

Development Strategy for National Health Promotion and Medical and Healthcare Undertakings in China

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Abstract: In June 2014, the Chinese Academy of Engineering launched a major advisory project, “Development Strategy for National Health Promotion and Medical and Healthcare Undertakings in China.” After conducting an in-depth analysis of the major issues affecting national health and healthcare undertakings’ development strategy, this project presented a list of suggestions and a research report. Based on this research and combined with recent dynamics, especially the guidelines specified by the Central Committee of the Communist Party of China and the State Council regarding the National Hygiene and Health Conference, we further study and discuss some related issues. To solve the challenge of worsening national health conditions and increasing difficulties and costs faced by the population in seeking medical treatment, this article emphasizes the need to shift China’s medical and healthcare development from a cure-oriented mode to a prevention-and-control mode. We must also adjust the organizational mode of the nation’s medical and healthcare development in order to enhance governmental guidance and system design. An additional goal is to ensure that every citizen takes the initiative to participate in health-promoting activities; in this way, we hope to achieve sustainable development.

Keywords: national health; medical and health; development strategy

1 Introduction

Since its founding more than six decades ago, China’s national health and medical and healthcare undertakings have made remarkable achievements. Before 1949, the Chinese people were known as “the sick man of East Asia,” because they suffered from hunger, famine, and infectious and communicable diseases, with a life expectancy of only 35 years. Immediately

after the founding of the People’s Republic of China, against a background of weak national capabilities and severe deficiencies in medicine and healthcare, the Chinese government proposed “prevention first” as its national medical and health development strategy. By mobilizing the resources of the entire society, launching the national “patriotic public health campaign,” encouraging the general public to change their unhealthy lifestyles, and actively implementing various public health measures such

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as vaccinations, the Chinese government has effectively curbed the prevalence of severe infectious diseases and major parasitic diseases that seriously threaten human health in China. Therefore, the health quality of the Chinese people has greatly improved, for example, the average life expectancy increased from 35 years in 1949 to 68 years in 1978. Furthermore, the overall death rate and infant and child mortality rates have decreased drastically, completely eliminating the label of “the sick man of East Asia” and becoming a model for the development of medical and health services in developing countries. Since China’s reform and opening up to the world, combined with the rapid development of its social economy, the lives of the Chinese people, particularly their material lives, have continually improved, and their living standards have greatly improved. Meanwhile, China’s national strength has also grown rapidly, and it has become the world’s second-largest economy.

However, like all fast-growing countries, the enormously enriched material life in China has not fully improved the health of the entire nation, but has rather created a series of new and challenging health problems. With rapid economic development, acceleration of the industrialization and urbanization processes, and ecological, demographic, and lifestyle changes, the disease spectrum in China has undergone extensive, profound, and dramatic changes. Coupled with the ever-growing health needs of the public, China’s medical and healthcare development has already met serious challenges.

Faced with the grim reality of deteriorating public health and the problem of it being “too difficult and expensive to seek medical treatment,” the Chinese Academy of Engineering launched a major consulting project for the “Development Strategy for National Health Promotion and Medical and Healthcare Undertakings in China” in June 2014. This project includes eight topics: healthcare legislation, resource allocation, medical research, disease prevention, the development of traditional Chinese medicine, talent cultivation, health education, and the research and development of drugs and medical devices. More than 80 academicians, nearly 100 administration officials from related ministries and commissions, and approximately 1000 experts from academia and industry have participated in a comprehensive analysis and discussion intended to pinpoint major existing issues and challenges in the development of China’s national health and medical and healthcare undertakings. Based on a thorough review of international experiences and by studying the recent speeches of Xi Jinping, the general secretary of the Communist Party of China (CPC), and recent documents issued by the central government, appropriate measures for the development of China’s national health and medical care were proposed.

Based on the project report and recent development trends, combined with the major strategic shift in national medical and healthcare undertakings that was put forward during the National Hygiene and Health Conference held by the Central Committee of the CPC and the central government, in this article we further

discuss the implementation of strategies to promote China’s national health so as to provide a useful reference for deepening the reform of China’s medical and healthcare system.

