

Comparative Static Analysis and Suggestions on Chinese Medical Reform

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Abstract

Based on related health statistical data, through four indicators of medical funds balance of payments, health expenditure, population coverage and individual health burden, this paper analyses and evaluates the status of China's health insurance reform objectively. The reform that presents a sound growing trend, directly fairer than before, has achieved remarkable results, mainly in primary health services. However, the problems of fund utilization, individual health burden and government expenditure on health are still prominent. The reform in progress and the reform in future could maybe draw from this paper.

Keywords: comparative static analysis, health reform, medical funds, population coverage, health burden

1. Introduction

In the early decades of the founding of New China, China's economy system was completely in the form of planned economy, and government had a very high expectation of medical and health care. So they made the health services and national development strategies together, in 1952, Premier Zhou proposed that "combination of health work and the mass movement" in the Second National Health Conference (Xiao Aishu, 2005). The tendency of strategies has further promoted the development of social health care system. Take the payment ratio of medical insurance as a example, the proportion of the payment of government expenditure on health was more than 50% and the scale of the insured was less than 20%, and this structure of payment ratio was very benefit to the insured. In this situation of New China, which had relatively backward medical technology, poor health level among population and farmers for most of them, this social medical insurance system as well as its superior burden ratio made many developing countries go after China. However, since economic development, the shortcomings of this approximation of welfare qualitative health care system have become increasingly prominent. Performances of this kind of system were "centralized and all included", "units security and non-social administrative", "integration of medical and insurance operations", and "lack of the third-party's supervision" (Wang Lingfeng, Li Zhaoyou, 2012).

As the GDP growth, the population in China has grown from 500 million at the beginning of the early days to more than 900 million people (13 billion in 2013). Also, the urbanization rate and the productivity of China were further improving, so the government leading mode of medical and health care apparently can't satisfy growing health care needs for people. In this period, health care reform continuously explored. From the beginning of China health reform at 1979, to 2006 that health care reform tone has set, and now China's health care reform has mainly went through six stages.

2. Status and Problems

Health service is one of the basic livelihood issues in China. "Expensive and difficult to see a doctor" is the general view of people to our country's current medical service level. There is an imbalance between eastern and western regions about economy development in China, and significant differences are found in regional medical and health services accordingly. How could the government balance the relationship between the expansion of its beneficiaries and the improvement of health service quality? That's the key to the government policy. A newest round of health reform began at 2009. By the end of 2011, both the basic medical insurance system and the primary medical and health care system reform have made a great achievement. From then on, the primary medical and health care system emerged. In terms of the scale of participation in health insurance, Participants among the basic medical insurance of urban employee, basic medical insurance for urban residents and the new rural cooperative medical insurance were up to 1.3 billion.

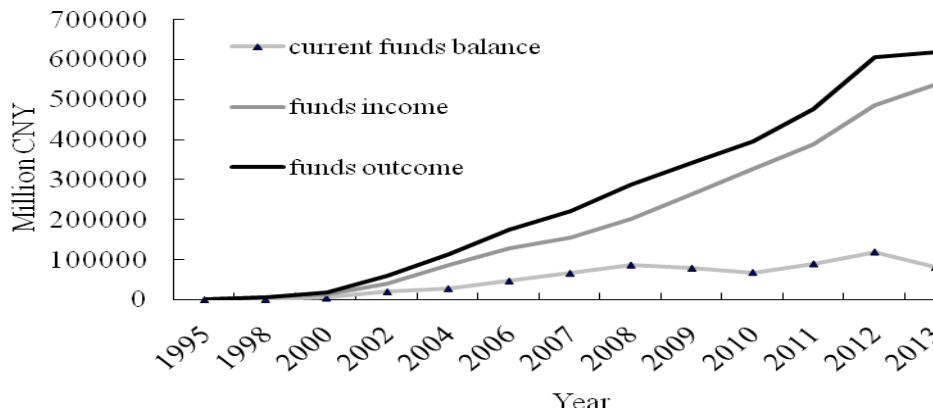
The improvement of medical fund micro efficiency (system efficiency) will influence macro-efficiency medical fund effectively, thereby enhancing citizens' satisfaction with health services. From the perspective of medical fund efficiency, "difficult and expensive to see a doctor" is a very apt comment that the mass give for the inefficient use of funds. (Chen Yangdong, Jiang Ping, 2010). Chinese government's health care spending is gradually increasing each year, but allocative efficiency and performance evaluation are issues. The problems for the government health expenditure are mainly the imbalance for the allocation of resources, low fair performance and low output for the health spending (Xu Guangjian, Wei Yifang, 2012). Zhao Donghui, Wang Zaoli (2013) point out that the gap in per capita disposable income between urban and rural is the cause of health care spending gap between urban and rural health, and rural health care spending is significantly lower than the urban. The urban and rural medical security systems should not be Integrated and uniformed, but should be developed respectively, gradually increasing the level of health care in rural areas. Guo Bin, Cheng Huaizhi, Liu Yanrui (2014) believe that the higher proportion of personal health spending is, the more heavy economic burden for residents bear, and the high proportion of personal financing, to a certain extent, also inhibits residents' needs for health care, affecting the health of residents. Based on the international experience, a variety of health financing channels should be maintained in proper proportions and we should also maintain this balance in a certain period for social stability and health development (Zhao Yuxin, etc. 2005).

