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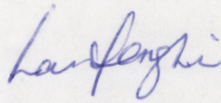
**"HEALTH SECTOR IN CHINA (1949-1995)"**

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## Statement

This sub-thesis is my own work and all sources used have been acknowledged.



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# **HEALTH SECTOR IN CHINA (1949-1995)**

## **Chapter 1 Introduction**

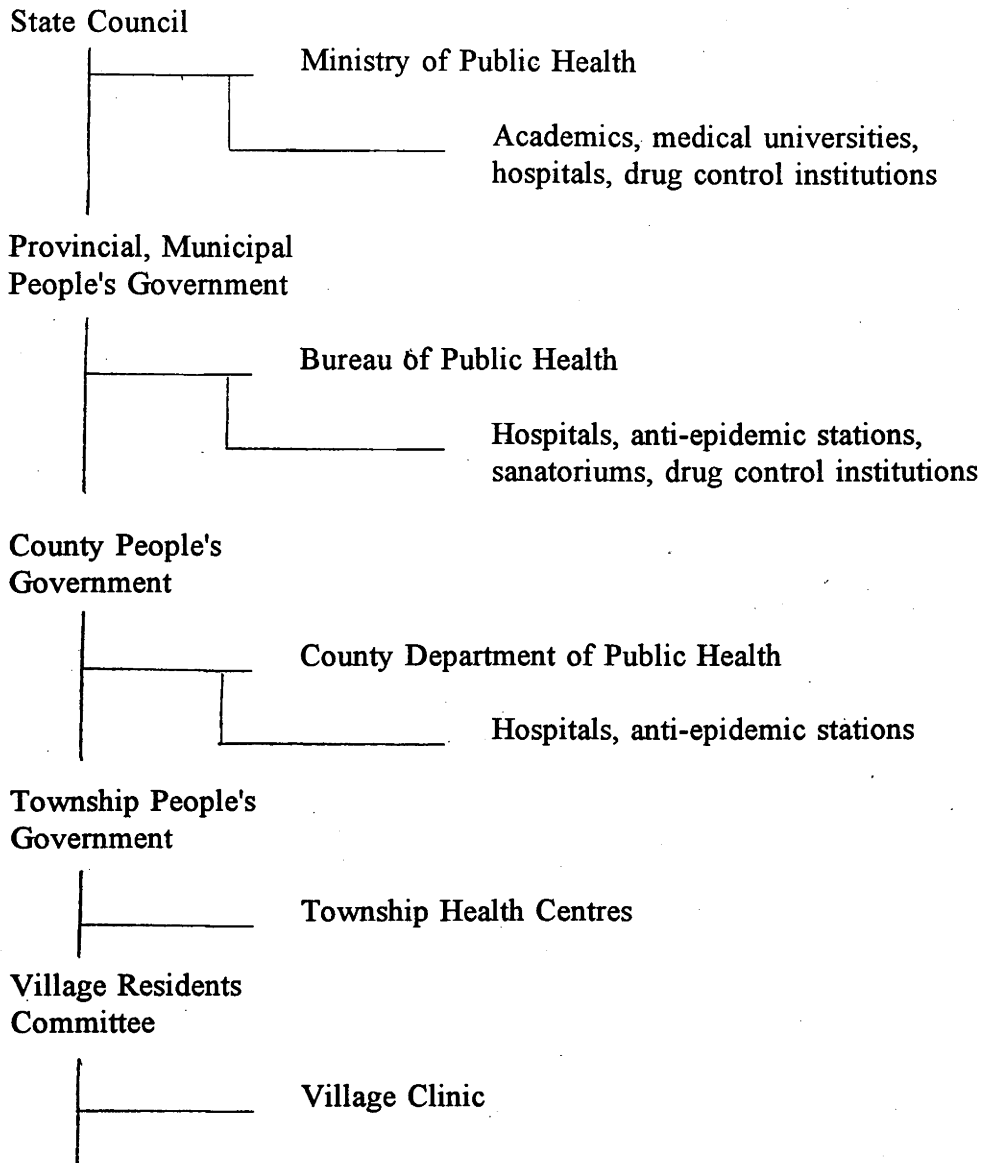
The purpose of this paper is to trace the changes in the funding to China's health care system and the policy context in which these have occurred, and to examine their impact on the quality of health care provision. It attempts to provide a broad overview of the Chinese health care system. The emphasis is on one of the important aspects of health - financing. However, rather than focusing on the statistical aspect of the financing system, because of the lack of reliable and sufficient statistical data, I will examine the factors affecting the health financing. These factors include sources of financing, health inputs, health care delivery systems, and in particular, the changes that occurred since the implementation of the economic reform policy adopted in December 1978.

Since 1949, China has been governed by ever changing political ideologies, and health policies have been extremely inconsistent. A strong feature of one developmental stage is of little significance in another. Take for instance, the People's Commune system that was an important health financial source and provided a large part of the health care for the vast peasantry, has had little impact on the health input since its decline in the early 1980s after the rural household responsibility system was introduced. The Barefoot Doctors system that swept through China during the Cultural Revolution have also become a part of the Chinese history and no longer has any significant role to play in today's China.

Officially, the Chinese Ministry of Public Health (MOPH) has been responsible for the administration of the health care system and for monitoring the health expenditures funded from the public budget. Since 1978, decentralisation has occurred in many sectors, including health. Financial decentralisation in health has meant that local governments and the Provincial Finance Bureaus have taken over these responsibilities. The sources and channels of health financing are extremely varied and complex: there are direct and indirect government funding; varied health insurance schemes; and spending by industry, collectives and private patients. Until recent years, the Central Government had no established data collection system for total health expenditures. Even the comparatively more systematic data collection in recent years often do not have separate data for health. For example, many statistical yearbooks, such as the China Statistical Year Book, both at the central governmental and provincial levels, have been combining health expenditures with that of the cultural activities and education. In addition, China has been lacking a consolidated accounting system and there has been confusion over concepts and categories of health expenditures. Some data being used for policy making by the Chinese governments and international agencies are the results of limited surveys and can be unreliable. The data used in this paper are mostly from the official sources, thus bear this characteristic. Nevertheless, the available information do construct broad estimates of total health expenditures by sources and outcomes of health financing.



**Fig. 1.**  
**Schematic representation of China's health care system.**



Source: Bulletin of the World Health Organisation, 71(6) p.726, 1993

## Chapter 2 Background

According to the official Beijing Review, China's total population reached 1.2 billion in February 1995. (1) This figure, however, can only be regarded as an official estimate, as the large number of the rural 'floating' population that left their rural homeland in search of city jobs have made an accurate population census impossible. It would not be surprising if the real population exceeds the official estimate. Undoubtedly, to provide health and medical services to such a large population requires enormous financial and human resources.

