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Impact of the Integration of Urban and Rural Residents' Basic Medical Insurance on Residents' Consumption: An Empirical Study Based on CFPS Data

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Abstract

This paper uses the balanced panel data of the China Family Panel Studies (CFPS) from 2010 to 2022 and applies the difference-in-differences model (DID) to conduct an empirical exploration of the impact of the integration of urban and rural medical insurance on residents' consumption. The study finds that the medical insurance co-ordination policy has significantly increased the household consumption level of rural residents, but has no significant impact on the consumption of urban residents. The mechanism analysis shows that the medical insurance co-ordination affects high-debt and high-income families more significantly through channels such as reducing the risk of medical expenses and optimizing the household consumption structure. The heterogeneity analysis shows that the policy effect is more prominent in medium-low health, medium health, high-saving families, and remote western regions. The research indicates that the medical insurance integration policy helps to narrow the urban-rural consumption gap, but it is still necessary to further optimize the system design to benefit a wider range of groups.

Keywords

Integration of urban and rural medical insurance; Residents' consumption; Difference-in-differences model; Consumption inequality.

1. Introduction

In the process of constructing a new development pattern with the domestic big cycle as the main body and the domestic and international dual cycles promoting each other, consumption, as a key driver of economic growth, plays an increasingly prominent fundamental role. At present, China's economy faces three major pressures: demand contraction, supply shock, and weakening expectations, and the external environment is complex and severe. Expanding domestic demand and unleashing consumption potential have become crucial measures to stabilize economic growth. According to data from the National Bureau of Statistics, in 2024, the final consumption expenditure contributed 44.5% to economic growth, driving GDP growth by 2.2 percentage points , which fully demonstrates the key position of consumption in driving economic recovery. However, the long - standing urban-rural consumption gap, especially the significantly lower consumption rate of rural residents compared with urban residents, has greatly restricted the full release of the potential of domestic demand. In this context, how to break through the consumption - suppressing factors through institutional reforms and activate the rural consumption market has become an important issue for achieving common prosperity and high - quality development.

From a macro perspective, residents' consumption behavior is affected by multiple factors. Existing research shows that the social security system (Liu Chang, 2007), income level (Chen Binkai, 2012), education level (Cheng Wangming et al., 2014), digital inclusive finance (Yi

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Xingjian et al., 2018), etc. all have a significant impact on consumption decisions. Among them, social security policies have become the focus of academic attention due to their direct connection with residents' risk expectations. Gan Li et al. (2010) found based on micro - data research that basic medical insurance significantly increases residents' consumption willingness by reducing the uncertainty of household medical expenses; Huang Jialin et al. (2022) further verified that the critical illness insurance system has a particularly significant consumption - promoting effect on low - income groups. With the continuous improvement of the medical insurance system, in 2016, the "Opinions of the State Council on Integrating the Basic Medical Insurance Systems for Urban and Rural Residents" was officially issued, marking the full implementation stage of urban - rural medical insurance co - ordination. The aim is to promote the reform of the medical and health system, enable urban and rural residents to enjoy equal basic medical insurance rights and interests, promote social fairness and justice, and enhance people's well - being. However, existing studies on this policy mostly focus on a single perspective or a specific region.

The action logic of the urban and rural residents' basic medical insurance integration system on residents' consumption is mainly based on its core mechanism of alleviating the precautionary savings motivation. Under the traditional urban - rural dual medical insurance system, rural residents face a low reimbursement ratio and limited protection scope. The uncertainty of medical expenses forces them to compress current consumption and increase savings to cope with potential risks (Feng Jin, Yu Yangyang, 2007). The urban and rural residents' basic medical insurance integration system significantly reduces the medical burden of rural residents by unifying the guarantee benefits and financing mechanisms (Qiu Yulin et al., 2019). Theoretically, it can unleash consumption potential through two paths: one is to directly reduce the out - of - pocket medical expenses of households and increase disposable income; the other is to reduce precautionary savings by stabilizing future expectations (Leland, 1968). However, existing research mostly focuses on the impact of medical insurance integration on a single rural group (Li Hua et al., 2021; Hong Haoqi et al., 2021), and the overall discussion on its consumption effects on urban and rural residents is scattered, lacking in - depth analysis of urban - rural differences and group heterogeneity. Based on this, this paper uses the national panel data of CFPS and finds that there are significant heterogeneities in the consumption - promoting effect of medical insurance integration on rural residents. The consumption upgrading effect is more prominent in high - debt and high - income families, while the consumption improvement of low - income groups is relatively limited due to liquidity constraints. This research result not only makes up for the lack of attention to the consumption structure and group differences in the existing literature but also provides an empirical basis for optimizing the accuracy of medical insurance policies.

