Intergenerational solidarity and old age support in China
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1 Development of social security system
China is facing a challenge at the beginning of an ageing society; it has a rapid ageing population while the government and society are seeking a balance the formal and informal support system. With the strong tradition of filial piety and informal support, the government want to keep the tradition and gradually develop the formal support system in the process of economic development, however, three decades practice of family planning caused rapid decline of fertility rate, economic development is changing the living arrangements of the elderly, the combined impacts have required the society to find a better balance sharing the responsibilities of elderly support between families and the society.

Some background introduction may help to realize the current debate on intergenerational solidarity and old age support in China:

The old age insurance system was established in 1951 in China, as the population is aging rapidly, the number of elderly people is becoming very large. This trend will reach its peak in the 2030s. To guarantee the basic living standards of the elderly and safeguard their legitimate rights and interests, the Chinese Government has continuously improved the old-age insurance system and reformed the fund-raising mode in an attempt to establish a multi-level old-age insurance system marked by sustainable development.

In recent years, the government has been taking measures to promote the development of a Basic Old-Age Insurance System for employees in urban areas. In 1997, the Chinese Government unified the basic old-age insurance system for enterprise employees in urban areas across the country by implementing a social-pool-plus-personal-accounts scheme. Enterprise employees who have reached retirement age as provided by law (60 for male employees, 55 for female cadres and 50 for female workers) and who have paid their share of the premiums for 15 years or more shall be entitled to collect a basic old-age pension every month after retirement. The basic old-age pension consists of two parts: base pension and pension from personal account. The monthly sum of the base pension is tantamount to about 20 percent of an employee's average monthly wage in that area in the previous year. The monthly pension sum from the personal account is 1/120 of the total accumulated sum in the personal account (11 percent of an employee's wage being deposited every month in the pension section). The state adjusts the level of the basic old-age pension with reference to the price index of living expenses for urban residents and employees' pay increases.

At the same time, efforts have been made to expand the coverage of basic old-age insurance. Initially, China's basic old-age insurance covered only state-owned enterprises and collectively-owned enterprises in urban areas and their employees. In 1999, this coverage was expanded to include foreign-invested enterprises, private enterprises and
other types of enterprises in urban areas, as well as their employees. All provinces, autonomous regions and municipalities directly under the Central Government can make provisions to include persons engaged in individual businesses of industry or commerce in the basic old-age insurance in accordance with the specific conditions in their localities. In 2002 China expanded its basic old-age insurance coverage to all those who were employed in a flexible manner in urban areas. In 2007, the number of people participating in the basic old-age insurance scheme across China reached 201.07 million, 151.56 million of whom were employees, 49.51 million of whom were retirees.

Secondly, in history of thousands of years, support to the elderly has been regarded as the responsibility of family members; governments have been reluctant to take the responsibility of formal support. The main reason is for cost-saving, as a developing country with increasing number of elderly, it will be a big share of government budget and it is a question if the government can keep the economic growth rapidly in a long run and have enough resource to make the social security system sustainable. This can be reflected from the law, for example in 1997, China’s first law on protecting the rights and benefits of elderly took effect, in Article 10, it clearly stipulates that the supports to the elderly are mainly the responsibility of family members; the supports include economic, care and emotional comfort. The current debate proposes to revise the law to ask the government to take more responsibility support the elderly both in urban and rural area.

2. The population aging and the elderly in China

In comparison with developed countries, the aging of population in China has two distinct characteristics. Firstly, the aging of population has occurred when China’s economy is still undeveloped. Secondly, the elderly population is huge. In February 2008, State Statistics Bureau of China published The Statistics Bulletin on National Economy and Society Development in 2007, which claimed that the elderly population aged 60 and over reached 153.4 million, or 11.6% of the total population; the elderly population aged 65 and over was 106.4 million, covering 8.1% of the total. In the period of The Eleventh Five-Year Plan in China (2006-2010), the number of the elderly aged 60 and over will keep soaring to 174.0 million in 2010, amount to 12.8% of the total population, among which the number of the elderly aged 80 and above will grow to 21.32 million, covering 12.3% of the elderly population. The increase rate of the elderly population has been immensely accelerated and the aging of the population is evident. The population aging will bring about great pressures on the society and profound impacts on political, economic and social aspects of China. It’s estimated that the peak period of the population aging will arrive in China in 2030. By 2050, the elderly population aged 60 and over will exceed 430 million in China.

By the end of 2006, the life expectancy at birth for the Chinese people was higher than 73 years, which indicates China has stepped into an era of longevity. Due to the vast difference of socioeconomic development in China, the expected life expectancy nearly reaches 80 years in the developed regions of East China.

3 Intergenerational solidarity and old age support

Intergenerational solidarity and old age support have attracted more and more attention in the new century, the reason of the debate is the fundamental changes in Chinese society
Panel III: Health and Social Development

which erode the traditional way of old age support and challenge the intergenerational relationship.

Following are some key challenges in modern China:

1. The proportion of elderly living alone has been increasing. The traditional way of family support to the elderly depends on two preconditions, one is big family, and the other is the children living with parents. Both of the two preconditions have been changed fundamentally in China today. Due to the successful family planning movement in the last three decades, the total fertility rate declined to be lower than 2.0 since 1992, the current level is 1.3 in cities and about 1.9 in rural area, there are more than 100 million families have only one child, the average household size is only 3.0. This means the elderly generation can not depend on their children for their old age support in the traditional way. Another change makes this even worse that the outflow of rural young generation to the cities or developed area and leave their elderly parents at home.

2. Filial piety is not enough for the elderly. China has been reforming various systems simultaneously in the past three decades, social security system, medical care system, employment system, housing system and education system etc.. The achievement of rapid social economic development also means the young generation are working harder and facing a more competitive life. With the strong tradition of filial piety, the majority of young generation want to be filial to their parents, but they feel very difficult to do it in the traditional way(living together with parents, provide economic, care and emotional support), logistically they turn to require the governments to take more responsibility to support the elderly. They feel very difficult to give economic support to the parents who are not covered in the pension system, when their parents are sick, they can’t bear the high medical cost, and when the parents need long term care, they can’t stay at home to take care of them, naturally they ask for the universal coverage of social security and medical care system, and the development of community service.

3. Intergenerational solidarity needs the efforts of both generations. Traditional filial piety emphasizes the responsibility of the young generation, with the increasing of Chinese elderly, more and more elderly have better education background and they are trying their best to forester a new pattern of intergenerational solidarity. This has become a new culture in China.

To response to the above debate and problems, the central government and local governments are taking active actions:
1. Formal support is enhanced so that a balance of formal and informal support can be achieved. In the proposed revision of the law on protecting the rights and benefits of elderly, elderly support will possibly be revised to emphasize the governmental role to share more responsibility from the family members.
2. To speed up the building of a social service system suitable for an ageing society. Community services have been developed rapidly to meet the needs of elderly living along and have problem on activities of daily living, the governments are encouraging the whole society to develop the service system to help the elderly in need.
3. Pursuing a new balance of formal support and filial piety. The emerging new pattern is to share the responsibility of old age support between government and family members.
4. Promoting the intergenerational solidarity. Some new concepts have replaced the traditional filial piety, for example, elderly and young generation is reciprocal, both of them have equal rights and should respect each other.
1 The Current Status of State-owned Hospitals in China

1.1 The number of hospitals
There were totally 19246 hospitals with all types in China, of which the state-owned hospitals accounted for 78% and government hospitals accounted for 50%. It shows that the state-owned hospital is the main health service provider.

Resource: China Health Statistical Yearbook 2007
Figure 1  Number of Hospitals in China

1.2 Number of Health Personnel
There are a number of 5,619,515 health personnel in China, of which 89.06% are working in state-owned hospitals.

Resource: China Health Statistical Yearbook 2007
Figure 2  Number of Hospitals in China
The constitutional state of health personnel in 2006 was as following. In each type of health agency, health technicians are more than 80%. While, the total number of managers and support service workers in state-owned hospital is 2 times of that in private hospital, which leads to a high management cost.

1.3 Government Funding and asset-liability state
The government funding for healthcare system has been insufficient for a long time. The percentage of subsidy form government in the total income of general hospitals ranged from 5.98% to 7.49% during 8 years (1999-2006).

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<tr>
<td>support service</td>
<td>8.10%</td>
<td>7.97%</td>
<td>3.73%</td>
<td>8.44%</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>workers</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>manager</td>
<td>6.00%</td>
<td>5.79%</td>
<td>2.76%</td>
<td>6.72%</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Other technical</td>
<td>4.45%</td>
<td>2.93%</td>
<td>1.48%</td>
<td>3.87%</td>
<td></td>
<td></td>
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<td>personnel</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>health technicians</td>
<td>81.45%</td>
<td>83.31%</td>
<td>92.03%</td>
<td>80.97%</td>
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Panel III: Health and Social Development

| Total Income | 28583 | 32424 | 35379 | 37151 | 39694 | 51118 | 55756 | 61638 |
| Government Funding | 1946 | 2041 | 2516 | 2730 | 2975 | 3182 | 3333 | 3936 |
| Proportion of GF(%) | 6.81% | 6.30% | 7.11% | 7.35% | 7.49% | 6.22% | 5.98% | 6.39% |
| Business Income | 25763 | 29414 | 31925 | 33929 | 36617 | 44452 | 51749 | 57129 |
| Proportion of BI(%) | 90.14% | 90.72% | 90.24% | 91.33% | 92.25% | 86.96% | 92.81% | 92.68% |

Resource: China Health Statistical Yearbook 2007

State-owned health institutions possess most of the total assets, accounting for 94.87%. The debt ratio of state-owned health institutions is low, which shows that the asset structure is with low-risk, while the financing capacity is limited. In all, it is not good for development.

Table 2 the Balance States of Health Institutions in China (2006)

<table>
<thead>
<tr>
<th>Total Assets(thousand)</th>
<th>Current assets (%)</th>
<th>Fixed assets (%)</th>
<th>liabilities (%)</th>
<th>Net assets (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>922910081</td>
<td>29.22%</td>
<td>69.10%</td>
<td>28.04%</td>
</tr>
<tr>
<td>State-owned</td>
<td>875532048</td>
<td>29.23%</td>
<td>69.42%</td>
<td>27.00%</td>
</tr>
<tr>
<td>Joint Venture</td>
<td>1657281</td>
<td>29.11%</td>
<td>64.51%</td>
<td>36.82%</td>
</tr>
<tr>
<td>Private</td>
<td>20058215</td>
<td>27.55%</td>
<td>78.90%</td>
<td>40.91%</td>
</tr>
<tr>
<td>Others</td>
<td>25662538</td>
<td>30.43%</td>
<td>61.67%</td>
<td>53.01%</td>
</tr>
</tbody>
</table>

Resource: China Health Statistical Yearbook 2007

1.4 Number of Hospital beds
There were totally 2,560,402 hospital beds in China, of which the state-owned hospitals accounted for 92.52%.

1.5 Average Medical Expenses per Outpatient (Inpatient) in General Hospitals
According to the chart below, both of the medical expenses for outpatient and inpatient are increasing year by year. The average expenses for outpatient in 2007 was 3.4 times of that in 1995, and ones for inpatient in 2007 was 3 times of that in 2005.

Resource: China Health Statistical Yearbook 2008
Figure 6 Average Medical Expenses per Outpatient (Inpatient) in General Hospitals

The proportion of drug costs in the total medical expenses is reducing year by year, which shows that negative effects of aggressively selling drugs being realized by the government and measures being taken to change the situation. Furthermore, the policy to separation of medicine and pharmacy is still badly needed.

Resource: China Health Statistical Yearbook 2008
Figure 7 the proportion of Drug Cost in the Total Medical Expenses per Capital (%)
1.6 Number of Visits and Inpatients in Medical Institution
The total number of visits and inpatients in general hospitals in China is increasing from 1990 to 2006. It shows that the health care demand has increased and the business burden has augmented.

![Number of Visits and Inpatients in Medical Institution](image)

Resource: China Health Statistical Yearbook 2007
Figure 8  Number of Visits and Inpatients in Medical Institution
The Hospital bed occupancy rate is raising form 2000, while the average length of stay has been in a downward trend. It shows that the doctor’s work efficiency has been improved and the workload has been increased.

![Hospital bed occupancy rate & Average Length of Stay in China](image)

Resource: China Health Statistical Yearbook 2007
Figure 9  Hospital bed occupancy rate & Average Length of Stay in China

1.7 Problems
There are a lot of management issues in the state-owned hospital for a long time, such as lacking of corporate entities, a single form of ownership of state-owned hospitals,
unsound compensation mechanisms, unclear property rights, ambiguous liability and so on.
The state-owned medical institutions have poor capacity in management and operation. Currently most public hospitals actually are not yet corporate bodies with self-controlling and self-stimulating mechanism. They lack ownership spirit and consciousness to timely adjust their operation in accordance with the market and social demands, and haven't the awareness of the need to strive for quality service and engage in competition. The management and supervision of some medical institutions lags behind. The invalidate incentive and restraint mechanisms leads to the low efficiency and unfairness of health services provision.