3. Static Analysis on Four Aspects

3.1 Medical Funds Balance of Payments

This paper, by using the method of data analysis method, analyses China's reform results within four aspects: health fund, fiscal expenditure of medical, numbers of insured and ratio of individual medical contribution. All data are from the "national economic and social development statistics bulletin of China" and "the national bureau of statistics of the people's republic of China".

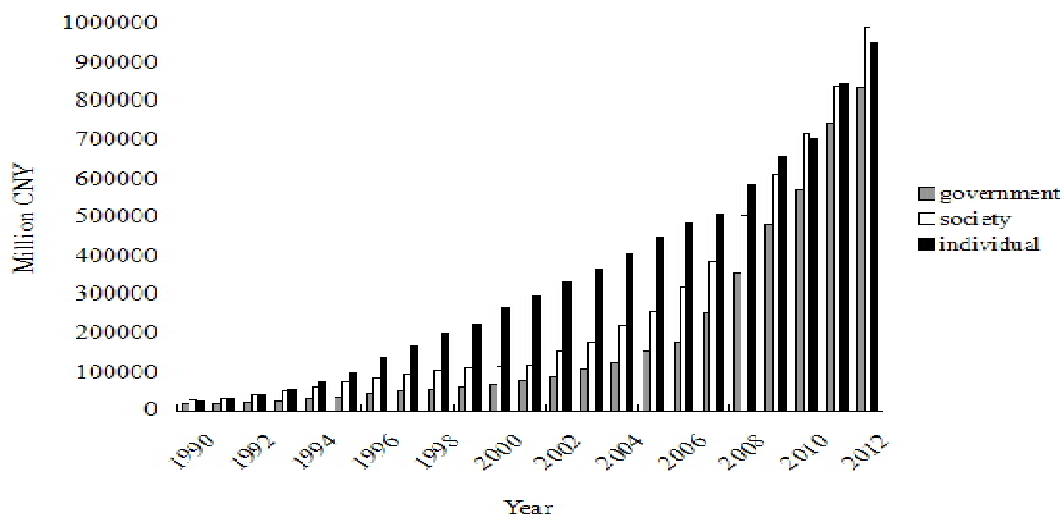
By the end of 2011, the basic national urban employee medical insurance funds have accumulated to 568.3 billion CNY. Xia Jun, Tian Xin, Zhang Xinping(2010) think the improvement of Medicare reimbursement system will play an effect on the reduction in burden for people and play a role on basic medicines for everybody. Since several times of the new China's health reform, both reimbursement ratio and reimbursement amount have greatly improved, however, for participants, this ratio was still too low. More funds of insurance was still in a state of "sleeping" and it didn't help the people each other at all. This has unquestionably aggravated the economic burden of the employee that is the key problem of "expensive and difficult to see a doctor" among the most insured. The management principle of China's medical insurance funds is "the expenditure based on the revenue, a little bit of balance ". Due to the effect of the overcautious payment principle, domestic medical insurance funds balance rate is generally on the high side. According to some statistics, the urban workers' basic medical balance of coordinated funds was 86.6 billion CNY in 2008, and its balance rate was 30% in the same year. While the balance was 89.9 billion CNY in 2011, at balance rate of 18.8%, and the balance was 81 billion CNY in 2013, at balance rate of 13%, as shown in figure 1. For these years, the balance ratio of medical insurance funds has not reached the level of less than 10% that is the average level in developed countries, but, with the process of Chinese medical reform, the balance rate steadily declined. That means the policy objectives and its implementations of health reform are toward unification and constant improvement.