2. Literature Review

Research on Residents' Consumption. Consumption is a key link in economic activities and an important driving force for economic growth. From the perspective of economic theory, consumption refers to the purchase and use behavior of various goods and services by residents to meet their own living needs (Samuelson & Nordhaus, 2004). In the global economic pattern, the scale and structure of residents' consumption not only reflect the economic development level of a country or region but also play a fundamental role in the stability and sustainable development of the macro - economy. From a micro perspective, the consumption situation of residents is directly related to the living quality and welfare level of families (Deaton, 1992). Good consumption ability helps to increase residents' expenditures on education, medical care, cultural entertainment, etc., and promotes the all - around development of individuals.

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Domestic and foreign scholars have carried out extensive and in - depth research on residents' consumption. With the continuous deepening of research, scholars gradually realized that consumption behavior is affected by a variety of factors such as interest rates, inflation, consumer confidence, and social security (Deaton, 1992; Carroll, 2001). In this research process, medical insurance, as an important part of the social security system, has gradually attracted the attention of scholars for its impact on residents' consumption.

Research on Medical Insurance.The medical insurance system is a key institutional arrangement to protect residents' health and reduce medical burdens. Foreign scholars started researching medical insurance earlier and have achieved fruitful results. Arrow (1963) conducted an in - depth analysis of the particularity of the medical market in his classic literature, pointing out problems such as information asymmetry and externalities in the medical market, laying a theoretical foundation for subsequent research on medical security systems. Subsequently, Feldstein (1973) found through empirical research that the popularization of medical insurance can effectively reduce the medical expenditure burden of residents and improve the accessibility of medical services.

Domestic scholars have also made significant progress in the research on medical insurance. Zheng Gongcheng (2003) systematically combed the development process and reform direction of China's medical security system, emphasizing the importance of establishing and improving a multi - level medical security system. In the early stage, China's medical insurance system showed an urban - rural dual - segmented state. There were significant differences in security levels, reimbursement scopes, etc. between the new rural cooperative medical system in rural areas and the urban residents' basic medical insurance system in cities (Zuo Xuejin et al., 2001; Cao Jing, 2019). This segmented state limited the full play of the role of medical insurance policies, resulting in unfairness in the enjoyment of medical security by urban and rural residents (Gu Xin, 2012). The security level of rural residents was relatively low, and they faced great economic pressure in the face of diseases, affecting their consumption ability and quality of life. The urban - rural medical insurance integration policy emerged as the times require. Its core is to break the urban - rural dual structure of medical insurance and build a unified medical security system. This policy has far - reaching significance. It improves the fairness of medical security, enabling urban and rural residents to enjoy more equal medical services.

The Relationship between Medical Insurance and Consumption.In the research field of the relationship between medical insurance and consumption, domestic and foreign scholars have explored from different angles. Foreign scholars Card et al. (2009) found through research on the US medical insurance reform that the expansion of medical insurance coverage can improve the consumption ability of low - income groups, especially significantly increasing their consumption expenditures on medical care, food, etc. Domestic scholars Long Zhihe and Zhou Haoming (2000), based on the precautionary savings theory, believed that government welfare policies can reduce residents' concerns about the uncertainty of future expenditures, thereby reducing precautionary savings and increasing current consumption.

Although existing literature has achieved certain results in the research on residents' consumption, medical security, and the relationship between the two, there are still some deficiencies. First, when studying the impact of medical insurance on residents' consumption, most studies only focus on the changes of a single medical insurance system, lacking in - depth analysis of the systematic policy reform of urban - rural medical insurance integration. As an important measure of China's medical security system reform, the integration of urban and rural medical insurance may have unique mechanisms and effects on residents' consumption, which have not been fully revealed in existing studies. In addition, the heterogeneity analysis of the impact of medical insurance integration on residents' consumption is not comprehensive

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enough, failing to fully consider the differential impacts of factors such as different regions, different income groups, and different health conditions on the policy effect.

3. Data and Descriptive Statistics

Data Source.This paper uses the balanced panel data of CFPS from 2010 to 2022. This data covers rich family and individual information, providing strong data support for the research. The sampling samples of the CFPS database cover 25 provinces, autonomous regions, and municipalities directly under the Central Government, which is nationally representative. The target sample size is 16,000 households, and the survey objects include all family members in the sample households. There are four main types of questionnaires: community questionnaires, family questionnaires, adult questionnaires, and child questionnaires. The relevant variables used in this paper are all derived from family questionnaires and adult questionnaires.

