

# A Review of China's Health and Development from the Perspective of SARS\*

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## Abstract

*The paper discusses four issues associated with health and development. First of all, it evaluates the impact of SARS on the economy and points out the revelations of the SARS crisis, namely, the close links between health and development. Then, the paper goes on to review the development over the past more than 20 years since China's reform and analyzes the interaction between development and health and the drawbacks revealed in coping with the challenges by development on the part of the government and its health department. It then proceeds with an analysis of the impact of the economic transition, especially decentralization of the health department, pointing out such major problems as inequality, low efficiency and poor response in the health services. Falling victim of development and transition are the poor and disadvantaged groups, with the right to basic health lost and improvement of health slow. The paper therefore puts forward the line of thought for future development on how to improve health services to the poor population so as to make them beneficiaries of development and realize harmonious development.*

Key words: SARS crisis, health, development, economic transition, decentralization

## 1. Problems to probe

In the first half of 2003, a sudden attack of SARS epidemic threatened the health and lives of the Chinese people and exerted a tremendous adverse impact on the economic operation and social life in China and even in the whole world. Now the crisis has become a memory of the past. But it has invoked a lot of thought in us. This paper tries to start with the impact and revelations of SARS epidemic and probe into four major problems with regard to "health and development".

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\* The paper is a lecture by Prof. Hu Angang at the celebrations of the 20<sup>th</sup> anniversary of the founding of the China Health Economics Society on November 6, 2003. It was revised after the meeting.

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First of all, it deals with such problems as how to evaluate the economic losses caused by SARS, how to look at SARS crisis in the perspective of health and development. Then, it goes on to probe into such problems as what challenges the economic transition and development have imposed on the government and its health department, how these challenges affect development, how the government and health department should cope with them and what measures should be adopted in order to eliminate or lower the cost of development. Economic transition, structural adjustment and social changes have brought about a high speed growth to the Chinese economy, but also caused a series of social problems, especially in social health and health of the people, which have, in turn, exerted a negative influence on economic development. This is an inevitable cost of development, as exemplified in SARS crisis. It reflects the failure of the Chinese health department in coping with the crisis. The paper then goes on with such problems as the impact of economic transition on the health department per se and the consequences on the use of health services by residents and the health level of the people, as the health department provides a kind of social service and its operation is of necessity affected by the macroeconomic transition and development and further affect the provision of health services and the utilization of such services by residents. Discussion of the problem is useful to get a better understanding of why the health department failed to cope with the challenges of development.

The most outstanding consequence is that the poor and disadvantaged people have to bear the cost of development. Their basic health right has lost and the pace of improving their health has become slow. Poverty reduction is one of the problems that have received worldwide attention in the present-day world. To improve health service to the poor population and enhance their health level is an important target and an important means of poverty reduction. But how should health service is provided so as to improve their health level and ensure that they benefit from development, thus realizing the targets of poverty reduction in the future?

## 2. Impact of SARS on the economy and its revelation

SARS was a worldwide public health crisis, affecting more than 30 countries in the five continents. China (including the mainland, Hong Kong and Taiwan) was the worst hit. By June 23, the total SARS cases accounted for 92% of the world's total.(See Table 1).

Table 1 Number of SARS Cases

	Chinese mainland	Chinese Hong Kong	Chinese Taiwan	Total (% in world's total)	World's total
March 17	—	95	—		167
March 31	806	530	10	1346 (83%)	1622
April 14	1418	1190	23	2631 (83%)	3169
April 28	2914	1557	66	4537 (90%)	5050
May 12	5013	1683	184	6880(92%)	7447
May 26	5316	1726	585	7627(93%)	8202
June 9	5328	1753	680	7761(92%)	8421
June 23	5326	1755	692	7773(92%)	8459

Source: World Health Organization (WHO).

## **Estimation of economic losses caused by SARS crisis**

Some official organs and organizations at home and abroad have sized up economic losses brought about by SARS crisis. Based on the economic indicators of Asian economies affected by SARS<sup>3</sup>, the Asian Development Bank (ADB) put the GDP losses in Asia at US\$18 billion, 0.6% of the total GDP. If calculated by total final expenditure (TFE), the effect of SARS on TFE is US\$59 billion, accounting for 2% of the GDP. China sustained the biggest losses, estimated at US\$6.1 billion, accounting for 0.5% of the GDP. Hong Kong suffered the worst given its size of the economy. Its losses accounted for 2.9% of the GDP.

In publishing statistical data, China's State Statistical Bureau said that SARS had caused adverse impact on China's economy, but it had not alter the basic situation or changed the general trend of rapid growth. As the GDP growth dropped significantly in the second quarter, it can be estimated that the annual losses caused by SARS may be around 0.8 percentage points. The impact of SARS was mainly concentrated in late April and in May and in such areas as the tertiary industry, especially retail sales, tourism and transportation. For instance, the growth of the tertiary industry in the second quarter was only 0.8% and that was mainly the result of SARS impact.<sup>4</sup>

Table 3 shows that the real GDP growth in the second quarter was 6.7%. According to the data for the first three quarters, we estimate that, without SARS impact, the anticipated GDP growth would have been 9.5%. So the SARS affected the annual GDP growth by about 0.7% and caused the losses in the growth of the tertiary industry in the second quarter by 6.8% and the annual impact would be 1.7%. The service industry makes up 33.7% of the GDP and the loss in the services industry affected the annual GDP growth by 0.58%. Besides, take the total retail sales in 2002 as the base figure (4091.05 billion yuan) and calculate by an annual growth of 9%, the losses sustained by the retail industry were about 35 billion yuan, including 6.5 billion in the loss of added value. If calculated by the same method, the losses in added value in the passenger transport are about 11.3 billion yuan.

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<sup>3</sup> ADB, Asian Development Outlook 2003 Update

<sup>4</sup> Qiu Xiaohua, at press conference given by the State Council Information Office, October 17, 2003.

Table 2 Impact of SARS on the Asian Economy

	Consumption spending		GDP		TFE	
	US\$ billion	% in GDP	US\$ billion	% in GDP	US\$ billion	% in GDP
China	4.2	0.3	6.1	0.5	17.9	1.3
Hong Kong	3.4	2.2	4.6	2.9	12.0	7.6
ROK	0.1	0.0	0.3	0.1	6.1	1.2
Taiwan, China	1.8	0.6	1.3	0.5	4.6	1.6
Indonesia			0.3	0.1	1.9	0.9
Malaysia			0.4	0.4	3.0	2.9
Philippines			0.0	0.0	0.6	0.7
Singapore	0.6	0.7	2.7	3.0	8.0	9.0
Thailand	1.0	0.7	1.9	1.4	4.5	3.2
Viet nam			0.4	1.1	0.4	1.1
Total			18.0	0.6	59.0	2.0

Source: ADB, Asian Development Outlook 2003 Update

Table 3 Growth of China's Major Economic Indicators (%)

Indicator	First quarter	Second quarter	Third quarter	Jan.-Sept.
GDP	9.9	6.7	9.1	8.5(10)
Industry	17.2			16.5
Service	7.7	0.8	7.6	
Investment	27.8	31.1		30.5
Export	25.0			32.3
Import	40.0			40.5
Per capita cash income of peasants	7.5	-3.3	6.5	

Source: State Statistical Bureau, *China Economic Cycle Monthly Report*, Sept. 2003.

