

Medical Expenditure and Economic Development: Differences, Challenges and Coping Strategies

Canyan Xu

Nanjing Foreign Language School Xianlin Campus, Nanjing, China

Annie.Xucanyan@outlook.com

Abstract: The relationship between medical expenditure and economic development is crucial, which not only affects people's health and quality of life, but also the national economic growth. This article aims to deeply explore the connection, challenges and corresponding policy goals between medical expenditure and economic development in different types of countries. After analyzing the economic growth data of various countries in 2023 and the corresponding proportion of medical expenditure, it is found that the high medical expenditure of developed countries is beneficial to the development of the medical industry and the improvement of the health status of the workforce, but they are facing the pressure of medical insurance brought about by medical cost control and population aging. There are problems such as uneven allocation of resources and insufficient security in developing countries' medical systems. In addition, the medical system of underdeveloped countries is extremely weak, which seriously restricts economic development. The policies that can be implemented are as follows. Developing countries should strengthen the construction of the medical system and learn from the medical insurance model of developed countries, and less developed countries need the support of the international community and formulate health policies suitable for themselves.

Keywords: healthcare expenditure, economic development, inequality

1. Introduction

In recent years, there has been widespread attention worldwide on the relationship between healthcare systems and economic development. Medical expenditure is not only a necessary expense for people, but also a key factor in promoting economic growth. It means that healthcare expenditure can affect economic growth and people's living standards in various ways.

It can be seen that the importance of government and national healthcare expenditures from the following aspects. Firstly, physical health is the most important and indispensable for the people. Only when people are in good health can they efficiently engage in the labour market and contribute to economic development. This reflects the importance of the whole country's medical expenditure, which ensures people's physical health. For example, in developed country such as Sweden, high-quality medical insurance ensures the physical health of the workforce and improves work efficiency [1]. This has promoted economic development. Secondly, government spending on healthcare can improve people's quality of life. With the increase of medical expenses, people's health is guaranteed, and diseases and mortality rates will naturally decrease. Therefore, the happiness index of people's lives has been improved.

Various scholars have elaborated on the relationship between medical expenditure and economic development from multiple perspectives. Some of them studied the impact of different healthcare policy releases on the economy. The reform of medical insurance payment methods can have a profound influence on the Chinese economy [2]. Others explored the influence of the proportion of healthcare expenditure to total domestic expenditure on the economy. For instance, the researchers have found the mutual influence and mutual promotion between the two aspects of social economic development and the development of medical and health care [3]. Generally, there is positive relationship between healthcare expenditure and economic growth. Also, different countries have different healthcare policies, so the economic development among countries exhibit apparent differences. To be specific, the differences in healthcare expenditure and policies are significant between developed countries and developing countries.

This article aims to further explore the characteristics, challenges, and policy objectives between healthcare expenditures and economic development in developed countries, developing countries and underdeveloped countries. It can be concluded that the economic growth and medical expenditure are different among different countries. Although developed countries possess mature medical systems, they face high costs and aging pressure. There is a problem of uneven resource distribution in the development of medical systems in developing countries. The medical systems of less developed countries are extremely weak, and each of them faces unique challenges in medical care and economic development.

2. Challenges in medical system and economic development

In 2023, major economies showed diverse Gross Domestic Product (GDP) growth performances. Starting with developed countries, Sweden's economy contracted by 0.2% as household consumption and fixed investments faced headwinds. The United States grew at an annualized rate of 2.1% in the second quarter of 2023, with consumer spending and government outlays playing key roles. For the developing countries, China achieved a 5.2% growth, driven by a series of economic stimulus policies [4]. India, with a 7.6% growth, continued its growth momentum. Some less developed countries in Africa, such as Nigeria, an oil-dependent economy, faced challenges in maintaining growth. In South America, Brazil's GDP grew by 2.9%, influenced by sectors like agriculture and mining. These figures reflect the different economic structures and policy impacts across the globe. From the perspective of medical expenditure, Sweden has kept a high level of expenditure in past few years, with its share of GDP between 12% and 15%. The medical spending of United States is also high, with a share of GDP is as high as 17% to 18% [4]. China's medical expenditure to GDP has gradually increased from 5% to 6.5%, while India's is relatively low, about 3% to 4% [4].