During the data screening process, samples from 25 provinces were selected, and data from regions that had integrated in advance (such as Guangdong and Tianjin) were excluded to ensure the accuracy and reliability of the research results. The policy implementation situations in regions that integrated in advance are different from those in other regions. If not excluded, they may interfere with the research results. In addition, this paper also excluded some samples with missing key variables (such as household per capita consumption expenditure, medical expenditure, etc.). Finally, an effective sample size of 23,649 families was obtained.

Key Variables.Dependent variable: Household per capita consumption expenditure (pce): This is a key indicator for measuring residents' consumption levels. It is obtained by dividing the total household consumption expenditure by the number of household members. It reflects the average consumption amount per person of residents within a certain period and can intuitively show residents' consumption ability.

Independent variables: Policy variables: including treated (indicating whether the resident is a rural resident, 1 for rural residents and 0 for urban residents), period (indicating the policy implementation time, 1 after 2016 and 0 before), and policy (the interaction term of treated and period, used to measure the impact of the medical insurance integration policy).

Control variables: Income, savings, household size, medical care expenditure, education level, marital status, health level, number of unhealthy family members, job security satisfaction, whether there is a chronic disease in the past six months, gender, job nature, personal age, food expenditure, etc. are included. These control variables can eliminate the interference of other factors on residents' consumption and make the research results more persuasive. The income level directly affects residents' consumption ability, which is in line with the decisive role of income on consumption in Friedman's (1957) consumption function theory; savings will affect residents' consumption decisions, which is related to Leland's (1968) precautionary savings theory; factors such as household size and marital status will also have an impact on the household consumption structure, and many existing studies have demonstrated this.

Descriptive Statistics. Table 1 shows the descriptive statistical results of the main variables. Compared with urban residents, rural residents also have gaps in medical care expenditure, education level, etc., and these factors may all affect their consumption behavior. In terms of medical care expenditure, the mean value of rural residents' medical care expenditure is 4716.93, while that of urban residents is 5951.59. Due to insufficient medical security, rural residents may face a higher medical cost burden when ill, thus reducing consumption in other aspects. Similarly, in terms of education, the mean value of the education level of rural residents is 1.5, and that of urban residents is 2.36, clearly showing that the average education level of urban residents is higher than that of rural residents. A lower education level may limit the employment choices and income levels of rural residents, further affecting consumption.

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Table 1(a): Descriptive Statistical Results of Main Variables in Rural Areas

	Sample Size	Mean	SE	Min	Med	Max
Total Consumption	12551	38519.64	45280.81	0	25500	826244
Per Capita Income	13087	1.18	1.62	0	0.78	40
Savings	13506	23794.64	70825.83	0	2000	4500000
Household Net Assets	13056	26.33	57.77	-134.5	13.97	1655.75
Household Size	13534	2.99	1.33	1	3	11
Medical Expenditure	13431	4716.93	13835.47	0	1500	500300
Education	13531	1.5	1.25	0	1	9
Marital Status	13441	0.9	0.30	0	1	1
Health Level	13499	3.04	1.32	1	3	5
Number of Unhealthy	13534	0.54	0.73	0	0	4
Job Security Satisfaction	8691	3.59	0.99	1	4	5
Chronic Disease in the Past Six Months	13355	0.18	0.39	0	0	1
Gender	13534	0.63	0.48	0	1	1
Job Nature	11460	0.21	0.40	0	0	1
Personal Age	13534	51.2	12.71	15	51	90
Food Expenditure	13246	12336.79	12510.80	0	8320	240000

Table 1(b): Descriptive Statistical Results of Main Variables in Urban Areas

	Sample Size	Mean	SE	Min	Med	Max
Total Consumption	10855	65446.56	85986.91	0	44936	4608220
Per Capita Income	11406	2.89	10.19	0	1.71	688.6
Savings	11701	82152.17	211861.37	0	20000	6000000
Household Net Assets	11312	90.38	191.07	-971.03	36.68	8013
Household Size	11744	2.72	1.24	1	2	12
Medical Expenditure	11665	5951.59	17514.51	0	2000	500000
Education	11731	2.36	1.47	0	2	9
Marital Status	11686	0.87	0.33	0	1	1
Health Level	11720	3.02	1.20	1	3	5
Number of Unhealthy	11744	0.37	0.62	0	0	5
Job Security Satisfaction	7311	3.55	0.90	1	4	5
Chronic Disease in the Past Six Months	11626	0.2	0.40	0	0	1
Gender	11744	0.53	0.50	0	1	1
Job Nature	8175	0.61	0.49	0	1	1
Personal Age	11744	50.92	13.47	14	50	93
Food Expenditure	11562	22712.03	22421.54	0	18000	1200000