Besides, the per capita net cash income of peasants in the second quarter dropped by 3.3%. If not for SARS, the anticipated income growth would be 7%. So the real income growth drop should be 10.3%, averaging 76 yuan per person and the sum total losses would be 60 billion yuan. Although SARS broke out only in major cities, it affected the flow of agricultural produce and rural surplus labor. So peasants are the worst victims of SARS, economically. Table 4 shows our estimates of SARS impact:

Table 4 Estimate of SARS Impact on China's Economy

		Income loss (In billions of yuan)	Loss in added value (in billions of yuan)	Source
Losses of service industry	Tourism	2000		State Tourism Administration
	Passenger transport		113	Authors
	Retails	350	65	Authors
Government investment		200		Ministry of Public Health
Loss in export		无	无	Authors
Income loss of peasants		600		Authors

## **How to look at SARS crisis**

The above estimates show that SARS is a public health crisis but not an economic crisis, but it has indeed had a big impact on economic growth and caused big losses and held back GDP growth. The facts about SARS have eloquently illustrated the close relationship between the macroeconomy and health. It furnishes a practical case for scholars to study the linkage between the macroeconomy and public health.

To the rapidly developing China, SARS crisis means a concentrated explosion of the contradictions between health and development accumulated over the past 20 years. Economic development has imposed many challenges to the health of the people. The failure of the government and its health department to cope with it inevitably led to health crisis and in turn affected development. It is, therefore, necessary to make a detailed analysis of the interaction between health and development over the past 20 years in order to get a better understanding of the deep-rooted causes of SARS outbreak and find a solution.

### **3. Challengers by development and counter-measures by the government and its health department**

China has experienced drastic economic transition and social changes over the past two decades. The most fundamental changes that have taken place are that market has taken the place of plans in the allocation of resources and the economic system has been changing from the traditional planned economy to a socialist market economy. The systemic transition has stimulated economic growth. Despite fluctuations, China has realized a high-speed growth for a long period of time. Meanwhile, the pace of industrialization and urbanization has picked up speed and the economy has been moving from autarky to an open economy and gradually become part of the world economy in the tide of economic globalization. The social transition has kept pace. The transition of the population structure has basically been completed, thus providing “population bonuses” to economic growth; consumption revolution is taking place quietly; the ways of consumption have become modernistic. This is a sketch of the development picture. But what impact and challenge does this development process have on the health of the people? How does it form the cost of development? The following is an overall account of the impact of development on health and how should the government and its health department cope with it from the perspective of market development, industrialization, urbanization, globalization, aging population and consumption revolution.

#### **(1) Market development**

The market-oriented economic reform has liberated productivity, released the initiatives of the main players of the economy and created a tremendous amount of social wealth. However, the primary distribution by the market has inevitably resulted in a gap between the poor and the rich. In the process of market transition, the hidden poverty under the old system has become open and market has brought about economic risks, resulting in “transitional poverty”. The

population in transitional poverty in cities and towns (referring to people covered by the minimum cost of living program) increased from 880,000 in 1997 to 11.71 million by 2001 and up to 20.65 million by 2002, accounting for 5% of the total urban population.<sup>5</sup> In the rural areas, the income of peasants derived from farming has been dropping for four years running due to the falling prices (cumulative drop of 22 percentage points), sustaining huge losses that could run up to 300-400 billion yuan. The rural population in absolute poverty in 2002 was about 28.20 million.<sup>6</sup> With low income, lack of social protection system and basic public services, this part of the population are insecure in their income, survival and health. As the basic living and job-seeking conditions, their health is facing serious challenges.

The rich/poor gap and the deterioration of the conditions of the poor population has caused latent sabotage to the economic development and threatened social stability. A disease is likely to deal a heavier blow to the capabilities of survival of the poor population who have low income and are deprived of health service. This is a destruction of human resources, macroeconomically. A 2000-2001 survey conducted by the China Social Stability Research Group shows that the people held that lay-offs, unemployment, too heavy a burden on peasants and polarization were the outstanding problems affecting China's stability. Economic development is the pre-condition for social stability. If social stability cannot be ensured, there should be no economic growth to speak about.

## **(2) Industrialization**

Industrial structural change marked by industrialization is an inevitable trend of modern economic development. It has accelerated economic growth. However, development in the past is "black development" at the price of the environment. For the purpose of stimulating economic growth, governments did not pay enough attention to the supervision and restriction in environmental pollution caused by production enterprises and the daily worsening environment has threatened the health of the people. A World Bank Report (1997) pointed out that urban TSP (Total Suspended Particulate) levels and SO<sub>2</sub> density in some large cities in China fell well below the WHO and China's state standards by 2-5 times, ranking among the front ranks in the world. If air pollution level is brought down to the standards set by the Chinese government, it would prevent nearly 300,000 people from death every year.<sup>7</sup> A UNDP study reported that for the year 2000, there were 600,000 premature deaths, 5.5 million cases of chronic bronchitis, and 20 million cases of respiratory illness due to air pollution.<sup>8</sup>

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<sup>5</sup> State Statistical Bureau, China Statistical Abstract 2003.

<sup>6</sup> State Statistical Bureau, 2002 China Economic and Social Statistics Bulletin, from Economic Daily, March 1, 2003; d. World Bank, 1999.

<sup>7</sup> World Bank, World Development Report 1997.

<sup>8</sup> UNDP, 2002 China Human Development report: Making Green Development a Choice.

Another hazard brought by industrialization on health is occupational diseases and work injuries. Occupational diseases refer to disease caused by coming into contact with dust, radioactive materials and other poisonous and harmful matters in the working activities in enterprises and other units. By the end of 2000, there were 558,000 cases of pneumoconiosis, with the number of death reaching 133,000 for a death rate of 23.85%. In 2000, the Ministry of Public Health received reports on 11718 occupational disease cases, 14.5% more than in 1999.<sup>9</sup> In the recent decade, an average of 1,500 acute poisoning cases and 2,000 chronic poisoning cases had been diagnosed every year. What merits attention is that a large number of township and village enterprises (TVEs) and small mines have sprung up in the recent 20 years, adding to the risks of occupational health. Most of the worst accidents that happened in medium-sized and small TVEs every year and accidents in small coal mines have been frequent. China is lagging behind in occupational disease monitoring and legislation. The “Law of Occupational Disease Control and Prevention” promulgated by the Ninth People’s Congress in 2001 came into effect in May 2002. Health and other departments are impotent in law enforcement and supervision concerning the working environment of production enterprises.

Environmental pollution and occupational diseases increase the social burdens and reduce human capital. The people exposed to occupational diseases are exactly young and middle aged laborers, who have a big impact on economic development. According to the World Bank, the economic losses caused by air pollution in Chinese cities have reached US\$33 billion every year, mostly due to health and physical hazards. The economic cost of diseases and pre-mature death caused by environmental pollution in 11 Chinese cities accounts for 20% of their income. Since the beginning of the 1990s, the direct economic losses caused by work injuries and occupational diseases have reached 80 billion yuan. According to the data (2002) released by the Beijing Disease Control Center, there are 5,000 new occupational disease cases every year in Beijing and the production losses caused by absence from work and economic losses caused by occupational disease diagnosis, treatment, recuperation and living allowances have come to about 450 million yuan every year.<sup>10</sup>

### **(3) Urbanization**

Compared with other countries, China’s urban population has grown the fastest over the past 20 years. The acceleration of the pace of urbanization is the result of the massive flow of rural population into cities, the biggest population movement in Chinese history. Population

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<sup>9</sup> Legal Daily, November 3, 2001.

