilot counties, the MAF is in principle used to support the premium contribution and reimbursement for catastrophic expenditures beyond the ceiling in CMS. In non-CMS counties, the MAF is to poor families suffering catastrophic diseases. The MAF is managed by rural township government. Village administration committee is responsible for primary assessment of the applicants to use MAF. The township and county government is responsible for checking eligibility of the applicants and making the final decisions. The MAF policy in urban cities is much similar with that in the rural area in which the poor urban residents are mainly supported by reimbursement for catastrophic diseases from the MAF through a relatively complicated application process.

Currently in China, most of the provinces have implemented the MAF In 2005, an amount of 300 million yuan was allocated from the central government for respective rural and urban areas for MAF (Chen, 2006). Because of the short duration of MAF, little is known about its impact on health seeking behavior for the poor. Overall, the budget for MAF is thought of being too small compared to the huge amount of poor population and high medical expenditures. In a study assessing effect of a China-UK Medicaid project, it finds that the MAF has positive impact on both health care utilization and reduction of financial burden of diseases for the poor. After a one year implementation of MAF in Shengyang, health care utilization of outpatient care of the poor increased by 40%, and proportion of health expenditures in total household expenditures decreased from .22.7% to 16.5% (UHPP, 2004).

Hospital exemption from user charges for the poor had long existed in China. Before 1980, the deficits resulted from the exemption programs were mainly written off by the government. From mid 1980s, because public hospitals have largely relied on user

fees for operations, the exemption programs for the poor are not widely implemented. In early 2006, meanwhile the MoH asked all public hospitals to take the responsibilities of helping the poor in utilizing health care, it encouraged local governments to open specific hospitals, called "pro-poor hospitals" or "benefit-the-poor hospitals", for the poor (MoH, 2006). Those hospitals charge lower-than-market prices or provide free care for the patients. Exemption operated in those hospitals is mainly supported by hospitals themselves through cross-subsides and part of them is supported by government budgets (Xu, 2006). In implementation of the exemption programs, the major problems include the lack of government financial support for sustaining the operation and limited scope of health care provided through those programs (Xu, 2006).

Free provision of selected public health programs

In the "Infectious Disease Control Law" amended in 2004, the financial responsibilities of government including control of outbreak of infectious diseases and subsides for treating poor patients suffering infectious disease are clearly specified (PRC, 2004). From 2003, government budget was allocated for providing hepatitis B vaccines for children that had been charged before. In 2004, the central government decided to use government budget for compensating costs of labor and materials in project immunization programs. This means project immunization programs are provided in total free of charge for the users. User fee for preventive care introduced from mid 1980s has been regarded as an crucial barrier for utilization of those services that is confirmed in a number of studies (Meng et al., 2004; Bian et al., 2004; Liu and Mills, 2002). However, whether the policy is effective in improvement of utilization of supported preventive care is not clear. In some places, budget promised by the government was not actually allocated to the health providers that affects the provision of those services[1]. In the places where the government budget has arrived for covering the operating costs, the health providers may be reluctant to provide the services because the budgeting is not linked to amount of services provided[2]. This implies that besides allocation of budget for supporting provision of preventive care, the payment system that can encouraging effective delivery of the services is important.

[1] Discussions with health officials from three counties in Shandong Province.

[2] From discussion with health workers in Yinchuan community health stations where the government budget for immunization service was available. However, the utilization of immunizations declined because the free care policy discourages health workers to search for children for vaccinations as done before, because in the old financing system, the revenues generated for the health workers were closely linked with the amount of immunization care.

Regional health resource planning and community health care system

Both regional health resource planning and community health care system were proposed ten year ago by the central government as key policy actions to change the patterns of resource distribution. Those reforms have the potentials to improve equity in health resource distribution by redirecting resources from urban cities to rural area and from tertiary hospitals to primary health providers. While the establishment of community health care system has achieved a progress, the regional health resource planning has not made significant progress over the past years. The slow progress of regional health resource planning is primarily attributed to lack of inter-sectoral coordination between government authorities (Shi, 2005). For instances, the financial resource may not be allocated by the department of finance to health providers according to the suggestions from department of health (Mao et al., 2003); and overlap of health facilities is hard to be addressed by combination if the facilities are owned by different authorities (Shi, 2005).

In urban cities where community health care system is established or strengthened, the community people especially the vulnerable population including the low-income families, old people, and disables have benefited from provision of convenient and less costly health care (Zhang J, 2005). In early 2006, the central government issued a set of policies surrounding how community health care system can be supported and strengthened, including regulations for local government to allocate budget for community health care, how the community health providers are contracted by the health insurance schemes, and how the community health centers are supported by upper level of health facilities. The western provinces are financially supported by the central government for developing community health care system. However, it will still take time to have a comprehensive primary health care system based on community health organizations, because the quality of community health workers are in general poor, and in some poor areas, there lacks basic medical equipment and working conditions (Li et al., 2005; Cao, 2000;.Yin, 2000).