2 “Healthy China” is not about “China seeking medical treatment”: The focus of the reform of national health and medical and healthcare undertakings must be shifted

With the continuous development of the social economy, the concept of health is also being continuously updated. According to the latest definition by the World Health Organization (WHO), “Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.” Health is a basic human right and a necessity for the improvement of people’s all-round development. Health is the basis for individuals to achieve well-rounded development, to enjoy life, to study, to work, and to care for others. Health is the decisive resource, driving force, and guarantee of social and economic development and innovation, and it is an important symbol of a country’s prosperity and strength. Social and economic development and scientific and technological progress have continuously improved humans’ ability to prevent and control diseases and to diagnose and treat them. However, although human beings have not yet completely eradicated the predicaments derived from various deadly infectious diseases such as cholera, the plague, leishmaniasis, and so forth, we are now falling into the quagmire of chronic diseases. As Margaret Chan, the director-general of the WHO, stated, “Beginning in the 19th century, improvements in hygiene and living conditions were followed by vast improvements in health status and life-expectancy. These environmental improvements aided the control of infectious diseases, totally vanquishing many major killers from modern societies. Today, the tables are turned. Instead of diseases vanishing as living conditions improve, socioeconomic progress is actually creating the conditions that favor the rise of noncommunicable diseases. Economic growth, modernization, and urbanization have opened wide the entry point for the spread of unhealthy lifestyles...” [1] Over the last half-century, with the exception of some African countries south of the Sahara Desert, environments and lifestyles in countries around the world have changed drastically, particularly in developed countries. Populations with excessive food intake and sedentariness have been steadily increasing. The popularity of television sets, mobile phones, the Internet, and so forth, has further reduced outdoor activity, leading to a substantial increase in the proportion of individuals who are overweight or obese. Alcohol abuse and tobacco consumption have further increased the global population of chronic patients, and this has become the world’s most prominent public health problem and has seriously impeded the healthy development of the global society and economy. As early as 2002, the *World Health Report* released by the WHO indicated that the number of deaths caused

by chronic diseases accounted for over 60% of the total number of deaths and 47% of the total disease burden worldwide.

Compared to other countries, the development of national health and medical and healthcare in China is facing more serious challenges. The public health problems the world experienced in the last 50 to 70 years were repeated in the 20 years prior to China's reform and opening up, and in recent years, have become increasingly aggravated. As a result of "eating too much and exercising too little," the proportion of overweight or obese individuals in the population has increased sharply and now accounts for approximately one-third of the total population of China. Moreover, the proportion of overweight or obese individuals is even higher in children, and China's obese population now ranks second in the world. The number of Chinese patients with chronic diseases such as hypertension, diabetes, cardiovascular diseases, chronic respiratory diseases, mental diseases, malignant tumors, and so forth, is the highest in the world and is close to the combined populations of the US and Russia. The large number of patients with chronic or pre-chronic diseases has resulted in a large population that thinks it is "too difficult and expensive to seek medical treatment." According to the *Report on Progress in the Disease Prevention and Control in China (2015)* issued by the National Health and Family Planning Commission in April 2015, deaths caused by chronic diseases accounted for 86.6% of total deaths and nearly 70% of the total disease burden. Chronic diseases have become a major cause of poverty, and residents may be returned to poverty as a result of illness.

The "blowout" situation in the number of patients with chronic diseases has increased the demand for patients to visit a hospital and seek medical treatment, thus greatly increasing the medical costs of individuals, families, and society. However, because of outdated concepts and institutional constraints, the government and society have long held to the "treatment" model too tightly when faced with public health problems. Whether it is a policy orientation or specific measure, the government-led medical reform in the past 20 years has overemphasized the role of medical institutions in promoting public health and has weakened the role of the general public as a stakeholder in the process. The government's huge input and effort have resulted in endless social criticism. Moreover, the allocation of medical resources in China was initially designed according to administrative levels. Therefore, for a long time, this allocation system caused the severely imbalanced allocation of medical resources, and gaps in medical resources between urban and rural areas and between regions have continuously widened. High-quality medical resources have been mostly concentrated in large cities and developed regions. The medical forces at lower administrative levels have been shrinking each year, and this has caused minor illnesses to develop into major ones when the ideal treatment time is missed. Third-level grade-A hospitals in the nation have become overwhelmed, further exacerbating the view that it is

"too difficult and expensive to seek medical treatment."