<sup>10</sup> Xinhuanet, April 15, 2002.

migration refers to changes in the places of residence. In China, it refers to the changes of the place of household registration or the change of agricultural population into non-agricultural population, people recruited directly from the rural areas, graduates of university and secondary technical schools and demobilized servicemen. Population movement refers to people who take temporary residence or short stay in places other than their permanent residence. The peasant workers in cities are mostly floating population. According to the industry and policy department of the Ministry of Agriculture<sup>11</sup>, 206.75 million people moved from rural areas to cities and towns in 1982-2000, about 45% of the total urban population in the same period or 84.6% of the additional population in cities and towns in the same period. In the same period, the rural labor moving to cities and towns totaled 109.6 million, 45.8% of the total labor force in cities and towns or 94.3% of the additional labor force in cities and towns. According to a survey conducted by the Ministry of Agriculture, the rural labor seeking jobs in cities and towns in 2002 totaled about 94 million, 4.7 million more than the 2001 figure of 89.3 million and 42 million made trans-provincial movement. This, plus 20 million non-labor power moving with them, the total floating rural population exceeded 120 million. Cities are areas that need the most production factors and modernization factors for economic growth. Cities have the biggest population carrying capacity and the biggest economic output and the best economic efficiency. Urbanization has contributed significantly to China's economic growth. In the future, it will remain an important source of economic growth. But the population movement has increased pressure on the transportation, housing, education, medical services and other infrastructure and public services. The massive population flow has destructed the ecological environment of cities. Some cities have become overcrowded. Many people are unable to enjoy the normal standards in living conditions and drinking water conditions. Their education and medical services cannot be ensured. Their health is in a very fragile state. The floating population has even greater problems in health. First of all, the floating population has become a high-risk group exposed to VD and AIDS. China's 40% of AIDS patients are in the rural areas and 80% of them are in the floating population. Secondly, the floating population is apt to become carriers of endemic diseases. The spread of SARS epidemic is but an example. The disorderly movement has made monitoring work difficult. Thirdly, most of the floating population do not have labor and health insurance and are weak in resisting the attack by diseases. In this regard, China has not come out with any good countermeasures. Much remains to be done in the health education, prevention and control and immunization and disease monitoring.

The health problems brought about by urbanization and population movement are threatening the development and stability of the macroeconomy. Those who are attacked by diseases are

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<sup>11</sup> the Industry and policy department of the Ministry of Agriculture, from Finance and Economics, Issue No. 3/4, 2003, p. 95.

mostly young and middle-aged laborers among the floating and migrating population. They are the important forces in the economic development and urban construction. The population movement may accelerate the spread of diseases and that in itself affects the operation of the macroeconomy and causes enormous losses.

#### **(4) Globalization**

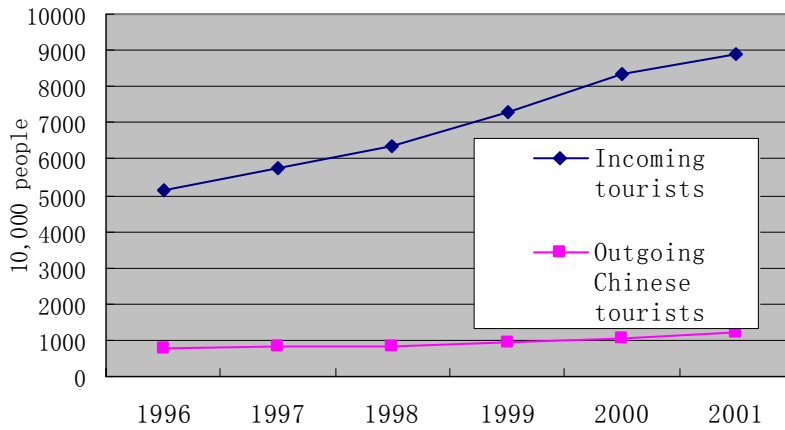
With China's accession to the WTO, China has gone deeper and deeper in opening up and in its involvement in global economic integration. Globalization features daily close exchanges in the world and frequent movement of production factors and people. China has gained much from its involvement in globalization. China now has become the sixth largest foreign trade country and the second largest EDI inflow country (next only to the United States). Its 2002 import and export volume reached US\$620.8 billion<sup>12</sup>. Its export totaled US\$325.6 billion, accounting for 26.3% of GDP. FDI was US\$82.8 billion<sup>13</sup> in contractual volume, accounting for 6.69% of GDP. Since the beginning of the 1990s, the number of incoming and outgoing tourists has increased rapidly. The incoming tourists reached nearly 900 billion (See Figure 1). According to an estimate by the World Tourism Organization, China will become the biggest tourist destination in the world by 2020. However, globalization has also its by-products, that is, the globalization will make a public crisis of a country a significant negative externality. Under the conditions of globalization and opening up, the movement of goods, capital, people and information would make it easy for crisis to spill out of the boundaries of a country into other parts of the international community, such as economic crisis, financial crisis and infectious and endemic diseases crisis. SARS epidemic was spread worldwide with the movement of goods and people. At the same time, the movement of information helps expand the impact of crisis, causing panic among the people. Just as the US "Time" magazine said, "SARS indicates what we will possibly meet in the future. The conditions for pathogen to spread among a large population and to all parts of the world have developed steadily in recent years and are continuing to develop." Such conditions are the creation of globalization. SARS reflects the public crisis under globalization against which the Chinese government lacks the counter-measures, especially the lack of awareness and mechanism of coping with public health crisis. It failed to come out with precautionary measures, reflecting its serious underestimation of SARS impact and also lacked international information and cooperation in research. It is, therefore, necessary to foster the awareness of crisis under the conditions of globalization and establish a corresponding mechanism to strengthen regional and international cooperation against crisis.

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<sup>12</sup> State Statistical Bureau, *2002 National Economic and Social Development Statistics Bulletin of the People's Republic of China* (Feb. 28, 2003), from *Economic Daily*, March 1, 2003, Page 4.

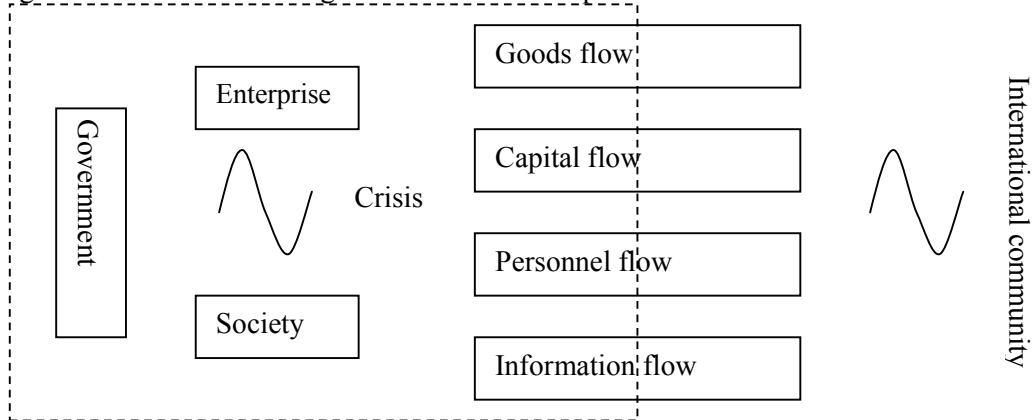
<sup>13</sup> *Ibid.*

Figure 1 Number of Incoming and Outgoing Tourists



Source: State Statistical Bureau, *China Statistical Yearbook 2003*.