Since the Chinese Communist Party (CCP) took power in 1949, China has made great achievements in improving the nation's health status. The situation in 1949 in the mainland was that the population was burdened with diseases and premature deaths. The vast majority suffered from the consequences of continuing war and an ailing economy. Lack of access to basic medical care, malnutrition, poor sanitation, and lack of clean water supplies, all contributed to high rates of premature deaths. The death rate was estimated at about 33 deaths per 1,000 people annually, one of the world's highest. (2) The infant mortality rate was 252 deaths per 1000 live births. In other words, one of every five babies born died in its first year of life. Adult life expectancy was only about 32 years in 1950. (3)

Another problem China faced was the lack of health resources and their uneven distribution. There was about 1 Western medicine doctor for 15,000 people, according to the Chinese official statistics in 1950. (4) These limited Western medicine doctors were mainly concentrated in urban areas of the east coast. The

bulk of medical care available to the majority of the population was provided by the practitioners of traditional medicine. Some of these practitioners were well trained, widely experienced but others were poorly educated pill peddlers.

Preventive medicine was essentially non-existent in most of China. Therapeutic medicine of the modern scientific type was almost completely unavailable for the poor urban dwellers and the peasants which accounted for 85% of the total population. People's fate were often placed in the hands of superstition and non-scientific treatment. In addition, the traditional practitioners and the Western doctors remained deeply mistrustful of each other.

Despite a lack of resources and the burden of a vast population, the new Chinese Central Government made remarkable progress in the 1950s and 1960s in its efforts to improve the nation's health status. The living standards for the majority of the people were improved considerably. The public health measures in the beginning of the People's Republic were highly successful. The establishment of the Commune Cooperative Medical Care System in the 1950s, the introduction of the Barefoot Doctor system in the late 1960s, and the launching of patriotic health campaigns have all contributed to bringing basic medical care to the ordinary Chinese. Notwithstanding that political events and economic policies have had a strong impact on the formulation of health policies, which often meant radical policy shifts and sometimes wasted limited resources, life expectancy increased from about 32 years in 1950 to 71 years in 1992 (5) - a level close to industrialised countries such as Australia (with a average life expectancy of 77.5 years). (6)

**Table 1:** Selected comparison of life expectancy (1990-1993 estimates)

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Japan	Australia	China	Malaysia	Philippines	Indonesia
79	77.6	71	69.2	65.4	61.5

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Source: World Development Report 1993 - Investing in Health



## **Chapter 3 Financial resources**

This section looks at the historical settings of the health financing system and the impact of economic reform measures have had on the health sector and its financing.

There have been three main channels of financial resources: government funding, insurance schemes and private patients' payments.

Unlike many other developing countries undergoing modernisation, China did not move toward a consolidation or centralisation of decision-making in order to achieve greater control, efficiency, and production. Instead, China has followed the dual course of consolidating political power in Beijing and encouraging decentralisation in many sectors of the economy. The social and economic structural changes since then, together with the consequence of uneven economic development, has created more social differentials and changed China's health system profoundly.

### **3.1 Government budget system**

China has not had an uniform health system either in terms of administration or financing. This was particularly true in the 1950s and 1960s when political events and radical policy changes interrupted the official aspect of the funding system.

The Central Government Ministry of Public Health (MOPH) was established on 1 November 1949. (7) Soon after, four regional health ministries were established under the military committees to take responsibility for the health services in south-east (Huadong), mid-south (Zhongnan), north-west (Xibei) and south-west (Xinan) regions of China. This was partially because the Chinese Communist Party had not occupied some of the territories in these regions. In the north-east and central-east regions, the People's Governments were responsible for health care. In 1954, these regional ministries were replaced by the Central Government Ministry of Public Health at the top level. The day-to-day operations were left in the hands of local provincial, municipal and autonomous governments.

In the 1950s and early 1960s, health organisations at local levels were gradually put in preliminary order. But there was contention between Mao's and the Chinese Communist Party's concept of health work and the ideas of the medical profession with its power base in the MOPH. Health policies were not implemented smoothly. The MOPH was one of the power bases of Mao's political enemies and resisted his policy directives. The medical profession was one of the urban elites Mao had always mistrusted. Mao and the MOPH blocked each other's efforts in many ways. For example, Mao's call for medical workers to work in the rural areas was met with resistance from the MOPH.

This preliminary health structure was very short lived because of the Cultural Revolution. On 19 June 1968, a Military Supervision Committee was established in the Ministry to replace its administration. Health departments and bureaus at all

levels were dismantled. The health system was under the control of a "vocational group" within the Military Supervision Committee. By 18 July 1973 when the committee was abolished, China's health system was on the brink of breaking point.

Since then, the health system has experienced various experimental reorganisations. But the complicated historical settings in the health sector and the changing economic environment since the late 1970s have made it extremely difficult to reform the health system.

The Chinese government has always had an important share of health financing in China, at least until the reform era since the late 1970s. State budget expenditures on health comprise 3 types of expenditure undertaken at all levels of government: first, expenditure undertaken through the Ministry of Public Health on health services delivery, medical education, and provincial and county bureaus of health; second, expenditure through the Ministry of Finance on the government insurance scheme for government employees; and third, expenditure through provincial budgets on medical education in the provincial medical colleges.

State budget expenditures through the MOPH increased steadily since the 1950s, reaching a total of 3,881 million yuan in 1981 and 5,727 million yuan in 1987, as illustrated in Table 1.

**Table 2** Government budget expenditures as a share of total health expenditure  
(RMB millions - 1980 constant prices)

	1970	1980	1985	1987
Total expenditure	4621	12057	22964	30274
Government budget	1327	3586	6111	5727
As a share of total	29%	30%	27%	19%

Source: A World Bank Country Study 1992 p.110

The public health budget finances mainly staff salaries in the health bureaus, public hospitals and other public health institutions, but not for rural doctors, who are essentially fee-for-service practitioners. According to the statistics of the MOPH in 1992, there were 3,692,000 health professionals distributed in more than 15,000 hospitals at the county level and above, and in more than 40,000 health centres at the township level. Of the total hospitals, 47 are affiliated to the Ministry of Public Health at the central level, 76 to the municipalities of Beijing, Tianjin and Shanghai, and 62 are affiliated to the capitals of provinces / autonomous regions, in which they are located. (8) The state subsidy at both central and provincial levels for their respective hospitals has been appropriated through the hospital services budget.