It can be simply concluded that developed countries have stable GDP growth and are more willing to pay attention to medical treatment. United States put a lot of efforts to medical treatment, which is partly related to the complex medical infrastructure of the United States and the high cost of medical service. Developing countries like India have relatively low medical expenditure, which may be related to its large population and limited economic resources.

2.1. Developed countries

Developed countries usually have mature medical system. For example, United States is a developed country with a wide range of medical institutions, including public and private. It has forefront medical technology and skills. As a result, it has to invest a lot into medical research area, medical infrastructure, equipment, etc. United States' medical expenditure is high. As mentioned above, its ratio to GDP is as high as 17% to 18%. According to the data from World Bank, the ratio of medical expenditure to GDP of many developed countries has been maintained over 10%. In order to achieve

long-term economic stability, high medical expenditure is beneficial for promoting the development of medical industry and has created large amount of new jobs, including medical staff, medical researchers and medical equipment production. At the same time, paying high attention to medical care has improved the health of the labor force, reduced the loss of labor caused by disease, and helped to maintain stable economic growth.

However, high medical expenditure causes some challenges to developed countries. Medical cost control is a major problem. With the continuous progress of medical technology, the cost of research and development of new medical equipment is high, resulting in a continuous rise in the price of medical services. It has become more and more expensive for people to receive medical services. In addition, the aging of the population has brought great medical pressure. Taking Japan as an example, the aging population problem is obvious, and the demand for chronic disease management and long-term care of the elderly population has increased sharply, which has put a heavy burden on the medical insurance system and put the government under great financial pressure on medical expenditure.

Guaranteeing universal medical services is an important goal of developed countries. Many countries establish a universal medical insurance system to ensure that residents can get basic medical services regardless of their income. At the same time, the quality of medical services should be improved continuously. Strengthening medical quality management and supervision and encouraging medical innovation to improve the health and quality of life of residents are important. These policies and measures have a positive impact on the happiness index of residents. Good medical services make residents feel more at ease in the face of diseases and reduce the risk of poverty caused by illness and returning to poverty due to illness, thus improving residents' satisfaction and happiness in life.

It has been pointed out that there is an opportunity cost for excessive medical expenditure [5]. Judging from the impact of medical expenditure, it can be seen that reasonable medical expenditure has a significant effect on the improvement of residents' health. For example, in some developed countries, with the increase in medical expenditure, the average life expectancy of residents has been increasing, and the early diagnosis and cure rates of major diseases such as cancer have also increased. At the same time, the improvement of medical services has also had a positive impact on the happiness index, making residents feel the care and protection of society, and enhancing their sense of identity and belonging to society [6].

2.2. Developing countries

The development of the medical system and the growth process of medical expenditure are very complex and significant to economic growth. They exist and promote each other through many complex mechanisms [7]. In developing countries, the medical system has gone from scarce basic medical services and concentrated in metropolitan areas to gradually expanding infrastructure and services to remote areas. Medical expenditure has also been rising due to population growth, aging and the progress of medical technology. In terms of promoting economic growth, a good medical system and reasonable medical expenditure can improve the health of the workforce, promote the development of human capital, and improve labor productivity, which is an important driving force for economic growth. The labor force is more willing to work when they have healthy bodies and do not need to afford expensive medical expenditure for diseases. At the same time, the large number of employment opportunities created by the medical industry itself has driven economic activities. This will promote economic growth since the unemployment rate will be reduced.

However, there are many challenges in the medical field in developing countries, such as the uneven distribution of medical resources, and poor medical conditions in rural and remote areas. There is insufficient coverage of medical security, and people often fall into poverty due to high medical expenses. Some people in poor areas cannot even afford the expensive medical treatment, thus, the mortality rate is increased and life expectancy is decreased. Medical expenditure plays a

dual role in improving residents' health and promoting economic development, which is crucial to the economic progress of developing countries. In order to deal with these problems, the policy goal is to expand medical coverage and improve the availability of medical services. The government need to ensure the reasonable prices of medical treatment. This can not only improve the health of residents, but also promote economic development.