Figure 2 Crisis Conducting Mechanism under Open Conditions

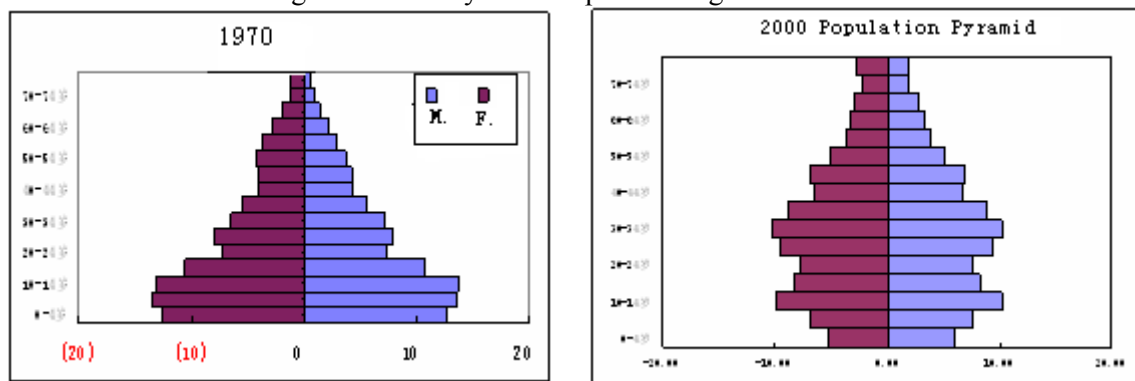


**(5) Aging population**

China has since the beginning of the 1970s introduced the family planning policy to strictly control the birthrate. Thanks to the joint action of the policy and social and economic development, China has realized the population transition, namely, the transition from high birthrate, high death rate to low birthrate and low death rate. The population transition has

brought about “bonus” to economic development, that is, the percentage of the working population has increased, making China a country with the largest working population in the world. But with the further drop in birthrate and the lengthening of life expectancy at birth, the percentage of the aging population has also risen. Up to the end of 2000, the population of 65 years and above made up 6.96% of the total population, with the young/old ratio being 30.4%, marking China’s entry into the ranks of the countries with the largest aging population. The aging population is very big in number and is increasing rapidly. Another stern fact is that the percentage of senior aging population is high. In 2000, the number of senior aging population of over 80 was 11.5 million and the figure is expected to increase to 27 million by 2020. Their percentage in the population aged above 65 will rise from 13% in 2000 to 19% by 2020.<sup>14</sup>

Figure 3 The Pyramid Population Age Structure



Source: *China Population Statistics Yearbook*, all years.

It requires a large number of people to provide medical and health services to the aging population. The increase in the aging population will inevitably bring great pressure to bear upon the health services. As the old people are deteriorating in their biological functions, it needs great demand for medical and health services and they are easy to contract chronic diseases. A 1998 medical and health service survey indicated that the old people aged above 65 who fell ill at a two-week cycle was 1.7 times that of the whole population and the

<sup>14</sup> Zeng Yi, Hu Angang, Recommendations for Paying Attention to and Studying the Rapidly rising Senior Aging Disadvantaged Group, Sept. 9, 2003.

incidence of chronic diseases was 4.2 times that of the whole population. Each old person has two or three diseases. Another urban old people medical service survey showed that the number of old people hospitalized at a two-week cycle was 23.75%, far higher than the figure of 14.66% in other age groups. The hospitalization rate of the old people was 7.62%, higher than the average figure of 4.36% of other age groups. Old people with chronic diseases made up a considerable proportion and the courses of diseases were long and medical fees were high. In the country as a whole, the medical burdens of old people are especially outstanding. The medical expenses per person is 2.5 times the total population annually and the medical fees of the old people who account for 10% of the total population account for 30% of the total medical expenses and is assuming an upward trend. In addition, the cost of routine care and medical treatment of the old people above 80 years is about 14 times of the old people in the 65-79 age group. The number of old people need special care is 5 times that of the old people in the 65-79 age group.<sup>15</sup>

At present, the health system lacks the mechanism of preventing and controlling chronic diseases of the aging population. People with chronic diseases need a long-term medical guidance, and support mentally, physiologically and socially and need convenience, simple and low-cost family type medical service. The community health service manned mainly by all-purpose doctors is the most effective way to control chronic diseases and improve the quality of life of the old people. But it has not been fully developed. Besides, China has not mobilized non-governmental voluntary forces to deliver health services to old patients just as it has been done in other countries.

#### **(6) Consumption revolution**

With the social and economic development, corresponding changes have also taken place in the people's ways of consumption. A "revolution" in this area is quietly taking place. However, modernistic living and ways of consumption also have their negative side, exerting a big influence on the health of the people. First of all, take tobacco consumption. China is the largest tobacco consuming country in the world (with 300 million smoking population) and is also a country in the world that does not have strict restrictions on tobacco consumption. It regards tobacco a major source of state revenue instead. Then comes spending on housing. At present, the urban housing added every year is 4-5 times that of the United States. But the materials for building and decorating houses are seriously polluting, making China the biggest country in the world with household pollution. Still then comes private vehicle. The automobiles in registration have shot up, with the growth rate the fastest in the world. The

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<sup>15</sup>Zeng Yi, Hu Angang, *Recommendations for Paying Attention to and Studying the Rapidly rising Senior Aging Disadvantaged Group*, Sept. 9, 2003.

emission by vehicles has constituted a stern challenge to the environment and health of the people. However, the government and its health department are rather impotent in employing economic means to regulate the production and consumption of products harmful to the health of the people. The next step should be to raise the marginal tax rate to regulate the consumption of tobacco and gasoline and use the increased revenue as transfer payments to the area of health.

In a word, we hold that the challenges by development to health are multi-fold instead of mono-fold in terms of quantity. They are challenges by multiple factors and from multiple directions. These challenges are inter-connected instead of being isolated. Development per se is a system made up of multiple parts. In terms of scale, they are large scale challenges instead of small scaled ones. What we are facing are the largest population in the world, the largest scale population movement, the largest scaled opening up and the largest scaled marketization. The economic development is unparalleled. The challenges by development and its negative impact on the next step development are also unparalleled. It is, therefore necessary to formulate a reasonable strategy in order to take up these challenges. We hold that the main reason for the government and its health department to fail to respond to the crisis is the failure of the market and absence of the public service functions. The public health problems caused by development cannot be resolved by merely relying on the market. It needs government intervention. However, the government has played more a role of direct promoter of the economic development instead of performing well its public service functions and it lacks the full awareness of the challenges by development, hence the lack of due response. The key to next step is to strengthen the responsibility and responsiveness of the government. Only by so doing, is it possible to protect well the public interests and ensure the sustainability of development.

Table 5 Challenges by Development and Counter-Measures

<i>Progress of development</i>	<i>Health cost</i>	<i>Where it affects</i>	<i>Drawbacks of government and its health system</i>	<i>Solutions</i>
Marketization	Gap between rich and poor, health problems of the poor population	Human resources and social stability	Social protection system and shortages of basic public service	Strengthen social security network and provide basic public services to poor population
Industrialization	Environmental pollution, occupational diseases and work injuries	Human resources	Not enough monitoring and controlling of environmental pollution, not enough legislations and supervision over occupational health	Strengthen pollution control and monitoring, intensify law enforcement in occupational health
Urbanization	Population movement increases opportunities of disease spread	Human resources and economic operation	Imperfection of infrastructure, prevention and inoculation, disease monitoring and medical insurance for the floating population	Establish medical insurance for floating population and provide housing and basic health service to them
Globalization	Flow of all factors leads to public health crisis	Economic operation and negative externality	Imperfection of mechanism against globalization risks, not enough international cooperation	Strengthen international information sharing and technical cooperation
Aging population	High percentage of chronic diseases	Disease burdens and resources consumption	Underdevelopment of community health service for the aging population and volunteer services	Develop community health services and all-purpose doctors, mobilize non-governmental forces to care for the aged.
Consumption revolution	Tobacco consumption, housing pollution and vehicle emission harmful to health	Disease burdens	Not enough regulation of consumption behavior by economic means	Raise consumption tax rate on tobacco and vehicle consumption for use as health transfer payments

#### 4. Impact of transition on health departments

Health department is a social production department. It has its rules and regulations and standards. Under the action of these rules and regulations and standards, it employs all kinds of investment – medical facilities, the wisdom and physical power of medical personnel, medical technology and other medical resources – to realize its output – health of the people. So, under the impact of transition, the rules and regulations and standards of the health department have also undergone changes, thus affecting the ways and efficiency of its operations.