The Planning Commissions at central and provincial levels usually provide funding for capital expenditures, while the Finance Bureau's recurrent budget allocations normally finance some expenditures for equipment. But health institutions sometimes also use allocations for maintenance to construct new buildings, which confuses the accounting system. Earnings of the institutions can be used for capital investment as well. On the books of the Finance Bureau and



the institutions, however, all of these expenditures are often recorded as recurrent costs.

The publicly funded proportion of the total health expenditures has become less important in recent years, because most hospitals and other health institutions have been encouraged to become self-financing. Starting from 1979, hospitals at the county level and above trialed a managerial responsibility system to link the state's, hospital's and individual's financial interests. Hospitals were to manage their own funds and retain savings/earnings. This resulted in today's fee-for-service system which can generate more earnings and is consistent with the trends in other sectors in China. The general pattern of health financing has seen a reduction in the role of public subsidies for health and a sharply increased reliance on cost recovery through insurance payments and payments by patients. These trends in expenditures are directly linked to incentives provided by the administrative system reforms and by the incomplete price reforms in the 1980s.

The requirement that most health institutions earn revenues sufficient to cover operational costs and some capital costs have resulted in "provider-induced" consumption of those services on which a profit can be earned. Because of the lack of an effective referral system, fee-paying patients seek care from higher level facilities. Hospitals consequently have high utilisation rates of advanced equipment and have reasons to purchase more such equipment to carry out profit-making medical examinations. Hospitals may generate further income by reducing medicine stock which usually hold up about 60 percent of the hospital funds, and

by increasing the number of patients treated and service items. (9) For example, Tianjin hospitals extended consulting hours, provided more advanced medical examination items and abolished the restrictive consultation register system. As a result, 4.5 percent more outpatients were treated and 6.9 percent more inpatients were admitted in 1983 compared with 1982.

Retrospectively, the Central Government should have had a more direct control over the health sector reform. The decentralisation of financial control which made all institutions financially accountable in all sectors in the economy did not suit the nature of the health sector. Chinese hospitals were not designed to be profit making, as all hospitals were publicly funded and their clients were mostly government employees, be they employed by the government agencies or state-owned enterprises. At the beginning of the reform, there were no private health insurance schemes from which hospitals could make money and non-insured patients unlikely could afford expensive treatment or medicine. The money the hospitals could earn from were mostly publicly funded insurers - government agencies and state-owned enterprises. This leads me to the health insurance schemes existed in China.

### 3.2 Insurance schemes

There have been four main categories of health insurance. They are: the Government Insurance System (GIS), Labour Protection Insurance System (LPIS), the Collective-owned enterprise insurance schemes and commune cooperative insurance system.

**Table 3:** Estimated Health Sector Expenditures  
(RMB millions - 1980 constant prices)

	1970	1980	1985	1987
Total	4621	12057	22964	30274
Insurance	2462	5998	9703	12490
Patient fees	663	1701	5944	10884
Government Health Budget	1327	3586	6111	5727
Other sectors	218	820	1253	1221

Source: Ministry of Public health, World Bank Staff Estimates cited in A World Bank Country Study, 1992, China: Long-term Issues and Options in the Health Transition

The Government Insurance System was first introduced in 1952 to provide free outpatient and inpatient health services for life to government employees, university teachers and students. In general, only primary members are covered by the scheme which is financed by the state budget. This system covers about 25 million government employees in 1992 (there were 16 million in 1980), about 2 percent of the total population. The scheme is financed by the state budget and administered by the Ministry of Finance. Benefits for government employees at national level are financed out of the Central Government budget and benefits for those at provincial level are financed out of provincial budgets. The insured beneficiaries are not required to make any payment out of their own pockets for medical services except for food and travel expenses which are minimal. This, coupled with the lack of referral system, encourages the insured patients to seek high level facilities and result in excessive consumption of services. Between 1979 and 1981, 2.018 billion yuan spent on GIS. Total state budget outlays on the GIS were increased at an average annual rate of 15.3 percent during 1977 to 1981, reaching a total of 789 million yuan in 1981 and exceeding 900 million yuan in

1983. (10)

The Labour Protection Insurance System was introduced in 1951 by the State Council in the "Labour Protection Insurance Act of the Peoples Republic Of China". Workers and staff employed in state enterprises with more than 100 employees are insured by this scheme. The system entitles primary members to free health care for life, and 50 percent reimbursement of health care costs to their dependents. The number of primary members in 1981 was estimated as 66 million. It was estimated that there were about 51 million dependents of primary members (reported in the 1981 Household Income and Expenditure Survey of Staff and Workers in Urban Areas). Some co-payment may be required, but generally amounts to very little. The financing of the LIPS is treated as an addition to the enterprise wage bill, with no individual prepayment by the employee. The MOPH estimates that approximately 4.4 billion yuan was spent by this scheme in 1981, and a total of 9.682 billion yuan on between 1979 to 1981.(11)

Both GIS and LPIS members were regarded as the privileged sections of the society in the pre-reform years, and still somewhat better off than those not covered by the two schemes.

The above two schemes were both introduced in the early 1950s when the state budget largely subsidised government organisations and state-owned enterprises and the pay level was low. These insurance schemes did not change in keeping



with the other changes in the economy.

Since 1989, the government has encouraged a cost sharing system where medical expenses are shared by state, employers and private citizens. Many state subsidies for the enterprises were taken away which caused great difficulties to the traditionally government-subsidised LPIS. Options were explored all over the country for an improved health system to ease the rapid growth of health expenditure. While some of the new measures achieved the goals of cutting medical expenses and reducing waste, many people have been losing access to necessary medical care. One third of the state-owned enterprises have incurred serious losses since the reform started, and have not been able to pay their workers on time. (12) To shoulder the medical costs has become impossible for many of these enterprises. Some workers have been laid off, receiving only 60-70 percent of their original pay and sometimes IOUs. This affects the workers' livelihood considerably. Families are under extreme financial strain because of the burden of paying medical expenses.

At the end of 1984, a policy on economic structural reforms was formulated. A health safety net was introduced in many state-owned organisations, and individuals began to share the medical costs. Workers were allocated an annual medical allowance. If their medical costs were below that amount, they were to keep the balance. Theoretically, any amount that exceeded the safety net allowance was to be reimbursed by their employers. This was possible in the large state-owned and subsidised enterprises in the mid and late 1980s. The smaller

enterprises though struck difficulties straight away and could not reimburse their employees' medical expenses.