To alleviate the current distressing situation of public health in China and cope with the unprecedented challenges, we must re-examine and plan the promotion of health for the general public from the perspective of national survival and shift the focus of healthcare undertakings from the medical treatment mode to the disease prevention mode as soon as possible. We must also strive to reduce the number of patients and slow down patients' disease courses, otherwise the dilemma of "too difficult and expensive to seek medical treatment" will linger forever. At the National Hygiene and Health Conference held in August 2016, General Secretary Xi Jinping once again stressed the need to set people's health as a strategic priority. This is the first time that the focus of public health has clearly shifted to the promotion of health at the national level, which further signifies the determination of the CPC Central Committee and the central government to strongly promote the construction of a "Healthy China." This speech will become a programmatic document for the development of national health and medical and healthcare undertakings and the deepening of the reform of the medical and health system in China.

3 The prevention and control of chronic diseases are not just medical problems but social and political issues; thus, the prevailing mode of the national health and medical and healthcare undertakings is in urgent need of adjustment

The burden and threat caused by the increase and spread of chronic diseases not only endanger China's social and economic development and national security, but have also become the greatest obstacle to global sustainable development. In 2012, the United Nations Conference on Sustainable Development approved the adoption of a series of measures that could promote a fairer, cleaner, greener, and more prosperous world. These measures clearly explained the important relationship between health and development, while making it clear that the health of the general public is key to global sustainable development, and the global burden and threat caused by noncommunicable diseases (chronic diseases) are the greatest obstacles to the sustainable development of the world. In the United Nations' 2030 goals of sustainable development, a global "health coverage plan" was proposed, which reflects that the focus of global sustainable development has shifted to equity and helping vulnerable groups around the world. These goals also demonstrate the strategic position of health promotion in the development of global civilization.

Compared to the causes of communicable diseases, the causes of chronic diseases are more complex, making it a significant challenge to prevent and control them. Prevention and control involves different sectors such as the environment, medicine, agriculture, food processing, transportation, communication,

and so forth, which require that the government make forceful decisions. “Chronic diseases are no longer medical or public health issues, but also a development issue and a political issue,” [2] and are far beyond the capacity of traditional health systems. The health sector alone is unable to protect children from being affected by the marketing of unhealthy foods and drinks, to persuade all countries to reduce greenhouse gas emissions, or to have large-scale industrial food manufacturers reduce the use of antibiotics [3].

Over the past decade, the US, Europe, and other Western countries have made remarkable progress in the prevention and control of chronic diseases, and incidences of chronic diseases have already decreased. Furthermore, the mortality rate of chronic diseases such as malignancies and cardiovascular diseases has decreased significantly, mainly due to a series of actions—for example, tobacco and alcohol control, environmental protection, agricultural and food industry reforms, and so forth—taken by various government departments. The prevention and control of chronic diseases are not just the responsibility of a department or agency, but the shared responsibility of society. In chronic disease control, both administrative agencies and social institutions are necessary. Non-governmental organizations (NGOs) and commercial organizations are also necessary, and although major guidance institutions at the central government level are required, grassroots implementation agencies are also indispensable. The prevention and treatment of chronic diseases are not confined to medical and healthcare institutions, but extend to the daily life domains of urban and rural residents (school, community, and family) [4]. Delivering and strengthening government accountability and coordination and collaboration among departments at all levels directly affect and even determine the overall effectiveness of prevention and control efforts for chronic diseases.

However, currently, the development of China’s medical and healthcare undertakings lacks overall planning, coordination, and management at the national level, and the behaviors of related government departments and various social entities are out of touch with reality. Resources are extremely scattered and have been wasted, making it impossible to form an integrated benefit. It is thus difficult to adapt to the realities of promoting national health. At the Fifth Plenary Session of the 18th CPC Central Committee, the Central Committee of the CPC and the central government promoted the notion of “Healthy China” as a national development policy; namely, they aimed to fully promote the development of medical and healthcare undertakings in China at the national level and to pursue medical and health system reform as a way to promote social and economic development and enhance the general well-being of the public. To comprehensively reduce the overall number of patients, slow down patients’ disease courses, and achieve the promotion of national health and the goal of a “Healthy China,” the prevailing mode of medical and healthcare undertakings must be adjusted as soon as possible.