The biggest impact since reform on public services comes from decentralization. There are two ways of decentralization. One is administrative decentralization, that is, delegating powers to lower administrative organs; the other is economic decentralization, that is, transferring planning, coordination and management powers from administration units at all levels to enterprises.<sup>16</sup> Both ways of decentralization are the important objectives of economic reform. In the process of China's reform, the two kinds of decentralization have a big impact on the health system.

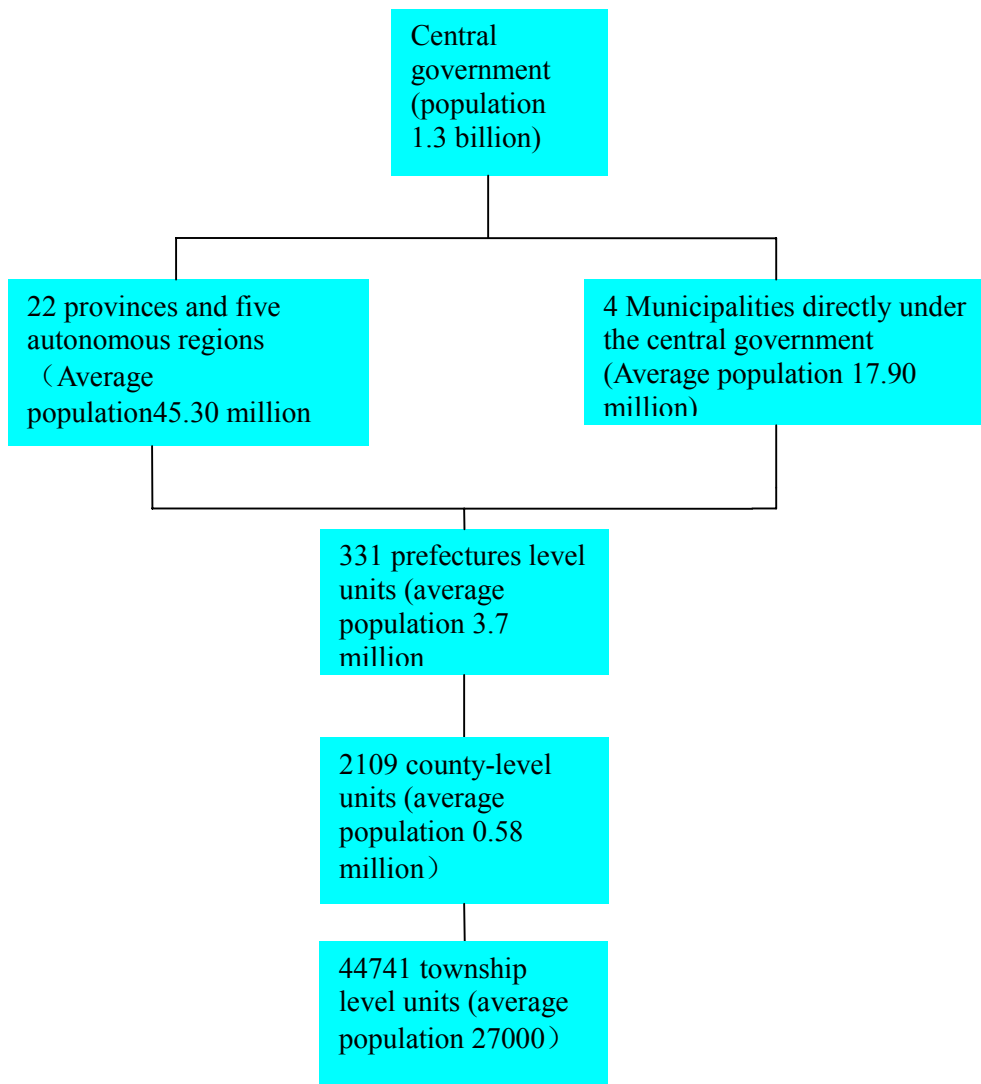
### **(1) Impact of administrative decentralization**

In terms of tier structure, China has “five and a half governments”, namely, central--provincial (autonomous regional, municipality under the direct administration of the central government – prefecture – county – township (town) and 13 cities of sub-provincial status. This is a government structure with the most tiers in the world. Corresponding to it is the financial system. During the planned economy period, the five-tier finance was highly centralized. Although the local governments are responsible for collecting all the taxes, all the revenues belong to the central government and it was up to the central government to fix the emphasis of budgeted expenditure and approve the budgets of the local governments. After reform, the country introduced administrative decentralization with the aim of enabling local governments to make full use of local information to have greater policy decision making powers concerning their expenditures, thus establishing an incentive mechanism to motivate local governments to seek high growth objectives. Administrative decentralization is to reform the public finance system at both central and local levels. In 1988, the central government introduced the system of contracting for fiscal receipts and expenditure and established a system of “dividing the scope of receipts and expenditure and management at different levels”. In 1994, it introduced the revenue sharing system, separating central and local tax categories. Under the “five and a half government” structure, the results of administrative decentralization and the impact on health departments are:

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<sup>16</sup> Chen Kang, *Decentralization of Transitional Economies and the Relations between Central and Local Authorities*, “Comparison and Reference”, Issue No. 3, 1994.

Figure 4 Tier Structure of the Chinese Government



Source: from Huang Peihua et al, *China: State Development and Local Finances*, Beijing,

Zhongxin Press (2003), p.25.

Horizontally, administrative decentralization has led to regional disparities in public health service. Under the highly centralized system, the central finance had the ability of relocating fiscal resources to offset the regional disparities in price and income, thus realizing the objective of financial equality of local finances. But, with the introduction of the financial contracting system, the fiscal revenues of all local government are directly associated with the local economic development levels instead of with local demand for expenditures. This has led to a very low fiscal power and public expenditure in some economically backward provinces. Furthermore, the financial contracting allows local governments to retain most of the added income, thus leading to the decline of central fiscal revenue in the total fiscal revenue. By 1993, the percentage dropped to 22%, the lowest level among countries with power sharing finance systems in the world. This has greatly restricted the abilities of the central finance to make up for the financial gap by transfer payments. The introduction of the revenue sharing system in 1994 raised the percentage of central revenue in the total national revenue and enhanced the transfer payments abilities of the central government. But the calculation of revenue rebates of the revenue sharing system was more favorable to developed regions and the transfer payments were small in amount, too small to narrow the income differences. That is to say, administrative decentralization expanded the regional disparities in financial strength. Some economically backward regions suffered serious supply shortages in basic public health services due to inadequate funding, thus leading to an extremely uneven development levels in public service among different regions (See Table 6). Such disparities are also very serious even within a province.