To make matters worse, medical expenses have risen steeply in recent years as China moves from socialist central planning to a market economy. Hospitals have come under increasing pressure to pay their own way and have transferred many of their costs to patients and their insurers. Large or prosperous employers are usually able to shoulder most of these, but employees at small firms or work units with marginal economic performance and farmers must rely on themselves. As the cost of medical treatment rises inexorably, "un-affordable" illnesses are becoming an increasingly pressing social problem. In May 1995, the Xinmin Evening Daily reported that one worker in Zhejiang Province committed suicide because he had no money for the medical treatment for hepatitis B which cost him 10,000 (\$1,200). His work unit, a transport cooperative could only pay 70% of his medical expenses and refused to lend him more money for treatment. Of course, this was an extreme example. However, it does demonstrate the level of pressure and strain the current health system has put on people.

Collective-owned enterprise insurance schemes used to cover a maximum of about 35 million urban workers and township and village enterprise employees, although there has been a rapid increase since the boom of village and township enterprises in the early 1980s. Collective insurance systems usually provide a lower level of coverage. They vary in the extent of coverage according to the economic status of the enterprises. The reimbursement rates have been lower than those of the GIS

and LPIS. Some co-payment has been required but there have been ceilings on total amounts of payment. This system discourages excessive health services and utilisation, while providing its beneficiaries with some protection (around 70-80 percent for primary members and partial coverage for their dependents).

The GIS and LPIS are estimated to cover 10 percent of the total population.

Another 10-15 percent are under the collective or communal enterprise insurance system. This means that there are more than 800 million uninsured Chinese whose access to health services depends on their ability to pay. (13)

Most of the uninsured are rural dwellers who have been traditionally disadvantaged.

In the 1950s and much of the 1960s, there were no known established systems for the vast peasantry. In 1968, a rural "cooperative medical services" (hezuo yiliao) system was established to finance rural health services. Although individual details varied considerably throughout China, the cooperative schemes generally took the form of a pre-paid medical insurance plan, organised at the level of the production brigade (and later village). Typically, the insurance fund was financed jointly by annual prepayments paid by individual members of the brigade and by annual appropriations from the brigade's welfare fund. The local para-health workers (barefoot doctors) were financed on the basis of work point claims on collectively distributed income until the early 1980s. More recently, some of these rural health workers have received a modest fiscal subsidy paid out of the provincial health

budget as a means of reviving the system. There have been substantial variations among brigades in the benefit entitlements offered by the cooperative insurance schemes. In general, the benefit entitlements were determined by the brigades' income levels.

Commune members initially had the choice of whether or not to join the system, but later had to join. The coverage of the cooperative system reached a peak of 90 percent of brigades in the late 1960s, but declined from 68.8% (1979) to the level of between 5 to 10 per cent in recent years. (14) In 1989, according to the newspaper, *Health Daily*, only 4.8% of all administrative villages continued to offer this welfare insurance. (15)

Theoretically, the collective funds were combined contributions of peasant families, communes and the state. The communes contributed money from welfare funds and peasant families paid an amount determined by the previous year's medical expenses within the commune. The annual membership fees for peasants were very low, with the premium varied up to approximately 3 percent of a family's disposable income. Depending on the economic circumstances of the communes, the cooperative medical system functions varied considerably. It was reported by fifteen communes across China in 1973 that such fees ranged from 0.35 to 3.60 yuan per annum. Still, this was a burden to the average rural families as the level of disposable income was extremely low. In some poorer regions, peasants might not have any income at all. For example, after 16 years high economic growth in China, the average rural annual income in Gansu Province of



the north-west was only 723 yuan in 1994. (approx. A\$120) (16) Since the commune system started in the late 1950s, a great number of peasants had little means of earning cash income. For instance, the number of animals one family could raise was limited to a minimum for private use. Any extra material possession was regarded as 'capitalist tail' to be 'cut off'. Some did risk being arrested and fined to cash from their local produce in urban black markets. Should peasants get sick and require hospitalisation, peasants had to pay their medical expenses, the amount depending on how much their commune insurance scheme could contribute. The poorer their communes, more they had to pay out of their own pockets. As a result, the cooperative medical system could only afford very limited services and many illnesses stayed unchecked or uncured. For a long while in the 1970s when I was living in the city of Tianjin, there was a profitable black market of medicine where urban residents who could get large amount of medicine free of charge cash in on their privilege.

**Table 4:** Insurance status

Rural Cooperative Insurance:	48%
Uninsured	29%
Labour Protection Insurance:	12%
Colective Industry Insurance:	5%
Commune Industry Insurance:	4%
Government Insurance:	2%

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Source: The World Bank Report, p.65, 1984

It is clear to see that the insurance systems have been very unequal. The economically better off sections of the population (eg, government employees, state-owned enterprise workers and staff) had high coverage of medical care,

while those who were the least capable to pay (eg, peasants) had little or no medical coverage. This situation might reflect the MOPH's health policies which always favoured the urban dwellers. Whatever political or economical reasons were behind these policies, the systems were/are unacceptable in any political system. The insurance systems operated for as long as they have can only be due to the authoritarian dictatorship where ordinary citizens have no say in matters that concern their livelihood, such as health care. How long the systems will last from now on depends on many factors other than health. Unless the Chinese society becomes more equal in general, this inequity in health care will remain.

### 3.3 Private patient payments

Another source of financing is from private patient payments. Given that a large proportion of the Chinese population is either uninsured or partially uninsured, the direct private outlays on health care must be considerable. According to official figures, patients' private payments accounted for 37.3 percent of China's total health expenditure in 1990, an increase of 14 percent from 1980. (17) A limited regional survey indicated that in 1981, members of the GIS spent the highest amount per capita in direct outlays, about 9 yuan per capita. Beneficiaries of the LPIS spent the lowest about at 3 yuan per capita, less than one-tenth of insured expenditure. On average, members of the rural cooperative insurance schemes spent nearly 7 yuan per capita. (18)

In rural areas, most uninsured farmers have to pay their own way. In some

economically better off regions, this is possible. But as China's economic development has been so uneven, it is beyond many farmers' means to pay for any medical treatment. The disbanding of the commune system in the early 1980s raised living standards but also undermined the existing social-welfare structures. Most rural medical services have deteriorated to a large degree.