Figure1: Medical Funds Payments and Current Balance

Data Sources: “national economic and social development statistics bulletin of China” and “the national bureau of statistics of the people’s republic of China”.

3.2 Health Expenditure

Total expenditure on health (TEH) is composed of government expenditure on health, social health expenditure and personal health expenditure. From figure 2, we can conclude that the government expenditure on health is the lowest one among these three targets, while the personal health expenditure almost overtoped the social health expenditure from 1993 to 2008. In 2005, for example, pocket health payments and social health expenditure were 452 billion and 258.6 billion, a difference between the ones up to 193.4 billion CNY, and this year was the year at biggest difference between the ones, “to-see-a-doctor-expensive” problem up to significant particularly. Since 2009, the government health expenditure and personal health expenditure has began to close, respectively 615.4 billion CNY and 657.1 billion CNY. At the year of 2012, the government health expenditure was beyond the personal health expenditure for 35.2 billion CNY, respectively 991.6 billion CNY and 956.4 billion CNY. Thus it can be seen that the proposition of Premier Li Keqiang to the latest round of medical

Figure 2: 1978-2012 Health Expenditure

Data Sources: “national economic and social development statistics bulletin of China” and “the national bureau of statistics of the people’s republic of China”.

Reform has improved the medical insurance funds utilization effectively since 2009. The insured personal health spending burden has decreased, and such a reform trend is worth of recognition.

It is worth noting that our local governments undertake the most health investments (Zhao Lei, 2011), and there is a big difference in the health expenditure ratios of urban and rural areas for governments, resulting in the government health spending in urban is far greater than in rural. Therefore, the government should increase health investments in rural.

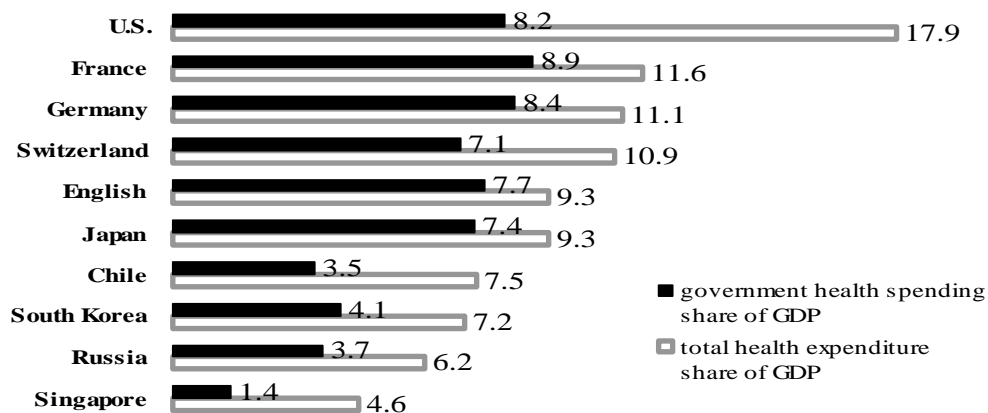
The proportion of government health expenditure to fiscal expenditure, which was 4.12%, met the lowest in 2002. At the beginning of 2009, the proportion surpassed 6% and reached a record high of 6.83%, as shown in figure 3, showing the

Figure 3: The Proportion of Health Spending



Data Sources: “national economic and social development statistics bulletin of China” and “the national bureau of statistics of the people’s republic of China”.

