

# *Capital Endowment, Acquisition and Residents' Health*

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**Abstract:** With the improvement of living standards, people pay more and more attention to health conditions, especially the outbreak of this epidemic, which makes people more aware of the importance of health. The realization of people's health depends on their own capital endowment, and the sense of gain is a direct factor affecting the health of residents. Therefore, this paper uses CGSS 2017 data to investigate the impact of capital endowment on residents' health status by using OLS method. Then the mediating variable of perceived gain is added to analyze the ways in which capital endowment can improve individual health level among urban and rural residents. The study found that capital endowment has a positive effect on health. Further heterogeneity analysis shows that from the perspective of urban-rural differences, the impact of financial capital and social capital on non-agricultural household registration is greater than that of agricultural household registration, and cultural capital is more conducive to improving the health status of rural household registration. From the perspective of regional differences, there is little difference in the impact of capital endowment among different regions.

## **1. Introduction**

Health is an important part of human capital, a prerequisite for promoting the improvement of social and economic development, and an inevitable requirement for all-round and free development. Although the health level of Chinese residents has been greatly improved in the past 40 years, there is still a certain gap between China's healthy development level and developed countries. In 2015, General Secretary Xi Jinping pointed out at the 10th meeting of the Central Leading Group for Comprehensively Deepening Reform that the people should enjoy more "Acquisition", so that the people can enjoy the fruits of reform more effectively. At present, there is still a big gap between different regions in China, especially between urban and rural areas, and the problem of unbalanced and inadequate distribution and enjoyment of health resources is still very prominent. The COVID-19 outbreak in 2020 has affected all aspects of China's economy, society, culture and people's livelihood, and had a huge impact on China's economic development and the sustained growth of people's income. How to promote the construction of a healthy China after the epidemic is obviously an urgent realistic requirement. In order to narrow the health level gap between urban and rural areas and improve the health level of urban and rural residents, it is necessary to clarify the influencing factors of residents' physical and mental health and their transmission mechanism.

In China to build a well-off society in an all-round way and precision under the background of poverty alleviation, our country residents, especially the rural poor residents of financial capital,

cultural capital and social capital gradually improve, so this paper is based on China comprehensive social survey CGSS2017 data, on the basis of the analysis of the capital endowment on the influence of residents' health relationship, provide the theoretical basis to promote healthy China construction practice.

## 2. Literature Review

When economists first proposed the concept of human capital in the 1960s, health was an important part of human capital (Mushkin<sup>[1]</sup>; Becker<sup>[2]</sup>). In this article, the existing literature at home and abroad is studied, with a main focus on factors affecting health.

In 1972, Grossman pioneered the concept of health production function, introduced the concept of health investment, and expanded the pure consumption model of Becker health. Since then, Grossman model has become the standard model for health research. Thereafter, the Wilkinson<sup>[3]</sup> The study found that the health level of residents is affected by the income differences. Yu Xiaowei et al<sup>[4]</sup>, Jiao Kaishan, etc<sup>[5]</sup> Natural factors such as age and gender were included in the analysis of important factors affecting health. Yip et al., Xue Xindong, and Cheng Mingmei<sup>[6]</sup>, Pan Dongyang, and Liu Xiaoyun<sup>[7]</sup> The aspects of social interaction and social communication found an obvious association between individual informal group participation and formal social interaction and health indicators such as self-rated depression and mental state.

Through sorting out the existing achievements, scholars have discussed extensive and in-depth factors affecting health from many perspectives, and achieved a lot of results, but there are still two shortcomings: First, the lack of research results on the relationship between capital endowment and the health of urban and rural residents. Although many scholars have studied the factors affecting health from many perspectives, no one has yet studied it from the perspective of capital endowment. Secondly, the vast majority of current studies focus on the factors affecting health, but there is a lack of research on the influence transmission mechanism of these influencing factors.

