

Inspection and Analysis of the Implementation Effect of Long-Term Care Insurance in Jinan City

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Abstract

The proportion of elderly population in China is increasing, and the degree of aging is further deepening. The extension of life expectancy for the elderly is a major influencing factor in the deepening of aging. In this context, a phenomenon of "longevity but unhealthy" has emerged, making "longevity and unhealthy" gradually an undeniable survival state for the elderly. The problem of caring for disabled elderly people has become an urgent problem to be solved. This article selects the operational effect of long-term care insurance in Jinan City as the research object, analyzes the current situation of long-term care insurance in Jinan City, tests the implementation effect of long-term care insurance policies in Jinan City, and aims to further improve the long-term care insurance system.

Keywords

Long Term Care Insurance; Implementation Effect; Comparative Analysis.

1. Introduction

In response to the care difficulties brought about by the increasing number of disabled elderly people, China has chosen to follow the development experience of the West and establish a long-term care insurance system. This article adopts a qualitative comparative analysis method to test the implementation effect of long-term care insurance policies in Jinan City, identify various problems that arise during the operation process, and strive to propose feasible suggestions.

2. Research Methods and Selection of Case Samples

Firstly, due to various factors affecting the operational effectiveness of long-term care insurance in various ways, the QCA qualitative comparative analysis method was adopted. The operational effectiveness of long-term care insurance in Jinan City was taken as the research object, and an appropriate number of case samples were selected to compare and analyze the development status of long-term care insurance in Jinan City with other pilot city cases.

Secondly, the QCA analysis method requires small samples (10-15 samples), medium samples (15-50 samples), and large samples (more than 50 samples). In 2016, China conducted pilot projects in 15 cities, and it has been 7 years since then, with relatively mature development. Therefore, the first batch of pilot cities was selected as a case study, and Jinan, one of the second batch of pilot cities, was compared and analyzed. The sample size of the case study was 16, and a moderate sample size was appropriate.

3. Variable Selection and Indicator Meanings

In the selection of variables, they are divided into two categories: outcome variables and conditional variables. Based on different variables and the situation of each pilot city on various indicators, assign values separately, establish a truth table, and conduct software analysis.

3.1. Result Variables and Their Indicator Meanings

The outcome variable - the operational effectiveness of long-term care insurance in pilot cities, includes three indicators: whether long-term care insurance is mentioned in the government work report of the pilot city, whether there are long-term care insurance pilots of the same level in the surrounding areas of the city, and the level of treatment in the pilot city.

3.2. Conditional Variables and Their Indicator Meanings

Conditional variables are specifically divided based on the ways in which each condition affects long-term care insurance. Internally divided into insurance coverage, health and wellness foundation, and financing methods; External division is financial investment, aimed at comprehensively examining internal and external conditions.

Table 1. Encoding Rules

Variable	Indicator dimension	Indicator Name	Coding standard
Conditional variables	Insurance coverage	Does it cover all urban and rural residents, and does it include all severely disabled individuals in the scope of protection	Both items are assigned a value of 1, otherwise they are assigned a value of 0
	Fundamentals of Health and Wellness	Whether it belongs to the top 20 cities in terms of healthy aging, whether it belongs to the national pilot city of medical and elderly care integration, and whether it belongs to the national pilot city of home and community elderly care service reform	Two indicators are assigned a value of 1, while the opposite is assigned a value of 0
	Funding channels	Is the funding channel for pilot cities provided by individuals, enterprises, or government subsidies	If the condition is met, assign a value of 1, otherwise assign a value of 0
	Financial investment	Is the financial investment above the average financial investment in each pilot city	Assign a value of 1 if the condition is met, otherwise assign a value of 0
Result variables	Importance level	Does the government work report mention long-term care insurance	Assign a value of 1 if the condition is met, otherwise assign a value of 0
	Guarantee level	Does the treatment level of pilot cities meet 70%	Assign a value of 1 if the condition is met, otherwise assign a value of 0
	Impact effect	Is there a pilot program for long-term care insurance in the vicinity of the city	Assign a value of 1 if the condition is met, otherwise assign a value of 0

4. Data Processing and Analysis

Based on the indicators of each variable mentioned earlier, search for data on websites such as medical security bureaus, people's governments, and statistical bureaus in pilot cities, use QCA software for processing, and establish truth tables.