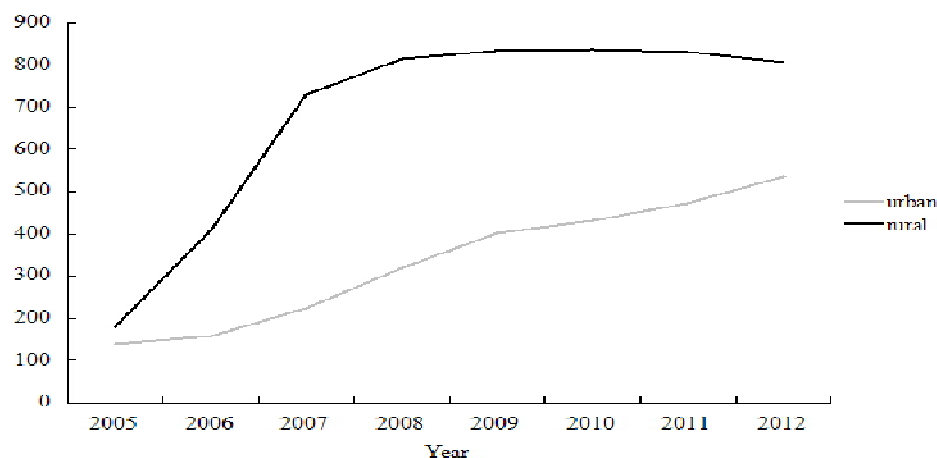
Public resources invested in the health and medical services by the state are in optimization every year. The three-year health care reform from 2009 to 2011 has achieved remarkable results. Meanwhile, a proportion of total health expenditure to GDP as an important indicator of government decision-making, which shows the level of the whole society of health care financing in the period of time, and the relationship between public resources for health care services consumption and social economic output can be described by the government health expenditure share of GDP, as shown in figure 3. Total health expenditure share of GDP has been maintained at 4% from the beginning of 1997 to 2012 at 5.36%, for 12 years, and the proportion increased about 1%, reflecting the rising of Chinese community health care financing level. While the government health spending share of GDP was kept above 1% from the beginning of 2008, steady progress to 2012 at 1.61%, showing that the health system of China, as the second largest economy in the world, is at sound development, such proportion is still at low, and relative to the major developed countries, the two indicators (2011) were significantly lower than the 17.9% of United States, and 8.9% of France. Also, the two indicators of, the medium-developed country, Korea were 1.4 times and 2.6 times as China in the same period, but the South Korea’s population base was much lower than Chinese, so the gap for corresponding indicators reflects greater, as shown in figure 4.

Figure 4: Health Expenditure Share of 10 Typical Countries

Data Sources: “national economic and social development statistics bulletin of China” and “the national bureau of statistics of the people’s republic of China”.

3.3 Population Coverage

Medical insurance coverage is another indicator to reflect a national health insurance quality. Since 2005 to 2012, Medical insurance number has increased from 31,682 to 134,141, which improved about 70%. The curve of urban basic medical insurance number is near linear increase, up to 530 million people in 2012, and rural cooperative medical insurance grew by leaps and bounds between 2005 and 2008, up to 800 million people, coverage from 75.7% to 98.3%, as shown in figure 5.

Figure 5: Urban and Rural Medical Insurance Population

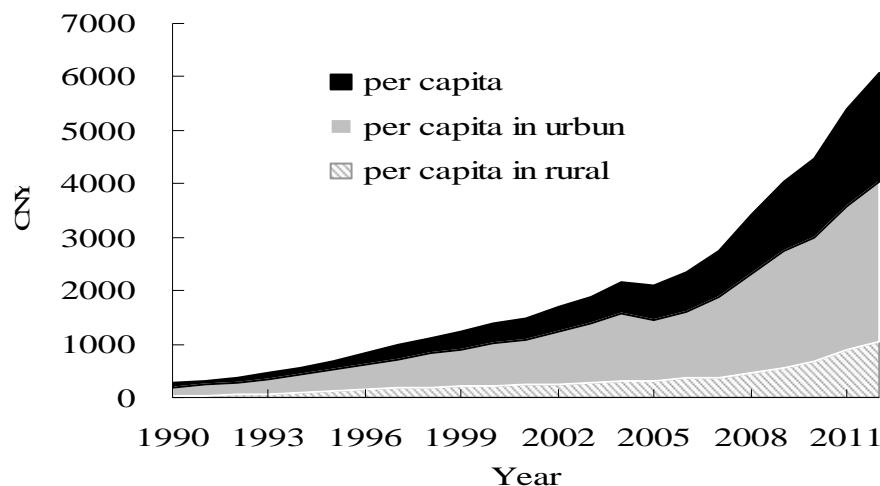
Data Sources: “national economic and social development statistics bulletin of China” and “the national bureau of statistics of the people’s republic of China”.