4.3 Opportunities and challenges

Opportunities

The overall pro-poor social development policy creates unique opportunities for developing and implementing equity-promoting health policies in China. A rapid economic development over the past two and half decades provides financial capability of the government and society to support equity-promoting strategies and

programs in health sector. In words, there are political will and financial capabilities in China to address the inequity problem in health and health care between rural and urban areas, regions, and population groups. This is the more important context for health policy makers to use for developing and implementing more effective pro-poor health policies. Opportunities for concrete equity-promoting health policies could be observed as follows.

- CMS. It has been widely recognized by the policy makers that establishment of CMS is one of the fundamental strategies to improvement of health and financial protection for rural population. Availability and allocation of government fund for CMS increase the sustainability of the scheme. Experiences from CMS pilot counties provide models to be followed by non-CMS counties in operation. The CMS are welcomed by the rural population. It is reported that more than 90% of the insured are satisfied with and support the CMS (Jiao et al., 2006).
- MAF and exemption programs. The government would use both MAF and CMS to improve access to health care for rural population, especially the poor. Even though the MAF is just recently initiated, the administrative body of MAF, the department of civil affairs, has lots of experiences in managing poverty-relieving fund. Transfer payment from central government to poor rural provinces makes the program financially feasible. Chinese government is in the process of reforming public hospital sector aiming to encouraging more provisions of low-price services to the patients by the hospitals, which would be helpful for operation of exemption programs for the poor.
- Provision of essential public health programs. National essential health care package is being developed by the government for exploring public funding mechanism for essential public health programs (Department of Health Policy and Regulation, 2006). The top policy makers in China have promised to allocate adequate public finance to support provision of those services. It is anticipated that user fee will be totally removed from provision of preventive health care and partially removed from delivery of basic curative care, which will benefit to the poor for their improvement in access to health care.
- Regional health resource planning and community health care. It has been aware of the importance of strategy of primary health care in health care

system. Public resources including financial and human resources will be redirected towards strengthening of primary health care system. Along with the improvement of quality of community health workers, community health system will be more utilized and sustained.

Challenges

It is just at the early stage for Chinese government to develop and implement equity-promoting health policies. While there are great opportunities for those policies, a number of challenges are faced by policy makers and implementers in practice. The common challenges for those policies could include following.

- Legislation. In China's constitution, the health right of the people is stated. However, there lacks a master law in health to specify the responsibilities of government and society in closing the gap in health and health care between regions and population groups. Legislations for assuring provision of primary health care and establishment of universal health coverage are also required. Development of those legislations would basically provide political promise for promoting-equity health care policies (Guo, 2006; Li, 2006).
- Inter-sectoral cooperation. Pro-poor health policies and actions need cooperation between different sectors. In China, this is specifically important to have harmony coordination between governmental sectors because there are at least fourteen ministries at national level that are related to health police issues. For example, in organizing CMS, effective communication is needed between Ministries of Health and Finance; in reimbursing rural patients with CMS and MAF fund, policies need to be developed by both Ministries of Health and Civil Affairs.
- Decision making system. "Top-down" policy making process is very popular in health sector. Wide participation including involvement of communities in decision making is hoped in order to really meet the needs of the people. In design of benefit package in CMS and MAF, the voice from the rural population, especially the poor, need to be heard.
- Capability of governance and management. Equity-promoting policies including CMS and MAF are relatively new for either government or managers. Capacities of the government in designing, monitoring, and evaluating the policies need to be strengthened. Program managers, for example, the CMS administrators, need to be strengthened in practical skills.

5. Conclusions

China's health care system is in the transition. Huge disparities in health and health care can be observed between rural and urban areas, regions, and population groups. Rural population and the poor are at disadvantaged position in access to health care. Efforts made from the government and society are really needed to narrow the gaps for realizing an equal opportunity for the poor in access to health care.

From beginning of the 21st century, the Chinese government has started to transform its "GDP-centered" to "people-centered" development policy. Inequity in health and health care has been paid more attentions than before by the government and has been a great concern for the general public. Rural health insurance, medical assistance fund, free charge of essential public health programs, and health care delivery system, are among the strategies to close the disparities in health and health care. Political and financial supports from the government are the momentum for developing and implementing those strategies. Even if it will take time to examine the exact impact of those policies on improvement in equity, it seems that it is in the right track to direct the future equity-promoting health care policies in China.

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