

Current Status and Optimization Strategies for China's Family Doctor Contracted Service System

Haishi Yu^{1,a,*}, Chao Sun^{1,b}

¹Yunnan Normal University Hospital, Yunnan Normal University, Kunming, China

^ayuhaishi@ynnu.edu.cn, ^b47764226@qq.com

*Corresponding author

Abstract: Family doctor contracted service is a pivotal measure for deepening the reform of the pharmaceutical and healthcare system and implementing the hierarchical medical system in China. It also serves as a cornerstone for the "Healthy China" strategy. Based on extensive empirical research and policy literature, this paper systematically reviews the development of family doctor services in China and analyzes the evolutionary logic from adopting Western experiences to localized exploration. Currently, China has preliminarily established a family doctor service network covering both urban and rural areas. However, the existing system still faces several challenges, including low public trust, "signing without servicing," inadequate incentive mechanisms for medical staff, a lack of legal risk protection, and lagging information technology infrastructure. To address these issues, this paper proposes several optimization strategies: 1) refining multidisciplinary collaborative teams by introducing professional forces such as pharmacists and traditional Chinese medicine practitioners; 2) leveraging "Internet+" and artificial intelligence to enhance service efficiency and coverage; 3) improving performance evaluation and compensation incentives to boost the motivation of medical personnel; and 4) perfecting laws and risk-sharing mechanisms for home-based medical services. By implementing these comprehensive measures, the study aims to promote the transition of family doctor services from scale expansion to high-quality development, ensuring they effectively fulfill their role as "gatekeepers" of residents' health.

Keywords: Family doctor contracted services; Hierarchical medical system; Chronic disease management; Primary healthcare; Healthy China

1. Introduction

The family doctor system originated in Western countries and is a core component of the primary healthcare system [1]. In developed nations such as the UK and the US, family doctors (General Practitioners, GPs) typically act as "gatekeepers" for residents' health, playing a significant role in controlling medical costs and improving the efficiency of health resource utilization [2,3]. For instance, the National Health Service (NHS) in the UK ensures basic medical needs are met through a mandatory GP first-visit system. In the US, the Patient-Centered Medical Home (PCMH) model emphasizes service accessibility and coordination [4].

The introduction of the family doctor system in China was driven by the dual pressures of an aging population and a shift in the disease spectrum. With China's socio-economic development, chronic non-communicable diseases (e.g., hypertension, diabetes) have become the primary threat to health, characterized by "high prevalence and multi-morbidity" [5,6]. The traditional hospital-centered and treatment-oriented medical service model can no longer meet the growing demand for health management. Consequently, the report of the 20th National Congress of the CPC explicitly proposed "advancing the Healthy China initiative," emphasizing the strengthening of comprehensive chronic disease prevention and the development of a full-chain service spanning prevention, treatment, rehabilitation, and management [7]. In 2016, seven departments, including the State Council's Medical Reform Office, jointly released guiding opinions, marking the official and comprehensive implementation of family doctor contracted services in China [8].

As a breakthrough for implementing hierarchical diagnosis and treatment, family doctor contracted services aim to establish long-term, stable service relationships with residents through contracts, thereby shifting the focus of healthcare services to the grassroots level [9]. This is not merely an adoption of Western systems but an institutional innovation tailored to China's national conditions, such as the

dominance of public hospitals. However, as policies are promoted, the critical issue has shifted from "availability" to "quality"—specifically, how to achieve high-quality development^[10]. This paper will analyze the current status, problems, and optimization paths of China's family doctor system based on existing literature.

2. Development Stages of Family Doctor Contracting in China

The evolution of family doctor policies in China exhibits distinct periodic characteristics, which can be categorized into three stages: pilot exploration, comprehensive promotion, and quality enhancement^[11].