4. Benchmark Regression

Model Setting.The endogeneity of the main problem studied in this paper is relatively prominent. On the one hand, there may be omitted variables, such as the risk preference degree

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of families and region - specific economic and cultural factors. These factors not only affect residents' participation in the medical insurance integration policy but also affect residents' consumption, and it is difficult to fully and accurately control them in the research, resulting in omitted variable bias and endogeneity. On the other hand, there may be a two - way causal relationship between consumption and medical insurance participation. Strong consumption ability of residents may prompt local areas to accelerate medical insurance integration, interfering with the judgment of the true impact of medical insurance integration on residents' consumption. In order to accurately evaluate the impact of urban - rural medical insurance integration on residents' consumption, this paper uses the difference - in - differences model (DID) for empirical analysis, which can effectively eliminate this endogeneity.

The benchmark model is set as follows:

$$pce_{it} = \alpha + \beta_1 policy_{it} + \sum_{j=2}^{n} \beta_j control_{jit} + \mu_i + \vartheta_t + \varepsilon_{it}$$

Where: pce_{it} represents the household per capita consumption expenditure of the *i*-th family in the *t*-th year; $policy_{it}$is the policy interaction term, which is the core explanatory variable and represents the impact of the medical insurance integration policy; $control_{jit}$is a series of control variables, including income, savings, household size, medical care expenditure, education level, marital status, health level, etc.; μ_i represents the individual fixed effect, which is used to control the characteristics of the family level that do not change over time; ϑ_t represents the time fixed effect, which is used to control the factors that change over time such as the macro - economic environment; ε_{it} is the random error term.

Basic Regression Results. Regression Results without Adding Control Variables. First, a basic regression is carried out without adding any control variables, only examining the direct impact of the medical insurance integration policy on household per capita consumption expenditure. The regression results are shown in Table 2(1). It can be seen from Table 2(1) that the coefficient of the interaction term of the medical insurance integration policy is - 2533, and it is significant at the 5% significance level. This indicates that the medical insurance integration policy significantly reduces the proportion of food in rural household consumption expenditure and increases non - food consumption. This means that the medical insurance integration policy promotes the optimization of the consumption structure of rural residents, gradually shifting from food - based consumption to diversified consumption, which is consistent with the consumption structure upgrading theory. The consumption structure upgrading theory shows that with the development of the economy and the increase of residents' disposable income, residents' consumption will gradually shift from primary consumption such as food to meet basic survival needs to enjoyment - type and development - type consumption such as education, culture, and entertainment.

Regression Results after Adding Control Variables. When a series of control variables are added to the model to eliminate the interference of other factors on residents' consumption, the regression results are shown in Table 2(2). At this time, the coefficient of the interaction term of the medical insurance integration policy becomes 4702, and it is also significant at the 5% significance level. After including key control variables such as income and savings, the net impact of the medical insurance integration policy on the consumption of rural residents is more accurately separated. Income is a key factor affecting consumption. Residents' consumption increases with the increase of income.

The change in the coefficient of the interaction term of the medical insurance integration policy indicates that after considering other factors, the promoting effect of medical insurance integration on the consumption of rural residents is more obvious. This means that the medical insurance integration policy improves the consumption ability of rural residents by improving their medical security situation. While promoting the optimization of the consumption

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structure of rural residents, it also directly promotes the improvement of the consumption level, verifying the positive role of medical insurance integration in unleashing the consumption potential of rural areas.