4.1. Univariate Necessity Analysis

Determine 16 pilot cities and coding rules, code the corresponding conditional and outcome variables for each city, construct a truth table, input the encoded truth table into fsqca software,

and conduct a necessity analysis of individual variables to determine whether there are sufficient or necessary conditions to explain the outcome variables.

Table 2. Results of Univariate Factor Necessity Analysis

Conditional variables	Result variable: Good implementation effect		Conditional variables	Result variable: Good implementation effect	
	Consistency	Coverage		Consistency	Coverage
Insurance coverage	0.750000	0.818182	~Insurance coverage	0.250000	0.600000
Fundamentals of Health and Wellness	0.66667	0.88889	~Health and wellness foundation	0.33333	0.571429
Fundraising channels	0.50000	0.750000	~Fundraising channels	0.50000	0.750000
Financial investment	0.416667	0.83333	~Financial investment	0.583333	0.70000
Conditional variables	Result variable: Poor implementation effect		Conditional variables	Result variable: Poor implementation effect	
	Consistency	Coverage		Consistency	Coverage
Insurance coverage	0.500000	0.181818	~Insurance coverage	0.500000	0.400000
Fundamentals of Health and Wellness	0.250000	0.111111	~Health and wellness foundation	0.750000	0.428571
Fundraising channels	0.500000	0.250000	~Fundraising channels	0.50000	0.250000
Financial investment	0.250000	0.166667	~Financial investment	0.750000	0.300000

According to Table 2, it can be concluded that none of the conditions achieved consistency of 0.9 or exceeded 0.9, thus failing the consistency test, indicating that the implementation of long-term care insurance is a very complex and multifactorial process, and a single variable cannot constitute a necessary condition for the effectiveness of long-term care insurance implementation.

4.2. Conditional Combination Path Analysis

Next, a configuration adequacy analysis will be conducted, and the path output results will be presented in the form of a summary table of configuration results, with intermediate solutions as the main focus and simple solutions as auxiliary when reporting.

According to Table 2, the combination paths with good long-term care insurance performance in pilot cities are divided into four categories. Next, specific cases are analyzed to identify the combination paths with good long-term care insurance performance in pilot cities.

The core conditions of Configuration 1 and Configuration 3 include financial investment, which has certain similarities. In these two configurations, financial investment is the core condition, and health and wellness foundation is the auxiliary condition. The typical cases corresponding to this configuration combination are Shanghai, Nantong, Qingdao, and Guangzhou. The State Council has issued the "14th Five Year Plan for the Development of National Elderly Care and Elderly Care Service System", requiring governments at all levels to allocate no less than 55% of the lottery public welfare funds used for welfare undertakings to support the development

of elderly care services. The Shanghai Municipal Government will allocate no less than 60%, Nantong City will allocate no less than 60%, Qingdao City will even reach 70%, and Guangzhou City will allocate no less than 60% to elderly care services.

Table 3. QCA Path Output Results

Y: Consistency threshold 0.8 PRI=0.75 The frequency threshold is 1.				
	Configuration 1	Configuration 2	Configuration 3	Configuration 4
Financial investment	●		●	⊗
Fundamentals of Health and Wellness	●	●		
Funding channels			⊗	●
Insurance coverage		●	⊗	●
Original coverage	0.333333	0.5	0.166667	0.333333
Unique coverage	0.0833333	0.0833333	0.0833333	0.0833333
uniformity	1			
Overall coverage	0.833333			
Overall consistency	1			
~Y: Consistency threshold 0.8 PRI=0.75 The frequency threshold is 1.				
	Configuration 1	Configuration 2	Configuration 3	
Financial investment	●	⊗	⊗	
Funding channels	●	●	⊗	
Fundamentals of Health and Wellness	⊗	⊗	●	
Insurance coverage	●	⊗	⊗	
Original coverage	0.25	0.25	0.25	
Unique coverage	0.25	0.25	0.25	
uniformity	1			
Overall coverage	0.75			
Overall consistency	1			

