Editorial

China's universal healthcare reform: the first phase [2009–2011] of the ambitious plan

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Introduction

China is the country with the largest population and the second largest economic market in the world. Since the "reform and open policy" in 1978, China with its people has achieved unprecedented, fast-growing development. However, continuous healthcare crises, such as increasing incidence of sexually transmitted diseases like HIV/AIDS, the epidemic outbreak of severe acute respiratory syndrome, the milk scandal, etc., relatively reflect the aspects of China's vulnerable health system (1).

The development of social welfare has lagged far behind the economic growth. For example, according to the report of the Chinese Ministry of Health in 2003, insurance coverage only accounted for 55% of urban residents and 21% of rural residents (2). In addition, to fulfill the need of economic growth in period from 1978, healthcare providers (which mostly are public hospitals) did not acquire sufficient financial support from the government but obtained the government's green light to operate their market-based service, and maximize profits. This has led to not only disparities of healthcare services between urban and rural regions, but also increasing healthcare expenditure (3). In 2006, health spending was 143% higher than the spending in 1999; from 1978 to 2003, 1% increase of spending on healthcare was correlated with 0.85% increase in gross domestic product (4). Due to the market-based operation and management, the providers have earned more through volume-based fee-for-service patterns, especially through drug prescription and procedures with high-tech equipment, which has contributed to more than 90% of their income (4).

Due to this financial incentive mechanism of healthcare providers, combined with inadequate insurance coverage and healthcare disparities among Chinese people, patients and their families have to pay for the increasing healthcare budgets. According to the reports from the China National Health Economic Institute, the out-of-pocket payments climbed from 20% in 1980 to 49% in 2006 of the government's total expenditure on health (5-8). Owing to the fast-growing economics, even though surging health expenditure may be reasonable, accompanying people's increasing consumption capacity, the payments still should be under sufficient control. However, the average cost of each hospital admission is nearly at the same level of the annual income per person (4). These situations have led to 35% of urban households and 43% of rural households without enough capacity to afford healthcare services (4,9). Therefore, a complaint of "too difficult to see doctor, too expensive to seek healthcare" from people and social media is becoming common. Unsurprisingly, healthcare is the #1 topic among Chinese people (10).

Policies on healthcare reform

In 2008, the Chinese government launched an aggressive, systematic and universal reform of the healthcare system, with an estimated CNY 850 billion (USD 124 billion) governmental investment, in response to the above healthcare issues (2,3,11). The reform fundamentally focuses on five targets in the first phase [2009–2011], including health insurance, essential drugs, healthcare construction, basic healthcare service, and public hospitals (3,12). Now that these reforms have been implemented,

improvements and challenges are evident.

Healthcare insurance

First, the reform requires more than 90% of the insurance coverage for both urban and rural residents. The insurance contains three main programs: the Urban Employee Basic Medical Insurance (UEBMI), the Urban Resident Basic Medical Insurance (URBMI), and the New Rural Cooperative Medical Insurance (NCMS) (13). The UEBMI offers the most extensive coverage, including inpatient and outpatient services based on cost-sharing patterns (between employees and employers); the premiums are determined according to employees' income. Both the UEBMUI and the URBMI provide coverage for primary inpatient service, as well as service for specific outpatients based on selected chronic diseases. These two programs are voluntary; the government offers subsidies for premiums (13).

According to the government figures, this target was accomplished in the year of 2011. In 2015, the coverage reached 97% (14). Even though at the beginning the depth of the insurance benefits was shallow, corresponding increase has been achieved subsequently. The per capita government-paid premium in URBMI and NCMS increased from CNY 80 (USD 12) in 2008 to CNY 420 (USD 63) in 2016, which covered most inpatient and outpatient care, with a 75% reimbursement rate (50% in 2008) (14). With these changes, the copayment of the out-of-pocket expenses in total health expenditures decreased from 60% in 2000 to less than 30% in 2016 (14).

