

Original Research Article

Open Access

An Analysis of the Economic Empowerment Pathways Through Which an Improved Social Security System Promotes the Formation of Labor Health Capital

Yun-Peng Pang*

Zibo City Boshan District Social Insurance Service Center, Zibo, Shandong, 255200, China

*Correspondence to: Yun-Peng Pang, Zibo City Boshan District Social Insurance Service Center, Zibo, Shandong, 255200, China, E-mail: 877530270@qq.com

Abstract: This paper aims to systematically analyze how an improved social security system effectively promotes the formation, accumulation, and intergenerational transmission of labor health capital through multiple economic empowerment pathways. The study first clarifies the theoretical connotations of health capital and the social security system, as well as their interactive logic. It then examines, from three levels—micro-level individual behavioral incentives, meso-level market efficiency optimization, and macro-level economic growth support—the direct and indirect mechanisms through which core social security programs, including medical insurance, pension insurance, and unemployment insurance, influence the formation of health capital. Subsequently, drawing on China’s practical experience, the paper explores the structural challenges currently faced by the social security system in empowering health capital formation. Finally, policy optimization recommendations are proposed with a focus on “life-cycle health management” and “high-quality and full employment,” in order to provide theoretical references and practical pathways for building a more inclusive, sustainable, and productive social security system.

Keywords: social security system; health capital; human capital; economic empowerment; labor market

Introduction

In the 21st century, global economic competition has shifted toward an innovation-driven model, making the quality of human capital a key determinant of national competitiveness, with health capital at its core. A healthy and dynamic labor force is the foundation for social wealth creation, economic stability, and innovative vitality. However, the intensifying global trends of population aging and declining fertility have placed substantial pressure on

social security systems worldwide, and China is rapidly entering a phase of deep population aging. Against this backdrop, how to transform the social security system from a framework of “welfare expenditure” or “cost burden” into a form of “strategic human capital investment” has become an urgent issue to be addressed. A well-developed social security system can reduce uncertainties related to health and income, incentivize individual investment in health, enhance the overall health level of the labor force, and promote



© The Author(s) 2026. **Open Access** This article is licensed under a Creative Commons Attribution 4.0 International License (<https://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, sharing, adaptation, distribution and reproduction in any medium or format, for any purpose, even commercially, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license, and indicate if changes were made.

high-quality economic development—this constitutes the core “economic empowerment” logic examined in this paper. The central argument of this study is that a multi-tiered social security system characterized by universal coverage, fairness, and institutional coherence can positively incentivize and empower the formation of labor health capital through multiple pathways, thereby shaping the long-term driving force of national development.

1. Theoretical Foundations: The Logical Linkages among Health Capital, the Social Security System, and Economic Empowerment

1.1 The Economic Implications of Health Capital

Health capital theory was pioneered by scholars such as Gary Becker and Michael Grossman. In his classic model, Grossman emphasized that health is not a static stock, but rather a dynamic capital good that can be invested in, depreciated, and accumulated in a manner similar to other forms of capital. Individuals “produce” health by investing time and financial resources—such as purchasing medical services, healthy food, and engaging in physical exercise—while health itself generates utility (by reducing illness and pain) and enhances labor productivity (by increasing working time and efficiency) ^[1]. Accordingly, the formation of health capital represents a rational investment decision based on cost–benefit analysis. Health capital exhibits several key characteristics: (1) Productivity: A healthy labor force can work more efficiently, experience fewer sickness-related absences, and extend its effective working life. (2) Cumulativeness: Early health investments, such as childhood nutrition and vaccination, have multiplier effects on health outcomes later in life. (3) Externalities: An individual’s health status affects others—for example, through infectious disease control or family caregiving burdens—thus generating significant social benefits.

1.2 The Functional Evolution of the Social Security System

Traditionally, social security has been regarded as a “safety net,” designed to provide basic livelihood protection for individuals facing risks such as unemployment, illness, and old age, thereby preventing them from falling into poverty. However, with socio-economic development, its function has gradually

evolved from passive “ex post compensation” to proactive “ex ante prevention” and “capacity building.” Modern social security systems have been endowed with a new mission—as a form of social capital and a productive institution—that reduces future uncertainty for social members, releases their developmental potential, and thereby promotes human capital accumulation and economic growth.

1.3 The Logic Chain of Economic Empowerment

In this context, “economic empowerment” refers to the process by which the social security system, through a series of institutional arrangements, alters the behavioral choices of micro-level actors, optimizes macro-level resource allocation, and ultimately enhances the overall efficiency and output of the economic system. The core logic chain can be summarized as follows: reduction of uncertainty → improvement of expectations → strengthened investment willingness → accumulation of health capital → enhancement of labor productivity → economic growth. Specifically, a well-developed social security system provides stable expectations and reduces individuals’ anxieties regarding health, old age, and unemployment. This increase in certainty encourages individuals to engage in long-term human capital investments, including education and health, because they believe that future returns will be protected. Conversely, a fragile or deficient social security system may force individuals to adopt short-sighted behaviors, such as excessive precautionary saving or foregoing necessary health maintenance due to unaffordable medical costs, thereby inhibiting the formation of health capital.