2.1. Pilot Exploration Stage (2009–2015)

The concepts of "General Practitioner" and "Family Doctor" were introduced as early as 2009 during the new round of medical reform. In 2011, the "Guiding Opinions of the State Council on Establishing a General Practitioner System" elevated this system to a national strategy^[12]. During this period, developed cities like Shanghai and Beijing took the lead in piloting the family doctor system. For example, the Changning District of Shanghai explored a responsibility system for family doctors early on, attempting to build a service model characterized by community-level first visits and hierarchical treatment^[13]. Policies in this stage focused primarily on the preliminary exploration of service models and the cultivation of general practitioner teams.

2.2. Comprehensive Promotion Stage (2016–2021)

In 2016, the "Guiding Opinions on Promoting Family Doctor Contracted Services" were issued, marking the transition to the comprehensive promotion stage^[8]. This document clarified the subjects, objects, content, and payment mechanisms of the services and set specific coverage targets. Driven by this policy, various regions launched implementation plans and developed diverse service models with local characteristics. A typical example is Shanghai's "1+1+1" model, where residents choose one community family doctor, one district-level hospital, and one city-level hospital for contracting^[14]. This model effectively guided residents to use primary healthcare resources through incentives like priority appointments and long-term prescriptions. Xiamen introduced the "Three-Doctor Management" model, consisting of a specialist from a tertiary hospital, a community GP, and a health manager, achieving effective "specialist-generalist" linkage^[15]. Additionally, the "Basic + Personalized Packages" in Dafeng, Yancheng, and the "Integrated Medical, Nursing, and Elderly Care" in Hangzhou further enriched the service content^[16].

2.3. Quality Enhancement and High-Quality Development Stage (2022–Present)

As coverage expanded, the issue of "signing without servicing"—where high signing rates do not translate into actual services—became increasingly prominent. In 2022, the "Guiding Opinions on Promoting High-Quality Development of Family Doctor Contracted Services" emphasized a shift from "expanding coverage" to "improving quality"^[10]. The current policy focus is on enriching service content, improving incentive mechanisms, and strengthening technical support. Policies now require that services not only cover key groups like chronic disease patients and the elderly but also gradually expand to the general population, extending from basic medical and public health services to life-cycle health management^[17].

3. Current Status and Deficiencies of the Family Doctor Contracted Service System in China

3.1. Overview of the Current Status

After more than a decade of development, China's family doctor contracted service system has begun to take shape. As of 2023, more than 420,000 family doctor teams have been established nationwide, and the service coverage has expanded steadily^[7]. In terms of chronic disease management, family doctors have become the primary force in the health management of patients with hypertension and diabetes. Research indicates that contracted services can significantly improve patients' blood pressure and blood glucose control levels and enhance medication adherence^[18]. For instance, in cities like Shanghai and Tianjin, elderly patients with chronic diseases show high utilization rates of family doctor services, which

play an active role in post-discharge rehabilitation management ^[19].

3.2. Existing Deficiencies

3.2.1. Insufficient Public Trust and Sense of Gain: The Persistence of "Signing Without Servicing"

Although the contracting rate has increased numerically, public trust in family doctors remains to be improved. Surveys show that some residents, particularly those with lower education levels or low-income groups, have low awareness of contracted services and still prefer to seek medical treatment directly at large hospitals ^[20]. For example, a survey in Wuhan revealed that approximately 15% of residents expressed distrust in family doctor services, with primary concerns centered on the clinical expertise of primary care physicians and the inadequate supply of medications ^[21]. Furthermore, young and middle-aged populations in functional buildings have low awareness and active participation rates, perceiving that primary healthcare institutions cannot meet their personalized needs ^[22].

