# **Transition and Health Status in China**

Lu Aiguo

Institute of World Economics and Politics Chinese Academy of Social Sciences Beijing, CHINA (2007)

Transition to market in China has been commonly viewed as highly successful. Compared with other transition economies, China's economic performance is indeed quite outstanding. Since the onset of the reforms in 1978, GDP has grown at the annual rate of about 9%, which is now 10 times as it was in 1979. Per capita national income grew from less than 100 in 1978 to over 1,500 USD in 2006. As a result, China undoubtedly becomes wealthier and the overall standards of living are improved notably.

According to conventional wisdom, rapid growth of national wealth should be followed by favorable human development records, especially the rising health status of the population. This paper discusses health outcomes during market transition in China. After a brief presentation of the health profile, an assessment of government policies in health sector is provided which are deemed largely responsible for the changes in health status. In the concluding remarks, a few lessens are drawn from the Chinese experiences in health sector during transition.

### I. Health outcomes

Transition to market in China has been proceeding steadily for nearly 3 decades. It becomes clear by now that the reforms have led to drastic changes in virtually every sphere of the society. Measured by how fundamentally the current Chinese society differs from that before the reforms, it turns out that the changes brought about by the so-called gradual approach are no less radical than those occurring in other transition economies following different approaches, including the so-called "shock therapy". This is well illustrated by China's health performance during transition, which defies most expectations.

#### Heath expenditure

During transition, national health expenditure in China increased dramatically, especially since the end of the 1980s. As figure 1 shows, from 1978 and before 1990, national health expenditure as percentage of GDP grew rather slowly and remained relatively low, within the range between 3.04% and 3.64%. After 1990 the figure increased sharply and with big jumps in most of the years. In the period of 1990-2003, national health expenditure increased nearly 9 times, jumping from 74.7 to 658.4 billion yuan (RMB, Chinese currency). General health expenditure as percentage of

GDP increased from 3.64% in 1989 to 4.93% in 1999, and reached the level of 5.62% in 2003.

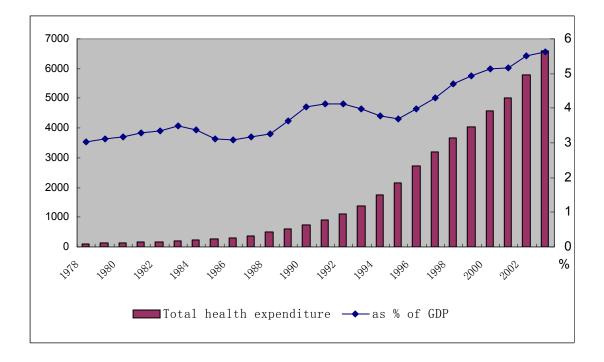


Figure 1 Total health expenditure (0.1 billion yuan, and % of GDP), 1978-2003

Source: Ministry of Health: 2005 China Health Statistical Yearbook, Beijing

Growth rate of per capita health expenditure in both urban and rural areas has been much higher than that of both per capita net income and consumption in most of the years of the 1990s (Table 1).

	1991	1992	1993	1994	1995	1996	1997	1998
Net income								
Urban	11.3	18.3	28.0	36.1	34.7	13.0	6.6	5.1
Rural	3.3	10.7	17.6	32.5	29.2	22.1	8.3	3.4
Consumption								
Urban	12.0	13.0	20.8	26.0	19.4	9.7	6.4	3.4
Rural	6.0	6.3	16.8	32.1	28.9	20.0	2.9	-1.7
Heath expendit	ure							
Urban	25.1	29.3	37.1	45.7	32.9	30.1	25.4	14.2
Rural	17.5	8.1	12.6	18.0	32.5	37.2	7.2	9.1

### Table 1 Per capita growth rates, %, 1991-1998

Source: Institute of Health Economy, Ministry of Health, from You Yunzhong and Zheng

Xiaoying, eds. 2005, Zhongguo renkou siwang he jiankang. 20 shiji 80 niandai yilai renkou siwang shuiping, leixing ,yuanyin he fazhan qushi (Mortality and Health of the Chinese Population. Levels, Patterns, Causes and Trends since the 1980s), Beijing: Beijing University Press, p.160

Considerable increase of national health expenditure led to notable improvement in medical facilities and service abilities. In 1978-2004, total hospital beds increased by 60%, the number of health professionals increased by 70%, and the number of hospitals and other health care institutions such as clinics and disease prevention stations increased by nearly 80% (Ministry of Health: 2005 China Health Statistical Yearbook, 1-1-1, 2-1, and 3-1-1)

Unlike most of other transition economies that experienced a sharp economic decline in the early years of transition, China has so far maintained a record high growth rate of its economy. No doubt today the Chinese people on average have more to spend, and indeed do spend more, on health care. No doubt today the country is far better equipped to provide health care in terms of facilities and professionals. Given the favorable economic conditions, it is only reasonable to expect a much improved health status of the population. The reality, however, tells otherwise.