Table 6 Expenditures on Health in Different Regions

	1995	1996	1997	1997/1995 ratio
Per capita health expenditure (yuan)				
High-income areas	686.3	812.6	996.0	1.45
Middle-income areas	267.4	332.6	368.7	1.38
Low-income areas	154.1	190.1	210.5	1.37
Poor areas	117.0	141.6	155.8	1.33
Max./min. values	5.9	5.7	6.4	
Health expenditure in GDP(%)				
High-income areas	5.18	5.24	5.67	1.09
Middle-income areas	3.18	3.39	3.39	1.06
Low-income areas	3.66	3.76	3.72	1.02
Poor areas	6.43	6.65	6.6	1.03

Note: High-income areas: Beijing, Shanghai, Tianjin;

Middle-income areas: (9 provinces): Zhejiang, Guangdong, Jiangsu, Liaoning, Qinghai, Xinjiang, Hainan, Fujian and Hubei.

Low-income areas (9 provinces): Heilongjiang, Yunnan, Ningxia, Jilin, Shandong, Shanxi, Hebei, Hunan and Inner Mongolia.

Poor areas(9 provinces): Sichuan, Guangxi, Tibet, Shaanxi, Gansu, Jiangxi, Anhui, Henan and Guizhou.

Source: China State health Account Working Group, from Huang Peihua et al, *China: State Development and Local Finances*, P.185.

Vertically, administrative decentralization has worsened the urban-rural gaps in terms of public health service. Under the urban-rural dual economic system, the already existing gaps in public health services have been widened due to administrative decentralization, as the responsibilities for providing public services to the rural population have almost completely delegated to county and township governments, so much so that the grassroots governments could hardly bear it. After the introduction of the revenue sharing system, there has been a trend of centralization at the central level but more centralization of fiscal resources at the provincial and prefecture levels. The percentage of local fiscal expenditure rose while that of county and township expenditures dropped. This shows that the financial resources have been transferred from county and township governments to provincial and city governments. Such structure has enabled the public health expenditure of the government to flow into cities, thus enlarging the urban-rural disparities in health expenditure and health service levels. Take 2001 for instance. The per capita health expense of urban residents was 781.69 yuan and that of rural residents was only 252.90 yuan. The urban health expense was about twice as much as the national average and three times that of rural residents. The lower the urbanization level, the less rural health expenditures. In Henan, the figure was only about 20%. This has led to an extremely low health expenditure per person by the government.<sup>17</sup>

## **(2) Impact of economic decentralization**

The purpose of economic decentralization is to create a system that adapts to market activities and enables economic units seeking interest maximization to make quick responses to market signals and take independent decisions. Economic decentralization is very necessary during the transition to market economy.

As medical organizations are different from general enterprises, the services they provide are of social welfare in nature. Since the reform the government (health administrative departments) has been vacillating between decentralization and centralization. The incentives to the behaviors of hospitals have been distorted. Medical departments are low in work efficiency, prone to inducing demand and pushing up the prices of medicines.

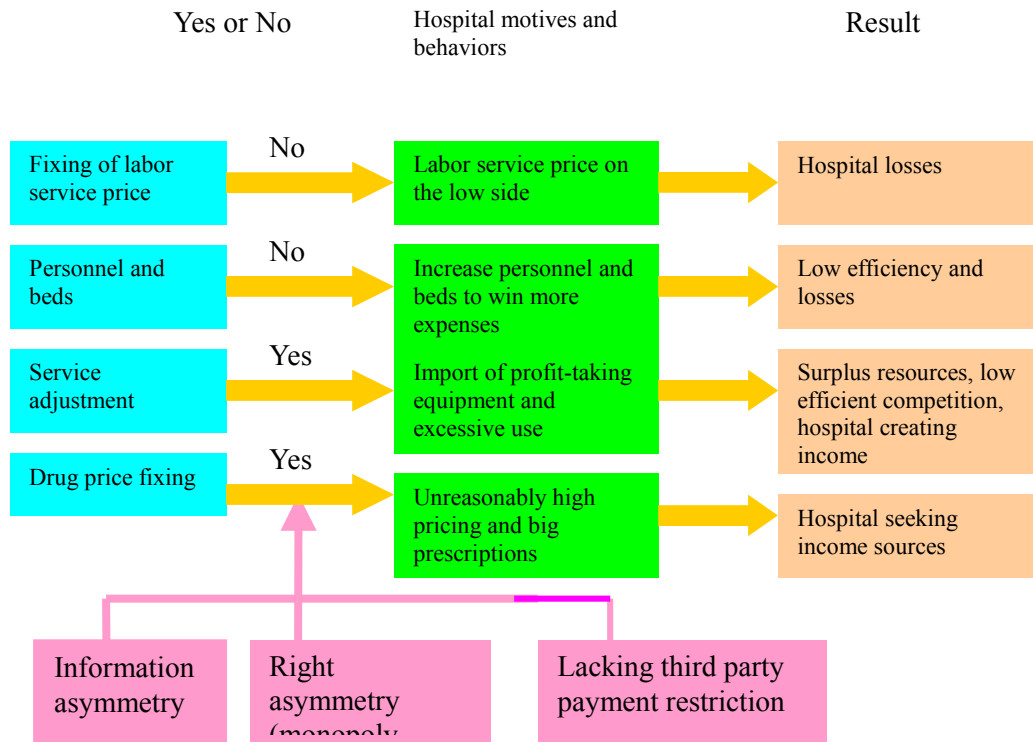
The study of the few sources of income for hospitals would reveal the impact and results of

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<sup>17</sup> Huang Peihua, *China: State Development and Local Finances*, Beijing, Zhongxin Press, 2003.

decentralization on the motives and behaviors of hospitals. First of all, medical service fees. The prices of medical services used to be fixed by the government and the level was low, unable to reflect the value of labor on the part of medical personnel or to make up for the cost of medical service. This means that hospital suffered deficits in this regard. Second, government allocation. As in the old budget system, the government compiled hospital budgets according to the number of personnel or the number of beds. That means the more the number of medical personnel or the more the number of hospital beds, the more medical expenses a hospital would get. This system induced the motive of hospitals to seek to expand the staff size and increase hospital beds, a phenomenon that led to the reduction of the number of patients received and the low utilization rate of beds. Hospitals were operating at a low efficiency. Third, examination and equipment use fee collection. When the government was unable to provide all the expenses to hospitals, hospitals faced competition from other medical organization in the same region. When the technical level and the level of facilities were the same, the possession of large physical check equipment became a crucial factor in the competition. That fired hospital with a strong desire to import the most advanced large check up equipment. In the situation where medical organizations were segmented and managed by multiple superiors, it was impossible to effectively control the medical resources. The results of such low level competition were the duplicated import and low-efficient operation of large examination equipment. That enabled hospitals to induce patients to use more of such examination means in order to make up for the cost of import. Last, income from medicines. When the government was unable to provide enough funds to satisfy the demand for survival and development, it allowed hospitals to compensate for their income by raising the prices of medicine. This policy inevitably led to high price of the medicine under the condition of asymmetry of information, rights (monopoly of supply by medical organizations) and the lack of medical insurance. This brought great harm to patients. So the incomplete economic decentralization led to incompatibility with the incentives to hospitals, thus distorting the behaviors of hospitals and reducing service efficiency, harming the interests of patients.

Figure 5 Impact of Economic Decentralization on Medical Organizations



In a word, transition has had extensive and profound impact on the health departments. The general impact is the unfairness in the provision of public health service, which manifests itself in regional disparities and urban-rural disparities, and low efficiency of medical organizations, which manifests itself in low utilization rate of medical equipment, the dropping in the number of patients seen by doctors and the unreasonable use of examination equipment. The impact on those demanding for health service, that is, patients, is the gap in public services received, with people in part of the regions unable to enjoy public health service. Patients are entirely in a disadvantage position in medical services and their lawful rights and interests cannot be protected.