Based on the above combing, this paper intends to innovate in the following aspects: first, combining the meaning of health, to explore the impact of capital endowment on urban and rural residents' health; second, to divide different working population by gender, urban and rural, region, marriage and other factors, to explore the heterogeneity of the health impact of specific urban and rural residents with capital endowment.

## 3. Theoretical Analysis and Hypothesis

Bourdieu<sup>[8]</sup> Based on the framework of sustainable livelihood, it believes that capital endowment is the unity of multiple resources owned by individuals and their families, and the concept of cultural capital is identified as three resource forms parallel with economic capital and social capital, which is accepted by most scholars. Therefore, this paper draws on the theories of Bourdieu and the framework of sustainable livelihood, and divides capital endowment into three dimensions: financial capital, cultural capital and social capital.

Financial capital (economic capital) refers to all objects including money income that can exchange and accumulate. According to the Grossman model, the impact of increased income on health is uncertain. The empirical results of domestic scholars mostly show that family income has a positive impact on the health level of individual residents (Gao Kai et al.; Wang Xinchen<sup>[9]</sup>) Improving family income is conducive to improving the health level of the population. Thus this thesis paper proposes the hypothesis H1.

**Hypothesis H1:** Residents' physical and mental health is positively related to financial capital. The richer financial capital, the healthier their physical and mind.

Cultural capital refers to the result of the production, transmission and accumulation of personal

cultural resources. Bourdieu<sup>[10]</sup> Cultural capital is embodied into three resource forms: objective form, body form and institutional form. Previous research literature has found that improving education level can promote improving health level, and one explanation is that education can improve people's cognition of health, cultivate healthy living habits, and thus improve healthy production efficiency. Therefore, this paper proposes the hypothesis of H2.

**Hypothesis H2:** The cultural capital of residents is positively correlated with the level of physical and mental health. The richer the cultural capital, the healthier the physical and mind.

The concept of social capital develops from social networks, determined by the frequency and breadth of interactions between members of society. Summary of research by scholars at home and abroad (Petrou & Kupek<sup>[11]</sup>; Huang Qian<sup>[12]</sup>), Social capital can affect its health through three ways. First of all, social communication contributes to mental health and avoid mental illness. Secondly, through the communication of relatives and friends of persuasion, help to form good behavior habits. Finally, social capital facilitates access to healthcare information. This thesis presents the hypothesis that, H3.

**Hypothesis H3:** Residents' social capital is positively correlated with the level of physical and mental health. The richer the social capital, the healthier the physical and mind.

#### 4. Description of the Data Sources and the Variables

The data of this study are derived from the 2017 China Comprehensive Social Survey Data (Chinese General Social Survey 2017, CGSS2017), the population coverage is people over 18 years old. It is particularly worth mentioning that the modules A and C of CGSS2017 data contain the problem of residents' Internet use, which is a rare, nationally representative and individual Internet use data in China. In view of the study of the physical and mental health of urban and rural residents in this paper, some of the missing values and outlier samples were selected, and the samples refused to answer, did not want to answer, and did not know, a total of 9024 effective samples were obtained.

Table 1 Variables Description Analysis

	variable declaration	sample number	average value	standard error	least value	crest value
explained variable	Self-assessment health	9024	3.473	1.095	1	5
	mental health	9024	3.796	0.989	1	5
explanatory variable	finance capital	9024	8.418	3.791	0	16.12
	cultural capital	9024	2.218	1.114	1	4
	social capital	9024	2.716	1.090	1	4
	sex	9024	0.482	0.500	0	1
	nation	9024	0.923	0.267	0	1
	age	9024	50.64	15.88	19	85
personal characteristics	Age square / 100	9024	28.16	16.21	3.61	72.25
	marriage	9024	0.769	0.421	0	1
	census register	9024	0.548	0.498	0	1
	political status	9024	0.116	0.321	0	1
	take exercise	9024	2.322	5.079	0	96
	be in hospital	9024	0.392	1.493	0	60
	household income	9024	10.37	2.071	0	16.12
Family characteristics	Family size	9024	2.77	1.340	1	7
	Family social status	9024	2.541	0.756	1	5
	Family car	9024	0.283	0.451	0	1
	Family property	9024	0.908	0.290	0	1
Social characteristics	Whether to Use the Internet or not	9024	0.574	0.495	0	1
	social equity	9024	3.110	1.064	1	5
	Social trust	9024	3.478	1.029	1	5