The backwardness of the prevailing mode has also significantly hampered talent cultivation and innovation in technologies and industries in China’s medical and healthcare sectors. In terms of talent cultivation, the current concept of medical education is obsolete and still follows the medical education model with diseases at its core. This model only emphasizes “diseases” but neglects “persons,” thus, it lacks humanistic education, failing to impart the concept and practice of integrated medicine throughout medical education and vocational training. For example, pediatric training should be included in a general education in clinical medicine. Currently, there is a severe shortage of pediatricians, however, the relevant departments have failed to focus on improving pediatricians’ rewards and practice environments, and instead have established a pediatric specialty in undergraduate medical education at the general education stage, which completely deviates from the laws governing the cultivation of medical personnel while reflecting the non-comprehensiveness of the decision-making system.

In terms of medical research, because of the lack of overall planning, the top-down design, and the comprehensive layout at the national level, the scientific and technological resources funded by different departments are fragmented, and information sharing is not smooth, leading to the “fragmentation” of research funds. The developers of each research plan are more concerned about the funding needs at a particular stage and fail to pay attention to the transformation and utilization of research results. Consequently, research projects cannot be supported on a continuous basis, leading to the disconnection of the innovation chain and the shelving of research results, which has become a new bottleneck restricting medical innovation. It has been a common practice in developed countries to strengthen the strategic planning of medical research at the national level and to integrate resources and establish a comprehensive, interconnected research system that integrates basic research, technology/product research and development, industrial promotion, technology services, and so forth. The National Institutes of Health (NIH) of the US, the Medical Research Council of the UK, the Institut National de la Santé et de la Recherche Médicale of France, the National Health and Medical Research Council of Australia, the Agency for Medical Research (AMED) of Japan, and the Indian Council of Medical Research are typical institutions that play a leadership role in medical research in their respective countries. Of which, most representatively, the NIH is the most important and largest medical research institution in the US, comprising 27 research institutes (centers) and acting as the most important management entity in the US; it manages more than 90% of federal government-led medical research funds [5]. By collecting and analyzing data on past projects, tightly combining the frontier areas with current and future national needs to rationally plan key developments, and initiating major scientific programs—for example, the “Human Genome Project” (in 1991), the “Protein Structure Initiative” (in 2003), the “Brain Research through Ad-

vancing Innovative Neurotechnologies” (in 2014), the “Precision Medicine Initiative” (in 2015), the recent “Cancer Moonshot” (in 2016), and so forth—the NIH has maintained a leading role on the frontiers of international medicine for a long time. Japan, which has taken an important position in international medical research, has also reformed its mode of medical research in recent years. In April 2015, Japan formally established the AMED to comprehensively plan and manage medical research in Japan and pursue the world’s highest level of medical service. Such centralized management structures and research management models in developed countries that comprehensively plan and arrange medical research have ensured the advanced quality and high efficiency of medical studies, from which we have much to learn.

With respect to the pharmaceutical industry, because of its huge required investment, lengthy output cycle, and susceptibility to the dual risks of technology and policy, the simple final-product-oriented development model in China has led to low concentration on the drug and medical device industries. Consequently, too many small enterprises produce imitation products and are the root cause of disorderly competition in the market; these small enterprises are also the largest obstacle to the innovation and development of the pharmaceutical industry in China. By contrast, in Western countries, although the industry’s oligopoly is strictly regulated by anti-monopoly laws, since the beginning of the 1990s, international bio-pharmaceutical companies have continued to merge, thus generating giant oligarchs. The reason for the merges is that the emergence of pharmaceutical oligarchs has spawned more small and innovative companies that develop by transferring patents and technologies to oligarchic pharmaceutical companies rather than relying on the production of final pharmaceutical products, and the development of pharmaceutical flagship companies drives the pharmaceutical innovation of a country and region. The same development path has also been followed by the medical device industry. For example, the development histories of Johnson & Johnson, GE Healthcare, and Medtronic reflect the overall trend of mergers and acquisitions in medical device companies. First, the resources of similar products are integrated to form a scale benefit and synergistic effect to obtain a competitive edge. Then, through mergers and acquisitions of relatively small-scale companies that have advantages in other areas, large companies broaden their product lines. Finally, by acquiring an entire peer company, powerhouse companies realize the development and expansion of the global market. Through mergers and acquisitions, the market competitiveness and innovative capabilities of highly competitive companies continue to improve.