### 5. Provide service to improve health of the poor population

The most outstanding consequence of development is that the poor and disadvantaged population has become the principal bearers of the cost of development. They have lost their basic right to health and the pace of improving health is slow. Reduction of poverty is one of the themes that are of common concerned in the world and also one of the basic objectives of

building a well-off society. To improve health service to the poor population and enhance their health level is both a major objective and an important means to reduce poverty. In the future development, one of the basic lines of thought is to improve the delivery of health services to the poor population, making them benefit from development so as to realize harmonious development.

Figure 6—1 Percentage of people with a daily income lower than one US dollar ( % )

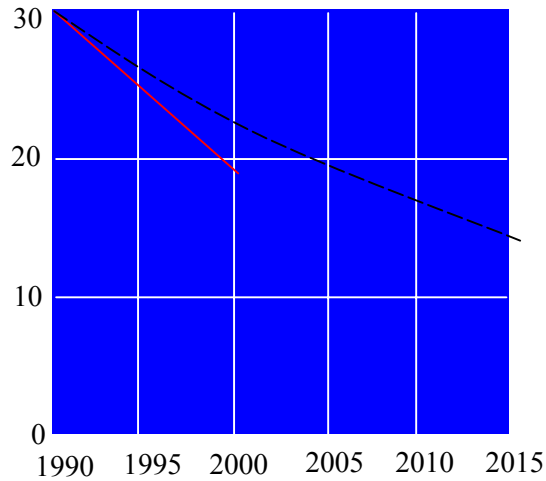


Figure 6—2 Percentage of people unable to get safe drinking water ( % )

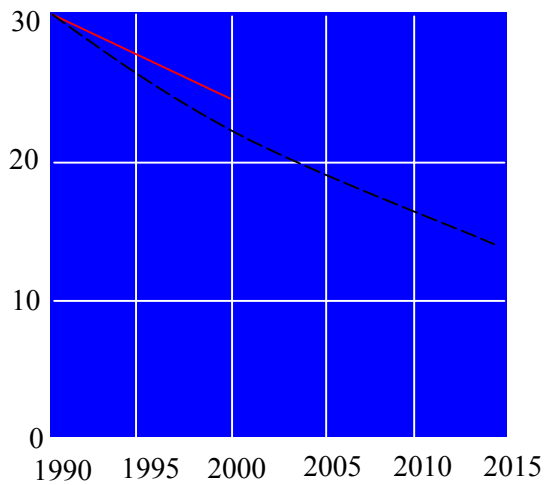


Figure 6—3 Maternal mortality rate (1/100,000)

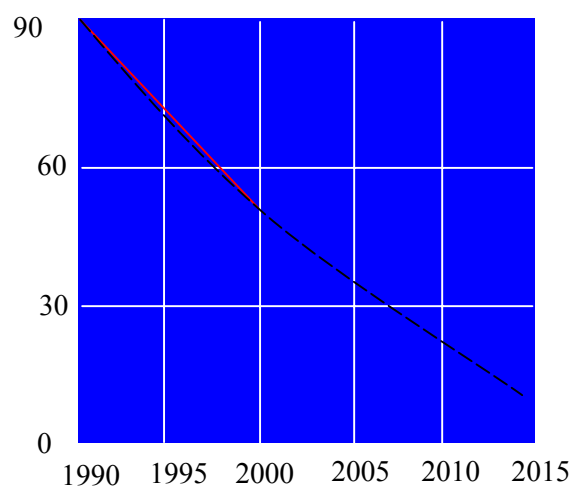


Figure 6—4 Death rate of children under five (%)

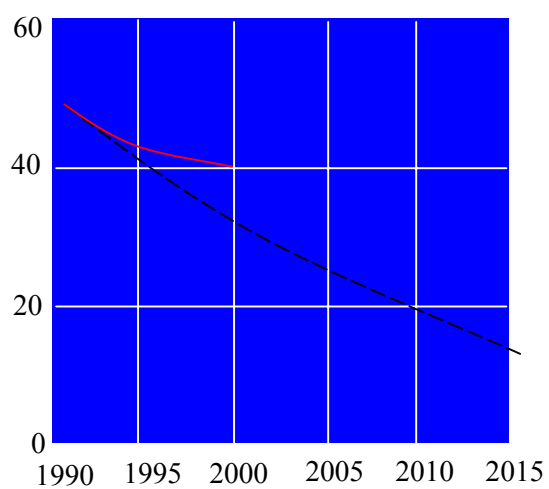
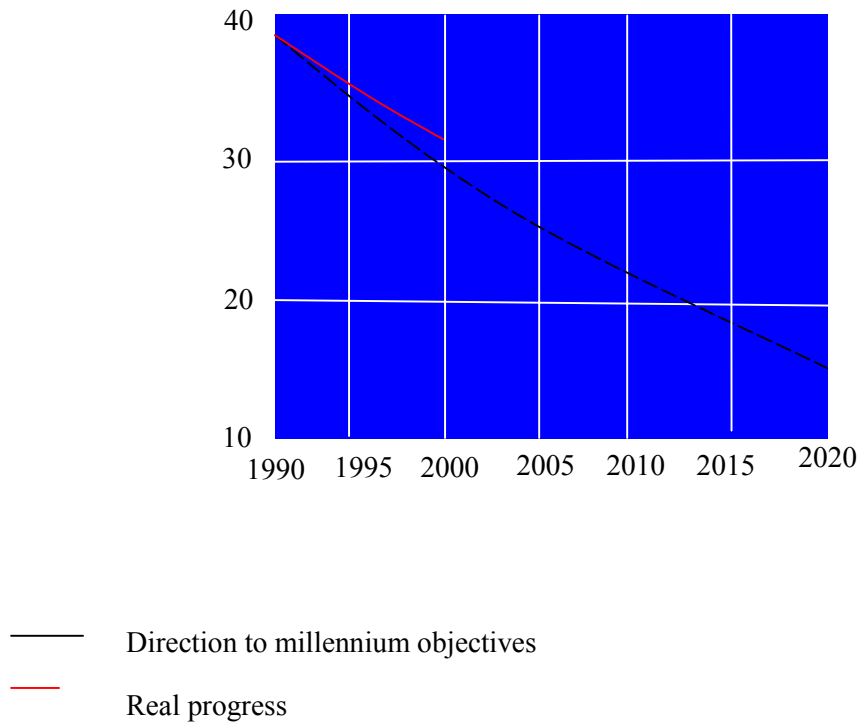


Figure 6—5 Death rate of infants (‰)



**(1) Progress and gap with millennium development goals (MDGs)**

In August 2000, the UN Millennium Summit Forum adopted “Millennium Declaration”, establishing the millennium development goals (MDGs), aimed at eliminating basic human poverty in such areas as education and health through the concerted efforts. The quantified objectives before 2015 concerning the reduction of income poverty and health poverty include: reducing the proportion of people living on less than \$1 a day to half the 1990 level; halving the proportion of people who suffer from hunger; halving the proportion of people without sustainable access to safe drinking water and basic sanitation; reducing by three quarters the maternal mortality ratio; reducing by two thirds the under-five mortality rate. China is a signatory party to the millennium declaration and committed to realize the goals. However, the development trend toward the millennium goal since the 1990s indicates that the income indicators are better than the goal but the pace toward the health goals has been slow. Except the indicator of maternal mortality ratio, which conforms to the trend of the development goal, all the other indicators are lagging behind what are required by the MDGs (See Figures 6-1, 6-2, 6-3, 6-4 and 6-5).