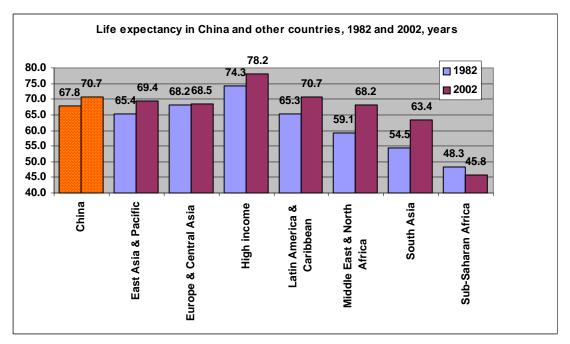
### Life expectancy

Life expectancy and mortality rate (especially infant mortality rate) are the major indicators of health status of the population. After the 1949 revolution, life expectancy in China increased from about 35 to nearly 71 years in 2002, which was higher not only than the world average but also than middle income country average. This is indeed a great achievement.

However, the considerable increase in life expectancy is mostly achieved before the reforms. From 1949 to 1982, life expectancy increased by more than 30 years, from about 35 to 68 years. By contrast, life expectancy increase has been considerably slowed down in the reform years, resulting in merely 2.9 years from 67.8 to 70.7 years over a period of two decades from 1982 to 2002.

It can be argued that the higher life expectancy is, the more slowly it increases. This argument apparently cannot justify the slow increase of life expectancy in China during transition. We can find this easily by locating China on the world map.

Figures 2 Life expectancy in China and other countries, 1982 and 2002, years



Source: World Data Base

What is perhaps a surprise to most people is, in terms of achieving high life expectancy, China during transition has not only stopped being a front runner but actually been lagging behind most country groups. In 1982-2002, with 2.9 year increase of life expectancy, China's performance was better only than other 2 regions, i.e. Sub-Sahara Africa (-2.5) and Europe & Central Asia(0.3).<sup>1</sup> Neither of these 2 regions has growth record even close to China's during this period. Sub-Sahara Africa suffered prolonged economic difficulties and social instability. The disappointing life expectancy performance in Europe & Central Asia is largely due to demographic crisis in Russia caused mainly by an unprecedented sharp economic decline in the 1990s.

With the exception of Sub-Sahara Africa and Europe & Central Asia, all other regions achieved far more impressive progress in life expectancy than China: 4.0 years for East Asia & Pacific, 5.4 years for Latin America & Caribbean, 8.9 years for South Asia, and 9.1 years for Middle East & North Africa. High income countries achieved 3.9 year increase to reach 78.2 years life expectancy in 2002, even though they started at a much higher level of 74.3 years at the beginning of the period, already 6.5 year higher than China's at the time.

Lagging behind in the improvement of life expectancy is the reversal of the development trends since the 1949 revolution. In fact, China outperformed most other regions and was catching up with the developed countries in life expectancy rather successfully before the reforms (see figure 3). During transition, however, the momentum of China catching up with high income countries is lost, and China itself is being caught up with by most countries outside Sub Sahara Africa in terms of life expectancy achievement.

<sup>&</sup>lt;sup>1</sup> Other data sources suggest similar trends, for example, The World Bank: 05 Little Data Book for the 1990s, pp.8-22 and 64, Washington DC, 2005

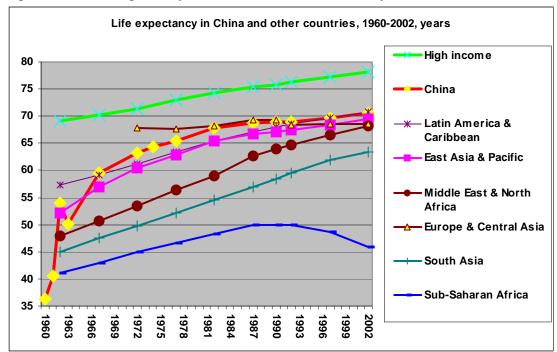


Figure 3 Life expectancy in China and other countries, years, 1960-2002

Source: World Data Base.

### **Infant mortality**

Similar trends of China legging behind can be observed with regard to infant mortality. Infant mortality rate (per 1000 life births) was about 200 on the eve of the 1949 revolution. In 1990 it was reduced to 39, and further to 30 in 2003. As table 2 shows, China's reduction of infant mortality by a measure of 9 is better than the world average reduction of 7, from 64 to 57. But China's record during this period is worse not only than all world regional average except for Sub-Sahara Africa, but also than all income groups except for high income countries.