3.2.2. Shortage of Talent and Imbalanced Structure within Family Doctor Teams

The insufficient number of general practitioners (GPs) is a bottleneck restricting the development of contracted services. Compared with developed countries, China still faces a gap in the number of GPs per 10,000 population. Moreover, many current family doctors are specialists who have transitioned to general practice, resulting in a relatively low academic and professional title structure ^[23]. There is also an imbalance in the ratio of medical to nursing staff within teams, coupled with a shortage of professionals such as pharmacists, health managers, and psychological counselors. This leads to services being concentrated on basic diagnosis and treatment, lacking in-depth health management and pharmaceutical care capabilities.

3.2.3. Inadequate Incentive Mechanisms and High Work Pressure for Medical Staff

The current compensation distribution system is often loosely linked to the quality of contracted services, leading to low motivation among family doctors. Surveys indicate that family doctors in areas such as Tai'an generally face significant work pressure, with job satisfaction levels ranging from medium to low. Primary reasons include low compensation, limited promotion opportunities, and burdensome administrative tasks ^[24]. Many family doctors feel their income is disproportionate to their efforts, resulting in a high degree of professional burnout ^[25]. The spacing after paragraph should be 12 points.

3.2.4. Homogenized Service Content and Insufficient Supply of Personalized Services

Current service packages primarily consist of basic public health services, lacking personalized offerings for diverse groups such as disabled elderly, patients with osteoporosis, or those with mental disorders ^[26]. Although policies encourage the introduction of paid personalized service packages, few have been effectively implemented due to constraints in health insurance payment policies and primary-level service capacities. For example, in bone health management, community screening and intervention methods remain relatively singular, lacking full-cycle, closed-loop management ^[27].

3.2.5. Lagging Legal and Institutional Safeguards and High Risks in Home-Based Services

With the acceleration of population aging, the demand for home-based medical services has surged. However, current laws and regulations governing home visits by family doctors are incomplete. From the perspective of the Civil Code, home-based services face legal risks such as uncontrollable practice environments, rudimentary medical equipment, and limited emergency response capabilities. In the event of a medical dispute, it is difficult to effectively protect the legal rights of medical staff, which significantly inhibits the willingness of family doctors to provide home-based services ^[28].

3.2.6. Information Technology "Silos" and Poor Data Interoperability

Despite the promotion of digitalization across various regions, data barriers between hospitals and communities, as well as between different business systems, persist. Family doctors often find it difficult to obtain real-time clinical information of contracted residents from higher-level hospitals. Consequently, two-way referrals often become a mere formality, and the dynamic updating of health records lags, adversely affecting the continuity of care ^[29].

4. Strategies for Optimizing and Improving the Family Doctor Contracted Service System in China

4.1. Refining Team Structure and Promoting Multidisciplinary Collaborative Models

The traditional single-practitioner service model should be reformed to build an "N+1" multidisciplinary collaborative team comprising general practitioners (GPs), specialists, clinical pharmacists, traditional Chinese medicine (TCM) practitioners, and nursing staff. First, the involvement of pharmacists should be introduced. Integrating pharmacists into family doctor teams enables Medication Therapy Management (MTM), which is particularly effective in identifying potential medication risks and improving adherence in elderly patients with multi-morbidity^[30]. Second, the "Specialist-Generalist Integration" should be deepened. The "Three-Doctor Management" experience from Xiamen should be promoted to establish a close support mechanism between specialists from tertiary hospitals and family doctors. This technical support from specialists can significantly enhance primary-level diagnostic and therapeutic capabilities, especially in managing chronic diseases such as diabetes, hypertension, and osteoporosis^[15]. The text must be set to 10 points, justified and with single linespace.

4.2. Strengthening Technological Empowerment and Innovating Service Delivery

"Internet+" technology should be leveraged to overcome spatial and temporal constraints and enhance service accessibility. First, internet-based medical services should be advanced. A unified regional information platform for family doctor services should be established to achieve interoperability between electronic health records (EHRs) and electronic medical records (EMRs). Providing online contracting, health consultation, chronic disease follow-up, and diagnostic appointment services via mobile apps or WeChat public accounts can enhance the experience for residents, particularly the young and middle-aged population^[31]. Second, the application of smart devices should be promoted. Wearable devices for chronic disease monitoring, combined with artificial intelligence to establish intelligent stratified early-warning systems, can facilitate proactive intervention for high-risk groups (e.g., patients with cardiovascular diseases or osteoporosis), achieving full-cycle, closed-loop management^[32].