Despite the progress, challenges remain, such as the inefficiency of the healthcare services due to these insurance policies. First, compared with outpatient services, these insurances provide more generous reimbursement for inpatient services; patients tend to receive inpatient service even with minor health conditions (15). In addition, combined with a higher service quality provided by secondary- and tertiary-level hospitals (from high to low: tertiary-level, secondary-level, and primary hospitals), these policies also hinder the role of the primary care settings as the "gatekeepers" (15,16). Other challenges include the following: (I) inequity with different benefit packages (due to local conditions and capacity on finance); (II) moral hazard and adverse selection, that may occur because of inefficient use of subsidies based on multiple available insurance programs; and (III) lack of sufficient portability, which leads to a barrier to access (17).

Essential drugs

The second target is to establish a nationwide essential drug system. The aim of this target is to ensure the availability of on-list basic drugs, provide a high reimbursement rate, and eliminate additional charges on these drugs from healthcare providers (2), in order to decrease patients' financial burden. The goal of this target is to decrease expenditures on medicines which have been dramatically increasing (over 45% of total health expenditures) (18), as well as to make inexpensive medicines more available (due to the tendency that the medicines are driven from markets and become inaccessible) (19). These are the results of the incentives of volume-based fee-for-service patterns with allowable 15% mark-up on medicines; in this situation, excessive treatment and over prescriptions occur inevitably.

For this target, the Essential Drug List was developed, including 307 western and traditional Chinese medicines (19). Under the requirement of the policy, these on-list drugs should be stocked at all primary care facilities; the 15% mark-up would be no longer valid. After implementation of the essential drug system, the price of essential drugs has significantly decreased in public or private settings. For instance, the difference of the median price in 2012 versus 2010 was –11.7% for 16 originator brands and –5.2% for 29 lowest-priced generics in the public sector (20). However, even though the government permits funding for the income loss from this policy (mainly through subsidies), this compensation is still not sufficient, compared with previous profits from drugs (21). In addition, the compensation is not usually based on the value-based practice from providers and clinical practitioners (22). Therefore, this target may irreversibly lower the benefit for these healthcare professionals, further influencing the quality and enthusiasm of their practice.

Healthcare construction

The third target is to improve healthcare service at the grassroots level. For this target, the government is constructing the three-tier network between counties, towns and villages. In this new structure, the government encourages family physicians and nurses to provide their services at the community level, which is known as the "health-gatekeeper" system. Furthermore, healthcare services emphasize disease prevention and overall health promotion. This system could potentially attenuate the workload of clinical practitioners in already overcrowded

city hospitals; in a long-term perspective, it will mitigate disparities of healthcare resources and improve service quality, in order to substantially increase the accessibility of healthcare and decrease the burden of disease.

According to the 19th Communist Party of China National Congress, Ms. Bin Li, current Minister of the China National Health and Family Planning Commission, presented the latest positive results: the three-tier medical network system has been preliminarily established; family doctor services have covered 430 million people; 80% of the population can access medical services within 15 minutes (23). Specifically, this target has been successfully achieved in Beijing so far. For example, the registration fee was altered differently among three-level hospitals; the tertiary-level hospitals charges around twice the price charged by primary hospitals (24). Moreover, all the registration fees have been increased to a price several times higher than before. However, the reimbursement rate in low-level hospitals and clinics is much higher than that of high-level hospitals. Also, the fee for different levels of doctors varies significantly after reform (24). After the six-month reform from the April of 2017, the volume of emergency visits has declined approximately 15% in secondary- and tertiary-level hospitals (3.9% in secondary-level hospitals, 11.5% in tertiary-level hospitals), while in the primary hospitals, the volume increased 14.7% (25).

According to the socioeconomic disparities and specific governmental conditions in different regions, the main challenge is to apply this target universally. For example, after the healthcare reform the proportion of healthcare service devoted to primary care had not increased, and even declined: 61.9% in 2009, 57.4% in 2014 (26). This situation reflects the inefficiency of primary healthcare, especially after governmental investment. Another challenge to this target is, the continuous expansion of considerable tertiary-level hospitals may attenuate the distribution of patients to primary healthcare (27). Furthermore, the information technology still lags behind the need of this target. This means, patients' information still cannot be extensively shared in different hospitals' systems, which could cause waste and inefficiency.