Table 2Infant mortality, per 1000 live births, 1990-2003

1990	2003	change
39	30	-9
64	57	-7
8	5*	-3
42	30	-12
95	80	-15
44	32	-12
39	29	-10
	<ul> <li>39</li> <li>64</li> <li>8</li> <li>42</li> <li>95</li> <li>44</li> </ul>	39       30         64       57         8       5*         42       30         95       80         44       32

Latin America & Caribbean	43	28	-15
Middle East & North Africa	58	43	-15
South Asia	89	66	-23
Sub-Sahara Africa	110	101	-9

\* as in 2002

Source: The World Bank: 05 Little Data Book, pp.8-22 and 64.

The above data seem to present a paradoxical case. On the one hand, as "a world champion of economic growth", China's health expenditure increased considerably. National health expenditure as the chare in GDP has changed from lower than the world average level on the eve of the transition to being reached the world average level by 2002/03. On the other hand, progress in health improvement remains far slower than the considerable increase of health expenditure may have indicated. Although life expectancy continues to rise and infant mortality continues to decline, China's records remain pale as compared with most county groups either classified by income or by geographic location.

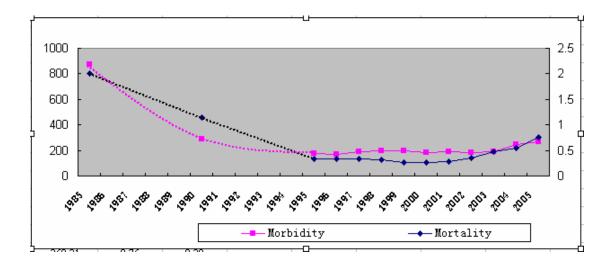
It may be argued that the reason for the slower progress in life expectancy and infant mortality is due to the fact that the base level was already higher. But, as above data suggest, the high income countries that had much higher life expectancy than China's in 1982 even managed to achieve a better result in the following 20 years. With regard to infant mortality, the only income country group that infant mortality decreased by a lesser margin than China's is the high income countries. These countries, however, were already far more advanced in this field that there was indeed little room for further improvement.

The comparably slower and disappointing progress in life expectancy and infant mortality is associated with a set of factors. Among them, we can identify morbidity and mortality related to the changes of infectious diseases as one of the most direct contributing factors.

#### Infectious and occupation diseases

Morbidity of infectious disease in China was 3,200 per hundred thousand in the 1950s, and reduced to 292 by 1990. The progress, however, began to slow down after the reforms started and, worse still, the trend was reversed since the mid 1990s (see Figure 4). Similar trend of upward movement occurred with regard to the mortality caused by infectious diseases.

Figure 4 Reported Incidence (morbidity) and death rate (mortality) of infectious diseases, per 100,000, 1985-2005



Source: Based on data from Ministry of Health: 2006 zhongguo weisheng tongji tiyao (2006 China Health Statistical Digest), Beijing, p. 43

Table 3 provides morbidity change of the most highly infectious diseases in the 1990s and thereafter. With the exception of dysentery, morbidity of the rest 7 infectious diseases appears to have increased by different margins after the mid 1990s. Take pulmonary tuberculosis (TB thereafter) as an example. In the first 30 years after the revolution and before the reforms, morbidity of TB decreased by 60-70%. Over the last more than a decade, however, TB morbidity has been again on the rise, becoming 3 times in 2005 of that in 1997. To various degrees, morbidity of viral hepatitis, measles and malaria have also moved upward. Venereal diseases such as gonorrhea and syphilis that were virtually wiped out during Mao's era now has come back and spread rapidly.

HIV in recent years has been growing at the rate of 30% annually. According to an official report, since the first AIDS case reported in 1985, the number of reported HIV infected grew to 135,630 by the end of Sept. 2005, of which 31,143 are AIDS patients, and 7,773 had already died. These numbers are commonly considered too conservative to reflect the real situation. A most recent report puts the number of HIV infected at 650,000. What is more troubling is, according to the same government report, HIV has now started to spread from high risk groups such as drug users, victims of unsafe blood transfusion and unsafe sex, to general population. No pregnant women were found to be infected with HIV in 1997, even in high risk areas such as Yunnan, Henan, Xinjiang, Guangxi and Guangdong. In 2004, pregnant women accounted for 0.26% of all HIV infected. It is estimated that, if the current trend continues the number of HIV infected in China could reach 10 to 20 millions by the year 2010. <sup>2</sup>

<sup>&</sup>lt;sup>2</sup> Wang Longde, Deputy Health Minister: "AIDS spreading from high risk to general population", Beijing, Nov.28, 2005.