2 The history of the State-owned Hospitals Reform in China

2.1 The First Phase: 1978-1984 Incubation Period
According to the spirit of the Third Plenary Session of the 11th Central Committee of Communist Party of China, the Ministry of Health proceeded to “Strengthen the Economic Management Pilot Reform of the State-owned Hospital” in 1979. Some measures were adopted, such as fixed subsidy system, economic accounting system, appraisal system and so on. Furthermore, “Interim Measures for Hospital Economic Management” and “Guiding Opinions on Strengthen the Economic Management of Health Agencies” were issued in 1981. Meanwhile, the issue of investors in diversity was noted. The MOH’s Private Practice Proposal was approved by the State Council, which laid the foundation of diverse forms of ownership of hospitals developing side by side in China. Anyway, all measures taking in this period were surface and not the institutional reform.

2.2 The Second Phase: 1985-1992 Initial Stage
The reform in this phase mainly focused on improving the management system and operational mechanisms, and the core meaning were decentralizing power, sharing profit and making hospitals autonomous, which was put forward in the State Council Decree No.62 of the year 1985. The most important policy paper in this stage was promulgated in 1989, in which five major guiding opinions were emphasized. First, promote the various forms of contract responsibility system in health system actively. Second, carry out paid amateur service. Third, adjust the medical service prices and charges. Fourth, preventive healthcare services institutions could carry out paid services, such as health inspection, health monitoring, consultation and so on. Fifth, encourage socialization and industrialization reform of hospital logistics services. In short, this paper means to mobilize the enthusiasm of medical and public health institutions through the market-oriented strategy. In a word, the feature was the direct government investment reducing gradually in this reform phase. Meanwhile, the government provided policies to make up the inadequate investment. Although some institutional issues were paid attention, it shows that the lack of understanding of characteristics of the health service.

2.3 The Third Phase: 1992-2000 Exploratory Stage
In 1992, when some health policies aiming to stimulate hospitals income-generating were adopted, insufficient government funding resulted in deficits for public health institutions,
thus hospitals are allowed to generate their own revenue by raising fees and aggressively selling drugs.

In 1994, “Healthcare Institution Management Regulations” (the State Council Decree No.179) prescribed the approval, registration, operation and supervision procedures as well as the related liability of medical institutions, which made the administration in this area into the legal system.

In 1997, “Decision with regard to the Health Reform and Development”, which provided the guiding ideology and overall objectives of the new-round reform, put forward that the urban employee basic health insurance system establishment, health management system reform, community health services development and health agency operational mechanism reform should be included.

In a word, it is the exploratory stage that the reform was in and the systemic reform was called for.

2.4 The Fourth Phase: 2000-2005  In-depth stage

In 2000, “Guiding Opinion on the Health System Reform in Cities and Towns” and the followed 13 supporting documents was promulgated. Then some reform initiatives were taken by some local governments. For example, township health centers were sold at public auction in Suqian County (Jiangsu Province) in March 2000, which was considered as the prologue of the hospital property rights reform in China. In 2001, the idea of trusteeship in the medical market was adopted by Wuxi. Furthermore, some measures mainly focused on the hospital financing reform were taken by Shanghai in 2002.

Meanwhile, it is exposed that the shortcomings of the market-oriented health system after the SARS outbreak, and the debate on whether the government-led or the market-let reform should be carried out was heated.

In brief, the hospital property right reform is the most noticeable in this phase.

2.5 The Fifth Phase: 2005- Mature stage

Along with the deepening market-oriented reform on the healthcare system, the public welfare nature of state-owned medical institutions is playing down. Basing on the reflection summary, the conclusion that “the current health system reform in China is basically unsuccessful” issued by the Development Research Center of the State Council, which is considered to be the mark event in the government-led or the market-let debate.

Besides the concern on the public welfare nature, medical services quality management was also emphasized. The Ministry of Health promulgates “Evaluation Guide of Hospital Management” in November 2005.

The new round medical reform has been deliberated by authorities since September 2006, and nine external research institutions were commissioned to provide references for policy making.

On October 14, 2008, the Chinese medical reform draft had been open for public debate for one month, which signed the health reform having entered a new phase.

3 Case analysis of different pilot station-owned-hospitals reform modes in China

According to the degree of the government’ function in hospital, we classified the mode of governance of station-owned-hospital in China into four types:
intro-management-mechanism reform, government administration separate from medical institutions, management separate from operation, and property right transform.

3.1 Intro-management-mechanism reform
Intro-management-mechanism reform mode is one popular type accepted by most station-owed-hospitals. Among the hospitals investigated that accepted this mode, the Corporate Governance Structure has not bee erected. The reform is realized by adjusting the intro-management mechanism including the mechanism of employment, incentive and performance appraisal. This mode has some effectiveness in some extent.

![Diagram of Principal-agent relationship in intro-management-mechanism reform](attachment:principal_agent_reform_diagram.png)

Characters: Actually, the main problems of the station-owed-hospital come from the health system. The reform of the intro-mechanism is restricted by current policy situation. Hospitals can not resolve all the problems it encountered by themselves in the case of the unchanged extro-environment. So this mode is not a government-level reform. It does not provide a clear privilege and responsibility of hospital and can not solve the difficulties of station-owed hospitals ultimately. We can call it an instinct reaction of hospital when experiencing the changes of extro- and intro- environment.

3.2 Government administration separate from medical institutions
The real nature of government administration separate from medical institutions is government function transform.
Figure 2  Framework of the “government administration separate from medical institutions” model
Characters: The relationship of health administrative department and agent is determined by contract in this mode. The government administration is separated from the medical institution and the function of government is really transformed; the nature of station-owed is unchanged; the cost of transform is low relatively. The main problem is the selection of invest agent of hospital management centre, or the selection of the director.

3.3 Management separate from operation
This mode is a kind of reform implemented on the health administrative department and hospital at the same time, aiming to establish a mode that the health administrative department which only with the power of supervision and management of hospitals while the power of the operation is given to the hospitals.
Figure 3  “Shanghai mode”of State-owned hospitals reform
Characters: The “separated administrative institution” is an improvement compared with the “single administrative institution” management. The government used to operate hospital directly now can focus on the general supervision. Because there is no direct profit relation, the supervision is more balanced. The condition of this mode: a) the level of local economy is high relatively, so that the government can invest into the current station-owed-hospital largely. b) the local government is incorruptible and intelligent, with a perfect system to promise the mode running in a good state.

3.4 Property right transform
The property right transform of station-owed-hospital means change the property right of station-owed-hospital through different ways like reform, recombination, merger, or sale, permitting privatization or combination of the station property right.
From 2000, Suqian City of Jiangsu Province launched a reform on the 134 station-owed-hospital, including 124 township health centers and 10 county-level hospitals. Almost all the reformed hospital in each level were purchased or run by private capital, without one station-solely-owned hospital left. This mode gains much dispute among the whole county media and experts.
Take Suqian People’s Hospital as an example: On July 10, 2003, the Co. Jinling Medicine paid 70.13 million RMB alloyed with Gulou Hospital and bought 70% property right. The property right of local government is only 30% after the reform. The Corporate Governance constitution of Suqian People’s Hospital founded after the property right transform. The framework is showed below:
Figure 4 “Suqian mode” of State-owned hospitals reform

The post-reform Suqian People’s Hospital implemented the president in charge under the leadership of board of directors. The privilege and the responsibility of president and the board of directors is cleared. This is good for hospital to make science decision and have a long-term development.

Characters: The basic institution and performance change of hospitals took is different extremely: some step into an optimum orbit, while some others are becoming instable for the property right transform. Furthermore, the supervise system of Suqian Mode is not perfect, the function of supervise-committee does not implemented very well. The condition of this mode is: a) there is a strong government or a leader that can create an atmosphere of reform. b) The supervise ability of local health administrative department is high. c) the social medical security system can promise medical service be purchased by the third party. In China, this mode is tested in some less-developed area and the effectiveness is various owing to the different policy and economy environment. In spite of the disapproval of some scholar, we think the mode can be a selected way of our station-owned-hospital with the rise of New Public Administration Movement and the development of Market Economy in China.

4 The Views on Stated-owned Hospital Reform in China
4.1 Misunderstandings of property right system reform

Nowadays there are some reformers who believe property right is identical with ownership, so do some researchers. Although the two are closely connected, they are different. From theoretical rationale point of view, the concept of property right was
derived from the theory of Marxist ownership based on historical materialism, whereas the one of ownership was taken from the modern western property theory grounded on transaction cost theory. From viewpoint of conception, the ownership put stress on the right to own the trust property in order to have advanced productive forces. But property right is to reduce transaction cost by optimizing all kinds of rights combination. From the function point of view, ownership is to answer the question about who to control, whereas property right is to answer the one about how to control. Thus, we can easily draw the conclusion that the two are different.

Confused with the theory of property right and that of ownership, many administrators and scholars mistake property right reform for ownership privatization, and some even propose to sold out state-owned hospitals when referring to the issue of property right reform. Some advocate excessively about marketization or are afraid too much of the lose of state-owned property. In fact, those one-side standpoints are contrary to the conception of property right. Specifying rights and the maximum efficiency can be achieved no matter it is state-owned or private owned as long as having clear property right relationship.

4.2 Investor System of state-owned hospitals
The precondition of property right reformation is how to establish investor system which means that how to divide the ownership and the right of use of the property by complementing the relationship of agent commission of state property. Establishing new supervision and administration system for state-owned health assets is to solving the issue that no one is responsible for the enterprise. Who is the representative of the investor? How to establish the investor system? How to have investor system under legal restriction? Those questions should be definitely answered by policy-designer.

4.3 Financing issues for state-owned hospitals
Traditionally, there are three financing systems for state-owned hospitals. They are government investment, income from drugs and from medical services, which all facing challenges under market economic system. Many indications show that health investment from government mainly goes to primary health services and medical security system, not big state-owned hospitals. A series of reforms upon drug pricing, production and circulation will cut down the majority of hospitals’ current irrational incomes. Therefore, it is a matter of great urgency to re-establish the financing system for state-owned hospitals.

4.4 Cooperation between hospitals and community health service institutions
Community health service is the net bottom of the city public health service and its function has not been brought into full play, which is one of reasons relating to the issue of being difficult and expensive to see a doctor for the people. Big, general hospitals suffer from excessive health service utilization, but the health resources in community leave unused. The government is focusing on the construction of primary medical and health service with an aim at setting up reasonable diffusion mechanism of seeing a doctor. To resolving the insufficient service capacity of community health service, a steady counterpart aid system between big or medium sized hospitals with community
health services should be formed. Current city health resources, take grade one hospitals or grade two ones for example, should be made into full use in a hope to achieve developing and perfecting the community health service net.

4.5. Regarding Medicine-Drug Separation

Medicine-drug separation is mentioned again in the new medical reform scheme. In theory, the intention of medicine-drug separation is to cut the profit chain linking doctors, hospitals and drug merchants in a hope to cut down the medical fees paid by patients. However, its implementation is still under exploration because of its complication. The problems that we have to face up to are: how to make up the deficiency of funds after medicine-drug separation when hospitals lost the chief profit source, “drug fee”, in the present model of “drug supports medicine”? How to ensure the pharmaceutical safety after medicine-drug separation? Personally, I believe we should separate medicine and drug economically rather than institutionally.
The Impact of Economic Reform on Healthcare Financing and Expenditures in China: Heavy Healthcare Economic Burdens on Consumers

Ying Wang, Jun Lu, Mei Sun, Fengshui Chang, Xiaohong Li, Jay J. Shen, Mo Hao

1. Introduction

With limited resources, China’s achievements in health care since the second half of the 20th Century have been well recognized (Hu 2006; WHO 1987). These achievements are demonstrated in its health resources and infrastructure, as well as its health indicators. China increased its healthcare facilities from 2 per 100,000 population in 1950 to 23 per 100,000 population in 2005. During the same period health professionals increased from 113 per 100,000 population to 415 per 100,000 population, among which doctors increased from 7 per 100,000 to 148 per 100,000 population. Moreover, its life expectancy increased from 35 years old in 1950 to 71.8 years old in 2005, infant mortality declined from 200 per 1,000 live births to 19 per 1,000 live births, and maternal mortality declined from 1,500 per 100,000 pregnant women to 47.7 per 100,000 pregnant women (Ministry of Health, 2006).

Nevertheless, under the influence of the national economic reform and development, China has changed the way that it finances health from a government-based system to a more market-oriented system. China has done this without a sophisticated health care payment system to support this market-oriented transition, which has resulted in many Chinese not being able to access needed health care. This review covers the changes in health care financing, how these changes have impacted the Chinese people, and what policy and program changes are needed to improve the current situation.

The general public (consumer) are concerned about the skyrocketing rise in healthcare expenditures that have become heavy economic burdens to most of them (Hao et al. 2007; Wang 2006). The public complain about high drug prices and the lack of regulation of the drug market (Hu 2003); the over-provision of tests, diagnoses, and prescribed drugs (Sun 2002), the kickback and “red envelope payment” to doctors (Tian 2005), the for-profit orientation of hospitals (Liu 2005), and the poor quality of services (Ren 1996). As a result, the public image of healthcare professionals is deteriorating (Shen 2003; Yin 2004), and disputes and law suits between patients and providers are markedly increasing (Zheng 2002). Some people even angrily call health providers as “wolfs wearing white coats (bai-lang)” (Lin 2006).