To really achieve the goals of “integrating health into all policies” by mobilizing the resources of the entire society, fully promoting national health, and realizing long-term sustainable development, we must consider various regulations at the legislative level on top of building a new mode. China has not yet established a parent law for medical and healthcare undertakings,

and the current legal system related to medical and healthcare undertakings is rather fragmented. A considerable portion of regulations are still just “red-headed documents.” The legislation level of the laws for medical and healthcare undertakings is low, and formulation, implementation, and supervision are all performed by different departments with their own processes, making it difficult to integrate health promotion into all plans for government action. This state of affairs is also not conducive to enhancing the determination of regional administrative departments to actively pursue health promotion. To promote the development of national healthcare undertakings and the effective implementation of medical and public health services, developed countries all have their own basic laws for healthcare undertakings. For example, the UK introduced the *Health and Social Care Act 2012*, which ensures equity in the provision of necessary medical and public health services to its citizens. France issued the *Code of Public Health*, which stipulates that the basic rights of each individual regarding health should be guaranteed. The basic law in the field of healthcare undertakings in Japan is the *Health Promotion Law*, which realizes the state’s commitment to national healthcare undertakings for all citizens and accessibility to healthcare personnel and facilities. The development of a parent law for medical and healthcare facilitates the clarification of the accountability and obligations of the government and the relevant subjects in the process of improving national health. A parent law also plays an important role in clarifying the rights of the general public related to public health so that the promotion of national health can be implemented according to the law and function within the legal system.

Therefore, the introduction of the *Health Promotion Law*, the parent law of the medical and health fields, must be accelerated. Meanwhile, an organizational institution at the national level, that is, a major ministry or commission that can coordinate and lead various departments, must be established. This national institution can consolidate the national medical and health resources and coordinate the development of public health policy, education in national health, personnel training for medicine and healthcare, clinical treatment, medical insurance, innovation research, and industrial development, so that the design level of China’s medical and healthcare can be greatly elevated, and the highly efficient implementation of new strategies for national health promotion and medical and healthcare development can be ensured.

4 Indispensable roles of the government, society, and public in building a “Healthy China”

To achieve national health promotion and healthcare undertakings reform, both government guidance and public participation are indispensable. In the early years after the founding of the People’s Republic of China, when medicine was inadequate and the state’s capability was weak, China still managed to real-

ize remarkable achievements in national medical and healthcare undertakings. These advancements primarily occurred because the government strongly promoted the “patriotic public health campaign,” and every citizen regarded the campaign as a task that he or she must accomplish. Therefore, the enthusiasm for disease prevention and control was unprecedentedly high, and the consciousness of and efficiency in breaking bad and unhealthy life habits were also extremely high. After China’s reform and opening up to the world, Western lifestyle and cultural trends quickly penetrated every corner of Chinese society, and people’s lifestyles changed rapidly as unhealthy fast foods spread quickly. Moreover, affected by the Western “pseudo-human rights” ideology, people’s lifestyles became about personal choice, and national awareness of health promotion continuously weakened, leading to a deformed culture that believes that “to have an illness is an individual’s right, but its treatment is the government’s responsibility,” thus causing a “blowout” increase in the population of patients with chronic diseases.