http://news.xinhuanet.com/society/2005-11/28/content 3855553.htm

	1991	1993	1995	1997	1999	2001	2003	2005
Viral hepatitis	118.15	88.93	63.57	64.35	68.93	65.15	68.55	91.42
Pulmonary Tube	erculosis			32.73	39.03	44.06	52.36	96.31
Dysentery	116.64	54.59	73.27	57.50	45.91	39.52	34.52	34.92
Gonorrhea	7.36	9.19	11.64	12.87	20.63	14.62	14.09	13.79
Syphilis	0.07	0.11	0.54	1.68	4.16	4.56	4.50	9.67
Measles	10.90	10.18	4.83	6.85	4.67	7.24	5.55	9.42
Malaria	8.98	5.06	4.19	2.86	2.22	2.00	3.00	3.03
AIDS					0	0.03	0.08	0.43

Table 3Incidence of selected infectious disease, per 100,000, 1991-2005

Source: National Bureau of Statistics of China: China Statistical Yearbook, various years, Beijing; Ministry of Health: zhongguo weisheng shiye fazhan qingkuang tongji gongbao (China Health Development Statistical Report), years of 2003, 2004 and 2005, Beijing.

The situation about occupational diseases appears similarly alarming. A report by the Health Ministry in 2006 reveals that by the end 2005 China had over 600,000 pneumoconiosis patients, of which nearly 140,000 had died. Of all occupational diseases, pneumoconiosis accounted for 75% in 2005 and the number of its patients increased nearly by 10,000 every year. Nearly half of pneumoconiosis cases were caused by occupations in coalmines. What is more striking is that the time to acquire the disease on job has become shorter and patients younger, that the shortest time to become pneumoconiosis patients is only 3 months and the youngest patients reported were only 20 year old.<sup>3</sup> Half of the world total pneumoconiosis now is in China, which accounts only a bit more than 1/5 of the world population.

It has been argued that the government figures of occupational diseases are seriously underestimated. For example, the officially reported number of pneumoconiosis cases mainly concerns large scale, state owned mines. Given that more than half of the total coal output is produced by small and middle sized, locally or privately owned mines, and given that the working conditions in these coal mines re much worse, incidence of pneumoconiosis in these mines would be much higher. A number of sources estimated that the real number of people infected may have been 1.2 million, doubled the official figure. This means that virtually 1 out of 1,000 Chinese now may suffer from this excruciating disease with high death rate.<sup>4</sup>

<sup>&</sup>lt;sup>3</sup> Ministry of Health reporting China's occupational diseases and future work, from government website, April 24, 2006.

http://www.gov.cn/xwfb/2006-04/24/content\_262460.htm.

<sup>&</sup>lt;sup>4</sup> Guangming net, "Jingwen zhongguo baiwan kuanggong shengming zao 'shenfeibing' weixie" (Million miners are threatened by pneumoconiosis), May 26, 2006. http://www.gmw.cn/content/2006-05/26/content 422019.htm

Our discussion so far suggests that health outcomes during transition in China are not all positive. While the overall health status seems to have been improved continuously, as shown in life expectancy and infant mortality, the progress is far less favorable as compared with China's pre-reform record, and with most of the income and regional country groups in the world. A few health indicators have become worsened in absolute terms.

Life expectancy and mortality are increasingly viewed as indicators of economic success and failure.<sup>5</sup> In light of this view, transition to market in China needs to be assessed not only by its GDP growth but also, and perhaps more accurately, by its health starus. The question is: given its outstanding economic growth record in the last nearly 3 decades, why China's health outcomes appear to be far below expectation and some health indicators even become worse? As economic growth creates greater resources, the country is able to spend more wealth on health, and advanced medical technology and services become more available. Why then these achievements have not been translated into health improvement at the degree compatible with the growth of material wealth?

### II. Government failure in health sector

Health outcomes during transition are one of the direct products of the reforms, in which government policies have played decisive roles. Given the virtually monopolized power of the government in decision making and implementation, it is fair to say that the relatively slow progress in general health improvement and the deterioration of a number of health indicators can be attributed directly to the government failure in health sector.