On the other hand, health care providers, mostly hospitals, feel unfairly treated and misunderstood by the public (Bai 2005). Some argue that the heavy economic burdens to patients are caused by factors such as insufficient government subsidies (the State Council 1997) and below-cost service charges determined by the government (Cui 1993;
Wang 2002). The government, therefore, should be blamed for the dissatisfaction of the public (Cui 1993).

As the public complains about the increase in health care costs, the government believes that the problem is rooted in the providers’ inappropriate over-provision of care (Sun 2002). Beginning in 2005, scholars have started linking the health care system problems with the national economic development and policies (Wang 2005; Zhao 2006). It is argued that the conflicts among the three major players result from insufficient government financing and an unsophisticated regulation infrastructure (Du 2006). Becoming aware of the problem, the government started to make efforts to lower financial barriers that prevent many patients from seeking needed health services (Wen 2005).

Many intertwined factors contribute to the general dissatisfaction with the cost of the health care system. Identifying the most critical factors, however, is far from settled. Some researchers blame a lack of an appropriate and sophisticated pricing mechanism and system for medical services (Liu 1995; Victor 1997); whereas others criticize the poorly developed health insurance structure (Liu 2002; Menga 2004; Xu 2007). More analysts, however, argue that the key factor is the inappropriate and malfunctioning reimbursement system for medical services (Chang 2002; Gu 1996; Hao et al. 1998; Luo et al. 2002; Li et al. 1998; World Bank 1997; Wu et al. 1998; Yipa 2004). The purpose of this paper, therefore, is to examine the changes in the medical care reimbursement system since the national economic reform started in 1979 and how these changes impact the health care consumers, providers, and the national economy. We relied on literature review and government data to review changes in health service pricing and health care financing and to analyze the underlying factors that may have contributed to these changes. We believe that our analyses can aid in the seeking of policy solutions to address the major problems in the healthcare sector of the fast-developing China, as well as other developing countries that may be encountering similar problems.

2. Changes in the Health Care Economic Burden during the Period of Macroeconomic Development

- **Health Care Reimbursement: 1949 – 1978**

The People’s Republic of China implemented a highly centralized command economy from 1949 to 1978. During the period, because there was virtually no physician private practice, almost all medical services were provided in hospitals at the township, county, and city levels, respectively. All hospitals, as well as prevention facilities, were publicly owned, either by the government at different levels or by the group of collective members (ji-ti-suo-you). They were run by a so-called “revenue submission-fixed expenditure-total budget (tong-shou-tong-zhi, cai-zheng-bu-chang)” model. Hospitals submitted all revenues to their respective government administration (i.e., county, city, or province), the government and the healthcare facility decided the total amount of expenditures for the facility, and the government allocated a budget to the facility to cover the expenditures. With this model, the government controlled financing, organization, and administration of health care delivery. Health care was, then, regarded as a public welfare program (Ministry of Health and Ministry of Finance 1960).
Under the philosophy of treating health care as public welfare or public goods, the non-market oriented policy of reimbursing health care facilities was characterized as: (1) medical personnel were paid by salaries from the government (Ministry of Health and Ministry of Finance 1960); (2) medical services were paid by fee-for-service but the fee schedule was determined by the government not on cost-based; the government significantly reduced the service charges three times, which resulted in medical services charges covered only about 60% of their costs (Hsiao 1995); and (3) since most of prescription drugs were obtained from the pharmacy department in the hospital, hospitals were allowed a 15-30% mark-up on drug sells to fill some of the gap between the service charges and costs (Hao and Shen 1990; Ma et al. 2006).

In the command economic system, demand and supply of medical services in China were at the relatively low level but were balanced (Gu and Tang 1995). Given that the economy and population health status were very poor in 1950s, the Chinese health sector, a low cost system, brought important health gains and greatly improved the lives of its citizens (Ma et al. 2006; World Health Organization (WHO) 1987). More importantly, financial burdens of health care during this period did not appear to be a major issue. As shown in Appendix, until 1978, health care expenditures shared less than 3% of the National Domestic Product (GDP).
### Tab. 1 Total Health Expenditure and its financing resources in China between 1978 and 2004

<table>
<thead>
<tr>
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<td>%</td>
<td>2143.2</td>
<td>160.1</td>
<td>177.5</td>
<td>207.4</td>
<td>242.1</td>
<td>279.0</td>
<td>315.9</td>
<td>379.6</td>
<td>488.0</td>
<td>615.5</td>
<td>747.4</td>
<td>893.5</td>
<td>1096.9</td>
<td>1377.8</td>
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<td>2155.1</td>
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<td>%</td>
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<td>69.0</td>
<td>77.6</td>
<td>89.5</td>
<td>107.7</td>
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<td>127.3</td>
<td>145.4</td>
<td>167.8</td>
<td>187.3</td>
<td>204.1</td>
<td>228.6</td>
<td>272.1</td>
<td>342.3</td>
<td>387.3</td>
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<td>%</td>
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<tr>
<td>%</td>
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<td>267.0</td>
<td>335.0</td>
<td>436.7</td>
<td>581.0</td>
<td>774.1</td>
<td>1000.0</td>
<td>1372.2</td>
<td>1689.1</td>
<td>2017.7</td>
</tr>
</tbody>
</table>

Note: Health expenditure in this table is estimated; The date in this table are calculated at current prices.

Rising Health Expenditures Become Heavy Financial Burdens to Patients after the Economic Reform

Since the economic reform and development, health expenditures in China have increased much faster than has the national economy. As displayed in Appendix, the GDP per capita increased from 377 yuan in 1978 to 10,539 yuan in 2004, a 28-fold increase (National Bureau of Statistics 2005), but health care expenditures per capita increased from 11.5 yuan to 586 yuan, a 51-fold increase (Ministry of Health 2006). Figure 1 compares trends of increase in both the GDP and health care expenditures. It is obvious that the gap between the growth of GDP and the growth of health care expenditures has been gradually widened and the trend still continues. Does this mean that health care has become an unbearable burden to the socioeconomic development and national economy?

Based on the international comparison, it does not seem to be the case. The World Health Organization recommends that at least 5% of GDP shall be used for health care in developing countries (WHO 1981). The Chinese government concurred with the WHO’s criteria and promised to make efforts to reach the 5% goal by the year of 2000 (the Central Committee of the Communist Party and State Council 1997). As one source estimates China increased its percentage of GDP used in health care from 3% in 1978 to 5.5% in 2004. The 2007 national data indicate that the health care expenditures shared 4.81% of GDP, with per capita health expenditures being 828 yuan (Ministry of Health 2008). According to the 2006 WHO annual report, the World Bank estimated China’s per capital GDP was $1,049 in 2004, which was categorized as a low-middle income country among 209 member countries. As shown in Table 1, China’s 4.81% GDP for health care was below the median level of 5.74% among 55 low-middle income countries. In addition, among 191 countries, China is ranked the 106th in regard to the percentage of GDP used in health care.

Table 2 Total expenditure on health as % of gross domestic product in different income counties

<table>
<thead>
<tr>
<th>Counties’ type</th>
<th>Total expenditure on health as % of gross domestic product</th>
<th>Max</th>
<th>Media</th>
<th>Min</th>
</tr>
</thead>
<tbody>
<tr>
<td>53 lower income countries (&lt;905$)</td>
<td>9.96</td>
<td>4.76</td>
<td>2.18</td>
<td></td>
</tr>
<tr>
<td>55 low-middle income countries (906$ - 3595$)</td>
<td>24.84</td>
<td>5.74</td>
<td>2.40</td>
<td></td>
</tr>
<tr>
<td>41 high-middle income countries (3596$ - 11.66)</td>
<td>11.66</td>
<td>6.60</td>
<td>2.06</td>
<td></td>
</tr>
</tbody>
</table>
If the increase in health care expenditures has not reached to the point that is beyond the ability of the national economy to bear, the overly expensive health care problem complained by the three major partners require other explanations. Further examination of Appendix reveals discrepancies in trends of increase in health care expenditures among individuals, governments, and society (i.e., non-government public enterprises such as factories, schools). From 1978 to 2004, the government and society’s expenditures on health care increased 27.1 and 31.6 folds, respectively, which were close to the 28-fold increase in the national GDP. However, the personal health care expenditures during the same period increased about 134 folds. It is indicated that the increase in health expenditures from 3% of GDP to 5.5% of GDP since 1979 were disproportionately born by patients’ out-of-pocket payments. Figure 2 shows the consistent trends. Trends of folds of increase in health expenditures among individuals, governments, and societies were very close before 1985. The increase in personal expenditures started outpacing the other two in 1985 and further accelerated in 1992 and 1995, respectively. As a result, health care financing changed. Among the total health care expenditures, the government paid about 38% in mid-1980s but the figure reduced to 17% in 2004 and society paid 47.4% in 1978 but only 29.3% in 2004. In contrast, patients’ out-of-pocket payments paid 20.4% in 1978 but 53.6% in 2004 (Figure 3).

It is understandable why the “overly expensive health care” has become a major complain from the public. According to the 2003 national health services survey, the percentage of unmet need for physician services was 47.9%, among which 38.2% were due to financial reasons; the percentage of unmet hospitalization was 29.6%, among which 70% were due to financial reasons (Center for Health Statistics and Information 2004).
3. Transformation of Healthcare Financing during the Macroeconomic Reform

Weakening of the Government’s Role in Health Care Financing

China, in 1979, started its national economic reform that was guided by three focuses (the Panel of the China’s Reform and Development Report, 1995). The first was the economic development (Hua, 1978). The priority on economic development was indisputable during the period right after the Cultural Revolution, when the national economy was on its edge of collapse (Luo, 2003). The second was to increase GDP. The economic growth or GDP has become a default measure of the reform’s achievements and performance of governments at different levels (UNDP, 2006). The third was the introduction to market mechanism and, as a result, the centralized commanding economy has transferred to decentralized market economy (Ma, 2002).

As a social undertaking, health care reform never became the top priority of the government policies until very recently. The State Council’s annual reports from 1979 to 1992 did not refer to any health care reform, only mentioning family planning and patriotic public health campaign (Li 2007). The reports from 1992 through 2003 emphasized the establishment of social health insurance programs in urban areas because the government realized that a sophisticated social security system including health insurance programs is the fundamental infrastructure of market economy (Zhu 2002). The 2004-2006 reports highlighted the strengthening of the public health and medical system, given that its weakening during the economic reform was exposed during the SARS crisis. Moreover, the 2005 report stated concerns about the “overly expensive medical service” problem, but the focus was still not on the health care provider or the hospital. Instead, the government paid attention to improving community health services and the neo-rural cooperative health insurance program.

Along with the development of the market economy, philosophical and policy changes in regard to health care financing occurred. Before 1979, health care was regarded as a public good, meaning the government took care of everything in health care, such as financing, provision, and payment (Ministry of Health and Ministry of Finance 1960). In 1991, the view of health care shifted to social welfare to which the health care financing needs to come from both the government and other sources in society (Liu and Guo 2007). By 1997, health care was further defined as a social enterprise with limited social welfare characteristics (i.e., government financing) inherited. This latest definition implies that health care financing needs to be composed of three parts: government, society, and markets (CCCP and the State...
Council 1997). The government’s responsibility of health care financing, in turn, has been weakened (Liang and Hao 2003). It is fair to say that the three focuses of economic development, especially the transition from command economy to market economy, triggered the transformation of health care financing from an all-government model to a market-oriented model.

The centralized total budget is one of the most essential features of China’s command economy prior to its economic reform. Along with the gradual introduction of market mechanism, the total budget system started shifting to a decentralized multi-level budgeting model in 1980. Under this model, revenues and expenditures are clearly defined between central and local governments. The local governments proportionally turn in their remaining balance to the central government after using local revenues to cover local expenditures, and the central government will subsidize local governments in case of local revenue shortage. The local governments are responsible for justifying their expenditures with revenues within a range approved by the central government (Legislative Affairs Office of the State Council General Office, 1986).

This reform decomposed the former total budget into over 80,000 independent fiscal budgets, which was commonly referred as “separating stoves and individual cooking, feng-zao-chi-fan.” The policy significantly relieved the pressure on the central budget but resulted in severely tightened local budgets. Local authorities and public institutions, including health care facilities, were hardly able to make ends meet, and employees had relatively low incomes (Wang 1999).