At the end of 2012, the national health insurance coverage was over 95%. The data show that the government has done a lot of efforts to promote rural and urban coverage for the fairness of health insurance, high coverage, so China has entered the ranks of the medical insurance number high coverage countries. China’s basic medical insurance rate continues to increase, on the one hand, indicating that our health insurance system construction is constantly improving (Feng Jie, Shao Rong, Qian Meibo, etc. 2010), on the other hand, showing the health insurance coverage increases significantly year by year, which puts forward higher requirements to health insurance funds managers and makes a challenge to health insurance agencies, actively forcing them to improve management efficiency.

3.4 Per Capita Health Expenditure and Burden

According to the statistics from the WHO, the highest country of global health expenditure per capita is United States, up to \$ 8,608, and Korea which is at a low in developed countries has reached \$ 1,616 (2011). As shown in figure 6,

Figure 6: Urban and Rural Per Capita Health Expenditure

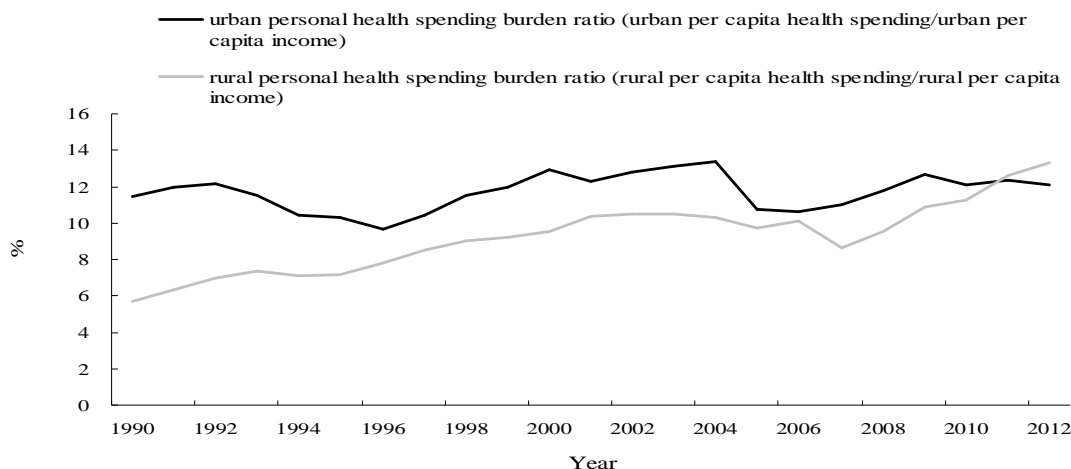


Data Sources: “national economic and social development statistics bulletin of China” and “the national bureau of statistics of the people’s republic of China”.

From the beginning of 1990, China’s per capita health expenditure showed a rapid upward trend as a whole, and per capita health expenditure was from 65 CNY in 1990 to 2,056 CNY in 2012. But relative to the developed countries, China per capita expenditure was still too low. Korea’s was 4.83 times as China and the United States was 25.75 times. China’s urban per capita annual growth rate of health expenditure was significantly greater than the rural before 2005. Relative to the urban per capita health expenditure, health expenditure per capita in rural areas is at low, and the maximum difference appeared in 2007, the amounts were 1,516 CNY and 358 CNY, for a difference of 4.23 times. While in 2012, respective for 2,969 CNY and 1,055 CNY, the difference narrowed significantly, just a difference of 2.81 times. Thus, China’s health care reform has achieved remarkable results to focus more on the rural in recent years, which not only reflects China’s medical reform tends to be more equitable, but also reflects China’s medical insurance is for the whole Chinese people.