4.3. Improving Incentive and Safeguard Mechanisms to Stimulate Talent Vitality

First, the compensation distribution system should be optimized. By implementing the "Two Allows" policy (allowing medical institutions to determine their income distribution and allowing the increase of incentive expenditures), a performance evaluation system oriented toward service quality and outcomes (e.g., chronic disease control rates and resident satisfaction) should be established. This aims to reasonably increase the income of family doctors and reflect their professional value^[33]. Second, health insurance payment methods should be perfected. Diversified and composite payment methods, such as capitation and case-based payments, should be explored, with surplus funds primarily used to incentivize family doctor teams. Additionally, increasing the reimbursement ratio for contracted residents at primary healthcare institutions can leverage health insurance as a guiding tool^[34].

4.4. Enriching Service Content to Meet Diversified Health Demands

First, personalized service packages should be implemented. Targeted packages encompassing medical care, rehabilitation, nursing, and psychological intervention should be designed for key populations such as the elderly, pregnant women, and patients with mental disorders^[35]. For example, comprehensive guidance on diet, exercise, and medication should be provided for patients with comorbidities like hypertension and diabetes^[36]. Second, TCM services should be strengthened. By leveraging the advantages of TCM in "preventive treatment of disease" and chronic disease rehabilitation, suitable techniques such as acupuncture and Tui-na should be integrated into the scope of contracted services to meet residents' demand for traditional medicine^[37].

4.5. Perfecting Laws and Regulations to Standardize Home-Based Medical Services

To address the risks associated with home-based services, relevant laws and regulations must be improved. It is recommended to equip staff with real-time recording devices (such as body-worn cameras) for home visits, strengthen patient privacy protection, and establish a comprehensive medical record management system and emergency call system for home visits. Furthermore, the rights and obligations of both doctors and patients should be clarified. Diversifying occupational risks through measures such

as purchasing medical malpractice insurance can help alleviate the concerns of family doctors and encourage the provision of home-based care [28].

5. Conclusion and Outlook

The family doctor contracted service system in China has undergone a leap-frog development from scratch and from pilot programs to national implementation. It has become a crucial institutional arrangement for safeguarding residents' health and addressing the challenges of an aging population. By drawing on international experience and integrating it with local practices, China has explored effective models such as the "1+1+1" and "Three-Doctor Management," which have played an active role in chronic disease management and the implementation of hierarchical diagnosis and treatment. However, the current system is in a critical transition period toward enhancing quality and efficiency, facing challenges such as talent shortages, inadequate incentives, a lack of public trust, and legal risks. It is recommended that systemic strategies—including building multidisciplinary teams, strengthening technological empowerment, improving incentive safeguards, enriching service content, and perfecting laws and regulations—be implemented to jointly promote the high-quality and sustainable development of family doctor services, thereby consolidating their institutional foundation as the "gatekeepers" of residents' health.

Looking ahead, the high-quality development of family doctor contracted services must adhere to a "people-centered" philosophy and further strengthen policy systematicity and synergy. On one hand, it is necessary to enhance the technical proficiency and accessibility of primary medical services through multidisciplinary collaboration and digital transformation. On the other hand, reforms in institutional mechanisms are required to address issues related to talent retention and motivation. With the in-depth implementation of the "Healthy China" strategy, family doctors will evolve from being mere providers of medical treatment to managers of health across the entire life cycle. By continuously optimizing service models and safeguard mechanisms, China's family doctor contracted service system is expected to build a more equitable, accessible, and efficient primary healthcare system, providing a solid guarantee for universal health.

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