## 5. Empirical Analysis

### 5.1 Regression Analysis

The impact of capital endowment on self-rated health is reported in Table 2. (1)--(3) The results show that the increase of capital endowment significantly improved the evaluation of individual health, specifically, financial capital and social capital to self-rated health of 1% significant, cultural capital coefficient is positive and significant in 10% significance level, namely the higher the income, the higher education, the higher social frequency with neighbors, urban and rural residents of their health, which is consistent with the hypothesis H1-H3. (4)--(6) Listed as the results after controlling for regional fixed effects, financial capital and social capital still have a significant impact on individual health evaluation, proving the robustness of the regression results to some extent.

Table 3 reports the impact of capital endowment on mental health. As with self-rated health, the results listed in (1)--(3) show a positive relationship between financial capital, cultural capital, social capital and health. As income, education level and communication frequency with neighbors increase, the mental health of residents will get better. The coefficient of financial capital and social capital is still significant after adding the regional fixed effect.

In conclusion, the path coefficient of financial capital to residents' health is positive and significant at the significance level of 1%, indicating that the increase of financial capital positively affects the physical and mental health of residents, and responds to the hypothesis H1.

From the perspective of social capital, the path coefficient of residents' health is significantly negative, indicating that the increase of social capital will have a positive impact on the physical and mental health of urban and rural residents, responding to the hypothesis H3. In general, the richer the social capital, the higher the individual health level. Social capital affects personal health by providing psychological support to members and relieving psychological stress.

In addition, the effect of cultural capital on health was significant at the 10% significance level, in response to the hypothesis H2. Although it did not pass the significance test under conditions controlling for fixed area effects, its effect on variables, the determinants of physical health of urban and rural residents were positive.

Table 2 Self-rated Health Regression Based on OLS as well as Regional Effects

	(1) Self- assessment health	(2) Self- assessment health	(3) Self- assessment health	(4) Self- assessment health	(5) Self- assessment health	(6) Self- assessment health
financecapital	0.0150*** (4.90)			0.0157*** (5.15)		
culturalcapital		0.0233* (1.77)			0.0199 (1.50)	
social capital			-0.0803*** (-7.21)			-0.0680*** (-6.09)
control						
_cons	3.553*** (26.64)	3.426*** (24.25)	3.739*** (27.36)	3.775*** (26.43)	3.662*** (24.16)	3.931*** (26.91)
Regional effect	deny	deny	deny	yes	yes	yes
Adj_R <sup>2</sup>	0.324	0.322	0.326	0.141	0.140	0.140
N	9024	9024	9024	9024	9024	9024

\*, \*\*, \*\*\* Represents oted significant at 10%, 5% and 1%, respectively

Table 3 Mental Health Regression Based on OLS as well as Regional Effects

	(4) mental health	(5) mental health	(6) mental health	(4) mental health	(5) mental health	(6) mental health
finance capital	0.0121*** (4.08)			0.0113*** (3.82)		
culturalcapital		0.0313** (2.44)			0.0102 (0.79)	
social capital			-0.0406*** (-3.74)			-0.0393*** (-3.61)
control						
_cons	2.727*** (21.02)	2.580*** (18.78)	2.807*** (21.09)	3.303*** (23.75)	3.237*** (21.96)	3.388*** (23.81)
Regional effect	deny	deny	deny	yes	yes	yes
Adj_R <sup>2</sup>	0.342	0.341	0.343	0.163	0.162	0.163
N	9024	9024	9024	9024	9024	9024