We hold that the main reasons accounting for the gap in the progress of health indicators are

the regional, urban/rural disparities and low efficiency in the public health services. The poor people living in the backward rural areas are unable to enjoy the elementary health conditions and services and so the pace of improving health has been slow.

## **(2) Second generation development approach and governmental transition**

The 16 Party Congress put forward the goal of building a higher level of well-off society in all aspects of life that benefits all the 1.3 billion population in the next 20 years. We call this the second generation development approach. The transition from the first generation development approach of “allowing part of the people to get rich first” to “striving for common prosperity” is a major adjustment in the line of development. Summing up the experience and lessons learned from SARS epidemic, Chinese leaders have put forward even more clearly the human-based harmonious development. “This line of thought is to persist, in the whole process of building a well-off society and modernization, in an unified planning and overall arrangements to maintain a coordinated development between economy and society, between rural and urban areas and among different regions; it is imperative to be based on humans and improve the materials, cultural and health levels of the people; it is imperative to bring about an harmony between man and nature and realize a sustainable development; it is imperative to carry on with reform and innovation and bring about a common progress of material civilization, political civilization and cultural civilization.”<sup>18</sup> In the realm of health and medicine, it means to realize its development well in step with that of the economy, the coordinated development between rural and urban areas and among different regions, eliminate health poverty and improve the health levels of all the people.

To realize the above transition, the change in government functions is crucial. After reform, as the government narrowly construed development as economic growth, the strong pursuit for economic growth has enabled the governments at all levels to become director promoters of economic growth and the standards for assessing the performance are mainly economic indicators, giving little thought to indicators in such areas as public service and social development. The government has become “Development government” pure and simple. The achievements of economic growth over the past more than 20 years are indelible. There is no such big country in the world that has developed so rapidly. But behind the economic prosperity, there have accumulated many social deficits, such as public health as mentioned above, especially the health problems of the poor and disadvantaged people. The deficits are hidden. But they have accumulated too much, they are likely to have a tremendous social impact. It is, therefore, necessary for the government to change its functions from directly promoting economic development to providing public services and protecting disadvantaged

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<sup>18</sup> Address by Premier Wen Jiabao at the 54<sup>th</sup> National Day reception, Beijing, Sept.30, Xinhua.

groups, that is, a transition from “developmental government” to a “government as public service provider”.

### **(3) Ways of providing public service and mechanism arrangements**

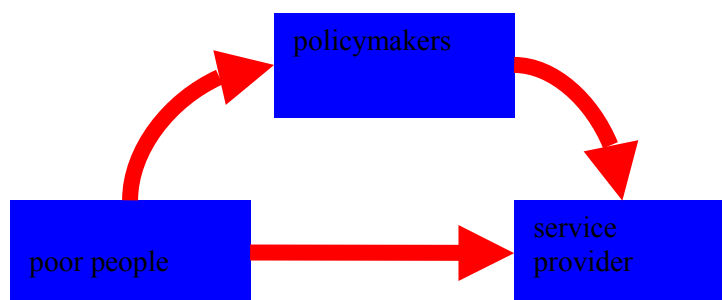
It is the responsibility of the government to ensure the basic health services to the people. But due to the inherent problems with government departments, such services are not necessarily all be provided directly by the government departments. In view of the scope and nature of services, the ways of service delivery and mechanism arrangements may be diversified so as to achieve the most effective results and ensure that the users of such services, especially the poor population, can obtain high quality services.

The chief ways of service delivery and mechanism arrangement include: (1) The raising of funds should be separated from delivery of such services. The government may sign contracts with enterprises, non-governmental organizations or other public organizations for providing such services; (2) The government may grant some private enterprises special rights and let them to deliver such services in a given area; (3) The central government and local governments share the delivery of services; (4) communities are allowed to choose from among service providers; (5) the government grants subsidies to consumers and let them choose service providers. In the mechanism arrangements for providing basic services to the poor population, there are three main parties, that is, policy maker, service provider and the poor population (consumer)<sup>19</sup> Different from usual market trading, service providers should be held direct responsible for consumers. In delivering public service, service provider should be accountable to the government. If consumer acts on service providers, they usually exert influence on the government that will in turn influence service provider. If these actions fail, service delivery is likely to fail. The relations among the three players determine the quality and efficiency of service delivery and determine whether or not the poor population really benefit from it. In order to achieve the goal of providing services to improve the health of the poor population, it is imperative to strengthen the relations among the three parties through institutional arrangements so that service delivery may better reflect the needs of the poor population and satisfy their demand.

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<sup>19</sup> The follow analysis framework is borrowed from World Bank, “World Report 2004: Making services work for poor people”.

Figure 7 Tripartite relations—— an analysis framework



First comes the relations between the poor population and policy maker. Here, problems frequently met are that the poor population fail to participate in the process of policy making and therefore cannot exert their influence on policy makers. In China, the problem lies in the fact that the poor and disadvantage group (such as peasants and laid-off workers) do not have their political representatives, voices and institutional channels in policy decision making. To strengthen the relations between the poor population and policy makers, it is, therefore, necessary to establish a mechanism for the poor population to express their views, to make their voice loud enough in order to influence policy makers. The specific channels should include media and legal and political avenues. The media should reflect the sufferings and demand of the poor population and expose social inequality through newspapers, TV programs, radio broadcasting and network; legal channels should strengthen supervision over government departments through such laws and regulations as “Administrative Law”; political channels should be that the poor population elect representatives who would speak on their behalf in discussing state affairs and realize the expression of their interests.

Second comes the relations between policy makers and service providers. Problem that frequently occurs here is that policy makers find it impossible to ensure that service providers really deliver services to the poor population. The reason behind this problem is, on the one hand, policy makers do not provide enough incentives to service providers to deliver quality services to the poor people, and on the other hand, the policy makers find it hard to exercise effective supervision over the performances of service providers in some specific work. In China, policy makers and service providers are often not separated. It is often the case that the government is both service provider and manager, making it very difficult to oversee its own incentive mechanism. A solution to the problem is to separate policy makers from service providers. Such as the government sign service contracts with private organizations or non-governmental organizations or government at the superior level sign contracts with governments at subordinate levels to contract out such services and the government (or superiors) exercise supervision over service providers. However, it is not enough to separate

the two with regard to work that is hard to supervise. That would require the establishment of an effective incentive mechanism, such as choosing organizations that are self-motivated to provide such services (some welfare NGOs), inviting bidders for providing services to promote competition and the government selects the best service providers. Besides, it is also feasible for the government to pass awards to service providers in backward areas.

Lastly, it is the relations between the poor population and service providers. Here, the problem that frequently occurs is that the role as customers of the poor population in delivering services is often than not ignored. Service providers often ignore the demand of customers, especially the demand of the poor population. Some service providers may have even gone so far as to be rude to customers, not respecting their dignity and rights. In such circumstances, it is necessary to strengthen the role of the poor population as customers, that is, to reflect the demand of the poor population and supervise services. The main way of reflecting such demand is to strengthen competition among service providers and increase the opportunities for the poor people to choose so that they may “vote with their feet” when necessary. For instance, in China, it is necessary to break the monopolistic position of public medical service providers and introduce social capital in running hospitals to increase the opportunities for patients to choose. The effective way of exercising supervision is to increase the participation of the poor people in the whole process of providing services, such as the formation of drinking water association to oversee the providers of such public service.

In a word, we hold that the core of human-based service is to help poor and disadvantaged people realize their basic rights. The responsibility and objectiveness of the government are to deliver high quality public services to the poor people by establishing all kinds of mechanisms so that every one has access to basic health service and every one has the opportunity to improve health. This is where the real meaning of development lies.