2.3. Under-developed countries

In many areas, especially underdeveloped areas, the medical system is obviously weak, and the level of medical expenditure is relatively low [8]. The foundation of the medical system in these areas is extremely weak. The number of hospitals is small, and most of them are concentrated in densely populated urban areas. Residents in vast villages and remote areas often have to travel long distances to obtain medical services. At the same time, medical equipment is outdated, and many essential advanced diagnostic and treatment instruments are lacking seriously. The number of medical staffs is insufficient, and the professional quality is uneven, making it difficult to treat complex diseases. In terms of medical expenditure, both the government's financial investment and the residents' own medical consumption are at a low level. Limited capital investment makes it difficult to improve the medical system. This situation has brought many serious challenges. The prevention and control of diseases are full of difficulties. Due to the lack of a perfect public health monitoring system and professional epidemic prevention personnel, once the disease breaks out, it is difficult to effectively contain it at an early stage. For example, in the prevention and control of some infectious diseases, the failure to monitor and isolate the source of infection in time leads to the spread of the epidemic. The extreme shortage of medical resources also makes it difficult for patients to receive timely and effective treatment. Patients often have to wait in line for a long time, and even have to give up treatment due to lack of resources.

In order to improve this situation, the policy goal should focus on improving basic medical conditions. The government needs to increase financial investment, build and expand hospitals, and update medical equipment to increase the access of medical services, and at the same time, attract and retain more excellent medical talents by improving the treatment of medical staff and strengthening professional training. When analyzing the constraints and promotion factors of economic development, it can be seen medical system seriously restricts the improvement of the quality of the labor force, which in turn affects economic development. Improving medical conditions can improve the health level of residents, promote the efficient output of labor force, and become a powerful driving factor for economic development.

3. Comparative analysis

When comparing the health care and economic relations of countries at different stages of development, it is clear that both developed and developing countries recognize the importance of health care in improving people's health. Economic development has a positive impact on the life expectancy of all types of countries [9]. This shows that no matter what stage of development the country is in, a certain degree of economic growth is a necessary condition to support the improvement of the medical system.

However, the difference is also significant. Developed countries usually spend a large proportion of their GDP on health care, which gives them advanced medical technology, well-trained medical staff, and a perfect medical insurance system. In contrast, developing countries often face resource constraints. Due to their limited financial resources, it is difficult for them to universalize high-quality medical services. In addition, less developed countries may lack basic medical facilities such as hospitals, clinics and medical equipment.

There are also differences in the results of different policies and medical systems. Developed countries represented by the United States, which implement market-oriented medical systems, usually have high medical costs, but they do not achieve the best health results in all aspects. On the contrary, some European countries have adopted a socialized medical system to achieve universal medical coverage at a relatively reasonable cost. The medical system in developing countries may combine the power of the public and private sectors. However, the implementation of these policies has been uneven, and many countries are still trying to solve the problem of unequal distribution of medical resources in urban and rural areas.

For developing countries and less developed countries that want to learn from the experience of developed countries, the following strategies can be considered. Developing countries should first focus on strengthening the grass-roots health care system [10]. This includes training more primary medical workers, improving the access of essential drugs, and establishing community medical centers. Through these measures, common health problems can be solved at the grass-roots level and the burden on medical institutions can be reduced.

Developing countries can also learn from the medical insurance model of developed countries. For example, some developed countries have successfully implemented social health insurance programs to provide comprehensive insurance coverage through the joint fundraising of employers, employees and the government. Developing countries can adjust these models according to their own actual situation and gradually expand the coverage of insurance.

Underdeveloped countries need more external support. The international community, including developed countries and international organizations, should provide financial and technical assistance. The form of assistance can be the construction of medical infrastructure, the training of medical personnel, and the sharing of advanced medical technology. At the same time, less developed countries should formulate long-term health policies that meet their own unique social, economic and cultural characteristics.