In summary, the health resources have been unevenly distributed across the country. The general picture of current situation suggests that the recent economic reforms have had an adverse impact on the health sector. The reform measures have not been compatible with the health strategies set out by the government. It is evident from the current trends of expenditures that priorities in health care have shifted from the effective, low cost preventive measures to the high cost, curative and profit making services. In 1992, for example, less than 5 percent of total health care resources are directed to prevention and over 95 percent are directed to provision of curative services (19)

It is interesting to note that the insurance schemes were largely set up following the old Soviet models in that the state takes full responsibility for medical care expenses while the beneficiaries have minimal income. The original intention was that the schemes would cover more people when economic circumstances allowed. However, the experiences of the first three decades in China demonstrated that this was not possible. Both the governments and enterprises became heavily burdened by the medical expenses and had no spare resources to provide more coverage. About 80 percent of the population to mainly rely on their own ability to pay. (20)

## Chapter 4 Health inputs

Another way of breaking down health expenditures is by type of resource inputs. The most prominent elements of the health inputs are western / traditional pharmaceutical, salaried health workers, hospital beds, equipment / building constructions, and rural health workers.

### 4.1 Western / traditional medicine

Western medicines account for the largest proportion of China's health inputs. As shown in table 2, the consumption of western and traditional medicines accounted for 58 percent of the total health expenditure, with 49 percent and 9 percent respectively.

**Table 5 Health resource inputs**

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Western medicine	49%
Salaried health personnel	20%
Hospital beds	13%
Traditional medicine	9%
Equipment	5%
Rural health workers	4%

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Source: A World Bank Country Study, 1984, p74

Since the reform started, hospitals have been financially accountable and medicines have become an important channel to generate income for hospitals. In a survey among all hospitals in 1988, selling medicines accounted for 61.6 percent of the hospital income. (21)

Medicines used to be prescribed free of charge to those covered by the GIS and LPIS. In 1981, the State Council approved a two-tier-fee payment system and hospitals standardised fees for insured and uninsured patients. Those who were entitled to free medical care or covered by LPIS were required by hospitals to meet all medical expenses, except for medical staff costs, while the uninsured people were to pay a lesser charge. This method improved the hospitals' financial situation considerably. There was no limit on how much medicine a doctor could prescribe to patients. Because there were no co-payments for most insured people, patients did not object receiving large amount of medicines either. A financial incentive system was set up since the health reform to reward achievements and good services, part of which was to encourage doctors to see more patients and prescribe more medicines. While this resolved some of the hospitals' financial problems, more problems were created for patients and their insurers, especially the state enterprises. In essence, the more money the hospitals made, the bigger the losses the state enterprises suffered. As the problem accumulated, many state enterprises could only afford to reimburse part of the expenses their employees incurred (22)

Financial decentralisation has meant that local governments are responsible for deciding on budgetary allocations to hospitals in their jurisdictions. Higher level hospitals that can purchase expensive equipment and medicines to generate more income can in turn use the income generated to invest in more equipment. These hospitals usually have access to their local government and therefore to more public funds. Statistics show that higher level hospitals had an increased share of their local government budget, from 38 percent in 1980 to 48 percent in 1987. The smaller

hospitals such as the township level hospitals are having a smaller share and experiencing financial difficulties. According to the World Bank Report in 1992, the township level hospitals' share in the national total budget expenditures decreased from 23 percent in 1980 to 18 percent 1987. (23)

Like many other Asian countries, China emphasised the integration of traditional and Western medicines. In the 1950s and 1960s, this push for the integration was because of the shortage of resources. Today, the Central Government has renewed this push, but this time it is because of the increasing medical expenses generated by more advanced Western treatment and medicines.

In the 1950s and 1960s, Western trained doctors and other health resources were unevenly distributed, in favour of the regions along the eastern coast. There was a gulf between traditional and western medicine. The decision to integrate the two medical schools was highly necessary in that it ensured the existing resources of traditional medicine (a cheaper alternative to Western medicine) were effectively utilised and that the Western technology received more support and trust.

During the Cultural Revolution, there were more vigorous efforts to integrate the traditional and western medicine. Medical colleges taught traditional medicine along side of the Western medicine. The barefoot doctors used both medicines in their work, although there was greater reliance on traditional medicine. During the early 1970s, traditional medicine had markedly improved its status. Acupuncture anaesthesia, the use of herbs and other traditional techniques received considerable

attention in the West and became more acceptance among doctors trained in Western medicine in China.

The integration of the western and Chinese traditional medicine has to be a continuing priority since the reform. The policies of 'laying equal stress both on traditional Chinese medicine and Western medicine' and 'continuously rejuvenating traditional Chinese medicine and pharmacology' were articulated, and their implementation was seen as being of strategic importance for the development of health services. In 1986, the State Administration of Traditional Chinese Medicine was established. Activities for the integration of traditional Chinese medicine and Western medicine have been developed under the specific condition of the co-existence of these two schools of medicine.

However, the policy to integrate Western and Chinese medicine is not being implemented smoothly and effectively as the Central Government had hoped.

Increasingly, the Chinese people are pursuing Western medicines and treatment. This is partially because of the unlimited importation of Western medicines, increasing exposure to the Western culture, and the vigorous advertising campaigns staged by the foreign joint ventures of pharmaceutical manufacturers. For example, advertisements for medicines on TV and newspapers, bill boards in the street, and along rail way lines were common place in both Tianjin and Beijing when I visited in early 1995. With people's disposable income increases, as it has been, this trend of overheated spending on consumer goods and medicines will likely to continue.

#### 4.2 Salaried health personnel

In 1950, the number of physicians who were trained in Western medicine were estimated at about 40,000, approximately one doctor for 15,000 people. Nurses and other types of health workers were in even shorter supply. (24)

Part of the Central Government's efforts in the 1950s and 1960s was to increase the number of health workers which resulted in a sharp increase of the number of trained Western doctors in the 15 years after 1949. The increase was estimated at 100,000, or 250 percent by 1965. In the meantime, some 170,000 assistant doctors (medical workers similar to military personnel), 185,000 nurses, 40,000 midwives, and 100,000 pharmacists were trained. The number of traditional practitioners in the post-1949 period rose from 276,000 in 1949 to 361,000 in 1959. (25) The total number of health workers reached 4.2 million in 1994. (26)

The majority of these health workers are on the national government payroll as most medical institutions were nationalised in the 1950s.

Salaried personnel accounted for more than 20 percent of recurrent health expenditure, or 2,881 million yuan, according to 1981 statistics estimated by the World Bank. To ease the burden of paying such a large workforce, private practice was encouraged since the 1980s. Initially there were three main types of private practices: one type was for private doctors to set up surgeries, many of which were run by retired practitioners; the second type was to contract government employees,



and the third type was for state employees to undertake paid 'spare time' services on a contractual basis.