Before the eve of the reforms, the size of China's GDP was undoubtedly much smaller and per capita income much lower. But China's human development record was much better than its economic level would have normally indicated by world standard. China was one of the countries that never had public health care and that had the lowest health indicators up to the early 1950s. By the end of the 1970s, however, it became one of the countries that had relatively comprehensive health care systems covering nearly the entire population. The government-led health work focused on the prevention and eradication of infectious diseases, and its general strategy in health care was "prevention first", as opposed to "treatment first". By ways of mass mobilization in health education and public hygienic work, by creating nationwide health care framework composed of urban public heath and rural cooperative health care systems, and by shifting medical resources from urban into the countryside and encouraging health professionals to work in rural areas where most people had lived, China was able to provide low cost and decent health services to the population. These experiences later became known as "China model", an example of successful health work in developing countries.<sup>6</sup>

<sup>&</sup>lt;sup>5</sup> Cf. Sen, Amartya. 1998. "Mortality as an Indicator of Economic Success and Failure", Economic Journal 108, pp.1-25

<sup>&</sup>lt;sup>6</sup> World Bank: Zhongguo: yiliaomoshi zhuanbian zhong de changyuan wenti yu

The "China model" allowed it to provide the basic health care services and to maintain rapid and steady health improvement with 3% of its GDP spent on health, thanks largely to its effective institutional arrangement. By the end of the 1970s, a series of China's health indicators became comparable to that of middle income countries. Up until the 1980s, China continued to be ranked much higher in human development indicators than its per capita GDP would have normally implied.

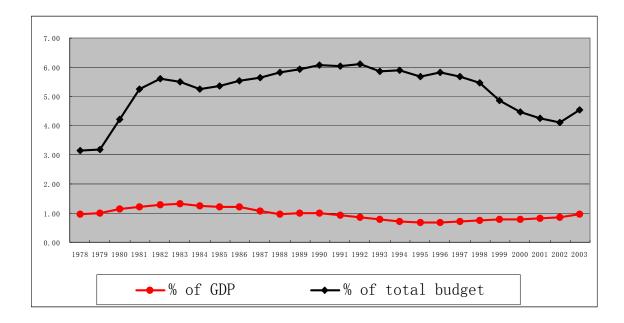
Transition to market has fatally undermined all and each of the above mentioned conditions upon which the outstanding health achievements were built. We can identify at least 3 major and inter-related characteristics in health sector that changed the landscape of Chinas health care during transition: the retreat of the government roles from the health care sector; privatization and marketization/commercialization led health care reforms; and the reversal of the guiding principle of health work from "prevention first" to factually focusing on treatment.

# Government retreat from health sector

Government financing is one of the important conditions for the improvement of public heath, especially in a developing and populous country like China. As can be seen in Figure 5, government health expenditure as percentage of GDP and of government total expenditure increased and reached the peak in the early years of transition before the mid 1980s. Since then, government health expenditure as the share of GDP began to decline clearly and rather dramatically, dropped below the level of 1950s in the mid 1990s. This share was recovered slightly only after the end of the 1990s. The fact that health expenditure as percentage of total government expenditure as percentage of GDP itself dropped by big margin. After 1992, although the government increased health spending in absolute figure, as percentage of government total expenditure it continued to slip and by the end of 1990s reached the lowest point to the level of the 1970s. This clearly indicates that health care has not been on the top agenda of the government, as the government spends less and less revenues on health.

Figure 5 Government health expenditure as percentage of GDP and of government total expenditure, %, 1978-2003

zhanluo, (China: Long-Term Problems and Strategies in Changing Health Models), Beijing: China Finance and Economics Publishing House, 1994



Source: National Bureau of Statistics of China: China Statistical Yearbook 2005; Ministry of Health: 2005 China Health Statistical Yearbook; and Ministry of Finance: 2005 Finance Yearbook of China, pp.344-45

In China, government health expenditure has a number of components, including health sector funds (weisheng shiyefei), health construction investment (weisheng jijian touzi), funds for "public health care" (gongfei yiliao, i.e. health coverage mainly for personnel working in governments and government funded institutions), medical high education funds (not included after 2001), and others. The main component is health sector funds, which is to provide funding for hospitals, for the subsidies of rural health clinics, for supporting infectious and other disease prevention work, for drug test institutions, subsidies for rural cooperative health systems, etc. This category is obviously most crucial for the function of institutions of both medical treatment and disease prevention. During the reforms, the proportion of government health expenditure allocated to these components has been changed considerably. From 1978 to 2003, government funds for "public health care" increased form 14% to 25% as percentage of total government health expenditure, and the share of family planning reached more than 12% from nothing in 1978. At the same time, the share of health sector in government health funds declined from about 60% to 40%, which has had profound and negative impact on the operation of health care institutions vital to public health.<sup>7</sup>

Systematically cutting financial support for public health thus reducing its role in health sector seems to be a conscious government decision, because it is neither forced upon it by some financial crisis since there has been none, nor because of the lack of resources. For example, government spending on automobiles was increased by 27% annually during 1991-1995, at the growth rate far higher than GDP. In recent

<sup>&</sup>lt;sup>7</sup> based on Ministry of Health, 2005 China Health Statistical Yearbook, 4-2

years cars bought by governments at various levels grow by more than 20% annually. In 2004, of all government purchases (zhengfu caigou) at 220 billion yuan RMB, 50 billion was spent on buying new cars. A conservative estimate suggests that there are 3 and half million government cars currently, which costs 300 billion yuan RMB every year. Spending on government cars accounts for 38% of total government expenditure, not only more than military spending but also more than government expenditure on education AND health combined. <sup>8</sup> Given such a pattern of government budget spending, it is hard not to draw a conclusion that public health is listed low in government agenda, if not deliberately being neglected.