Challenges are also evident in human resources. The need of improvement for basic healthcare services requires more healthcare practitioners who would like to serve the public at the community level. However, without sufficient incentives for practice, Chinese clinical practitioners still prefer to stay in urban instead of rural areas. This challenge is more severe according to the current medical education. In addition to the original five-year medical education, students are asked to complete another three-year experience as the standardized residency for their specialization, in order to manifest sufficient competencies through exam (28). Another challenge is the lack of the enthusiasm of Chinese students for becoming medical professionals. The reason includes not just the highly-demanding medical education, but also long working hours for intensive workload, unsatisfactory income and social status, and the increasing incidence of safety violence (29).

Basic public health service

The fourth is to promote basic public health service. It includes establishing individual healthcare archives, providing vaccine and screening programs for disease prevention and early diagnosis, managing both communicable and non-communicable diseases, and promoting health education.

Managing both communicable and non-communicable diseases is not just a healthcare issue. In fact, there are socioeconomic factors that influence people's health. For example, tobacco usage is associated with a considerable number of non-communicable diseases, causing one million tobacco-related deaths in 2010; without cessation, the annual number will climb to two million in 2030 (30). However, China is the largest tobacco market worldwide. The conflict between the economy and healthcare should be addressed.

Even though barriers exist, the improvement after this target warrants a long-term evaluation. One example of short-term progress recently is the gap of maternal mortality between urban and rural areas. It was narrowed from 1:2 in 2005 to 1:1 in 2010 (31).

Public hospitals

Fifth, the reform also focuses on public hospitals. It includes public investment, reform of hospital management, and most importantly, correction of commercialization (considered as the most difficult part of the reform). For eliminating the tendency of maximizing benefits of healthcare providers, especially based on the fee-for-service mechanism, the government separates providers' service from drug sales. Without incentives, most services would be reimbursed by health insurance, and the government also attempts to increase funding directly to providers based on a performance-based pattern (2). By 2020, public hospitals

will become nonprofit in nature (32).

As a part of hospital reform, China eliminated the over 60 years' profit pattern of hospital services and pharmacy (21). Beijing started the reformation in the drug system in April 2017. The former combined cost of drug prescription and healthcare services has been separated. This means the profit of diagnosis and treatment no longer depends on the profit of drugs and tests. Also, the basic medical service fee is altered to be different among the three levels of the hospitals, which makes primary healthcare settings more available for the public (24). According to the Beijing Municipal Commission of Health and Family Planning, the average cost of patients on medicine decreased by 20% within only 15 days after the reformation (33). Moreover, with a half-year effort, the reformation successfully achieved CNY 4.4 billion (approximately USD 0.66 billion) saving (25).

The challenge is that the quality of service would be attenuated if healthcare practitioners' work satisfaction and enthusiasm were not achieved. An effective value-based evaluation and reward system should be warranted. For the value-based healthcare, another challenge is the promotion system of Chinese physicians. Currently their promotion to some extent has been determined by publication in academic journals for a long time. In order to fulfill the requirements of their promotion, physicians become very "busy", because they have to make extra efforts in scientific and/or clinical research along with their clinical practice. Under the situation of conducting research for publication as well as the volume-based services, it is undoubtable that they could not have sufficient time to improve the quality of healthcare given to their patients. Therefore, the evaluation of clinical practitioners' promotion and income has to be improved, in order to relieve doctors and nurses for a higher-quality service during the process of the health reform. Considering the complexity of this target, more available measures are needed, from regulatory and operational implementation, service delivery to human source management.

Conclusions

In the recent 35 years, with surging economy and improving living quality, the healthcare status of the Chinese people has been improved considerably. One of the important indicators is that the Chinese average life expectancy has risen from 67.9 years in 1981 to 76.5 years in 2016, according to the white paper released by the State Council Information Office (34).

Because of the 1.3 billion individuals in China, the ongoing healthcare reform is contributing to the healthcare of a large proportion of the world's population. Considering the patterns of communicable and sexually transmitted diseases, as well as convenient and accessible transportation in our current new-era society, the value of healthcare improvement in China can deliver benefits to other nations. Meanwhile, the new healthcare system model in China may also provide useful implications on a global level. The impact of its universal healthcare reform on different intractable issues deserves further assessment and involvement.

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