The fee-for-service system made health care more accessible to those who could afford to pay. However, there was no regulation of fee standards. To a degree, this system exacerbated the problem of over charging and over servicing for those patients who have insurance or the ability to pay.

Instead of trying to curb the problem, the State Council issued "Comments on Expanding Medical Services".(27) on 9 November 1988 which further advocated the contractual responsibility system and encouraged medical organisations to undertake profit making activities. The document did stress that the medical profession should 'provide ethical, appropriate quality services; avoid over-treatment, examination, and medicine; must not overcharge patients and their insurance providers; and achieve a balance between a reasonable income for medical workers' and quality of service.' But there were no incentives or penalties for the health workers to comply with such calls.

Since the reform, the health sector has enjoyed more freedom and more options in running hospitals and to generate income. However, this did not achieve better quality health services. There was widespread dissatisfaction among the population of the overcharging and lack of quality medical service. It appeared that the new management system left much room for corruption and unethical conduct. There was no coordinated distribution system of hospital income and no sound administrative

system of finances and medical personnel. In many cases, the more advanced technology and better trained personnel did not bring better services. Based on my experience, money worshipping among doctors was common place in the past decade or so. Some doctors not only prescribed unnecessary treatment and medicine, but also demanded cash payment from patients. Bribery became an unwritten rule for any treatment and surgery. Some surgical staff demanded cash payments at operation tables. (28)

Hospitals gave priority to economic gain, rather than the provision of services. The over selling of services and medicines by doctors have dramatically increased the medicare bill for patients and their employers. The misconduct and corruption among some of the medical professionals have been one of the causes for public complaints. Both the official media and the unofficial knowledge suggest that this situation is getting worse until the present time.

#### 4.3 Hospital beds

**Table 6:** Hospital numbers, beds, and hospital beds per 1,000 population

year	hospital no	hospital beds (thousand)	hospital beds per 1000 population
1949	2,600	80	0.15
1970	64,822	1,100	1.33
1980	65,450	1,982	2.01
1984	67,169	2,166	2.08
1985	59,614	2,229	2.11
1990	62,454	2,624	2.30
1992	61,352	2,744	2.34
1993	----	2,795	2.40

Source: China Statistical Yearbook, pp.642-797, 1993

As demonstrated in Table 6, there is a general increase of hospital numbers since the founding of the People's Republic and a continuing increase of hospital beds. In

particular, there was a sharp increase of both hospitals and hospital beds between 1949 and 1965. By 1965, there was one hospital bed for 1,200 people, compared with 1949 with one hospital bed for every 6,500 people. Even though this was far less than the ratio of approximately 1 hospital bed for every 100 people in the economically more developed countries, due to the high population growth, it was still considerably higher than in other countries at China's level of technological development at the time. In 1965, India, for example, had one bed for every 1,600 people. (29)

It is interesting to note that hospital numbers increased steadily to a peak of 67,169 in 1984 and dropped to 59,614 in 1985. The number climbed to 63,101 in 1991 and dropped again to 61,352 in 1992. If this variation of hospital numbers was due to temporary hospital closure, then there should be a decrease of hospital beds or the number of hospital beds for per 1,000 population. However, both the number of hospital beds and bed numbers for per 1,000 population have been on a steady increase. My research could not reveal a plausible explanation of these statistical variations. I find it difficult not to cast much doubt on the accuracy of these official statistics.

Another issue related to hospitals is that many hospital beds and related facilities have lacked the support of modern equipment, technology, and adequately trained health workers. Lack of management skills has been common in Chinese hospitals. Due to neglect and poor maintenance, some newly established hospitals deteriorate rapidly.

This problem is even more serious in the smaller hospitals at the township level. Many of the rural health facilities could only provide basic services. For more serious illnesses, peasants had to travel to city hospitals which, together with long stays in the cities, could mean heavy debts. This also meant that quality hospital beds available to the Chinese people were far less than the reported figures. (30)

In addition, the utilisation rate of hospital beds have been low in many cases. The MOPH affiliated hospitals had a bed utilisation rate of 85.6 percent and the enterprise hospital beds utilisation rate was 69.8 percent in 1992. (31)

Unlike the industrialised countries such as Australia, where hospital beds are in short supply, Chinese hospitals have vacant beds. Is it because the Chinese are healthier? The available information suggests that this is not the case. For instance, a local hospital in Guanyindang County, Hubei Province has only 9 out of 50 hospital beds occupied, because most of the 46,000 people the hospital serves could not afford their services. In many cases, hospitals are just a place for child birth or emergencies. (32)

#### 4.4 Rural health workers

Rural health workers have played an important role in bringing basic health care to the vast Chinese rural population. In the 1950s and 1960s, many primary level preventive services were provided by the rural doctors. During this period, the Chinese emphasised independence and self-reliance (duli zizhu, zili gengsheng -

literally means "be independent and one's own master, and regenerate through one's own efforts"). In the health sector, this policy of independence and self-reliance took the form of mobilising the masses to educate themselves and to provide their own health and medical care services. The mass health campaigns were highly successful in that they increased people's basic health knowledge, gave access to the majority of the population to basic health and medical care and compensated the shortage and mal-distribution of health resources.

However, the rural health workers role in the health care provision has weakened since the early 1980s. This was partially due to the disbanding of the rural cooperative health system and partially due to the fact that many rural health workers have been "professionalised" and have moved to the cities.

As part of a health policy when the Cultural Revolution started, Mao announced that a Barefoot Doctor program be introduced in rural areas. This policy was designed to deal with the continuing shortage of physicians for the vast rural population, to reduce the power of the medical profession, to fulfil obligations to the rural masses who had made the revolution a success, to decentralise the MOPH's power, and to emphasise practical, rather than theoretical education.

The training of Barefoot doctors began in large scale after the Cultural Revolution started. These health workers were selected by their local work units according to their political awareness, ability, and physical fitness. Prior education achievement was not considered of great importance although Barefoot Doctors were generally

middle-school graduates who usually received 8 to 9 years education, including 5 years primary and 3-4 years junior high school.