In addition, after the early 1980s when central-local government budget regimes were being re-arranged, the responsibility for public health has fallen largely on local governments. Due to the large variation in economic development and government revenues in different regions, local governments in relatively poor regions face greater difficulties in maintaining quality health services. This has led to the deterioration of health services in regions where government assistance is most needed.

Reforms measures pursued in health sector have led to the change of management of hospitals and other health institutions, as well as drug manufacturing and supply. The central government has yet to find affective ways to coordinate at the national level the increasingly complicated and fragmented health care sector, from financing to managing health care services to drug production and distribution. The main direction that the government has been pushing in health sector reforms up to date is to reduce government function so as to allow the market playing bigger role.

### **Privatization and marketization**

Since the reforms started, government decisions and policies have become increasingly oriented by the so-called market principles. In the 1990s, when the so-called 'socialist market economy' was officially declared as the goal of the reforms, one of the most favored slogans among government officials is: "Having problem? Turn to the market not to the mayor (the government) for solutions". As market transition moves on, together with other sectors of the welfare provision such as housing and education, health sector has been also being increasingly 'marketized'. The core idea is to let the "invisible hand" of market to play decisive roles in determining prices of both medical services and drugs. Guided largely by neo-liberal ideology, health care provision began to be viewed by policy makers as any other tradable goods and services that should be determined by market, i.e. by individual decisions and ability to pay. As for the role of the government in this market game, an increasingly dominate idea has been that, instead of being a player, the government should limit it role simply as a referee or a watch dog. This has become an official line guiding China's health sector reforms since the beginning of the 1990s.

With regard to health coverage arrangements, the cooperative health care system in the countryside established during Mao's era was the first victim of the reforms. This rural health care system was collapsed almost immediately following the dissolution of the collective farming system in the early 1980s, and no viable

<sup>&</sup>lt;sup>8</sup> Zhongguo jingji shibao (China Economic Times), 24 Nov. 2005

public/collective replacement has ever been created up to date. As reforms moved further to urban areas and privatization and marketization was carried more vigorously in virtually all economic sectors, competition and profit making was promoted to be the most important driven force in health sector reforms. The practice has resulted in not only further fragmentation of the national health coverage institutional arrangements but also a sharp decline of the population entitled for any public health coverage. Before the reforms, the overwhelming majority of urban population was covered by either public health care (gongfei yiliao) or labor security health care (laobao yiliao). The coverage shrank dramatically during transition. According to household surveys in 1988, 1995 and 2002, the percentage of families without any family member covered by either type of health care increased from 17.1% in 1988 to 62.7% in 2002. Although commercial and other types of insurance schemes were eventually being introduced, the coverage of such schemes was very limited, far from being able to cover the health care need for those squeezed out from public health care systems. As a result, an increasing proportion of the population has been left without any coverage. As the sample survey shows, in 2002 nearly half of the population was without any health coverage (Table 4). This is more shocking if one remembers that 20 years ago population without any health coverage was merely about 10%.

Table 4Types of health coverage, %, 1995, 1999 and 2002

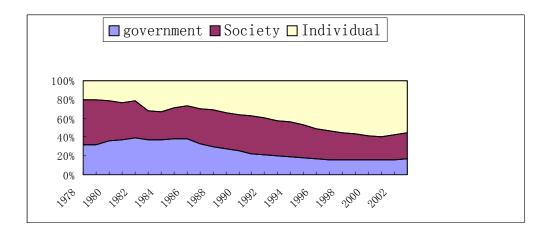
	1995	1999	2002
Public health coverage (guojia/danwei)	55.86	49.13	21.28
Commercial insurance and coverage	11.14	12.18	30.24
Out-of-pocket payment	33.0	38.69	48.48
Samples (number of people)	19713	11600	19174

Source: Luo Chuliang, 2004, "Jingji zhuangui yu buquedingxing: weiguan shijiao" (Economic Transition and Uncertainty: Micro Perspective), Jingji yanjiu ziliao (Economic Research Materials), No.9