To solve the problem, the central government responded with a further loosely controlled self-funding, zi-jin-zi-chou, policy, which stressed that “all public institutions with regular revenues, should gradually become mostly or even totally self-support,” and self generated profits were allowed. This policy is also applicable to health and medical care institutes (State Council General Office, 1981). In 1985, the fiscal revenue and expenditure policy had a further reform, from “dividing different kinds of revenues and expenditures amongst the authorities at different levels” to “categorizing taxes, and verifying revenues and expenditures amongst the authorities at different levels”. According to the tax categories, enterprises and public institutions were affiliated to either central or local fiscal budgets. Local governments were allowed to adjust their expenses according to revenues that were within the revenue and expenditure ranges. The relationship between different levels of fiscal budgets, enterprises, and public institutions was formed by taxes. Enterprises and public institutions were able to adjust their expenses according to revenues, based upon the verified tax revenues. Thus, it decreased the government intervention and increased enterprises’ autonomy (State Council 1985). Enterprises and public institutions, including health and medical care institutes, were encouraged to provide variety of social services including paid services (Zhao 1988). Ministry of Finance categorized health and medical care institutes as “conditional self-support organizations” and would gradually decrease its subsidies to them (Ministry of Finance, 1989).

The “Self-financing” policy indicated that the central budget no long completely fund health care entities but allowed themselves generate their own profits and become self-sufficient. Data have shown that, in 1980s, government financing covered 25-30% of costs of public health facilities (Shen 1990), but the figure was down to an average of 6.2% during the period from 1998 to 2004 (Ministry of Health 2006). Further, due to lack of sophisticated regulations, the “self-financing” policy created problems in health care entities, such as corruption and over-charging, and the latter is the origin of the “overly expensive medical services” problem (Hao 2006; Wang 1999).

- Health Care Organizations Motivated to Charge for Services as the Decline of Government Financing
The self-sufficient policy encouraged health care facilities to find ways to generate revenues. Success in other industries under the market-oriented economic reform provided encouraging experience, such as the contracting system, *jin-ji-cheng-bao*, for health care to follow. Since late 1970s, the central government has issued a series of policies for the national economic development and the health care sector has always followed with (Gu, 1995). For instance, under the national economic reform initiated during the Third Plenary Session of the Eleventh Central Committee of CPC in 1978, the State Council (1979) started shifting the focus of health care to modernization and to improve economic efficiency and effectiveness. The government initialized the “fixed-amount subsidy, economic accounting, performance-based bonus and punishment, and retention for the balance, *ding-er-bu-zhu, jing-ji-he-suan, kao-he-jiang-li, jie-yu-liu-yong*” policy on hospitals in 1980 (Ministry of Health, 1980).

Moreover, it is widely recognized as a great success for the economic reform that carried out the “household contract responsibility system” starting in rural area in 1979 (National Committee for Economic Restructuring 1990; “China’s Reform and Development Report” Panel 1995), followed by the “enterprise contract system” in urban areas in 1983 (Gao, 1998). Guided by the national economic policy (Zhu, 1985), the reform in enterprises included increasing autonomy, self-responsible for gaining profit or loss, which was also referred as “economic responsibility system” (Du, 1991). Referring to the aforementioned experience, the State Council gave permission to private medical practice, and to collectively-owned non-government health care facilities that were allowed to run under the “independent accounting, self-responsible for profit or loss, and paying health professionals based on intensity and complexity of services they provided, *du-li-he-suan, zi-fu-ying-kui, an-lao-feng-pei*” policy (State Council, 1980). In 1985, the central government further increased the autonomy of health care facilities in the form of the chief executive responsibility system (State Council, 1985). By 1988, the accounting system evolved from one level hospital accounting to two levels, at both the hospital and department levels (Sun, 1988).

Following the national policy that allowed public entities to become “self-fund” in 1981, health section initiated its implementation to encourage hospitals to become “self-fund” in 1985 (State Council 1985). After the permission of “self-pricing” on commodities outside the state plan in 1982 (State Council 1982), the health sector, in 1985, followed with binding the medical service charges with levels of hospitals, making special prices for special services (e.g., elective diagnostic and therapeutic services) and new service (e.g., high-tech diagnostic services) (State Council, 1985). After the enterprise shareholding system was introduced in 1988 (Sun, 1988), the health sector was encouraged to seek funding from multiple sources in 1992 (Ministry of Health, 1992).

“The Ministry of Public Health’s Report of Policies Issues in the Health Care Reform” in 1985 seemed to be a milestone policy for health care reform in which health services began to become market-oriented commodities (the State Council 1985; Li 2004). From the trends shown in the earlier Figures 1 and 2, the accelerating increase in health care expenditures starts around 1985 and 1986, which might not be coincident.

In the past three decades, China’s health care reform has been strongly influenced by and has imitated the economic reform measures, such as the contract-responsibility system, decentralization, substitution of tax payment for profit delivery, self-financing, self control on revenues and expenditures, and self-responsibility for profit or loss. Nevertheless, these economic growth and market-oriented policies adapted in health sector, to great extent, ignored special characteristics of health care that may not fit the market. One of the most significant effects of the market orientation on the health sector is reflected by the dramatic increase in health organizations’ revenues and the skyrocket increase in health care expenditures that markedly outpaced the growth of GDP. Other stellar effects include decline in access to and equity of health care and weakening of public financing on both
prevention and treatment. According to WHO (2003), 57% of revenues of centers for diseases control, the primary public health facility in China, are generated from fee for services. China is the only country, among 37 countries in West Pacific Region of WHO, charges fees for children immunization services. Furthermore, from 1998 to 2004, government financing only shared 6.2% of public hospitals’ revenues and the remaining 93.8 relied on market-based fee-for-services (Ministry of Health 2006).

Malformed Hospital Service Charges Due to the Government’s Long-Term Price Reduction and Price Ceiling Policy

Regarding health care as public goods and social welfare (Ministry of Health 1960), the central government significantly reduced fees for health services three times from 1950 to 1979, as shown in Figure 4. During the period, the health care price index curve plunged from above the CPI curve to below, with an increasing gap to the CPI curve, so called “the scissors-shape discrepancy, jian-dao-chao.” Government used two approaches to fill some of the gap between health service charges and costs: (1) allocating subsidies through the budgeting process and (2) allowing hospitals to have a 15% mark-up on prescription drug sells.

After the beginning of economic reform in 1979, China gradually headed toward market economy. As a result, prices of medical services fluctuated in line with market conditions, and the costs of medical services increased. However, to ensure access to basic health care services for the public, the government kept prices of medical services below their costs, in spite of some minor price-adjustments being adopted. The more general price increased, the larger the gap was (Qian, 1996). The gap between the general price index and medical price index reached to the widest level in late 1990s. To offset the loss in basic medical care during the period, a new policy, “new prices for new service items, xin-xiang-mu, xin-ding-jia”, was issued. It allowed a mark up for the new and high-tech services, such as CT, MRT.

The price ceiling and reduction neither reflected dynamics of demand and supply in markets, nor accorded with the economic reform and the finance function change. The supply side (i.e., hospitals) complained the malformed charging system as follows: the unreasonable charges could not offer a reasonable compensation to the cost of medical care and the work of medical stuff. The charging system reflected neither the value of the medical care labor nor the changes in demand and services in markets (Chen, 1996). What was worse, due to the “self-fund” policy, was the assignment of responsibility of coving medical services costs to hospitals.

According to Hao (2006), hospital’s revenue sources and service charges have several characteristics. First of all, there was virtually no labor charge for medical services. During the period of planning economy, it was supported by policies for not charging labor fees because as government employees, the medical stuff received salaries from the government, which prohibited them from further charging labor fees. Moreover, the exemption of labor charges was also regarded as welfare/public goods provided by government to the public. But, this policy became unreasonable when the government funding took up mere 6.2% of the total hospital expenditure, while 93.3% needed to be collected by the public hospitals through the market (Ministry of Health, 2006). The situation started to get alleviated in some regions of the country in 1994 when Shanghai, the largest the city in China, adopted a “Controlling the Total Expenses but Restructuring the Service Charges, zong-liang-kong-zhi, jie-gou-tiao-zheng” policy (Liu, 1995). Second, hospitals generated deficits in providing basic medical services. The government gave hospitals a little range to adjust fees for basic and regular service items, such as blood test and urine test, for the purpose of guaranteeing access to and reduce financial barriers of these services. Consequently, the charges were well below the costs. Figure 4 suggests that the change in medical service prices was approximately two fifths of the change in general commodity price. Third, hospitals received surplus in offering new and high-tech items. The “new service item new price” policy, started
in 1985 allows high-tech tests, such as CT, MRI, color ultrasonic, and electroencephalogram, to charge substantially above costs (The State Council, 1985). This policy prompts hospitals to try every effort to add new services, and even to update old procedures and rename them, in order to charge higher prices. Finally, hospitals gained a 15% mark-up on retail of prescription drugs to offset the loss by price reduction and price ceiling for medical services. For instance, a 10-yuan sale in medicines could create 1.30 yuan in profits. In late 1980s, discount from pharmaceutical industries started as a result of low-level redundant development in drug production, which greatly intensified market competition. It started from the 2% off in early stage, to 20%-25% off nowadays (Hao 2004). Obviously, the hospitals are able to make more profits and revenues by prescribing more medications, especially expensive ones. In short, the price reduction and non-cost based price ceiling policy limited the revenue and profit sources of hospitals. Specifically, hospitals could make money only through high-tech tests and prescriptions, while they lose money in labor expenses and basic regular tests (Hao, Wu, Wang, 1995; The State Council, 1997).

![Price Index of Retail and health care articles between 1951 and 2005 (1950=100)](image.png)

**Fig. 4. Price Index of Retail and health care articles between 1951 and 2005 (1950=100)**


**In Compliance with the New Price and Finance Policies Hospitals Initiating the Excessive Growth in Health Care Expenditures**

The combination of the overlook by the government, the withdrawal in its financing role, the malformed charging system, and the imitation of economic reform by the health care administration determines the compensation policies and mechanism for health care organizations from 1980 to present. Hospital managers have little bargaining power and could only be in compliance with the government policies. Figure 5 illustrates the sources and channels through which hospitals get compensated. Two major hospitals’ revenue sources are government budget and service charges. If the government finance were sufficient, no hospital would put much energy in the latter one because generating revenues from service charges is difficulty and stressful due to market competition plus under the strict governmental scrutiny. However when the channel of government financing is blocked, the service charging becomes an only main revenue channel left; otherwise hospitals would have to downsize, cut services, or may not be able survive. It is obvious that withdrawal of government financing directly results in reliance of hospitals on service charges.
Furthermore, problems exist in the service charges as well. Under the malformed pricing mechanism and charging system, labor costs could not be covered and regular basic tests could not be fully compensated, which leaves drugs and new high-tech services as profit-making items. As a result, hospitals are forced to use several strategies such as prescribing more expensive drugs and providing more expensive services including potentially unnecessary ones to increase revenues. First, cross-subsidization between prescription drugs and medical services becomes a common practice, which means to make profit from the mark-up on and whole sale discounts of prescription drug, especially much more expensive new drugs, to cover losses in providing conventional medical services. Diseases that could be treated by penicillin now are treated by more advanced cephalosporin. Second, hospitals take advantages of being allowed to charge very high fees from offering new high-tech services to make profits to cover losses due to the provision of conventional basic medical services. For example, tuberculosis, which could be diagnosed by X-ray, has to be diagnosed by more advanced MRI now. Third, hospitals are motivated to upgrade original basic services, from which higher fees can be set and profit can be made. In fact, fewer and fewer less expensive services are available nowadays. Some diseases that do not require special diagnosis are now diagnosed by ultrasonic or MRI. Fourth, many hospitals break down a service into several items; thus change charge from fee-for-service to “fee-for-item, feng-jie-shou-fei” to generate more revenues. Finally, some studies have shown that physicians and hospitals create induced-demand, motivated by financial incentives (He, 2007).

Medical services are always paid based on the fee-for-service mechanism in China. The fees used to be determined by the government. After the economic reform, hospitals gradually have more autonomy to set up fees, especially for those services that are out of the basic benefits covered by health insurance, as long as in compliance with the government’s policy and guidelines. The government policies and guidelines, however, in many cases, are too general and vague. The government’s guidelines often only set fee standards for main service categories and items and leave many specific service items including accessorial or supplementary services unspecified or unmentioned. That about 70% of the national populations are not covered by health insurance provides opportunities for hospitals and doctors to freely choose and provide services to the massive uninsured population. Hospitals basically are able to break services down to multiple service items, respectively, on which charges are placed (Hao and Shen, 1990). Patients hence need to pay for whatever hospitals provide (Hao, 2006). It is no doubt that the reimbursement mechanism of medical services in China is distorted or not well functioned.