The nature and length of training programs varied considerably, in contrast to other programs for medical workers. The training policy was made very flexible to make the programs more responsive to local interest, economy, and needs. Usually, the initial training for barefoot doctors took place locally for a period which ranged from three to six months, in the commune or county hospitals. Subsequent continuing supervised additional training periods were provided to improve their knowledge and skills. Some urban physicians sent to the countryside also helped provide training. The Barefoot Doctors practised preventive medicine, organised their peers in mass health campaigns and served the health needs of people at the grass roots level. They provided a wide range of services including environmental sanitation, rehabilitative care for discharged patients, immunisation programs, and the treatment of minor or common illnesses. They were not regarded as professionals and usually remained at their original work site and were trusted by their patients. The Barefoot Doctors were trained in traditional and western techniques, but with a heavy reliance on traditional herbs. Their main duties were in prevention, particularly in relation to the control of drinking water quality, general hygiene, and environmental issues. (33)

By 1977, there were 1,760,000 barefoot doctors in China. (34) Since then, however, the number has declined dramatically. There were two main reasons for this: firstly, there was criticism of their skills from the university trained doctors; and secondly, continued training raised the barefoot doctors' job expectations. A large number of

these health workers took up job offers in higher medical institutions and moved away from their original work units.

The Barefoot Doctor system had very limited input from the governments and achieved much needed health and medical care for the rural population in the late 1960s and 1970s. Considering the vast size of the Chinese population, this would seem to be the solution for health care provision. Indeed, the Barefoot Doctors, together with the community-based, health and sanitation programs were often been considered a model for primary care in the developing world. The abandoning of such effective public health programs is one of the side effect of the economic reform.

## Chapter 5    Changes in the health delivery system

**Table 5** Health service delivery shares (1984)

Rural collective system	40%
Government	32%
Enterprise	25%
medical education	3%

Source: A World Bank Country Report, 1984.

### 5.1    Rural collective health services

In the rural sector, the collective health system comprising brigade and commune level services for the rural population was the major delivery mechanism until the early 1980s. For example, the rural collective system at the brigade and commune level delivered had the largest share of health services in 1984, accounting for about 40 percent of the total health expenditure. This was because more than 80 percent (about 900 million) of the population lived in rural areas. Rural per capita expenditure was 9.64 yuan (1981 price), with state subsidies accounting for 2.76 yuan, and private expenditure accounting for 5.07 yuan.

The first rural collective was established in the 1940s in the communist bases in Shanxi, Gansu and Ningxia. By 1955, there were 55 such collectives in Shandong Province and Henan Province had established their own. In 1958, this system became very popular. During the Great Leap Forward, People's Communes were responsible for the provision of health care. Commune clinics were established to provide necessary health and medical care to the rural population and played an important



role in lifting rural health status. In the 1960s, the system was advocated by the Central Government. By the end of 1968, 90 percent of the rural brigade had medical collectives.

When the rural reform started in the late 1970s, however, the collectives started to decline. It appeared that three reasons were responsible for the decline. One was that the family responsibility system had disabled the general coordination in rural areas and medical insurance was not regarded as a priority. The second reason was that the rural collective system was seen to be the product of the Cultural Revolution and shared much of its negative image. The third reason was it lapsed in the mist of confusion over what insurance system the rural sector should adopt.

The collapse of the rural collective system is just one of the side effects of the current reform. Many government policies were targeting at a single problem without coordinated control. The family responsible system brought higher income to a proportion of the rural population but at odds with the established social structure including the medical cooperative insurance system.

## 5.2 Government sponsored health facilities

Governments are still the largest financier for service provision. But both funding and service provision are not evenly distributed.

The Central Government, through the MOPH, had 47 affiliated hospitals in 1992.

The health facilities usually receive direct central government funding. Seventy six hospitals were affiliated to Beijing, Tianjin and Shanghai, and 62 were placed at the provincial capitals where they were affiliated. The governments at all levels usually have the highest level medical facilities. The general picture is that the country's best facilities are reserved for a small proportion of the population. (35)

These higher level hospitals serve senior officials and the privileged sections of city residents. They usually have access to central and local governments and more public funds. These hospitals can purchase expensive equipment and drugs to generate more income and in turn use the income to invest more which widens the gap further. Recent statistics showed that higher level hospitals have had an increased share of the budget, from 38 percent in 1980 to 48 percent in 1987. (36)

Given that these hospitals have been serving the government employees, insured workers and increasingly some well-off peasants, the expansion of such hospitals will probably continue.

Another important government input in the health delivery system is through the state-owned enterprises which I will address in the following paragraphs.

### 5.3 Enterprises health delivery system

Since 1949, state-owned industrial enterprises have been subsidised to build their own medical facilities. In the past 46 years, these facilities have provided important health care to employees. By 1992, about one third of the total health human

resources, one fourth of the hospital beds and 59 percent of all medical clinics were still in these enterprises. They served about 10 percent of the total population (employees) and were closed to outsiders. (37) The resources have not been fully utilised. Many state-owned enterprises that are making a loss have reduced the range of services the clinics provide. These facilities usually provide primary health services at a lower price.

If these facilities can be effectively utilised by opening up to the public, they could bring much needed income and may in part ease the financial difficulties many enterprises have been experiencing.

#### 5.4 Private sector

Private practice was banned during the Cultural Revolution but the ban was lifted in 1979. On 5 September 1980, the State Council approved the MOPH's proposal to allow private practice. Three categories of personnel were permitted to apply for private practice: 1. those who have a practitioner's license, were unemployed at the time and were able to take up medical work; 2. doctors of traditional Chinese medicine, doctors of modern medicine, midwives and dental technicians who for various reasons were not working in state or collective medical units; and 3. retired doctors, midwives and dental technicians who had worked in state or collective medical units. (38) The number of private practitioners reached 166,000 by 1989. By 1990, there were 4,127 private hospital beds and 162,031 medical technicians. (39) A large number of these practitioners were unemployed or retired trained doctors. They

specialised in traditional medicine, acupuncture, chiropractic, massage, and dentistry which were all in short supply. These private practitioners had fewer administrative procedures, shorter waiting times and sometimes made home visits. Most of their services were welcomed by the patients because of the convenience and by the government because it placed more people in employment. However, because of the lack of effective management and licensing requirements, some people who did not have an appropriate training also practised. In addition, there was no pricing regulation for these services. Some solicited illegitimate income, sold fake medicine, dealt in narcotics or deadly poisons, or caused medical accidents due to negligence or malpractice. (40)

Private services have reduced many of the shortages in the public sector and have proved an important channel of health resources. Provided the resources are effectively managed, the private sector will no doubt continue to play an important role in China's future health service delivery.