2. Multidimensional Pathways Through Which an Improved Social Security System Empowers the Formation of Health Capital

2.1 Micro-Level Pathways: Reshaping the Incentive Structure for Individual Health Investment

2.1.1 Medical Security: Reducing the Marginal Cost of Health Investment

Medical insurance is the component of the social security system most directly linked to health capital. A medical insurance system with broad coverage, reasonable reimbursement rates, and a comprehensive drug formulary can significantly reduce the effective

price individuals pay for accessing preventive, curative, and rehabilitative health services. According to the law of demand, a decrease in price stimulates an increase in demand. This implies that insured individuals are more inclined to undertake regular health check-ups, receive vaccinations, seek timely medical treatment, and adhere to prescribed medications, thereby effectively preventing disease deterioration and promoting health recovery. For example, following the integration of China's basic medical insurance schemes for urban and rural residents, both hospitalization rates and outpatient service utilization among rural residents increased significantly, leading to direct improvements in their health status. Moreover, the design of medical insurance mechanisms such as co-payments and deductibles helps control moral hazard while guiding patients toward primary healthcare institutions, facilitating a tiered diagnosis and treatment system and optimizing the efficiency of health resource utilization.

2.1.2 Pension Security: Extending the Effective Time Horizon of Health Investment

Pension systems address “longevity risk” by providing a stable source of income in old age. When individuals expect to enjoy financial security in later life, the discount rate applied to health investments decreases. The longer the expected healthy lifespan, the longer the period over which early health investments can generate utility and productivity returns, thereby increasing the net present value (NPV) of such investments ^[2]. Conversely, individuals who are highly pessimistic about their future pension security may question the value of longevity itself, weakening their motivation to maintain good health. Therefore, a reliable and adequate pension system effectively encourages individuals to “invest in health for longevity,” framing health as a long-term asset spanning the entire life cycle.

2.1.3 Unemployment Security: Buffering Income Shocks and Sustaining Health Consumption

Unemployment entails not only income interruption but also substantial psychological stress and heightened health risks. Unemployment insurance, by providing temporary income replacement, can mitigate these adverse shocks to a certain extent. This enables unemployed individuals to avoid drastic cuts in essential health-related expenditures, such as nutritious

food and medications, during their job search, and helps prevent the deterioration of physical and mental health caused by anxiety and depression. Stable unemployment protection contributes to maintaining the basic health status of the unemployed population, ensuring that they retain adequate physical and psychological capacity upon re-entering the labor market. This, in turn, shortens the duration of frictional unemployment and enhances the overall resilience of the labor market.

2.2 Meso-Level Pathways: Optimizing the Allocation Efficiency of Health Factor Markets

2.2.1 Promoting Supply-Side Reform in Medical Services

Robust social security funds—particularly medical insurance funds—as the largest payers in the healthcare service market possess strong strategic purchasing power. Through payment reform measures such as diagnosis-related groups (DRG/DIP) and capitation-based payments, medical insurance can guide healthcare providers away from extensive models driven by “drug-based revenues” or “volume-oriented expansion” toward more refined management models that emphasize service quality and health outcomes. This shift not only helps curb unreasonable growth in medical expenditures but also incentivizes hospitals and physicians to focus more on disease prevention and long-term management, improve service quality, and ultimately enhance the health capital of insured individuals.

2.2.2 Advancing Pharmaceutical Innovation and Accessibility

The dynamic adjustment mechanism of the medical insurance drug formulary provides clear market access expectations for innovative pharmaceuticals and medical devices. Including innovative drugs with high clinical value and cost-effectiveness in the reimbursement list accelerates the translation of scientific and technological achievements into public health benefits, enabling patients to access effective treatments more rapidly. At the same time, it offers positive incentives for enterprises to invest in research and development, fostering a virtuous cycle of “R&D–application–feedback–reinvestment” ^[3]. In parallel, the national volume-based centralized procurement program has significantly reduced the

prices of commonly used medicines and high-value medical consumables, substantially improving the affordability and accessibility of essential treatments. This has allowed low- and middle-income groups to obtain necessary care and effectively narrowed health disparities.

2.2.3 Fostering New Business Models in the Health Services Industry

As the social security system increasingly makes explicit and scales up demand for preventive care, rehabilitation services, and long-term care, a vast health services market has emerged. Market participants such as commercial health insurers, health management companies, and internet-based healthcare platforms build upon basic medical insurance to provide more diversified and personalized health products and services. This multi-tiered supply system accommodates the heterogeneous needs of different population groups, further broadens channels for health capital investment, and promotes the overall prosperity of the health industry.