When the government’s subsidies keep declining, hospitals increasingly rely on their own revenue-generation, so-called “prescriptions subsidize medical services” and “new service items subsidize medical services.” (State Planning Commission, Ministry of Health, and Ministry of Finance, 1996). It becomes epidemic to excessively prescribe medications and offer high-tech diagnoses. Barnum and Kutzin (1993) reported that the usage of electroencephalogram, CT, type-B ultrasonic, and MRI in China is driven by financial incentive of providers. Literature suggests that from 1988 to 1990, the revenue from prescription drugs takes 60% of the total revenue of hospitals (Cheng, 1988; Liu and Hsiao, 1995). The national data also show that the proportion remains above 50% during 1991-1998 (China Ministry of Health, 2007). Although the health insurance added restrictions on the charges by providers in 1998, the proportion was kept between 40%-50% by 2006 (Table 3). It is fair to say that” public hospitals could not make profit in the area that should generate profit, but they make profit from where they are not supposed to”. It is reported that for every 1 Yuan profit generated from the prescription, hospitals need to prescribe 5-7 Yuan of medications (Hao, 2006). The ill-fated compensation mechanism definitely leads to excessive growth in health care expenditure. China, in health care, lacks an effective macro-level administrative and control system, a planning and evaluation system, and a coordinated
sustainable development mechanism (Wu, 2003). Living in such macro-environments, hospitals become increasingly market-oriented and financially motivated, and their behavior moves fast towards “maximizing their own benefits.” (Liu, 1995)

There is no doubt that other factors also relate to the excessive growth in health care expenditures. Those factors include inflation, change in population age structure with more aging persons, changes in disease patterns, and the increase in length of hospital stays. However, the increase in total health care expenditures in China is inseparable with excessive utilization of advanced technology and new drugs, which is regarded as the decisive factor by many researches (Hao, Wu, Wang, 1995; Menga, 2004; Liu 1995).

![Diagram of sources and channels through which hospitals get compensated](image)

**Fig. 5** sources and channels through which hospitals get compensated facing the distorted pricing system and low Financial subsidy

Table 3 Hospitals’ income and the proportion of revenue from prescription drugs takes from 1991-2006 in China

<table>
<thead>
<tr>
<th>Year</th>
<th>Hospital Income (thousand Yuan)</th>
<th>revenue from prescription drugs (thousand Yuan)</th>
<th>the proportion of revenue from prescription drugs takes (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991</td>
<td>34978960</td>
<td>20874550</td>
<td>59.7</td>
</tr>
<tr>
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<td>43509040</td>
<td>25501400</td>
<td>58.6</td>
</tr>
<tr>
<td>1993</td>
<td>57181600</td>
<td>31822800</td>
<td>55.7</td>
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<td>2006</td>
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- The Poorly Regulated Medical Care Input Supply Market Attributed to the Excessive Growth in Health Care Expenditures
As mentioned above, it becomes common practice for hospitals to prescribe expensive medications and offer more advanced test items. As purchasers in the input market, hospitals, under the current compensation mechanism, significantly affect the production and supply of the medical services input markets, specifically, the medical supply and drug wholesale markets. Ultimately, what happened in the input markets is transferred into output or consumer markets.

In order to maximize profits, the production and distribution firms of medical supplies and drugs target hospitals, the primary customer. For example, they satisfy hospitals with wholesale new drugs that can generate sizable profits for hospitals through the retail (Ye 2004). In oversupplied demand-driven input markets, the brutal competition requires the firms to do whatever necessary to beat their competitors and win business from hospitals. Among many marketing and promotion approaches used by the firms, some are unethical and some are even illegal (Hao and Wang, 2001).

One of the main factors that relate to the chaotic input markets is the weak governmental regulation and monitoring. Standards of drug production and wholesale, responsible by the Food and Drug Administration, are not well established and corruptions of some government officials make the things worse. Bureaus of Pricing seem to be powerless in controlling the high wholesale prices for new drugs and services set by the pharmaceutical firms and their distributors. Bureaus of Health do not seem to have effective ways in encouraging hospitals’ and doctors’ ethical behaviors. As a result, unreasonable promotion means (e.g., bribe, kickback) prevail and are not punished and there is no order in the whole-sale markets (Pan, 1996). It merely appears to be a reality that expensive drugs are easier to be sold to hospitals as compared to inexpensive but high-quality drugs. As an old saying goes “like tree, like fruit”, the extra-costs of distribution and wholesale are added into total costs of the drugs and are eventually paid by the purchasers, hospitals (Hao and Wang, 2001).

Ultimately all of those costs of drugs plus the mark-up haunt patients, the consumer. In pre-1998 period, because of the nearly free health care provided by the government employee insurance program and the labor insurance program, there was barely any expense control. Patients actually wanted to have expensive prescriptions and advanced tests, which accords with hospitals’ intension, because the third party, insurance, would pay for them (Hao, Wu, and Wang 1995). After 1998, free health care provided by both public insurance programs were replaced by a government-run social medical insurance in urban areas, patients started becoming aware of the use of expensive medications and services due to their co-pay and the limited amount of money in their individual insurance accounts. However, the asymmetric information and loose monitoring for the social insurance program enable hospitals to offer expensive drugs and services. More importantly, for 70% uninsured of total population, hospitals have more leeway of generating revenues through prescriptions and services.

- The Less Sophisticated Social Health Insurance System Making the “Overly Expensive Medical Services” a Public Concern

Hospitals including doctor services are paid on the fee-for-service basis (Zhang, 2002). As health services become increasingly expensive a well established health insurance system can significantly reduce financial burdens of patients (Chen, 2007). However, it is not the case in China where most people currently are not worry about the “overly expensive medical services,” which exposes weaknesses of newly implemented social health insurance system (Ma, 2006). First, the urban-based social insurance program only covers about 9% of the total population. As shown in Table 4, the majority (70%) of the total population (45% in urban areas and 79% in rural area) are not covered by the social insurance system. It is almost certain that the uninsured (rural residents covered by the small and financially vulnerable rural cooperative medical care program are not regarded as being insured) will encounter the “overly expensive medical service” problem.
Second, the social insurance program that combines both the general fund and personal medical accounts may not sufficient to cover catastrophic illnesses. The personal account is used for outpatient services. Patients have to pay the health services charges by themselves once the money in their accounts is used up. The general fund, often a city-based pool, covers expenses inpatient care. Patients are required to pay the deductible to hospital care up to 10% of their annual income before the general fund kicks in. The general fund then will pay up to 4 times of the average annual income of workers in local areas. Once the hospital bill is over the limit, patients themselves have to pay it or it can be paid by the supplementary commercial insurance coverage (The State Council, 1998). Currently about 6% of the urban dwellers have the supplementary commercial insurance coverage. The rest 94% urban populations need to pay the extra amount above the cap. One can see that the social insurance program aims to cover the middle segment of financial barriers. Both the low and high ends are responsible by patients. Without covering the high end, the program’s ability to relieve the financial burden for catastrophic situations is limited. This is why 30% of persons covered by the social insurance program are concerned about the “overly expensive medical service” issue (Liu, 2002). It well explains why the ratio of medical expenses on personal total expenses keeps going up, and why the patients’ out-of-pocket payment increasingly more for treatments (Figure 2).

<table>
<thead>
<tr>
<th>Tab.4. the type of health insurance for Chinese population (%)</th>
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<tr>
<td>New social insurance</td>
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<tr>
<td>GHI</td>
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<td>LHI</td>
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<td>CMS</td>
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<tr>
<td>Other social insurance</td>
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<td>Commercial insurance</td>
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<tr>
<td>Out of packet</td>
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<td>Total</td>
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4. Conclusions and Policy Implications

The market oriented economic reform and development has transformed health care financing in China, which results in heavy financial burdens for consumers. The sharp declining of government financing and the malfunctioned reimbursement mechanism for medical services is mainly responsible for the skyrocket increase in health expenditures and increasing heavier financial burdens for patients. The process of the transformation can be summarized as follows.

First, guided by the highly prioritized economic development, the government gradually changed the view of health care from viewing it as a public good / welfare to inclining viewing it as a commodity that can be exchanged in markets. Government financing hence has been dramatically weakened and, meantime, health care facilities are forced to become financially self-sufficient.

Second, under the pressure of being self-sufficient, health facilities, to a great extent, have adapted the market-oriented model in operation through which most of revenues are generated by providing services. Due to the government-set low prices for conventional medical services and generic drugs and high prices for new technology and drugs, health facilities have strong financial incentives to make profits from offering more high priced
items and drugs. They use the profitable tests and drugs to subsidize less profitable labor-intensive doctor services, which, in turn, results in fast growth in health expenditures in recent years.

Third, the uninsured people who are the majority of the total population have to pay for the increasingly more expensive health care. Even for the government-run social health insurance program, it is not capable of covering patients with catastrophic illnesses. “Health care is too expensive” has become a serious public concern.

Figure 6: Heavy Healthcare Economic Burdens on Consumers coming into being in China

A group of researchers led by Hao developed a conceptual model, the unhealthy cycle of hospital reimbursement model, to depict the above process (Chang 2002; Hao, Xin, and Luo 1998; Li 1998; Wu 1998). As shown in Figure 6, when the weakening of government financing starts hospitals are forced to pay more attention to their service charges. Since the government has a strict fee-for-service price control, the labor cost of the health care provider cannot be fully covered by service charges. Hospitals hence have financial incentives to over-provide new and more expensive services and drugs, resulting in fast increase in health care expenditures. The premature health insurance infrastructure is unable to match the increase in health expenditures, which leads to heavy financial burdens for the public, compromise of access to and equity of care, and stronger government control. Based on the national and regional data, this model has been quantified and yielded some important findings (Xin, Hao, and Qiu 1998; Wu, Hao, and Qiu 1998; Luo, Hao, and Li 1998; Qiu, Hao, and Zheng 1998). Breaking down the financial burdens from the increase in health care expenditures, 60.5% - 75.8% in 1991 and 70.2% - 84.4% in 1995 were attributed to lack of government financing while 26.1% in 1991 and 64.1% in 1995 were attributed to unreasonable service charges (Xin, Hao, and Wu 1998).

China’s macroeconomic reform has generated significant and long-term impact on its health care system. The government has been struggling to find a way to maintain stable healthcare financing and to improving efficiencies (Yipa 2004). Strongly influenced by its market-oriented economic policies, China’s health care policies mostly have focused on introducing markets into health care delivery while gradually reducing the government financing. Due to special characteristics of health care markets, such as information asymmetry between the provider and the patient and public goods and semi-public goods existing in health care, heavily relying on markets to adjust resource allocation harms access to, equity of, and quality of care (Wang 1998). Lack of effective government regulation and scrutiny as well as appropriate pricing policies does not help markets work properly and unethical or even illegal market behaviors (e.g., over-prescription, bribe, kickback) are in rise (Cai 2002).

In order to shake-up the current health care system, policies should begin with reassessment of the relationship between the government and market’s roles in delivering health care.
Given the fact that healthcare has become so expensive for the majority of the population, how to redefine the level of government financing and strengthen the government’s ability of macro-level guiding and adjustment will be the key for a new wave of health care reform. Secondly, systematically overhauling the malformal hospital reimbursement system may present a fundamental solution to slow down the increase in health care expenditures. There are two options to do so. One is to change the fee-for-service payment system. International communities have reported that the fee-for-service payment is attributed to 11% of increase in health care expenditures (Gerdtham et al. 1992). Experience from developed countries suggests that prospective global budget system is effective in containing health care expenditures (Yipa and Egglestonb 2004). Chinese scholars also propose a duel-model that combines the government’s global budget with “fee-for-volume” or with “fee-for-DRG (diagnostic related groups)” (Hao et al. 2007). They argue that this model encourages hospitals actively becoming more cost conscious (Hao, Lin, and Liu 2007). The other option will keep the fee-for-service approach under the global budget constrain, but the government needs to replace the current health service price structure by a new structure that covers more labor costs as well as costs of providing basic test items. Meantime, the new price structure should lower prices of new and advanced test items based on more strict cost-accounting measures and eliminate drug mark-up, which de-incentivizes hospitals’ overprovision behavior. This option was adapted in some regions in mid-1990s and seems to work well (Hao, Zhang, and Luo 2002). Without seriously considering the two options to reduce financial burdens for the general public to seek health, dialogues about any health policy and reform may not even meaningfully to begin with.
Health Care in China
Prof. Dr. Athar Hussain
Director of the Asia Research Centre, London School of Economics

The history of the Chinese health care system divides into two periods, first, the “era of economic reforms and opening to the outside world”, which began in 1978, and, second, the preceding period. Since 1978, the healthcare system has undergone massive changes. An overhaul of the system is under preparation. In November 2008, the government unveiled a discussion document soliciting public views on various reform proposals. The focus of the collaborative research should be on the current situation. An evaluation of these proposals from a comparative perspective would be a topical subject for collaborative research.

Health Status and Access

With life expectancy at birth of 71.4 years and the infant mortality rate of 19 per thousand live births, the health status of the Chinese population is similar to that of populations with a much higher income per head. But underlying the average values of indicators there are large variations.

The disease profile of the Chinese population resembles that of the population of a developed country: 85-90% of deaths are due to non-communicable diseases. Over the coming decades, these diseases would rise further in importance as the main cause of deaths and in terms of incidence with the progressive ageing of the population.

However, the reported incidence of infectious and parasitic diseases is high, especially in rural areas, and the actual incidence is even higher. Thus China carries a double burden of diseases: non-communicable diseases are increasingly prevalent, while preventable communicable diseases remain a significant cause of morbidity.

Access to health care is unequal. The World Health Report 2000 ranked China 144 from the top in a list of 191 countries in terms of equity in access to health care. The outbreak in 2003 of SARS brought into sharp focus large gaps in health care, especially in rural areas, and the inability of the system to cope with a major epidemic. Added to these there has been mounting evidence from various surveys that a substantial percentage of the population abstains from necessary medical care because of high cost.