Figure 7 and figure 8 are the personal health spending burden ratio curve for modern Chinese urban areas, rural areas and the ratio for other states. By comparing the ratios,

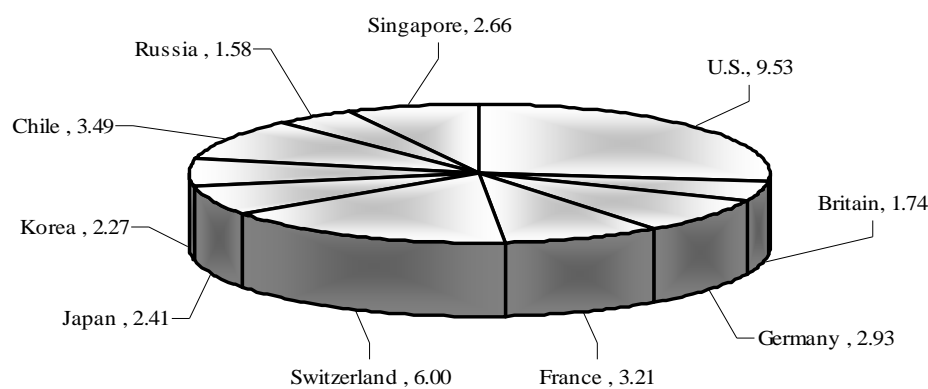
Figure 7: Personal Health Spending Burden Ratio



Data Sources: “national economic and social development statistics bulletin of China” and “the national bureau of statistics of the people’s republic of China”.

It can be drawn that the urban personal health spending burden ratio reached the maximum in 2004, at 0.13, while the rural reached the maximum in 2012, also at 0.13. The urban personal health spending burden ratio in China has been high, greater than 0.10. Compared to the levels of major developed countries, the urban personal health spending burden ratio even has been higher than the all-expense America, much higher than South Korea, Japan and the United Kingdom. These show that both the urban workers and residents' individual health burden are great. Also China's rural personal spending burden is rising, which shows that the quality was improved for rural medical services and the growth rate of individual annual net income in rural relative to the growth rate of health costs is too low. Zhang Yuhui, Zhai Tiemin, Wei Qiang(2011) think personal health economic burden is actually a interaction result from resident inpatient service utilization, the price of services, medical insurance reimbursement and other factors. Medicare reimbursement can reduce the personal health burden ratio, but reimbursement reduces the actual price of medical services in fact, bringing the effects of personal health needs release and the utilization improvement of personal health services, both of them existing in the obvious counterproductive relationship on the effect of individual economic burden.

Figure 8: Personal Health Spending Burden Ratio of Typical Countries



Data Sources: “national economic and social development statistics bulletin of China” and “the national bureau of statistics of the people’s republic of China”.

4. Suggestions

According to the analytical framework for evaluation in medical system to analyse China’s health care reform by David de Ferranti and Julio Frenk (2000). China began its three-year’s health care reform at 2009, and government has invested 850 billion CNY in the total three years. The effect by the investment is obvious and not only personal spending burden has been reduced relatively to the past, but also “to-see-a-doctor-expensive” problem has relieved. However, in the health services reform, there are still many parts that need governments to focus on and there is a low health insurance starting point in our country, so the government should gradually continue to increase investment in health budgets. Studies have shown that if the government investment for hospitals increases 1%, then the health care costs will reduce by 1.6%-2.0%. It can be seen that, to a greater extent, increasing government investment will increase the capacity of health services for the hospitals, ensuring the people enjoy a lower cost health service.

To achieve universal health insurance coverage, there are two keys about the reasonable control of health care costs growth: One is to create a new compensation method to provide incentives for doctors and hospital services as much as possible and payment system reform can produce a certain effect and the experience in many countries has shown that the payment system reform trend is from the ways of Fees for Service (FFS), Diagnosis Related Groups (DRGs), daily pay, capitation fees, and the total budget innovation, gradually to the ways of Health Maintenance Organization (HMO), doctor salary system that integrates the financing side and the service side or essentially subsidize the supply-side. The second is to focus on prevention and public health, in order to avoid high medical costs. China has entered the ranks of high coverage of national health insurance, but with it comes, the cost of personal health burden is increasing.

The health care reform in “Twelfth Five-Year” period should put more focus on how to mitigate and control the excessive growth of medical health costs effectively, more attention to health care services.

China is a country with a population of 1.37 billion, and the level of economic development does not reach a certain height, while it is not only necessary to consider how to improve the quality of medical and health care services, but also to take the huge number of insured rural population into account, making it fair. The growth of China’s medical and health care reform is in exploration.

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