In order to promote economic development and improve the level of medical services, all countries should increase investment in medical research and development. This can not only improve the effect of medical treatment, but also contribute to the development of the medical industry. In addition, strengthening health education can raise public health awareness, promote people to develop a healthier lifestyle, and reduce medical costs in the long run.

4. Conclusion

Globally, the relationship between medical expenditure and economic development is crucial. It not only affects people's health and quality of life, but also has a profound impact on the country's economic growth and social stability. This article aims to deeply explore the intrinsic connection, challenges and corresponding policy goals between medical expenditure and economic development in different types of countries. By analyzing the GDP growth data of various countries in 2023 and the proportion of medical expenditure, the study finds that developed countries have high medical expenditure. Although they have promoted the development of the medical industry and improved the health level of the workforce, they have faced the pressure of medical insurance caused by medical cost control and population aging. The development of medical systems in developing countries is growing rapidly, but there are problems such as uneven distribution of resources and insufficient security. The medical system of less developed countries is extremely weak, which seriously restricts economic development. Based on these analyses, the article puts forward targeted countermeasures. For example, developing countries should strengthen the construction of medical systems and learn from the medical insurance models of developed countries. Underdeveloped countries need the support of the international community and formulate health policies suitable for themselves.

However, there are certain limitations to the research in this article. On the one hand, due to the differences in data acquisition channels, there may be certain deviations in medical expenditure and economic data in some countries, which affects the accuracy of the analysis results to a certain extent. On the other hand, the international economic situation and the policies of various countries are constantly changing, and it is difficult to fully track the impact of these dynamic factors on the relationship between medical expenditure and economic development in real time. Future research can be carried out from the following aspects. First, using more extensive and more accurate data resources to carry out long-term dynamic monitoring and analysis of the relationship between medical expenditure and economic development in different countries can be more effective. Second, it is necessary to conduct in-depth exploration of the impact of the application of emerging technologies such as artificial intelligence and big data in the medical field on medical expenditure and economic development.

References

- [1] Yang K., Wang Y., Zhang Z., Zhao M., Lu J., and Liu Q. (2007) Evidence-based evaluation of Sweden's medical risk supervision system. *Chinese Hospital Management*, 27(3), 4.
- [2] Jin, H. (2022) The impact of medical insurance payment method reform on hospital financial management. *Proceedings of the International Academic Forum on Finance and Management, Kolqin Right Wing Front Banner People's Hospital, (II)*, 110-112.
- [3] Zhong, X. and Yang L. (2016) Empirical analysis of the relationship between public and private medical and health expenditure and economic growth. *Financial Theory Series*, (3), 8.
- [4] World Bank. (2023) GDP growth (annual %). *World Development Indicators*. The World Bank Group. Retrieved from <http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG>
- [5] Mccullough, J. C., Zimmerman, F. J., Fielding, J. E. and Teutsch, S. M. (2012) A health dividend for America: the opportunity cost of excess medical expenditures. *American Journal of Preventive Medicine*, 43(6), 650-654.
- [6] Li, C. (2011) Survey and research on the current situation of the happiness index of urban residents in Wenzhou. *Zhejiang Social Sciences*, (6), 5.
- [7] Bedir, S. (2016) Healthcare expenditure and economic growth in developing countries. *Advances in economics and business*, 4(2), 76-86.
- [8] Seremet, G. G. and Konca, M. (2024) Technical efficiency and its determinants in healthcare systems of underdeveloped countries. *Evaluation and Program Planning*, 107, 102473-102473.
- [9] Chen, Z. (2021) Impacts from economic development and environmental factors on life expectancy: A comparative study based on data from both developed and developing countries from 2004 to 2016. *International Journal of Environmental Research and Public Health*, 18(16), 8559.
- [10] Zwi, A. B. and Mills, A. (1995) Health policy in less developed countries: past trends and future directions. *Journal of International Development*, 7(3), 299-328.