\*, \*\*, \*\*\* Represents oted significant at 10%, 5% and 1%, respectively

## 5.2 Robustness Test

There are many methods of robustness test; First, the variable perspective, namely replacing the explanatory variable or the explained variable; Second, the data perspective, the common robustness test method is to eliminate the special samples that may affect the conclusion through the tail reduction treatment; Last, the measurement tool library is very rich, so we can choose different methods to test whether the results are stable. In this subsection, this paper conducts a series of robustness tests for the above results through replacement of explained variables, replacement of explanatory variables, tail reduction treatment, replacement of regression model, and the test results are robust.

## 5.3 Heterogeneity Test

This paper will discuss the heterogeneous health effects of capital endowment from the perspectives of urban-rural imbalance and regional imbalance. Urban and rural residents often have obvious heterogeneity in living habits, working environment, sanitary conditions and diet, and these differences are reflected in the marginal effect of capital endowment on health status in the paper.

Table 4 The Heterogeneity Test of Self-rated Health by Financial Capital

	(1) Rural household registration	(2) Non-rural household registration	(3) east	(4) middle part	(5) the west area
financecapital	0.0150*** (3.82)	0.0156*** (3.06)	0.00663 (1.46)	0.0181*** (3.50)	0.0218*** (3.14)
control					
_cons	3.633*** (20.27)	3.613*** (18.11)	3.415*** (17.76)	3.924*** (15.58)	3.714*** (12.43)
Adj_R <sup>2</sup>	0.336	0.283	0.259	0.363	0.331
N	4988	4036	4242	2942	1840

\*, \*\*, \*\*\* Represents oted significant at 10%, 5% and 1%, respectively

Table 5 The Heterogeneity Test of Mental Health by Financial Capital

	(1) Rural household registration	(2) Non-rural household registration	(3) east	(4) middle part	(5) the west area
financecapital	0.00850** (2.30)	0.0140*** (2.71)	0.0123*** (2.64)	0.0111** (2.28)	0.00491* (1.77)
control					
_cons	2.982*** (17.72)	2.264*** (11.14)	2.637*** (13.43)	2.950*** (12.46)	3.055*** (11.09)
Adj_R <sup>2</sup>	0.145	0.0988	0.0905	0.168	0.129
N	4988	4036	4242	2942	1840

\*, \*\*, \*\*\* Represents oted significant at 10%, 5% and 1%, respectively

As can be seen in Table 4 and Table 5, the impact of residents' financial capital on non-agricultural household registration is greater than agricultural household registration, perhaps for the reason that towns have higher quality medical resources and more perfect medical facilities, which make it easier for residents to improve their health level by increasing health consumption and health investment; on the other hand, urban residents may pay more attention to consumption and investment in their own health.

Table 6 and table 7 report, according to the influence of cultural capital on the health of different groups of obvious differences, cultural capital helps to improve the health of rural residents, and the effect of rural residents is not obvious, it shows that the urban and rural differences, "resource alternative" theory more fit the huge gap between urban and rural education in China.

Table 6 Heterogeneity Test of Self-rated Health by Cultural Capital

	(1) Rural household registration	(2) Non-rural household registration	(3) east	(4) middle part	(5) the west area
culturalcapital	0.0645** (3.12)	0.00593 (0.35)	-0.0325 (-0.84)	0.0803*** (3.27)	0.112*** (3.35)
control					
_cons	3.363*** (17.56)	3.533*** (17.25)	3.518*** (17.43)	3.559*** (13.44)	3.229*** (10.04)
Adj_R <sup>2</sup>	0.336	0.281	0.259	0.362	0.332
N	4988	4036	4242	2942	1840