Although prevention and control are more complicated for chronic than infectious diseases, most chronic diseases are preventable and controllable. Unhealthy lifestyles are the main cause of the increase in the number of patients with chronic diseases, therefore, changing living environments and lifestyles is key to preventing and controlling such diseases. In 2014, the WHO issued the “WHO Global Strategy on Diet, Physical Activity and Health: A Framework for National Monitoring and Evaluation of Implementation” to cope with the global challenge of chronic diseases. The WHO initiated a program for preventing and controlling chronic diseases among the United Nations member states to allow the states play a role, strengthen cooperation between various departments, and ensure joint interventions to reduce the risk factors of chronic diseases. In 2013, the World Health Assembly approved nine voluntary global targets for the prevention and control of noncommunicable diseases, including the rise of diabetes and obesity being curbed, and salt intake being reduced by 30% by 2025. By 2030, these goals include reducing premature deaths induced by chronic diseases by one-third. Subsequently, in the “WHO Global Action Plan for the Prevention and Control of NCDs 2013–2020,” the WHO provided specific guidance and policy options for its member states and urged all states to take effective action to curb the increase in the number of people with chronic diseases. From the perspective of the global response to these diseases, China must establish a series of effective measures to prevent and control chronic diseases as soon as possible, which would not only follow the global trend but also meet the superpower’s responsibility.

The main causes of chronic diseases tend to be similar around the globe, with “eating too much and exercising too little” being one of the most important factors. The development of the food industry and convenience stores is a hallmark of the civilized world, and the convenience of access to food has been greatly improved. In China, the rapid rise of Internet stores for food

distribution has allowed more young people to enjoy a takeaway meal without leaving the house, which has further facilitated their habits of eating more and exercising less, becoming a new social factor triggering chronic diseases. On the one hand, because of people’s strong tendency toward food addiction and the euphoria and stress release induced by fat intake, it is difficult to solely rely on individuals’ self-control to reduce their intake of excessive energy. On the other hand, people have a strong compliance with food, and after “compulsory” adaptation to a healthy diet, they can quickly adjust to new foods or dietary habits. Therefore, the guiding role of the government in health promotion becomes extremely important. Carrying out compulsory health education for both children and adults, regulating and guiding people’s healthy diets, and encouraging them to exercise more through the leverage of laws and regulations and health economics are all effective means to promote the health of an entire nation.

Childhood is an important period during which humans establish good health awareness and behavior and good personal hygiene habits. The healthy behaviors and lifestyle established during that time will accompany them for their entire lives. The UK is a model of successful implementation of health education. In 1928, the British National Board of Education issued the *Recommendation Handbook on Health Education* and proposed including health education in the school curriculum. In 1988, the British government approved the *Education Reform Act 1988*, in which health education was provisioned as a national curriculum. To further strengthen the effectiveness of health education, in 1997, “Personal, Social, Health, and Economic education (PSHE)” was created as a compulsory course. In 1999, the UK issued the PSHE curriculum framework for the first time and clearly stated that it was to train children to develop a healthy lifestyle and prepare themselves for their future adult lives. The British government demanded that schools ensure that one hour per week is dedicated to the PSHE course and those who take the course have to pass a standard assessment test, which reflects the mandatory aspects of health education. By contrast, China’s current education system is not well developed, and health education tends to be a mere formality that lacks mandatory regulations. It is urgent that we develop a dietary restriction standard (salt and oil intake in particular) according to the nutritional characteristics of the Chinese people and integrate it into health education and dietary supervision.

The government’s formulation and implementation of mandatory laws and regulations is an effective measure for promoting the health of the entire nation. Years of scientific and clinical studies have shown that controlling salt intake can effectively control hypertension and hypertension-induced myocardial and cerebrovascular accidents such as myocardial infarction and stroke, ultimately reducing mortality. In 2003, after more than ten years of effort, the Consensus Action on Salt and Health, a British NGO, finally won the government’s support and, together

with the British Food Standards Agency, co-sponsored an action to “reduce salt to promote health” in the UK food and catering industries. This action involves constantly advocating the benefits of salt reduction so that consumers pay more attention to the salt content of their food. With the cooperation of the business community, the salt content of ready-to-eat foods in British supermarkets was reduced by 45%, and individuals’ salt intake was reduced from 9.5 g in 2000 to 8.5 g in 2011. Consequently, in the last decade, the number of patients with hypertension has significantly decreased in the UK, and deaths from myocardial infarctions and strokes were reduced by 40% and 42%, respectively. Moreover, the number of overall deaths were reduced by one-third, saving a total of 1.5 billion pounds in healthcare costs. In this regard, in an article titled “The Future of Public Health” published in 2015, Dr. Thomas R. Frieden of the United States Centers for Disease Control stated that in the next decade, if the US population is able to reduce its intake of sodium (mainly through salt intake) by one-third, it will avoid half a million deaths and save 100 billion US dollars in medical expenses [6].