Table 2: Benchmark Regression Results

VARIABLES	(1) pce	(2) pce
policy	-2,533**	4,702**
	(1,119)	(2,132)
period		27.89
		(1,630)
treated		-2,577
		(1,662)
Per Capita Income		1,193***
		(87.05)
Savings		0.0176***
		(0.00384)
Household Net Assets		53.42***
		(4.132)
Household Size		3,782***
		(430.3)
Medical Care Expenditure		1.167***
		(0.0365)
Education Level		2,537***
		(418.0)
Marital Status		6,785***
		(1,808)
Health Level		-1,354***
		(518.8)
Number of Unhealthy		-3,483***
		(923.2)
Job Security Satisfaction		531.9
		(571.2)
Chronic Disease in the Past Six Months		2,305
		(1,474)
Gender		-1,363
		(1,097)
Job Nature		5,335***
		(1,294)
Age		-440.3***
		(49.60)
Food Expenditure		1.514***
		(0.0314)
Constant	51,831***	18,336***

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	(509.3)	(4,246)
Observations	23,649	14,570
R-squared	0.000	0.350

Parallel Trend Test. The core of the difference - in - differences model is to identify the causal effect of the policy by comparing the changes of the treatment group and the control group before and after the policy implementation. However, the validity of this causal inference depends on a key assumption - the parallel trend test. That is, before the policy implementation, the trends of the treatment group and the control group should be parallel. This study uses the data from 2012, 2014, 2016, 2018, and 2020 to draw a trend graph (Figure 1). The results show that the trends of the treatment group and the control group are basically parallel before the policy implementation, meeting the parallel trend assumption, further verifying the effectiveness of the difference - in - differences model. This indicates that after the implementation of the medical insurance integration policy, the consumption level of rural residents has increased significantly, while the consumption level of urban residents has not changed significantly, suggesting that the medical insurance integration policy has had a positive impact on the consumption of rural residents.

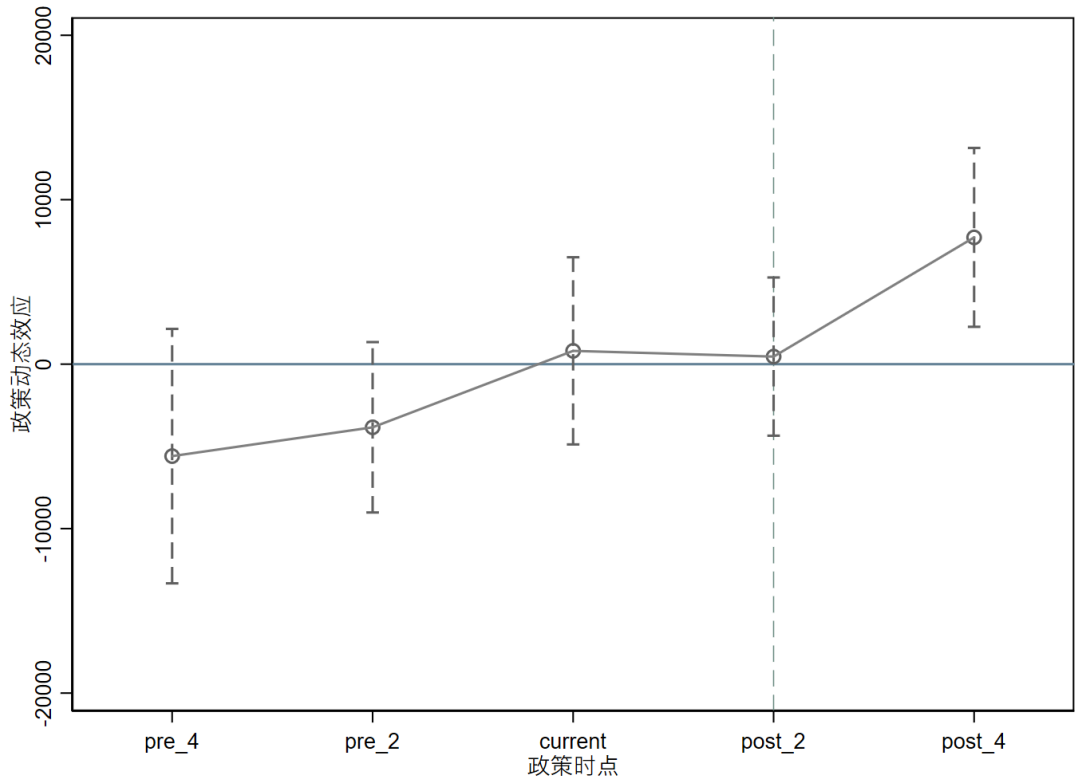

Fig 1: Results of the Parallel Trend Test

5. Robustness Test

In order to ensure the robustness of the benchmark regression results, this paper conducts robustness tests from multiple perspectives, including placebo tests, changing the measurement method of consumption, excluding samples that did not participate in medical insurance, and lag - one - period tests. These test methods can effectively verify the reliability and stability of the model results.