A selective list of topics for collaborative research is as follows:

- Analysis of health indicators by provinces and, if feasible, by other population sub-groups with a view to bringing out the variation in the health status across population sub-groups.
- The pattern of incidence of particular disease, such as tuberculosis, and the socio-economic factors that underlie the pattern.
- Impediments in utilising health care and feasible measures for reducing those impediments.
- Case studies of groups deprived of health care, such as rural inhabitants and rural migrants in towns and cities.

Institutional Background
This section outlines the institutional structure of the Chinese health care system. I have not suggested subjects for collaborative research in this so as to keep the list of suggestions short.

**Health Care Delivery System**

China’s health care delivery system is made up of varied collection of institutions. Public health care facilities divide into two parallel streams, “rural” and “urban”. Around 80% facilities are located in urban areas with just over 40% of the population. Compared with urban areas, medical facilities in rural areas are sparse, rudimentary in many villages.

In keeping with the importance accorded to controlling the population size, there is an extensive family planning network, which is separate from the health care network and also funded separately. Reproductive health care is split between the family planning and the health care network.

The control of communicable diseases, health education and preventive services are split between the Epidemic Prevention Stations (EPS) and the Centers of Diseases Control (CDC), which were established in 2000 as part of the re-organization the health care delivery system. The CDCs have assumed special importance with the outbreak of SARS in 2003 and of the avian flu more recently.

The pattern of provision of primary health care/outpatient services differs between rural and urban area. In rural areas the providers include village clinics and township hospitals. In urban areas hospitals are the principal providers. Since 1999 the policy has been to transfer primary/outpatient care from hospitals to the Community Health Centers (CHCs), which are new institutions. The development of CHCs has been much slower than initially expected because of two factors: first, a widespread belief that the quality of health care provided by CHCs is of lower quality than that of hospitals. The second factor is the reluctance by hospitals to close down their outpatient departments, which are a major revenue source.

A distinctive feature of the Chinese Health care delivery system is the co-existence of Western medicine and the Traditional Chinese Medicine (TCM). There is a separate TCM network consisting of training institutions, hospitals and practitioners. Frequently, the two are intertwined; the same doctors may prescribe both Western and Traditional Chinese therapy.

**Financing**

Over the reform period since 1978, the cost of medical treatment has risen faster than the massive increase in household incomes. This is due only partly to improvement in the quality of health care. Added to this the rise in income has been very uneven. As a result, for some social groups the health care costs relative to personal income have risen much faster than the average.

In the 30 years since the beginning of reforms in 1978, the relationship between national income and government revenue has undergone a dramatic change: a massive decline followed by a dramatic recovery. In the first 17 years the revenue ratio dropped by almost 21 percentage points from 31.2% in 1978 to 10.7% in 1995. The subsequent 12 years to 2007 has seen a close to 12 percentage point rise. The government responded to the decrease in the ratio of tax revenue to GDP by reducing the share of health care cost covered by the
government. That share continued to fall until 2000. Since then it has been rising but is still low by international standards.

Correlatively, health care institutions were expected to cover increasing percentage of their operating costs from user-fee. Raising funds from user-fee takes a number of forms. One is the straight forward rise in the fee, which is transparent and is subject to a tight regulation. The other is through prescription of unnecessary medicine and medical intervention, which is not immediately obvious to patients.

In 2006 the total expenditure of health care from all sources came to 4.73% of GDP. The government share of the total health expenditure was 38.8% and the remaining 61.2% came from private sources, mostly out patients’ pockets. The private share in China is considerably higher than in many other countries with similar level of health spending and also substantially higher than the world wide average of 43%. In fact a large part of government expenditure on health is devoted to the health insurance of its own employees.

The prescription of unnecessary medicines and procedures, including that involving high-tech equipment, is now a widespread affliction. The common responses to the high and rising medical costs by the population includes foregoing medical treatment unless necessary and purchasing medicine from pharmacies. For a significant percentage of the population the local pharmacy is their clinic or hospital.

Leaving aside commercial insurance that covers a very small percentage of the population, there are three non-commercial health insurance schemes in China:

- Government Employee Health Insurance Scheme (GIS)
- Social Medical Insurance Scheme (SIS)
- New Rural Cooperative Medical Insurance Scheme (NRCMS)

The first two are largely urban schemes and are employment based and thus by design exclude non-participants in the labour market. But last two years have seen the launch of pilot schemes targeted at those excluded from the SIS. The first covers government employees and retirees and disabled veterans, teachers and others but not their dependants. The second is the reincarnation of the earlier labour Insurance scheme but it is open to the whole the urban labour force, but the actual coverage falls well short of 100% of the labour force. The membership premium for SIS is set at a percentage of the payroll, jointly payed by employers and employees. The recommended percentage is 8 split 2:8 between employees and employers. The unusual feature of SIS is the payment of employee contribution into an individual account and the accumulated funds are put at the disposal of the account holder to pay for outpatient care and medicine. The employer's contribution goes into a social pool that covers a percentage of the cost inpatient care. The prevalent pattern is that patients first pay and then claim reimbursement from the insurance agency. The reimbursed amount is a percentage of the cost over and above a deductible and is subject to ceiling.

The NRCMS was launched in 2003 following the SARS outbreak. But its antecedents reach back to the pre-1978 Rural Cooperative Medical Insurance Scheme, which is financed by a flat rate contribution of Rmb 50 per person. Of which the member pays Rmb 10 and the remaining Rmb 40 is jointly contributed by the central and local governments. Relative to the total medical cost the premium of Rmb 50 is low and on average the insurance fund covers only 30% of the cost.
As yet the health insurance schemes play a limited role in cushioning the impact of health care cost. First of all, only a part of the population is covered by one of the health insurance schemes. Second, the reimbursement rate is low and is subject to a ceiling that is lower than a course of a major inpatient treatment. Third, the insurance system is fragmented. Not only are the rural and urban schemes separate but there are at least two urban schemes. Apart from GIS and SIS, numerous cities have separate schemes for students and adults outside the SIS umbrella. Added to these there are also separate schemes for migrant workers. Finally, both SIS and NRCMS are too decentralised to provide sufficient risk pooling. The former is organized and financed at the level of cities and the latter at an even lower level.

**Future Trend**

The leadership recognises that the present health care system fails to provide basic medical care to all and that it is inefficient and is prone to overprescription of medicine and expensive medical intervention. Over the last two or so years the Government has made an enormous effort to reform the system. An inter-ministerial working group is entrusted with the task of formulating a comprehensive reform package.
On Health and Social Development
Dr. Meri Koivusalo, Senior Researcher
The Finnish National Research and Development Centre

I would like to present three potential themes for consideration of common interest to discussion and debate in the panel of health and social development. The first one addresses broader social development aspects in the context of health in all policies and social determinants of health, the second one on financing and purpose of health systems financing and organisation, and the third one on common interests across countries.

HEALTH IN ALL POLICIES AND SOCIAL DETERMINANTS OF HEALTH

Health in all policies and social determinants of health are both approaches, which originate from the primary health care approach and intersectoral action, in other words cooperation with other sectors than the health sector. Social determinants of health has its main focus on not only on determinants of health, but on social determinants of health adding a dimension of equity. Health in all policies is a term which has been applied in particular on health inequalities.

However, both of these approaches also represent a particular type of public policies, where the aim is to address determinants of health through public policies and changes in policies often outside health sector. Examples of this type of approaches are, for example, measures to enhance health of children through healthier school meals and mobility both within an to school and back from school, making cycling to work easier and through cycle paths opening scope for more cycling. The background purpose is to enhance the scope that people will be able to make healthier choices. However, this requires as well that basic context of policy-making is solid as issues such as housing, basic food quality and water quality form the basic and essential building blocks of social determinants of health- or health in all policies approach.

Social determinants of health became a more discussed policy topic within Europe due to two reasons, firstly, the persistent inequalities in health in particular in Northern European countries, and the linkage between social inequalities and inequalities in health. While it is often assumed that rising social inequalities are a result of high economic growth, it seems that in terms of health and social development this is a bit different with less importance of magnitude of growth than how this takes place. Another division point are urban and rural differences in social development, which is a challenge in particular as often maintaining health services and preventive services in the more remote areas is more expensive. While social determinants do not apply otherwise to health service, these are a crucial issue for equal access to health services.

HEALTH SYSTEMS FINANCING AND ORGANISATION

Health systems have been in many countries under reform policies. A particular aspect and so far a remaining and widely popular basis for European health systems has been the support to universal access, solidarity and equity within health systems. European health systems have in comparison to North American health systems had both universal basis for access as well as utilised different mechanisms of collective risk and resource sharing. However, as part of internal market policies and alongside a broader interest in more individualised financing mechanisms European health systems have faced further pressures towards commercialisation. While European health systems have had private and commercial providers, these have not so
far been heavily commercialised. The challenge now to health systems within Europe is to tackle pressures for commercialisation.

The purpose for European health systems has been established in provision of services on the basis of need and financing these on the basis of capacity to pay. This has resulted in risk and resource sharing arrangements. The overall costs of care have remained relatively contained within most European health systems, however, it is expected that further cost-pressures will emerge, in particular, from new technologies and pharmaceuticals. Aging of the population has been considered as a major burden, however, the burden of aging is not necessarily of equal importance as is the cost of new technologies. Healthier aging is also one part of the overall broader picture in many countries.

The impact and implications of globalisation or global policies upon health system takes place through two routes, firstly, as part of share of public resources to be allocated health systems and secondly, as part of pressures towards commercialisation of publicly financed service provision. However, while demands of citizens are often referred to as important for individualisation of services provision and financing, it is possible and explored in particular in United Kingdom, how to expand participation of users and citizens to the planning and implementation of services within the broader framework of services. The challenges to health systems - both within Europe and elsewhere - is the extent to which these can accommodate needs of public participation, without compromising or moving away from more collective risk- and resource sharing arrangements and focus on all citizens.

COMMON INTERESTS IN HEALTH SYSTEMS DEVELOPMENT

The focus on common interests and policy priorities across countries is important as in particular in the sphere of trade-related health issues the scope for national policy space for health becomes more limited. One example of this issue is pharmaceutical policies as viewed purely from industrial policy priorities the strengthening of intellectual property rights and lengthening of data exclusivity makes sense, however, it is not as meaningful strategy from a health policy and priority point of view. The articulation of common interests in particular policy spheres is of importance also due to reasons of providing appropriate balance in relation to global actors, such as pharmaceutical industry. However, what is good for - local or global - pharmaceutical industry may not be good for the health or health policy priorities, including rational use of pharmaceuticals. Pharmaceuticals form a rather clear and solid basis for assessment and focus on common interests, however, common health concerns and interests can be seen much more broadly.

One aspect of common interests can be traced in the exploration of national policy space and global trade policies. Global trade policies are expected to be implemented on the basis of common interests and shared and mutual benefits, however, these assumptions often ignore the relationship of these expected benefits to potential and often unanticipated repercussions in health and other sectors. The articulation of common interests in health can be seen as one means to track and tackle this problem.

The traditional global focus on public health has separated policies in rich and poor countries, yet any separation is increasingly difficult to make, due to higher prevalence of chronic and non-communicable diseases in poorer countries and recognition of danger of spread of communicable diseases across all counties. This implies that it is likely that health systems in poorer countries should not be much different than those in richer countries if these are to have the capacity to treat the same illnesses.
Finally, I have dealt mostly with common interests in relation to common outside pressures in relation to health systems and health policy priorities, yet the exploration of common interests is likely to bring new and interesting insights also on both common and diverging interests within health systems.
Outline of research topics for knowledge exchange and collaboration
Ellen Kuhlmann, Senior Lecturer
Sociology, University of Bath

Across countries healthcare systems face a number of similar challenges, such as cost-containment and scarcity of resources; raising and changing demand as a result of new medical technologies and demographic change; new infectious diseases rapidly 'travelling' around the globe; and new demands on equity and access to healthcare, including gender equality. At the same time, there are important differences in the regulatory architecture and the 'culture' of healthcare and health systems, especially differences in finance and in the definition of public-private responsibility for healthcare. This makes healthcare systems an important arena for the development of new approaches towards context sensitive supranational regulation.

My focus is on the changing governance of healthcare, including the new dimension of transnationalism. In this respect, governance is defined as a complex set of regulatory mechanisms, including classic forms of governing through hierarchy (state) and markets as well as new forms of more complex network-based and partnership governance.

Key areas suggested for future collaborative investigation are the management of performance of medical/healthcare providers; the establishment of gender mainstreaming policies; and international professional regulation/global diversity management of human resources in healthcare. My aims are to highlight both the tensions between global governance and local needs and a new need for supranational regulation. Here, a context sensitive approach based on historically different health systems and pathways of modernisation in China and EU countries may help to identify action points for global policy interventions towards performance and equity in healthcare, including gender equality, and to contribute to governance approaches that are more sensitive to contexts and 'local' needs.

'Global' models of health reform and 'local' needs: new directions and challenges to policy-making and research
Research highlights a general trend towards partnership and network-based governance and new forms of managing professional performance; this also includes marketisation and mix-models of funding. This trend is accompanied by new models of organising the provision and delivery of healthcare, such as collaborative care and skill-mix approaches and an overall shift towards primary care. The new forms of governance enjoy high currency in the debates over how to 'get health reform right'. However, within these processes western models of health reform are well on the way to provide the blueprint for – economic, social and cultural – different nation states, thus bearing the risk of new forms of 'colonisation' that neglect 'local' needs and contexts.

