

Strengthening of Hierarchical Diagnosis and Treatment System in China

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Introduction

In 2009, China launched a new round of reform in its medical and healthcare system. The State Council of the People's Republic of China released a notification entitled "Opinions on Deepening the Reform of the Medical and Health Care System," which establishes the importance of the hierarchical diagnosis and treatment system in the medical and health care system, with the aim of solving the difficulties and high costs of medical treatment for the general public [1].

In the 15 years since the new medical reform, China's health and hygiene have drastically changed. China's per capita life expectancy has risen from 74.83 years in 2010 to 78.20 years in 2021 [2]. Infant mortality has dropped from 13.1 per thousand in 2010 to 5.0 per thousand in 2021 [2]. The output of China's population health has benefited from the commitment of governments at all levels to health policy reform, including the establishment of a basic medical and healthcare system that covers urban and rural residents and a medical security system that covers the health of the entire population, which has continuously improved the accessibility and fairness of medical services for the population [3].

In 2017, the State Council of the People's Republic of China proposed a hierarchical diagnosis and treatment system as one of the five basic medical and healthcare systems [4]. The Third

Plenary Session of the 18th Central Committee of the Communist Party of China (CPC) proposed the general requirement of establishing a hierarchical diagnosis and treatment system, aiming to promote the orderly and coordinated provision of continuous and comprehensive medical services by medical institutions at all levels through a series of institutional changes. For this reason, Chinese governments at all levels have made great efforts to implement the hierarchical diagnosis and treatment system, including the reform of the medical security system, development of medical consortiums, arrangement of the National-level regional medical centers, construction of medical information platforms, establishment of a system for training general practitioners, and other reforms.

Challenges and issues

However, there are many challenges in promoting the implementation of the hierarchical diagnosis and treatment system due to the different expected interests of all parties in the policy confidence and construction ideas of the hierarchical diagnosis and treatment system. The outbreak of COVID-19 in 2019 has caused a tremendous impact on China's healthcare system, especially on the implementation of the hierarchical diagnosis and treatment system. Strengthening the hierarchical diagnosis and treatment system remains an urgent priority during China's 14th Five-Year Plan.

The implementation of China's hierarchical diagnosis and treatment system has faced three fundamental challenges. The first is the fragmentation of China's medical service system [5]. And the fragmented medical service system is related to the decentralized financing system [6], the decentralized administration of medical institutions, and the fragmentation of the medical service information system in China [7]. Although the implementation of medical consortia has objectively promoted the integration of the health care service system, it is difficult to truly play the role of integration because the issue of the benefit mechanism of medical consortia remains unresolved. National-level regional medical centers are designed to solve the problem of cross-provincial access to medical care for the general public; however, because they are still in the construction stage, their integrated power for the medical service system is limited. The second is geographical imbalance in the allocation of healthcare resources. For a long time, China's unbalanced social, economic, and health development has led to problems of insufficient total health resource allocation, irrational urban-rural distribution, and inequitable allocation [8]. This is reflected in the relative abundance of high-quality healthcare resources in the eastern and central regions of China and their relative scarcity in the western region; the relative abundance of high-quality health care resources in urban areas and their relative scarcity in rural areas; and the relatively good level of health resource allocation in general hospitals and the relatively poor level in primary health care institutions [8]. Since the new healthcare reform in 2009, although there has been a significant increase in the allocation of health resources in primary health care institutions, including the number of health care institutions, beds, and health personnel, their growth rate is significantly lower than that of general hospitals. For example, the number of healthcare personnel in primary healthcare institutions increased from 3,152,000 in 2009 to 4,432,000 in 2021, an increase of 40.6 per cent, while the number of healthcare personnel in general hospitals increased from 3,957,700 in 2009 to 8,478,000, in 2021 an increase of 114.2 per cent [2]. The third, there is variability in the compensation mechanism for healthcare institutions. Due to differences in China's administrative system and the level of economic development of domestic provinces and cities, different medical institutions have different levels of financial compensation. As a result, there are certain gaps in development between different regions and medical institutions, which leads to inequities in the level of service quality and the supply of medical resources.

Policy recommendations

A systemic mindset is needed to strengthen the hierarchical treatment system, focusing on three priorities: integration, optimization, and enhancement. The first is to integrate the healthcare delivery system [6]. There is a need to integrate the healthcare delivery system using systems thinking, whereby the healthcare delivery system is treated as a system, with healthcare institutions, public health institutions, other healthcare institutions, and third-party organizations as subsystems, and then integrating the various components. Based on the actual situation of China's medical and healthcare services, the development of medical consortia as an important tool, with the people's demand for "whole-life-cycle health services" as the point of departure, medical consortia are integrated horizontally and vertically to provide the public with whole-cycle, whole-process medical, and healthcare services. The second is to optimize the allocation of health resources. The allocation of health resources in China needs to consider accessibility and

equity, with a focus on strengthening the allocation of health resources in western [9] and rural areas [10]. There is a need to optimize the scale and structure of health resource allocation in the region, focusing on regional coordination, integrating regional coordinated development strategies, and enhancing the balance and precision of health resource inputs. The integration of inter-regional health resources should be intensified, the optimization of intra-regional resources should be promoted, and intra-regional synergy should be emphasized to enhance the precision of health resource allocation. Third, the Chinese Government should improve the compensation mechanisms for medical institutions at all levels. The Government should take the principal responsibility for increasing financial investment in medical and health care, establishing and improving a stable and long-term multichannel compensation mechanism, and upgrading the level of compensation for medical institutions at all levels.

Hierarchical diagnosis and treatment, as a medical and healthcare system with Chinese characteristics, has played an important role in changing the current situation of "difficult and expensive" medical treatment for the public. Despite the difficulties of China's healthcare reform, the Chinese government at all levels is making unremitting efforts, and the "spring" of the reform of the hierarchical diagnosis and treatment system is coming soon. In the near future, China will realize "timely, effective, safe, continuous, and convenient" medical and health services.

Declarations

Conflict of interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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