

# *Exploration of Financing Models and Risks Management in Healthcare Industry*

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**Abstract:** With accelerated aging of population and increased life expectancy in China, there has been increasing demand for medical and health services. In recent years, China's medical and health industry has witnessed rapid development to become a focus of economic structure transformation and upgrading, while the weakness in financing is a restraining factor. Proceeding from current situation of financing in the medical and health industry, this paper analyzes the models of various financing channels of medical enterprises. Due to the large initial investment amount and prolonged investment cycle, the demand of medical enterprises for financing often faces great policy restrictions. In view of the financing difficulties, innovative financial policies are proposed to support the medical and health industry, accompanied by suggestions for risk management.

## **1. Introduction**

Under the new normal, China's economic structure is undergoing a second transformation. The *Outline of the 14<sup>th</sup> Five-Year Plan* proposes “advancing healthy China initiative”. [1] The continuous release of health demand per capita has brought a new round of growth to medical and health expenditure. At the same time, science and technology have led a new round of industrial upgrading, and also brought new development momentum to medical and health industry. At present, medical and health industry in China still lags greatly behind the world-class level, with prominent contradiction between the development needs of the medical and health industry and insufficient sources of funds. Structural innovation of financing method is a ground-breaking step for the medical and health industry.

## **2. Current status of financing in the Medical and Health Industry**

### **2.1 Narrow Social Financing Channels for Private Medical Institutions**

On the one hand, the nature and attributes of private medical institutions limit their financing channels. First, available fixed assets for mortgage are insufficient. The Chinese guarantee law clearly stipulated that the educational facilities, medical and health facilities etc. of social groups for the purpose of public welfare shall not be mortgaged. Second, the cash flow of private medical institutions is relatively unstable, and lacks a reliable source of repayment. Furthermore, the return on some investment has been low, which cannot meet the bank's loan requirements. [2]

On the other hand, medical and health enterprises are capital-intensive, as well as technology-intensive. During rapid development, they need to continuously expand their market size, requiring a large amount of capital. For example, new drug R&D companies need a lot of funds for follow-up clinical trials of products, declaration review and market development. Internet medical companies need a lot of funds for market expansion, platform operation and potential investment. In recent years, however, due to the epidemic and the wars, the fluctuations in the global economic capital market have caused panic in investment. Start-ups in the medical and health industry are facing challenges in social financing due to shrunken social financing channels.

## 2.2 Insufficient Fiscal Financing for Public Medical Institutions

China's medical industry is dominated by public non-profit hospitals. Due to their large amount of investment, long construction cycle, and small returns, etc., their funds are largely from fiscal support. Currently, there are three major sources of income of public hospitals: the government's fiscal support, income from render of medical services and income from sales of medicine. Government's financial subsidies account for a relatively small proportion, while the income from the sale of medicine has become the main source of income or second only to that from render of medical services. In the short term, since Chinese government's investment in large hospitals will not increase significantly, the low proportion of financial subsidies in the hospital's income structure will not be fundamentally changed. With continuous reform of the medical system, the price difference of the price of medical services and medicine will be gradually be straightened out, reducing the irrationality of creating profits from sales of medicine. Therefore, the fiscal support for public hospitals will generally decline.[3]

## 3. Exploration of Financing Models in the Medical and Health Industry

The medical and health industry is of great development prospects and investment potential. However, constrained by shortage of funds, the industry just can't achieve its potential. The exploration of financing paths that are in line with the development law of medical health industry and the structural innovation of new financing method for the industry will, on one hand, relieve the pressure on the government's public financial expenditure and promote the transformation of social governance from "government revenue and expenditure" to "public economy", and on the other hand, attract social capital to participate in construction of industrial projects and enrich financial support means, which helps disperse R&D risks and improve business efficiency. In this paper, the financing models in the medical and health industry are summarized as follows (figure1):