### 5.5 Delivery systems versus demands

Literature research has revealed that the current health service delivery systems are continuously challenged by the increased demand and are clearly lagged behind the social, economic changes since 1980s. In addition, the fact that the population is ageing makes medical services more and expensive and demanding. According to the State Statistical Bureau, by the end of 1994, (41) China had 116.97 million people more than 60 years old, accounting for 9.76 percent of the nation's total population.

In the past four years, the over-60 population has increased at an annual rate of 3.37 percent, which is much higher than the 1.19 percent total population growth in the same period. This trend toward an ageing population will make health provision an ever more challenging task. The increasing number of the middle aged and beyond constitute a large risk pool for chronic illness.

## **Part 6 Discussion**

China's efforts to improve the health of its people were successful and cost effective in the early stage of the People's Republic. The success far exceeded what could be expected at its stage of economic development. Four decades of struggle and perseverance have transformed China's health status.

In the 1990s, China faces the enormous task of providing and upgrading health services. The vast population continues to put pressure on the health care provision system. The Chinese Central Government needs to address the issues of uneven resource allocations, inequity in health care access and insurance schemes. China should continue the successful and low cost public health measures and curb health spending.

Over the last decade or so, health expenditure and the health budget have in general grown considerably, at a rate that is faster than the Gross Domestic Product. In other words, the share of total income absorbed by the health sector has grown at the expense of other sectors. It was estimated by the World Bank that this growth trend will continue with factors of population growth, ageing, epidemiological changes, provider-induced consumption and the high costs of new technology. If China continues to follow the model of the developed world, (42) a medical rather than prevention/public health approach to health problems will prevail, emphasising hospital-based, technology-reliant treatments. As the World Bank study of China's health sector has demonstrated, (43) the greatest increase in spending during the

1980s has been for hospital-based care.

The issue of inequity in the health service access demands the Chinese Central Government's attention. The Chinese health care system has never been able to provide equal access to services for all people. Increased demand for expensive health care has shown signs of exacerbating the existing inequities in access to services. Money has been the sole determinant for access to health care services in many cases.

The distribution of health resources has been uneven, with differentials in technology levels between larger urban hospitals and township hospitals and with some care resources wasted in some areas. The rural health development is lagging further behind, widening the gaps between the urban and rural regions and between the economically more developed areas and less developed areas. Some rural health stations at village levels or lower are withering away. People living in remote ethnic and poor regions do not have access to adequate doctors and medicine. The smaller hospitals such as the township level hospitals were having financial difficulties. Their share in the total budget had decreased from 23 percent in 1980 to 18 percent in 1987. (44) Such inequity will remain for a long time to come unless there is a dramatic government intervention.

With the market economy, the financially better off class have access to better health care and enjoy a longer and healthier life. This part of the population have a morbidity and mortality pattern similar to that of the industrialised countries, while

the more backward rural and remote regions have the typical patterns of the third world countries. Today's China not only faces the task of dealing with the infectious diseases in the rural areas, but also with the increasing number of chronic diseases. China has to develop and implement approaches to the control of chronic disease, and combine prevention, low-cost treatment, rehabilitation, and humane care. With many more people living longer, it is particularly important to develop affordable ways of postponing the onset of morbidity, and of providing humane and dignified care of limited cost to those who are ill in middle and old age.

The Central Government lacks overall control of the health system. The public health system appears to lack clear objectives and sustained, public financial support and is in need of structural change. In 1992, the total health expenditure was 3.5% of the Gross Domestic Product. (45) Medical establishments can not get the necessary funds to maintain a healthy operation. The macro economic environment is increasingly inhospitable to the public health goals.

Health financial reforms have resulted in policies aimed at cost-recovery for health services, including those measures of a preventative nature. The economic policy stressed competition and financial self-sufficiency at the institutional level and directed public resources away from the health sector in favour of the productive and revenue making sectors. This resulted in many public hospitals operating with revenue and service orientations similar to private institutions. Many primary level preventive services such as immunisation, which used to be a free service are now being paid for privately. A small percentage of the total population have medical



insurance and have sufficient health care, but the vast majority of the population receive substantially lower level of health services. The level of care that people can receive nowadays vary considerably depending upon their ability to pay, not on clinical needs. More advanced technology and facilities became available to those with money. For most, however, medical expenses have become a heavy burden. Access to health care has become a privilege, not a right.

Furthermore, China's demand for health and medical services is more complex than before. On the one hand, China still faces high rates of some infectious and regional diseases in the economically less developed regions. Some diseases that had disappeared or were under control are making a comeback. On the other hand, there is more incidence of chronic diseases in the urban areas. The leading causes of premature death in urban areas have been stroke, various heart diseases, chronic obstructive lung disease, various cancers, and diabetes. In addition, the contributing risk factors of chronic diseases such as occupational hazards and environmental pollution are increasingly more serious because of the industrial development. More Chinese are smoking today than ever before. Total consumption of cigarettes in China grew at a high rate: 4.2 percent annually between 1952-65, 7.5 percent annually from 1965-78; and 9.6 percent annually from 1978-87. (46) The young smokers constitute the world's largest untapped market for tobacco products. This may be the result of a lacking of public health education. If the present patterns persist, tobacco-related illness among the young people of today will account for about 2 million deaths per year. The ageing population and breakthroughs in the treatment of disease have created additional medical needs among those who

otherwise would have died at an earlier age.

The changes initiated by the Ministry of Public Health, provincial and local bureaus of health did bring positive results in efficiency to a degree. However, the Chinese health care system is far from being prepared for the task of dealing with infectious and chronic disease control and for coping with the problems created by the structural changes in the economy. The overwhelming economic circumstances have swirled away any rational political thinking and health has become one of the reform downsides with the old system ceased functioning and the new is yet to be born.

The provision of health care, or the lack of it, has become one of the social problems that are facing today's China. The inequity in health care access, as a result of the uneven distribution of social wealth is having an adverse impact on the social stability. This problem requires the government's immediate attention and needs to be adequately addressed.

It is a pressing issue for the Chinese government to take steps to remove the barriers in the management of health resource allocation; to eliminate incentives for inappropriate use of technologies and medicines; and to make the insurance systems more equal. Failing to do these, China will face a much tougher task than it is ever equipped to cope with.

I must stress that this paper has focused on more negative aspects of the Chinese health system than the positive aspect. This should not, however, distract from the

tremendous achievements in the Chinese health system in the short history of the People's Republic. To highlight the current problems in the Chinese health care system only reflects my deep concerns and sincere hope for a better health care system and better life that the Chinese people well deserve.

-The end-

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