In order to remain context sensitive, I suggest a conceptual model that covers three different, but related dimensions of governance:

- institutional governance: the regulatory bodies and stakeholder arrangements, including new agencies of public control and patient participation;
- organisational governance: models of governing through a number of new managerialist strategies that impact at the meso-level of health organisations: either directly, or through measures that govern professionals at a distance' in the form of targets and performance measures;
- self-regulatory arrangements that reflect state-profession relations in a time-specific context.
One particular arena where the global and local needs may clash is the definition of 'evidence' of standards and clinical guidelines for medical and healthcare services. Here, the western tradition of medicine – fuelled by knowledge gathered in the 'knowledge towers' of the US and Europe and published in the international journals – is especially strong. This model of defining 'evidence' of knowledge is embedded in clinical guidelines and health policies that are travelling across the globe. This raises fundamentally new questions on the governance and measurements of professional performance based on clinical guidelines and standards worked out by international organisations.

These questions also direct our attention to the definition of skill-mix approaches and the collaboration of different healthcare professionals. To this end, experiences from China with a much longer and different tradition of combining western and eastern approaches are especially interesting and may help to shed light on the making and unmaking of professional boundaries.

**Gender mainstreaming policies**

The concept of gender mainstreaming is indicative of substantive political and social change. Gender sensitive healthcare and women’s healthcare issues are increasingly moving from the margins of feminist activism to the 'mainstream' of health policy. The concept of gender mainstreaming includes new approaches to both gender equality and policy-making, as defined amongst others by WHO and the European Union. Based on the 1995 Beijing platform of the fourth International World Conference of Women, gender mainstreaming is 'a tool to transform gender relations through public policy' (Woodward, 2008). This concept is itself a result of feminist critiques of essentialist approaches to women, and at the same time a response to the changing governance of the public sector. In healthcare, gender mainstreaming is assigned a double role: as an approach to reduce social inequalities in health which, at the same time, improves the quality and efficiency of the provision and delivery of healthcare. Further, women's healthcare itself is becoming more diverse taking account of the 'intersectionality' of gender and other forms of differences. Another novelty is that gender mainstreaming approaches bring into perspective the specific healthcare needs of men.

Accordingly, gender mainstreaming provides a new opportunity for more diverse and contextualised approaches on gender relations, and for closer links with health policy processes, medical governance and an organisational restructuring of healthcare. However, there are also important differences between countries; and the changing governance of public services does not fit as easily with gender equality as the policies suggest. Especially the question must be addressed as to whether the concept of mainstreaming takes account of social and cultural differences in gender regimes. Further, the linkage between gender mainstreaming and public policy raises the question whether and how this approach can be linked to healthcare systems with different trajectories of 'public control' and different definitions of public-private responsibility for healthcare services for the citizens.

**Transnationalism in health policy and healthcare**

Transnationalism is a new mode of governance that operates within, across, and beyond formal institutions of national healthcare states. Key driving forces for these trends are globalisation processes and broadly similar modernisation agendas and pressures for change across countries. These developments deeply impact on existing governance arrangements and may significantly alter the national configuration of stakeholders and interests involved in the policy process. Characteristically, both the 'managerial state' at the national level and globalisation indicate a changing concept of state power, though the implications for governance arrangements may be distinctive.
Transnationalism moves the analysis of health policy beyond the focus on international regulation as well as the debates on the diverge/convergence of healthcare systems. It is important to bring new configurations and complex policy processes of transnationalism into view without losing sight of the path dependency of policy changes. This is important in various ways: first, transnational health policy flows are arising 'above governments', such as for instance evidence-based expert knowledge created in international organisations like WHO and other NGOs, and medical knowledge travelling around the globe via the international journals and the Cochrane Collaboration. Second, these policy flows meet with the new managerial regimes acting 'below governments' on levels of professions and organisations through performance and other forms of ‘steering at a distance’. Third, ‘hybrid’ transnational regulatory spaces ‘above’, ‘across’ and ‘below’ formal institutions intersect with institutional settings, culture and stakeholder arrangements that form a specific national ‘architecture of governance’ through which policy processes materialise.

Broadly similar pressures for change in different countries and new modes of governing across, below and above the formal institutions of the healthcare state thus raise fundamentally new questions about the nature of governance. Especially the question must be addressed, how to manage the diversity of local needs and demands in such a way that improves global governance.

**Migration and global diversity management: regulating an international health workforce**

Globalisation processes create a new need for supranational/international regulation in healthcare in a number of different areas. Efforts have so far been undertaken especially in areas related to new infectious diseases, such as HIV/AIDS and bird flu. While this is important, the regulatory need does however stretch far beyond infectious diseases and touches on the basis models of healthcare provision and delivery. I will focus on the latter issues and highlight one aspect: the regulation of an increasingly international health workforce and the related need for global diversity management in healthcare.

Globalisation releases new dynamics in the health labour market. It expands the scope of and the space for existing and new professional groups, without replacing national arrangements of workforce governance, including educational systems as well as state-profession configurations and statutory regulation. At the same time, global migration flows of doctors and other health professionals together with intra-European mobility create a new need for ‘regulatory order’ in the health professional workforce to facilitate convergence and mobility. Migration flows raise the questions as to whether and how the regulatory arrangements in the health system, where graduation and professional training were completed, impact on the performance of health professionals, and whether this meets the standards of continuing professional guidance and the commitment to patient safety and voice ensured by several European countries. At present, no comparative data do exist that would allow for reliable conclusions and evidence-based policy-making in order to close the possible regulatory gap.

A comparative perspective can bring into view possible mismatches between education and professional guidance in the country of graduation and good medical practice ensured in the host country, including differences in professional ethics. Accordingly, action points for intervention strategies can be identified that contribute to patient safety, professional performance and human resource management in a globalising world and take into account non-discriminatory practices and equal opportunities. To this end, it is important to develop a global diversity management that effectively counteracts a general trend of substituting expensive health staff in (some) developed countries through highly qualified, but cheaper professionals from less developed countries – the so-called brain drain and care drain.
Health Reform Policy and Politics in China
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I. Introduction
While remaining strong in economic growth, China is increasingly faced with new challenges towards building a harmonious society, a central goal set as a guiding principle for its development. In the past two years, health reform has been one of the hottest topics nationwide, with major issues concerning the healthcare cost, insurance coverage, and limited supply drawing the most public attention. Healthcare costs have become extremely high relative to China’s average income. In 2006, for example, an average tertiary hospital admission cost RMB12,650, which is nearly 90 percent of the per capita GDP of RMB14,040 in the same year. Furthermore, over 600 million people, nearly half of the total population, had no insurance coverage and were thus fully exposed to catastrophic health and financial risks.

In response, the State Council called for national health reform in the summer of 2006, leading to a 16-Ministry joint taskforce co-chaired by Mr. Ma Kai (then the Commissioner of the State Development and Reform Commission) and Mr. Gao Qiang (then the Minister of Health). This was followed by a number of major policy initiatives, which included 1) inviting submissions of independent reform proposals in the spring of 2007 from eight institutions (Peking University, Fudan University, Beijing Normal University, Remin University, The State Council Development and Research Center, World Bank, WHO, and McKinsey); 2) launching the pilot of the Urban Resident Basic Medical Insurance (URBMI) in summer 2007; and 3) recently posting the reform proposal draft online for suggestions in a one-month public hearing from Oct. 14-Nov. 14, 2008. While the reform continues, we take pause for thought, and ask: where has progress been made, and what is the consensus? What are the current policy implications and remaining issues? This policy briefing provides an update on these questions with comments by the author.

II. Growing Demand for Health Care
Increased demand for health care is clearly a global phenomenon across the world. What unclear, however, are the complex implications of this phenomenon for economic cost and human welfare. China is no exception to this trend, where demand for health care has increased many fold over the years despite the poor health safety net. Indeed, demand for health care has increased at a much faster pace than economic growth. According to the Ministry of Health (MOH) official statistics for 1980-2005, the nominal GDP per capita increased 27 fold; while health expenditures per capita increased 40 fold. More importantly, of these increased health expenditures, individual out of pocket expenses have dramatically increased 102 fold.

It is difficult to quantitatively assess and identify the specific nature of the forces driving increased demand for health care due to the lack of empirical research that has so far been carried out in China. However, rich literature in other countries may offer great insight from a conceptual perspective. Among others, most notable is the seminal work by Newhouse (1992) based on US data. His research concludes that technology is the strongest driver of increasing costs, accounting for more than half of cost variation, followed by increased income, aging, insurance, and other factors. While efforts are continuing to contain health cost inflation, recent economic literature also calls for attention on the intrinsic value of health gains for enhancing the quality of human life and longevity (Cutler and McClellan 2001, Murphy and Topel 2006, Hall and Jones 2007). As noted in their work, Hall and Jones predict that in the US, “the optimal health share of spending seems likely to exceed 30 percent by the middle of the century.”
While the magnitude of the contributing factors may vary when applied to China, it is hard to assume technology will not play anything but a key role in the determination of healthcare consumption in the transitional economy. Based on the available elementary statistics, and the concerns voiced by state officials, medical technology seems to have diffused at an even faster rate than before, especially in many of the modern cities in China, partly due to the processes of increased globalization, WTO entry, income growth, and disease transition. It is worth noting that while infectious disease still remains a major threat to many people due to poor public health conditions, an epidemiological transition to non-communicable disease, has resulted in chronic diseases, both in urban and rural populations, rising to the leading cause of illness. Recent MOH statistics show cancer, stroke and heart diseases to be the top three leading causes of deaths in China. Clearly, the co-existence of communicable and non-communicable diseases, or the so called “double disease burdens” serve as another key determinant of growing demand for health care in China (Hu et al. 2008).

III. Meeting the Demand: Policy Reform and Responses

Much of the increased demand for health care over the years has been met by individuals resulting in enlarged health risk and financial burden for many people. According to the National Health Survey conducted by the MOH, government financing contributed only 17 percent of total health expenditures in 2003; employment-based social insurance 27 percent; and individual out-of-pocket payment over 56 percent. Compared to most other countries, China ranks among the lowest in terms of public financing, pointing to a major government failure. But such a government failure was not well scrutinized until the 2003 SARS outbreak which was a critical wake-up call for public attention on the importance of public health and the role of the state in ensuring health care for citizens. Since then, healthcare issues have gained significant prominence in public discussion and debate. Academic publications and online surveys all consistently reveal the fact that the public’s top concern persistently relate to problems in health care. This overwhelming public concern may be best described by the very popular slogan of “kan-bing-nan, kan-bing-gui” (meaning seeking care is difficult and expensive) which often headlines in the major Chinese news media these days.

Under the socioeconomic transitions in China, the public reaction to the problems in health care was instrumental in shaping the government policy response. This has culminated in two recent landmark policy efforts. The first is the establishment of the New Rural Cooperative Medical Insurance (NRCMI) beginning in 2003 for the rural population; and the second is the State Council led 14-Ministry joint taskforce on national health reform initiated in the summer 2006. As has been experienced in the process of reform in other sectors of the transitional economy, health sector reform also confronts great challenges and disputes, particularly regarding the role of government and markets in service financing and delivery. Based on the well documented decreasing share of health care paid by public finance, a universal consensus has been reached about the need to increase the role of public financing. However, critical disputes still remain as to how the public finance “check” should be allocated to the health sector. Two major schools of thought lead the debate; the first is the so called “school of supply subsidy”, arguing for allocating public funds through a budgetary process direct to public providers, which in turn can provide free or subsidized “basic care” for all through community facilities. This approach would have two implications: 1) individuals would bear full responsibility for any non-“basic care” obtained mostly at tertiary facilities; and 2) private suppliers would be excluded due to the lack of mechanisms for public financing. Essentially this approach is aimed at ensuring the goal of public access to basic care by strengthening the public budget for supply and regulation of public providers.

In contrast, there is a “school of demand subsidy” that advocates an approach of empowering people through a universal social insurance program where public funds serve as the major contribution coupled with individual contributions (with exemptions for the poor). This approach would largely eliminate the opportunity public officials may have to abuse the
public funds via “soft budgets” where allocation are made to preferred providers based on personal relationships. It would allow everyone to be insured and to enjoy the benefit of both basic care and non basic care conditional on some cost containment measures. Also, this approach would offer equal opportunity for all providers, regardless of ownership, to join the supply of services on an openly competitive basis for contracting and reimbursement policies. In comparison, this approach is intended to accomplish the goal of public access to care by public financing of insurance while maximizing market supply capacity through deregulation and service competition.