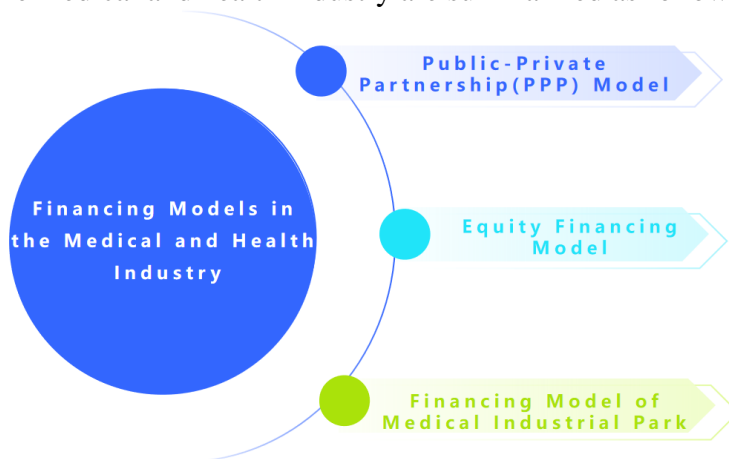


Figure 1: Three financing models in the medical and health industry

### **3.1 PPP Model**

Public-Private Partnership (PPP) is a major innovation in the public service supply mechanism, under which the government adopts a competitive approach to select social capital with investment, operation and management capabilities.[4] The two parties conclude a contract through negotiations based on equality to clarify the duties and responsibilities. The social capital provides public services, while the government pays the corresponding consideration based on the performance appraisal of public services, whereby guaranteeing reasonable return of social capital.

The effect of the PPP model on the medical and health industry is reflected at two levels. At the financing level, on the one hand, the entry of social capital can relieve the pressure on government's debt, which is essentially provision of new channels for government financing through granting of franchise rights; on the other hand, the medical and health industry is still a quasi-operational, and the benefits from non-fully market-oriented operations cannot cover the project cost to ensure reasonable returns. Therefore, the government needs to provide financial support to public service projects based on their performance. At the level of national governance, encouraging the development of medical and health industry through the PPP model is also a product of the national policy guidance, which is in line with national strategy of "Healthy China Initiative"[5] and provides a new drive for national economic growth.

### **3.2 Equity Financing Model**

This model is characterized by the merits of low investment threshold, high return potential and considerable premium returns after listing. In addition, this model can give full play to the advantages of risk management to realize value appreciation. Equity investment adopts a collective investment method which allows dispersion of risks through investment in projects at different stages and in different industries. Therefore, in addition to enjoying the benefits of cost sharing, investors also benefit from dispersion of investment risks, thereby achieving value appreciation.

### **3.3 Financing Model of Medical Industrial Park**

The main innovation point of the financing model of the medical industrial park is that it overcomes the drawbacks of conventional private hospitals such as small financing scale, the single construction content, and the difficulty in financing for non-operating infrastructure. Through a unified implementation body, it integrates multiple closely linked sub-medical projects such as hospitals, public support platforms, and medical research and development centers to realize the integrated construction of different sub-projects in the medical and health industry chain. During operation of projects, with multiple sources of repayment such as leasing, cooperative operation, and project repurchase, the projects with low short-term returns but great significance can be implemented, whereby the comprehensive competitiveness of the medical industrial park is improved. This model provides a feasible solution for development of medical and health industrial parks through market-oriented methods and for improving the weak links in medical and health industry in first- and second-tier cities.

## **4. Risk Management and Suggestions**

### **4.1 Innovative Diversified Financing Guarantee Model for the Medical and Health Industry**

Financing guarantee is an effective way to reduce or eliminate the risks in financing, construction and operation of PPP projects, as well as a requisite for rational allocation of project

risks under current imperfect policy framework. As the conventional government guarantee fails and the public is taking a wait-and-see attitude toward investment, the medical and health industry should use the PPP model to explore diversified financing guarantee models such as rights pledge, expected income bonds, and asset securitization to improve the financing credit for projects. [6]The pledge of franchise rights granted by the government is an important means of financial innovation in the PPP model.