As health care become increasingly governed by market forces and more people are stripped out of any health coverage, medical treatment for the majority of people in China has been transformed into a service available only for those capable to pay. According to a source of national health care payment, of the total heath expenditure, percentage coming from direct individual cash payment nearly tripled, increasing from 20.4% in 1978 to 55.9% in 2003, while the share of government budget and social payment (i.e. various health care and health insurance schemes) decreased from 32.2% to 17.0% and from 47.4% to 27.2% respectively. Other sources believe that individual payment as percentage of total health expenditure was even higher, for instance, a deputy health minister in the

end of 2005 gave the figure as 58% for 1998, and nearly 60% in 2003.<sup>9</sup>

Figure 6 Health expenditure structure (government budget, social and individual), %, 1978-2003



Source: Ministry of Health: 2005 China Health Statistical Yearbook, Beijing

Thus, measure by the degree of individual direct payment in health expenditure, China by the early  $21^{st}$  century has become among the countries with the highest level of marketization of health sector. According to the World Health Organization, in 2003, the total health expenditure in China accounted for 5.6% of GDP, in which individual expenditure accounted for 63.8%.<sup>10</sup>

In 2000, in 30 OECD countries, the government took a lion share of health expenditure, and only in 5 countries the government's share was less than 70%. In developed countries as whole in 2000, individual share of health expenditure was 27%. As Table 5 shows, in China the share of individual expenditure in total health expenditure is much higher than the average of the world and of all country groups, including not only that of the developed countries, transition economies, but also developing countries including the least developed countries.

Table 5 Realth spending in Clinia and other countries, 2000	Table 5	Health spending in China and other countries, 2000
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Health s (% of G	0	ndividual contribution (% of total)	government share (% of total)
China	5.3	60.6	39.4
Developed countries	8.5	27.0	73.0

<sup>&</sup>lt;sup>9</sup> www.XINHUANET.com, 17 Nov. 2005

<sup>&</sup>lt;sup>10</sup> World Health Organization (WHO): The World Health Report 2006 -Working Together for Health, 2006

Transition economies	5.3	30.0	70.0
Least developing	4.4	40.7	59.3
Other developing	5.6	42.8	57.2
World average	5.7	38.2	61.8

Source: Wang Shaoguang, 2003, Zhongguo gonggong weisheng de weiji yu zhuanji (China' Health System: From Crisis to Opportunity), Bijiao (Comparative Studies), No.7. 39.4% listed here as the government share in China is likely to include the so-called social spending, mainly various types of commercial health insurance.

In the early 2000s, more than two decades into the transition with high economic growth, urban population covered by public and other forms of health insurance was estimated at 100 million, less than half of the total urban working force, whereas in the countryside only about 10% of rural population had some coverage. For the majority of people, out of the pocket cash payment becomes the only way to receive medical treatment. In recent years, the government started to implement the plan to enroll rural population into the so-called new type of cooperative health care system, but the effects of this plan in both health care coverage and health status remain yet to be seen.

The supply of health services has also increasingly being commercialized, i.e. subject not to the needs of the people but to their ability to pay. Today, capitals are free to be invested in health service sector with no particular constraint on either entry into or withdrawal from this "market". The allocation of newly established medical service institutions and the types of their services are mainly determined by the so-called market needs. As for the existing health care services, including public hospitals and even public health organization, they have become in fact entities with independent accounting and enterprise-type of management, similar to business companies.

The health care reforms increasingly oriented towards privatization and marketization has pushed health care sector into full fledged competition, and the mechanism of the price formation of medical services have been largely determined by the market competition. As a result, while the quality of medical services in general including technical and equipment capability of hospitals improved notably, prices of medical service and drugs also skyrocketed, at a speed much faster than that of either GDP or income growth. According to official data, per capita expenditure on health care increased from 11.5 yuan in 1978 to 509.5 yuan RMB in 2003, by 45 times. This is an incredible jump even taking into the consideration of price changes over the years.<sup>11</sup> Given the current average income of the population especially the much lower average income of rural population, such a price hike in medical services and drugs has undoubtedly aggregated the problem of health care accessibility.

### Shifting from prevention to treatment

<sup>&</sup>lt;sup>11</sup> Ministry of Health: 2005 China Health Statistical Yearbook, 4-1.

After 1949 and before the reforms, government efforts in health care were guided by the principle of "prevention first". This principle is composed of mainly two parts. First, public health [gonggong weisheng shiye] was made as a major focus of government health work. Expenditures on public health took the priority in overall government health expenditure. After years of concentrated efforts, a relatively comprehensive public health framework was established based on a nationwide institutional network of infectious disease prevention, maternal and child health care, endemic disease control, and so forth. This public health framework functioned in tandem with nationwide medical treatment institutions coordinated by the relevant departments of the government. In addition, the frequent nationwide mass hygienic movement resulted in the eradication or virtually eradication of various malicious infectious diseases, rapid decline of morbidity of other infectious diseases, effective control of a number of endemic and parasite diseases, and the sharp reduction of general morbidity.