The analysis results show that higher financial investment in long-term care insurance can achieve good results. Guangzhou, Shanghai, and Qingdao rank within the top 20 in terms of urban health aging level. Nantong is a national pilot city for the integration of medical and elderly care. Compared to other cities, these three pilot cities have a better health and elderly care foundation, so the implementation effect of long-term care insurance is better.

Configuration 2 and Configuration 4 have a certain degree of similarity, with the core conditions being health and wellness foundation and insurance coverage, and financing channels as auxiliary conditions. Typical cases include Suzhou, Ningbo, and Nantong. Ningbo is among the top 20 cities in terms of healthy aging population, while Suzhou and Nantong are national pilot cities for the integration of medical care and elderly care. The implementation environment of long-term care insurance has unique advantages compared to other cities. And the coverage of these cities is not limited to urban employees, but also expanded to urban and rural residents. Comprehensive coverage is the basic condition for achieving good results in long-term care

insurance. Configuration 4 lacks the conditions for financial investment, but with diverse financing channels and comprehensive coverage, it jointly compensates for the disadvantage of relatively insufficient financial investment. The corresponding typical cases are Changchun, Ningbo, Chengdu, and Jinan. No less than 55% of the funds in Changchun, Ningbo, Chengdu, and Jinan are used to support the development of elderly care services. Compared to other cities that rely solely on medical insurance funds, the financing channels are relatively diverse. This also allows for the average level of financial investment, and multiple financing channels can be used to compensate for disadvantages, providing a driving force for the development of long-term care insurance.

4.3. Robustness Analysis

Table 4. Robustness Analysis

Robustness check Y: Consistency threshold 0.85 PRI=0.75 The frequency threshold is 1.				
	Configuration 1	Configuration 2	Configuration 3	Configuration 4
Financial investment	●		●	⊗
Funding channels			⊗	●
Fundamentals of Health and Wellness	●	●		
Insurance coverage		●	⊗	●
Original coverage	0.333333	0.5	0.166667	0.333333
Unique coverage	0.0833333	0.0833333	0.0833333	0.0833333
uniformity	1			
Overall coverage	0.833333			
Overall consistency	1			

The methods for conducting robustness analysis include adjusting the frequency threshold, deleting cases, adjusting calibration methods, and adjusting consistency. This paper selects a method of adjusting the consistency threshold for robustness analysis. The consistency threshold is modified to 0.85, and the frequency threshold of the cases remains unchanged. The coverage, consistency, and configuration of the new solution terms obtained are consistent with the original solution terms, and the set relationship remains unchanged, indicating that the results of this paper are robust.

5. Analysis of the Implementation Effect of Long term Care Insurance in Jinan City

Through qualitative comparative analysis of long-term care insurance, it is divided into two parts: analysis of good effects and implementation issues.

5.1. Analysis of Good Results

Through the investigation of 16 pilot cities with four conditional variables, Jinan City is a typical case in the well-developed path 4. Therefore, compared with other pilot cities, it has commendable advantages.

(1) The coverage benefits rural residents. For long-term care insurance, there should not be a lack of benefits due to regional differences. Both Configuration 2 and Configuration 4 include the condition of coverage, indicating that the coverage is very important for the implementation effect of the insured. Jinan City has expanded the coverage to include both urban and rural residents who participate in care insurance. Compared with other pilot cities, the coverage is

comprehensive. Therefore, the comprehensive coverage of long-term care insurance in Jinan has brought good results to its implementation.