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Placebo Test.The placebo test is a commonly used robustness test method. It simulates the policy effect by introducing a randomly generated dummy variable to test whether the benchmark results are caused by random factors. After 500 simulations, the distribution of the placebo interaction term coefficients is shown in Figure 2. It can be seen that the coefficients of the placebo interaction term are concentrated around zero, while the benchmark result coefficient (-2533) significantly deviates from this distribution. According to the research of Rosenbaum (2002), this strongly indicates that the benchmark results are not caused by random factors but reflect the true effect of the medical insurance integration policy. That is, the medical insurance integration policy has a real impact on residents' consumption, rather than being caused by accidental fluctuations.

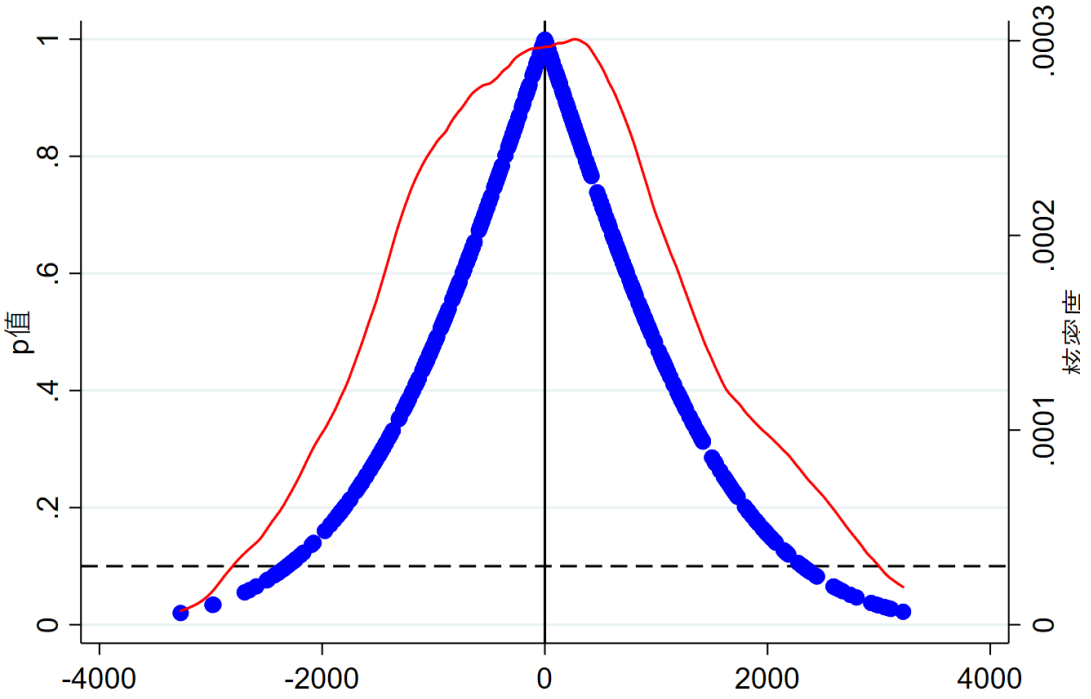

Fig 2: Results of the Placebo Test

Changing the Measurement Method of Consumption.The results of the regression using the generalized consumption are shown in Table 3. It can be seen from the table that the coefficient of the policy interaction term (policy) is 5898, and it is significant at the 1% significance level. This is consistent with the conclusions of many similar studies, further verifying the robustness of the impact of the medical insurance integration policy on residents' consumption. Even if the measurement method of consumption is changed, the policy effect remains significant, indicating that the research conclusion does not depend on a specific consumption measurement method and enhances the credibility of the conclusion.

Definition of Generalized Consumption.The generalized consumption (pce_) is defined as follows:

$$pce\_ = hpuse + eexp + food + dress + daily + med + troc + eec + trave + other$$

Table 3: Regression Results after Changing the Measurement Method of Consumption

	(1)
VARIABLES	pce_
policy	5,898**
	(2,414)

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period	-710.6
	(1,855)
treated	-4,746**
	(1,983)
Controls	YES
Constant	21,650***
	(4,744)
Observations	13,671
R-squared	0.357

Excluding Samples that Did Not Participate in Medical Insurance.To exclude the interference of uninsured samples on the results, this study re - conducts the regression after excluding these samples. The regression results are shown in Table 4. The coefficient of the policy interaction term (policy) is 4778, and it is significant at the 5% significance level, indicating that the results remain robust after excluding uninsured samples. This effectively avoids the distortion of results caused by sample selection bias and ensures that the research conclusion can accurately reflect the relationship between the medical insurance integration policy and residents' consumption among the insured population.