The second part was to focus the limited medical resources on the treatment of most common and frequent occurring diseases. This proved to be of optimal cost-benefit effect for the health of the general public. At the same time, the government exercised relatively strict control over medical services as well as drug production and distribution, which allowed a better and more equal allocation of medical resources among different regions and social groups.

The characteristic of "prevention first" was an important component contributing to the "China model" of health care system for a low income country before the reforms. This practice led to radically increased access to medical services for the population including rural residents, which in turn substantially improved the national health status.

During the market transition, the focus of health care efforts was tacitly shifted from "prevention first" to "treatment first", although the slogan of "prevention first" has not been officially discarded. Such a shift is simply the result of the overall market orientation of the reforms. As in other sectors, the government eventually implemented similar policies in health sector, requesting hospitals and other health related institutions to be financially self-sustained, i.e. to be largely responsible for their own profits and losses. The ever growing market environment was no longer suitable for the operation of public health work institutions, whose goals were least concerned with profit making. Institutions such as infectious disease prevention clinics no longer received sufficient funds from the government in order to carry out their function such as disease monitor, building and maintaining public health facilities, disease control, or grassroots vaccination. Instead, they began to engage in services that can bring income but with low health outcomes, and began to charge fees for services that used to be free, often even for such services as preventive vaccination or treatment of infectious diseases. Of course, not all people are willing or able to pay form these services. As can be expected, by now the "prevention first" has become mostly in words, not in deeds.

While disease prevention was increasingly neglected, resources were being shifted to medical treatment because the latter is more profitable. Unlike public health

work, hospitals that can bring profit and generate rather immediate visible effects have gained considerable development momentum. During the transition, especially from the 1990s, resources from various sources including private investment have been put into hospitals. Huge amount of money have been spent on importing high tech and expensive medical equipment, most notably by urban hospitals. In certain big cities, hospitals are equipped with advanced medical machines/equipments at the level exceeding that in developed countries. For example, with regard to possession of CT or MRI, some cities in China today are better equipped than hospitals in major cities in North America and Europe. This contributes to the sharp increase in medical care cost. While these advanced equipments may help improve diagnoses, their high price also helped to have pushed up medical cost and diverted resources from other health work such as disease prevention. It seems to become a pattern that disease prevention work receives substantial government funding only when a major outbreak of infectious diseases takes place, and the funding disappears soon after the situation is improved.

Health consequences of shifting resources from disease prevention to medical treatment have been increasingly recognized in China, as a number of infectious diseases have re-emerged or been on the rise. Disease prevention measures have become unknown to a large portion of the ordinary Chinese, especially those in rural areas, where people are often not given proper care when they have minor ailment. Many come to seek treatment only after the disease becomes very serious or even fatal. Popular discontent with health care reforms is growing, but the call for establishing a nationwide health care system and for returning to "prevention first" is yet to see any major effect on government health policies.

## **Concluding remarks**

When economy is booming and health status is improved not accordingly or even becomes worse in some aspect, something else rather than the economy has to be responsible for such outcomes.

China's reforms, said to have created an "economic miracle", have seen its national health care systems (however rudimentary it might be), the institutional framework of public health care, and the disease prevention network weakened or broken due to, ironically, the "lack of financial resources" to sustain them. The roots of the problems undoubtedly go far deeper. As discussed in this paper, the far less than expected health outcomes during transition can be associated directly with the ultimate government failure in health sector. To be sure, there are other factors that are equally important in shaping the current health status of China which are not discussed here. These factors include (but are not limited to) the increasing inequality in the access to health resources, mainly due to the rapid growth of income inequality and the hugely unfairness of medical resource distribution especially between urban and rural population.

There are a number of lessons to be learnt from China's transition experiences. First, economic growth alone cannot guarantee the necessary health care for the basic needs of the population. For the purpose of health improvement, how to distribute resources is no less important than how to generate resources by, for example, promoting economic growth. Second, market forces, no matter how powerful, cannot solve the problem of either fairness or efficiency in medical services. And third, government role in health sector is crucial, especially in the situation when income inequality is on the rise.

[本文俄文版: "Пеходный период в экономике Китая и состояние здоровья нации",刊载 于: Управление здравоохранением, № 3/2008 (22), ст. 63-80 ("中国经济转型与人口健康状况",《医疗保健管理》,莫斯科, 2008 年第 3 期, 第 63-80 页)]