Table 7 The Heterogeneity Test of Mental Health by Cultural Capital

	(1) Rural household registration	(2) Non-rural household registration	(3) east	(4) middle part	(5) the west area
culturalcapital	0.0548*** (2.83)	0.0208 (1.19)	- 0.00890 (-0.49)	0.0685*** (2.97)	0.0424 (1.38)
control					
_cons	2.768*** (15.40)	2.147*** (10.30)	2.647*** (12.83)	2.659*** (10.69)	2.883*** (9.73)
Adj_R <sup>2</sup>	0.145	0.0975	0.0891	0.169	0.129
N	4988	4036	4242	2942	1840

Tables 8 and Table 9 show that social capital improves the health status of both urban residents

and rural residents, and has a greater impact on urban residents than on rural residents, which confirms the views of Xiong Allen et al.

This paper further divides the samples into eastern, central and western regions to investigate the differences in the influence of capital endowment on residents in different regions. As shown in Table 4 to Table 9, the financial capital in the eastern region has positive effect after the self-assessment health; the influence of cultural capital on the eastern region failed the significance test; the social capital has significant positive effect on the health of residents in the eastern, central and western regions. In general, "capital endowment plays a significant role in promoting the health of urban and rural residents", and this conclusion is steady and reliable, with little difference between regions.

Table 8 Test of Heterogeneity in the Effects of Social Capital on Self-rated Health

	(1) Rural household registration	(2) Non-rural household registration	(3) east	(4) middle part	(5) the west area
socialcapital	-0.0744*** (-5.00)	-0.0865*** (-5.11)	- 0.0544*** (-3.37)	-0.0890*** (-4.86)	-0.0950*** (-3.47)
control					
_cons	3.780*** (20.66)	3.811*** (18.63)	3.543*** (18.05)	4.099*** (16.02)	3.947*** (12.70)
Adj_R <sup>2</sup>	0.338	0.286	0.261	0.365	0.332
N	4988	4036	4242	2942	1840

Table 9 Heterogeneity Test of the Effects of Social Capital on Mental Health

	(1) Rural household registration	(2) Non-rural household registration	(3) The east area	(4) The middle part	(5) The west area
socialcapital	-0.0353** (-2.52)	-0.0533*** (-3.10)	-0.0348** (-2.11)	-0.0344** (-1.99)	-0.0491* (-1.94)
control					
_cons	3.047*** (17.71)	2.368*** (11.35)	2.705*** (13.47)	2.998*** (12.44)	3.198*** (11.17)
Adj_R <sup>2</sup>	0.145	0.0993	0.0900	0.168	0.130
N	4988	4036	4242	2942	1840

## 6. Conclusion and Policy Recommendations

This paper discusses the influence of capital endowment and the sense of gain on the physical and mental health of urban and rural residents. Through empirical analysis, the increase of financial capital positively affects the physical and mental health of residents positively, and the social networks will provide psychological support and promote personal health. Moreover, the influence of cultural capital on health is significant at 10%, and the potential influence path of physical and mental health is positive, indicating a similar mechanism. From the perspective of urban and rural heterogeneity, the impact of residents' financial capital on non-agricultural household registration is greater than that of agricultural household registration. The improvement of cultural capital helps to improve the health status of rural residents, while the effect on non-rural residents is not obvious. Social capital has a role in improving the health status of both urban residents and rural residents, and has a greater impact on urban residents than rural residents.

This paper through the empirical study put forward the following policy Suggestions: (1) The financial capital for urban residents health level is more obvious, so the country in promoting economic development, the cake also should pay more attention to the redistribution of income, make a distribution efficiency and fairness, let more rural poor areas enjoy the development of building a well-off society in an all-round way. (2) As rural registered residents are disadvantaged in resource ownership, they rely more on scarce educational resources, which makes cultural capital more useful as a social resource and thus plays a greater role in ensuring individual health in these groups. (3) Social capital plays a role in improving the health status of both urban residents and rural residents, and has a greater impact on urban residents than that of rural residents. Therefore, the government can cultivate social capital by strengthening community construction, and then promote the health level of residents.

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