Table 4: Regression Results after Excluding Samples that Did Not Participate in Medical Insurance

	(1)
VARIABLES	pce
policy	4,778**
	(2,215)
period	23.25
	(1,700)
treated	-2,617
	(1,720)
Controls	YES
Constant	19,285***
	(4,447)
Observations	13,793
R-squared	0.344

Lag - One - Period Test.To verify the persistent impact of the medical insurance integration policy, this study introduces a lag - one - period policy variable (lag_policy) for regression. The results are shown in Table 5. The coefficient of the lag - one - period policy variable is 4702, and it is significant at the 5% significance level. This result indicates that the effect of the medical insurance integration policy is persistent. Even after the policy has been implemented for a period of time, it can still significantly promote residents' consumption, revealing that the impact of this policy on residents' consumption is not a short - term fluctuation but has a relatively stable long - term promoting effect.

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Table 5: Results of the Lag - One - Period Test

VARIABLES	(1) pce
lag_policy	4,702**
	(2,132)
period	27.89
	(1,630)
treated	-2,577
	(1,662)
Controls	YES
Constant	18,336***
	(4,246)
Observations	14,570
R-squared	0.350

6. Moderating Effect

To deeply explore the potential mechanisms of the impact of the medical insurance integration policy on residents' consumption, this study introduces moderating variables for analysis. The moderating effect analysis aims to reveal the differences in the impact of the medical insurance integration policy on residents' consumption under different conditions, providing a basis for the precise implementation of the policy. This study focuses on examining the moderating effects of debt levels and household income levels on the policy effect of medical insurance integration.

Moderating Effect of Debt Level. The debt level may affect household consumption decisions. High - debt families may release more consumption potential due to the reduction of medical expenditure risks, while low - debt families may respond relatively weakly to the medical insurance integration policy. Therefore, this study generates an interaction term between the debt level and the policy variable for analysis. The regression results are shown in Table 6. The coefficient of the interaction term between the debt level and the policy variable (debt_policy) is 0.0605, and it is significant at the 1% significance level. This indicates that high - debt families release more consumption potential through medical insurance integration.

Table 6: Regression Results of the Moderating Effect of Debt Level

VARIABLES	(1) pce
policy	2,749**
	(1,191)
debt_policy	0.0605***
	(0.00729)
Controls	YES
Constant	15,886***
	(4,089)
Observations	14,570
R-squared	0.353

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Moderating Effect of Household Income Level.The household income level may also affect the policy effect of medical insurance integration. Deaton & Muellbauer (1980) found in their research that high - income families may actively adjust their consumption structure due to the reduction of medical expenditure risks, while low - income families may find it difficult to significantly increase consumption due to income limitations. This study generates an interaction term between the household income level and the policy variable for analysis. The regression results are shown in Table 7. The coefficient of the interaction term between the household income level and the policy variable (finc_policy) is 0.139, and it is significant at the 1% significance level. This means that an increase in the household income level will amplify the consumption - promoting effect of the medical insurance integration policy.

Table 7: Regression Results of the Moderating Effect of Household Income Level

	(1)
VARIABLES	pce
policy	-4,856***
	(1,572)
finc_policy	0.139***
	(0.0173)
Controls	YES
Constant	18,440***
	(4,319)
Observations	13,576
R-squared	0.348

7. Heterogeneity Analysis

To deeply analyze the impact of the medical insurance integration policy on different groups, this study conducts a heterogeneity analysis from multiple dimensions such as health level, savings level, and regional differences. Group regression is used to reveal the differential effects of the policy among different groups, facilitating the precise implementation of the policy.

Residents' Health Level. The health level deeply affects residents' consumption. Groups with different health conditions may respond significantly differently to the medical insurance integration policy. This study divides the samples into three groups according to the health level: low - health level (health score 1 - 2), medium - health level (health score 3), and high - health level (health score 4 - 5), and conducts regression analysis respectively. The results are shown in Table 8. The coefficient of the policy interaction term (policy) in the low - health - level group is 5002, and it is significant at the 5% significance level; the coefficient in the medium - health - level group is 9369, also significant at the 5% significance level; the coefficient in the high - health - level group is 1106, which is not significant. This indicates that the medical insurance integration policy has a significant effect on promoting the consumption of low - health and medium - health groups, but a relatively weak effect on high - health groups.