2.3 Macro-Level Pathways: Building a Health Foundation for High-Quality Economic Development

2.3.1 Enhancing Total Factor Productivity (TFP)

Healthy workers tend to be more cognitively agile, physically energetic, and have higher attendance rates, resulting in greater output efficiency per unit of time. Research by the World Health Organization (WHO) indicates that a 10% improvement in health status can raise labor productivity by approximately 5%–10%. When such effects are aggregated across hundreds of millions of workers, they generate substantial gains in national total factor productivity. As China's traditional demographic dividend gradually diminishes, unlocking a "health dividend" through improvements in health capital has become a key engine driving economic transformation and upgrading.

2.3.2 Expanding Domestic Demand and Promoting Consumption Upgrading

Health itself constitutes an important category of consumption demand. When the social security system alleviates public concerns regarding medical care and old-age security, individuals' marginal propensity to consume rises while precautionary saving rates decline. The resulting release of consumption capacity is likely

to flow disproportionately into sectors closely related to quality of life, such as healthcare, sports, tourism, and culture, thereby promoting consumption upgrading and creating new sources of economic growth. A middle-income group that is willing to consume and invest in its own health represents a core force in building a strong domestic market.

2.3.3 Strengthening Social Resilience and Reducing Systemic Risks

Health crises, such as the COVID-19 pandemic, often impose severe shocks on the economy. A universal and rapidly responsive public health emergency system and medical security system constitute the first line of defense against such disruptions. These systems can minimize damage to labor supply, stabilize social expectations, and prevent the economy from falling into deep recession^[4]. From a long-term perspective, sustained investment in population health is equivalent to purchasing an expensive but indispensable "insurance policy" for the stable operation of the national economy.

3. Challenges and Reflections in the Chinese Context

Although China has established the world's largest social security system, it still faces profound structural challenges in empowering the formation of health capital. Institutional fragmentation and insufficient equity—manifested in significant disparities between employee medical insurance and resident medical insurance, as well as inadequate coverage quality for migrant populations—hamper the balanced accumulation of health capital. The structural imbalance of emphasizing treatment over prevention limits the guiding role of medical insurance in upstream health management. Moreover, the underdevelopment of a multi-tiered security system places excessive pressure on basic social insurance, making it difficult to meet diverse and differentiated needs. Population aging further poses severe challenges to the financial sustainability of medical and pension insurance funds. To better leverage the economic empowerment function of the social security system in health capital formation, future reforms must adopt a comprehensive approach: promoting institutional integration and unification, narrowing benefit gaps, and addressing coverage difficulties faced by workers in new forms

of employment; strengthening a prevention-oriented approach by including more preventive services in reimbursement schemes and establishing continuous health records and intervention mechanisms; vigorously developing a multi-tiered security system to encourage broad participation; deepening medical insurance payment reforms to enhance fund utilization efficiency; and integrating social security development into the national population strategy, with targeted policy support for key links, thereby enabling systematic investment in the intergenerational transmission and accumulation of national health capital.

Conclusion

A well-developed social security system is by no means a burden on economic growth, but rather a strategic investment with exceptionally high social returns. By reshaping micro-level incentives, optimizing meso-level allocation, and consolidating macro-level foundations, it lays out a clear and powerful economic empowerment pathway for the formation of labor health capital. Amid the intertwined challenges of unprecedented global changes and recurrent public health crises, China needs a strong, intelligent, and humane social security system more than ever before. Only in this way can the country effectively transform its large population advantage into a high-quality, sustainable advantage in healthy human capital, providing the most solid people-centered foundation for

the grand blueprint of Chinese modernization. Future social security reforms should transcend traditional “welfare” thinking and embrace an “empowerment” perspective, striving to build a productive institutional system that not only safeguards basic livelihoods but also unleashes individual potential and drives economic innovation, ultimately achieving resonance between “people’s health” and “national prosperity.”

References

- [1] Li Changyin. Reflections on Improving the Qualification Verification System for Social Security Benefits in China in the New Era [J]. *China Human Resources and Social Security*, 2025, (01): 34–37.
- [2] Jiang Xinru. Improving a High-Quality Employment and Entrepreneurship System to Build a Common-Prosperity-Oriented Grand Social Security System [N]. *Zhejiang Daily*, 2022-07-17 (002). DOI:10.38328/n.cnki.nzjrb.2022.002535.
- [3] Sun Shengmei. The Basic Connotation and Realization Path of a Common-Prosperity-Oriented Grand Social Security System [J]. *Statistics Science and Practice*, 2023, (02): 19–22.
- [4] Li Jing. Innovating Fiscal and Social Security Work to Improve the Social Security System [J]. *Today’s Wealth*, 2022, (20): 154–156.