3.1 Healthcare Financing for the Rural Population

Before 2003, most of the rural population had no policy protections against health hazards. In 2003, the State Council issued a State Policy Document 2003 No.3: Directives on the Establishment of New Rural Cooperative Medical Insurance (NRCMI). The NRCMI policy specifications include: (1) government subsidy of RMB40 premium contribution conditional on individual contribution of RMB10 to each employee on annual basis; (2) insurance coverage and health benefits for major illnesses, with an objective of preventing poverty caused by substantial healthcare costs; (3) voluntary enrollment on a family basis, stressing democratic supervision, openness and transparency; and (4) risk pooling and insurance administration at county level under the direction of local Bureaus of Health. Moreover, in his State Report to the 2008 People Congress, Premier Wen Jiabao announced to double the government contribution from RMB 40 to RMB 80 per enrollee, further strengthening the government commitment to NRCMI program. Following the government initiative with increased investment in building the infrastructure and training of rural health professionals, the NRCMI has grown very rapidly within a few years. Based on the MOH statistics, by the end of 2007, a total of 2,451 counties, or 86 percent of the country’s total, had enrolled NRCMI, covering over 730 million rural residents. It is anticipated that the NRCMI coverage will be expanded to the entire country by the end of 2008, which is ahead of the government’s original plan of universal coverage for the rural population by 2010.

NRCMI has made significant progress with benefits to the rural beneficiaries. First, national statistics show an increase of 15.9 percent for total health cost and 45.3 percent for insurance expenses per rural enrollee, respectively, between 2003 and 2005, suggesting an increasing share of cost burden within the insurance program. Second, NRCMI coverage is provided primarily for inpatient care with varied deductibles and caps, depending on area-specific policy settings. Some area-specific NRCMI policies also cover outpatient services with a family medical savings account set up to pay for common diseases and minor illnesses. Some pilot NRCMI schemes also cover an annual physical examination and a fixed assistance for labor and delivery.

3.2 Healthcare Financing for the Urban Employed

During the Era of Planned Economy, there were two public insurance programs: 1) Government Medical Insurance (GMI) for the state officials; and 2) Labor Medical Insurance (LMI) for urban employees mostly in the state-owned enterprises. The GMI was financed by the government while stated-owned and collectively-owned enterprises provided funding to LMI from their operating profits. When China began to transition from a centrally-planned to a market-driven economy with much decentralized responsibility for welfare programs at firm level, the urban health programs became largely dysfunctional in meeting the changed demand for health care. In April 1994, the State Council issued a policy document calling for pilot experiments to reform the urban health system with the Urban Employee Medical Insurance System (UEBMI) governed by the former Ministry of Labor and Social Security. The pilot was launched in the city of Zhen-jiang (Jiangsu Province) and Jiu-jiang (Jiangxi Province) known as the “Dual-Jiang Model” (Liu et al. 2004). Following the pilot work with
quite successful outcomes in improved access, utilization and cost measures (Liu et al. 2002), the State Council issued the 1998 No. 44 Policy Document requesting UEBMI to be nationally implemented, officially marking the launch of UEBMI in China.

UEBMI has two major models for different target populations: 1) an integrated model with a social pooling account and individual medical savings account (MSAs), and 2) a solitary social pooling account. The former is for the formally employed; and the latter for the informally employed and migrant workers. The integrated model provides insurance coverage and health benefits for retirees and workers with full-time formal employment. Both employers and employees jointly contribute premiums at an average rate of six percent and two percent of the employees’ wages, respectively, and enrollment is mandatory with risk pooling at the city level. The solitary social pooling account is provided to serve retirees, employees of ailing enterprises as well as workers with partial or flexible employment. Accordingly, the insured only have to pay the premium for the social pooling account, and their contribution is based on the average salary of the administrative region. Although enrollment is mandatory, enforcement for this policy is more difficult because it is based on self-identification of enterprises and the track record of employees. Another difficulty is the high mobility of the target population which also leaves many uninsured. By the end of 2007, there were over 180 million UEBMI enrollees, or 53.3 percent of the target population of 340 million.

3.3 Healthcare Financing for the Urban Residents

As shown above, there were only two formal insurance program arrangements before 2007, UEBMI and NRCMI. It is also worth noting that UEBMI and NRCMI are under different administrative organizations, with the former governed by the Ministry of Human Resources and Social Security and the latter by the Ministry of Health. From an institutional perspective, however, the state health safety net totally left out a third population group - the urban unemployed residents, mostly the elderly, children, and migrants. Under the strong leadership of Madam Wu Yi, then the State Council Deputy Minister in charge of health affairs, the State Council Policy Document No. 20 was issued on July 10, 2007, calling for a major initiative to pilot an insurance program for uninsured urban residents, which gave birth to the Urban Resident Basic Medical Insurance (URBMI). Immediately following this policy initiative, 79 cities were selected as the first official sites for the experiment beginning in the summer 2007. The State Council policy document also set a timetable for the pilot model to be expanded to over 50 percent of all cities in China by 2008, 80 percent by 2009, and 100 percent by 2010. This policy goal was reinforced by Premier Wen Jiabao in his State Report to the 2008 People’s Congress.

The main characteristics of URBMI are similar to NRCMI as follows: 1) government contribution of RMB80 premium per enrollee starting in 2008; 2) voluntary participation; 3) insurance coverage mainly against major illnesses treated at inpatient settings; and 4) low level of reimbursement due to low premium and limited pooling capacity compared to UEBMI. While offering a limited benefit level, URBMI seems to be well received so far by the target population. Based on a representative household survey in nine sample cities, an evaluation study for the policy effort was conducted by Lin, Liu and Chen (2008). This study finds that the poor and those with previous use of inpatient services are more likely to enroll in URBMI. These two disadvantaged groups also gain more, relative to others in terms of, access to care and reduction in financial burden. In addition, the disadvantaged groups also tend to be more satisfied with the URBMI policy.

URBMI yields two strong policy implications. First, the State Council is committed to increasing public financing for health care, and the main approach is to allocate public funds to the development of social insurance-based programs as a major part of the health reform. Second, the recently initiated URBMI, together with UEBMI with 190 million urban employees and NRCMI with 750 million rural residents, serves as a milestone step towards
shaping the direction of health financing towards a universal insurance coverage policy for all in China by 2010 (Liu 2008).

IV. Supply-Side Reform: A Greater Challenge
As noted, the healthcare crisis in China is characterized by the dual problems of, seeking for care being too expensive and too difficult. To a great extent, “too expensive” is largely a financing issue, which can be expected to improve with the further development of the state-led universal insurance programs of UEBMI, NRCMI, and URBMI. On the other hand, obtaining care being “too difficult” is a delivery capacity issue inferring a supply shortage in meeting demand. In this regard, the healthcare industry is still highly dominated by state-owned providers largely derived from the planned economy era. For instance, of the nearly 18,000 hospitals nationwide, over 90 percent are state hospitals. As a result, government intervention widely exists at both regulatory and management levels, including in, hospital financing and personnel controls under the MOH system through its local agencies. In the past two years major discussions and debates have focused on several key issues, as follows. Firstly, to what extent should the market play a role in service supply? One school of thought in favor of government control stresses the adverse effect markets can have in combination with profit-driven motivation and competition through arguing there is a tendency for private entities to engage in undesirable practices, such as inducing demand, leading to solutions favoring a government-led service supply model. In contrast, the opposing school of thought contends that the government’s role should indeed be concentrated on healthcare financing through universal insurance, but on service supply side however, the market should be given priority to help mobilize societal resources for greater and more efficient supply capacity in order to better meet the increasing demand. Otherwise, with increased financing, the issue of “too difficult to find care” may become worse, or to put it in economic terms, the current supply shortage may in fact deepen as demand for health increases.

While empirical work is very scant on this issue in China, a few recent studies do highlight some important insights. Using data from the five-city patient survey conducted by the World Bank, Liu and Wang (2008) find evidence that private providers actually charged lower than state providers for similar services after controlling for both individual and institutional conditions. Moreover, this study also shows cost reductions associated with a large private market, suggesting that an increased market role and encouragement of competition would help reduce, rather than inflate, healthcare cost. Similar findings were reported in an aggregate study by Li and Liu (2008) based on the official state statistics from the yearbooks. They find that due to increased market competition, the area-specific average cost of health services actually decreased with the market share of private hospital providers after controlling for regional and population characteristics.

The second issue that has been hotly debated is on the role of doctors. In China, medical doctors working in public institutions are officially defined as public servants and are thus subject to government administrative controls on employment unit, salary, and welfare. Unlike other countries where doctors have freedom to conduct private clinics in addition to their primary employment, doctors in China do not have such a right, therefore making it illegal to see patients outside of their employment unit except if on official assignment to support one another. In the meantime, doctor salaries must be set at a level generally compatible to that of other public servants. It has been well recognized that such compensation policy is not appropriate or attractive for the medical professional considering the higher level of risk and uncertainty they face and the much longer educational investment that is required in medicine. As a result, doctors as a whole face an increasing dilemma, either, leave the profession to find higher paid work, or remain but raise needed additional income by providing “illegal” or unethical services. It is for this reason that the Chinese medical labor
force as a whole is declining substantially in both quality and quantity, an alarming call on the diminishing prospects of recruiting the best of China’s future generations to join it.

As to the cause of this crisis, it is evident the public system of employment inherited from the planned economy era has contributed to the negative developments in the professional setting briefly described above. Despite this, it is still argued by some that because health care is a public or semi-public good, it should be provided primarily by public servants who would have no profit-driven motivation. In response to the shrinking size of the labor force, their remedy is to increase the salary base via making doctors a special classification of public official. It is unclear, however, how such a policy arguing for significant salary increases for doctors would be financially and politically feasible without redefining their identity as public officials. On the contrary, the other school of thought argues for an opposite approach: to release the employment unit constraint and offer medical doctors freedom to conduct medical services across units. This approach can lead to fundamental improvements in both the incomes and professional status of the medical profession through allowing increased opportunities for career development, without the need to increase pressure on public finance, while also ameliorating confrontational political challenges from non-medical officials who may create discontent otherwise when facing wage differentials. In short, the idea is to minimize government intervention in micro management of service delivery for productive efficiency in order to allow greater government capacity for macro policy and regulatory responsibilities.

A third issue is medical pricing control. Currently, the state government exercises tight price regulation for medical services. However, much of the medical service unit prices still remain at the levels set decades ago when most non-medical goods were extremely inexpensive. As a result, few state hospitals can financially sustain themselves without substantial government subsidies or “soft budgets” which are often uncertain and heavily reliant upon personal relationships with the financing agencies. While medical services are subject to unit pricing control under the State Development and Reform Commission (SDRC), two major policy caveats still exist. First, medical services are almost all paid on the fee-for-service basis by the Ministry of Human Resources and Social Security, leading to a strong incentive for providers to oversupply services with higher profit margins such as diagnostic tests using newer technologies that are often priced higher. Second, prescription drugs serve another major source of revenues as more and more new drugs have been introduced to the Chinese market during economic reform and development. In particular, the SDRC policy allows hospitals to add a 15 percent markup on top of the buying price, creating perhaps the largest and worst incentive for over prescribing and inappropriate drug use in China. This factor may well explain why prescriptions in China account for 45 to 50 percent of total health expenditures. The policy debates on the third issue also fall into two separate camps. Camp one suggests a policy of “dual tracks for revenues and expenses”, meaning service expenses are fully funded through the government budget, while service revenues must be fully tracked back to government. This proposal may eliminate the opportunity for providers to seek profit, but it may also eliminate incentives for providers to seek productive efficiency. As to the prescribing issue, this proposal recommends that drug dispensing be carved out from prescription, aiming to prevent doctors from benefitting from over prescribing. In contrast, Camp two is to argue for more a fundamental change in pricing policy on the grounds that it is the pricing control policy itself that leads to the distorted behaviors as observed, thus it would not ultimately solve the problems simply by applying the dual-track or carving-out policies because the providers still face the fundamental problems with service supply under pricing controls and an insufficient public budget. This would lead to incompatible incentives and thus undesirable behavior. In response, an alternative proposal is to reduce government pricing control at service unit level and leave more room available for market demand and supply to determine equilibrium pricing. The third-party purchaser, or government, then can play a more transparent and productive role by negotiating service contracts for group
purchase on the basis of capitation or population health outcomes. With further development of the universal insurance programs, presumably this approach should be promising, but empirical work is surely needed to help better answer these questions.

V. Concluding Remarks
China is not alone in facing the tough challenges and disputes while reforming its health system. As noted by Nobel laureate Kenneth Arrow (1963), health care markets are more complicated than many other markets for their unique characteristics of uncertainty, heterogeneity, asymmetric information, and the level of government intervention. The degree of complication seems to be compounded in China where rapid transitions are taking place in the economy, demography, epidemiology, and health financing as well. Given these conditions, the necessity of government intervention is commonly shared, but vast disputes still remain as to where and how government intervention shall be appropriately conducted. Nevertheless, during the past two years of reform efforts, government intervention has been primarily focused on financing, leading to the establishment of URBMI program as a key step to pave the way towards China’s universal insurance coverage goal by 2010. While accomplishing great successes so far, further reform tasks are likely to be more challenging especially when the time comes to shift gears to the service supply side, where the core issues of, transitioning hospital ownership, changing organizational management, reducing market monopoly and pricing controls, will reshape the redistribution and allocation of resources, responsibilities, and thus economic and political power (Hsiao 2007).