Table 8: Results of the Heterogeneity Analysis by Health Level

	(1)	(2)	(3)
	Low - Health	Medium - Health	High - Health
VARIABLES	pce	pce	pce

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policy	5,002*	9,369**	1,106
	(2,973)	(4,464)	(2,765)
period	-1,614	-5,510*	4,355**
	(2,352)	(3,278)	(2,199)
treated	-1,641	-4,214	-2,091
	(2,296)	(3,789)	(1,951)
Controls	YES	YES	YES
Constant	15,303**	18,868**	8,031
	(6,800)	(8,203)	(7,773)
Observations	4,142	5,867	4,561
R-squared	0.455	0.264	0.506

Residents' Savings Level. This study divides the samples into two groups: low - savings families and high - savings families, and conducts regression analysis. The results are shown in Table 9. The coefficient of the policy interaction term (policy) in the low - savings family group is 1765, which is not significant; the coefficient in the high - savings family group is 7534, and it is significant at the 5% significance level. This shows that the medical insurance integration policy has a significant effect on promoting the consumption of high - savings families. Because high - savings families have a strong precautionary savings motivation, the medical insurance integration reduces the medical expenditure risk. As Kimball (1990) studied, it prompts them to release more consumption potential, while low - savings families may have obvious economic constraints, and the policy's effect on stimulating consumption is not obvious.

Table 9: Results of the Heterogeneity Analysis by Savings Level

	(1)	(2)
	High - Savings	Low - Savings
VARIABLES	pce	pce
policy	1,765	7,534**
	(2,297)	(3,475)
period	3,065	-2,654
	(1,893)	(2,457)
treated	2,702*	-6,705**
	(1,637)	(2,860)
Controls	YES	YES
Constant	14,465***	18,944***
	(4,401)	(6,967)
Observations	6,561	8,009
R-squared	0.425	0.318

Regional Differences.Regional differences may affect the implementation effect of the medical insurance integration policy. This study divides the samples into three groups according to regions: central inland regions, western remote regions, and eastern coastal regions, and conducts regression analysis. The results are shown in Table 10. The coefficient of the policy interaction term (policy) in the central inland region group is 4708, and it is significant at the 10% significance level; the coefficient in the western remote region group is 7616, and it is significant at the 1% significance level; the coefficient in the eastern coastal region group is

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4999, and it is significant at the 10% significance level. This indicates that the medical insurance integration policy has the most significant effect in western remote regions, and relatively weaker effects in central inland regions and eastern coastal regions. This may be related to the economic development levels, medical resource distributions, and policy implementation intensities in different regions.

Table 10: Results of the Heterogeneity Analysis by Region

	(1)	(2)	(3)
	Western Remote	Central Inland	Eastern Coastal
VARIABLES	pce	pce	pce
policy	7,616***	4,708*	4,999
	(2,887)	(2,818)	(4,340)
period	-2,568	-1,476	-1,996
	(2,445)	(2,111)	(3,136)
treated	-4,903**	-1,366	150.3
	(2,254)	(2,179)	(3,373)
Controls	YES	YES	YES
Constant	10,892**	23,660***	12,244
	(5,380)	(5,694)	(8,849)
Observations	4,265	4,339	5,946
R-squared	0.449	0.482	0.302

8. Summary

Research Conclusions.This paper uses the difference - in - differences model (DID) to analyze the balanced panel data of the China Family Panel Studies (CFPS) from 2010 to 2022, systematically evaluating the impact of the urban - rural medical insurance integration policy on residents' consumption. The results show that this policy has a significant promoting effect on the average growth rate of rural residents' household consumption expenditure, with an average increase of 4702 and a significance level of 5%, while it has no significant impact on the consumption growth rate of urban residents. This indicates that the medical insurance integration policy effectively alleviates the precautionary savings motivation of rural residents and releases their consumption potential, helping to narrow the urban - rural consumption gap. The results of the robustness test show that the benchmark regression results are robust and reliable. The promoting effect of the medical insurance integration policy on the consumption of rural residents remains stable under different robustness tests, and the policy effect is persistent. The mechanism analysis shows that medical insurance co - ordination has a more significant impact on high - debt and high - income families through channels such as reducing the risk of medical expenses and optimizing the household consumption structure. The heterogeneity analysis finds that the policy effect is more significant in medium - low health groups, medium - health groups, and high - savings families, but has a relatively weak effect on improving the consumption of low - income groups. The regional heterogeneity analysis shows that the policy effect is the strongest in western remote regions, while the marginal effect in eastern coastal regions is relatively small.

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