A very good example of a massive joint effort by a government, society, and public to quickly improve the health level of an entire nation is the implementation of Japan’s “metabo law.” In 2008, the Ministry of Health, Labor, and Welfare of Japan issued regulations stating that state employees over the age of 40 were required to undergo mandatory measurement of their waist sizes; men’s waists were not to exceed 85 cm and women’s 90 cm. Those who exceeded these measurements had to receive compulsory education and weight loss support for a period of three to six months, otherwise, they would face dismissal. This action caused the general public to pay increased attention to diet and health, and people in the streets sang a song with the lyrics “I don’t want metabo” (metabolic syndrome), thus generating a strong social environment for people to change their unhealthy lifestyles and become healthier. This regulation played a significant role in Japan’s healthy aging: the country’s average life expectancy currently tops the world. At present, the Chinese military has implemented a system in which military personnel’s weight is subject to compulsory standards, and military training is linked to promotion, which prompts officers and soldiers to consciously change their dietary habits and significantly improves their self-motivation for exercise and health consultation, which ultimately substantially enhances their physical fitness. Strengthening citizens’ self-promotion of health as part of national defense awareness may be a new way to effectively prevent and control chronic diseases and promote national health.

A government’s economic leverage can also play an important role in the prevention and control of chronic diseases. To further strengthen the awareness of health promotion and reduce dietary risk factors in the population, in 2011, the French government levied an additional tax on foods, particularly beverages with excessive fat and sugar content, also known as a “fat tax.” This additional tax aimed to raise the awareness of the public to-

ward the prevention and control of chronic diseases while reducing the intake of sugar and fats through compulsory measures. This effort has played a major role in the prevention and control of chronic diseases and has achieved outstanding results in health promotion. Moreover, India’s obese population has grown steadily in recent years, and India now has the world’s third largest obese population. In July 2016, to prevent food consumption that may lead to obesity, the government of the state of Kerala in southern India placed an additional 14.5% sales tax—that is, a “fat tax”—on the sale of fast foods such as pizzas, burgers, and sandwiches. [7] The Chinese government may learn from these experiences and practices and levy a high tax on foods that are unhealthy and exceed the standards in terms of salt, oil, fats, sugar, and so forth. This tax could not only further strengthen the public’s awareness of health promotion and form a social environment that promotes health, but could also reduce the incidence of chronic diseases and the disease burden on society, thus creating huge social and economic benefits.

Moreover, the design of the medical insurance system requires further modifications so as to improve national health promotion and the efficiency in using medical insurance funds. Currently, medical insurance is based on individual accounts, which refers to endowment insurance. Due to the lack of incentives similar to those of auto insurance such as “the fewer the accidents, the lower the premium,” some medical insurance customers are inclined to use the insurance funds in their personal accounts in advance, and they frequently use their medical insurance card to go shopping, hedging, or even bilking, leading to insufficient funds. Additionally, in some regions it is unnecessarily difficult to obtain medical insurance. We should further strengthen the design of the medical insurance system as follows: minimize the impact of the public’s normal use of health insurance funds on regulatory aspects; include incentives to encourage people to improve their health management and health level; encourage people to use the funds as little as possible or not at all for minor ailments so that they can wisely use them for major ailments to achieve the goal of “reimbursing little for minor ailments and having security for serious illness, and being rewarded for not having illness”; and allow health insurance funds to “spill over.”

In summary, the construction of a “Healthy China” requires wisdom and new strategies by the government and joint efforts by the entire society. Faced with the worrying state of the nation’s health, we must re-examine and plan national health promotion efforts from the perspectives of national survival and the “China Dream” (the realization of the great rejuvenation of the Chinese nation). It is vital to strengthen citizens’ national awareness and institution building for health promotion so that each citizen can actively participate in health promotion. To achieve this goal, we must make major changes in values, legal and institutional systems, and education. This should be viewed as an opportunity rather than a challenge.

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