In relatively mature PPP projects, franchise financing has played an active role. For example, the management rights of affordable housing in inventory and the property right of increased land supply, etc. are used for innovative investment and financing of land development projects; the pollution discharge right and carbon emission rights, etc. are used for innovative investment and financing of environmental protection and drainage projects. Based on this idea, project companies in medical and health industry can carry out financing using emerging collateral such as product trademark rights, pharmaceutical technology patent rights, medical service franchise rights, and leisure and fitness land development rights, so as to further expand the scope and field of rights transactions and improve vitality of the financing market while promoting industrial development.

#### **4.2 Establishment of a Medical and Health Industry Information Platform for Real-time Information Disclose**

The medical and health industry is evolving toward provision of individualized services. The enterprises in the industry should, proactively dock conventional financing channels to further reduce financing costs and expand financing channel relying on big data. Furthermore, a medical and health industry information platform should be established to centralize information about various major health industry projects, so that potential investors can understand the national industrial policy, current industrial development, and industrial structure and layout, etc. from a high perspective of the industry as a whole. The entities which carry out financing can timely disclose construction and operation of their industrial projects, including operating results, equity structure, capital flow and other basic information. This will reduce the risk of information asymmetry to some extent, whereby building a scientific, effective and reasonable risk early warning system.

#### **4.3 Improvement of Medical and Health Financing Management through Operation of Industrial Funds**

The medical and health industry is a product of people's spontaneous demand for health management, and bears on people's health and quality of life. Therefore, there is less elastic demand and relative stable cash flow. Under the premise of controllable risks, commercial banks, investment companies, insurance companies and other financial institutions should be united to set up industrial financing support funds to share financing risks with financial institutions.

Industrial funds play a critical guiding role in cultivating medical and health enterprises. Therefore, keen insight is required to identify potential unicorn companies among high-tech and science and technology enterprises, thereby promoting rapid implementation of scientific and technological innovation achievements and fast development of the industry. From the perspective of the capital financing environment, unicorn companies in the medical and health industry develop rapidly through multiple rounds of high-value financing, and the decreased financing costs and diverse financing channels are conducive to the flow of capital to unicorn companies. In this regard, financial institutions can restructure assets in the medical and health industry to form an asset pool through a special asset-backed plan, use structured financial technologies such as cash flow stratification for securitization, and issue asset-backed securities of different maturities and credit

ratings. Asset securitization not only provides a solution to project financing, but also improves the capital adequacy ratio of financial institutions and strengthens the support of financial institutions to the medical and health industry.

## 5. Conclusion

As the global “fifth wave of wealth” after the IT industry, the medical and health industry is expanding in terms of industrial economy, including the scale and total capacity of hospitals. In the capital market in recent years, the investment activity in the health industry has been also improved year by year. However, given that its financing is mainly relying on financial allocations and bank loans, it is difficult for enterprises in the industry to sustain under the new normal, and in particular, for medical institutions with a large funding gap. The innovative financing model can help alleviate the financing difficulties in the medical and health industry, and promote its long-term development.

## References

- [1] Lin Hua. *Innovation and reform: China's 14th Five-Year Plan unfolds* [J]. *National Science Review*, 2021, 8(1).
- [2] Zhou Zhihui. *Research on the financing lease of medical equipment in private hospitals* [J]. *Wealth Life*, 2020(08): 31-32+36.
- [3] Chen Lin. *Exploration of budget performance management in public hospitals* [J]. *Business Accounting*, 2022(06): 111-113.
- [4] Lu Tianhui. *Research on government-social capital cooperation (PPP) and its audit: review and prospect* [J]. *Audit Research*, 2022(04):41-51.
- [5] Cao Yanlin, Wang Chenguang, Zheng Zhongwei, Zheng Xueqian. *China Endeavors to Guarantee the Implementation of the Healthy China Initiative through Legislation*. [J]. *Chinese medical journal*, 2018, 131(8).
- [6] Jing He. *When PPP Meets Asset Securitization—The First PPP Experience Enlightenment Project of Asset-Backed Special Programs* [J]. *Open Journal of Social Sciences*, 2019, 07(12).