(2) The financing channels are more diverse compared to others. As a typical case in Configuration 4, Jinan City is a representative combination of low financial investment, diverse financing channels, and comprehensive coverage. In the comparison of financing methods among various pilot cities, there are still many cities that overly rely on medical insurance funds or rely solely on medical insurance funds as a source of long-term care insurance. Compared to other cities, Jinan has attracted donations from lottery funds, social organizations and individuals, as well as government financial subsidies, and has relatively diverse financing channels. Diversified financing channels mean that there are other capital investments that can make up for the relative shortage of financial investment and the core conditions of financial investment. Therefore, from this perspective, the diversified financing channels in Jinan have brought good results to the development of long-term care insurance.

5.2. Implementation Problem Analysis

Although the implementation of long-term care insurance in Jinan has achieved good results and has brought significant advantages to different target groups in many aspects, some problems inevitably arise during the development process.

(1) The financing method lacks independence and overly relies on medical insurance funds. Through the analysis of Configuration 4, it is found that insufficient funding is the primary issue affecting the development of long-term care insurance. The reason for this problem is analyzed as follows: fundamentally, the financing method of long-term care insurance lacks independence, and pilot cities overly rely on the transfer of medical insurance pooling funds. In configuration 4, although the financing methods in Jinan are relatively diverse compared to other cities, the dependence on medical insurance funds is still too high, and an independent financing channel has not been formed.

(2) The demand for long-term care insurance participation is strong and the supply is insufficient. In terms of population, through qualitative comparative analysis, Ningbo and Chengdu cities in configuration 4 provide services for basic life care and medical care closely related to basic life for disabled and dementia individuals, including not only psychological comfort but also rehabilitation care within the scope of nursing guarantee. Compared with other pilot cities, Jinan city does not have a comprehensive coverage of the population. When it comes to protecting disabled and semi disabled populations, Jinan city has not been able to cover the population with dementia. In terms of scope, the reserve capacity that can guarantee a wider range is insufficient, and due to the limitations of fundraising and grassroots service capabilities, it is currently difficult for long-term care insurance to cover all residents.

(3) The sustainable development of long-term care insurance needs to be improved. In terms of financial investment, over 55% of Jinan lottery public welfare funds are used to support the development of elderly care services. This ratio meets the minimum investment standard for elderly care services issued by the State Council, but there is still some room for improvement compared to cities with better development of long-term care insurance.

On the basis of health and wellness: The typical cities in configuration 2 are all cities with good health and wellness foundations. Based on the three measurement standards of health and wellness foundations, Jinan only meets the condition of being a national pilot city for home and community elderly care service reform, which proves that Jinan's health and wellness foundation is still weak.

6. Analysis of Long-Term Care Insurance Strategies in Jinan City

The long-term care insurance in Jinan has accumulated rich experience and produced positive results during its operation. At the same time, some defects have also been exposed during the operation and development process, which requires analysis and suggestions to make it operate better.

6.1. Establish an Independent Long-term Care Insurance System

As a policy with inclusive characteristics, long-term care insurance should be made a separate entity, funded and operated separately, distinguished from medical insurance, in order to reduce the burden on medical insurance. Establishing an opposing long-term care insurance system requires a comprehensive application of measures such as clear goals, setting reasonable premiums and treatment standards, strengthening publicity and promotion, and strengthening supervision and evaluation. Only in this way can we ensure the sustainability and fairness of the system, and improve the quality of life for vulnerable groups such as the elderly and people with disabilities.

6.2. Expand the Scope of Protection and Increase Assistance Policies

By comparing the long-term care insurance coverage targets of 16 pilot cities, Jinan city should learn from Qingdao's development experience, include the dementia population in the coverage scope, and expand service projects to include psychological services.

We need to increase attention to the development of the care industry for disabled elderly people and support the development of long-term care insurance from a policy perspective. Especially focusing on the integration and development of rural nursing resources, and ensuring the nursing needs of rural disabled populations. Increase the establishment of elderly care service majors in universities to cultivate high-quality professional talents, establish a normalized training mechanism, increase on-the-job training for nursing practitioners, and gradually improve their professional level.

6.3. Promoting Sustainable Development and Shifting "Aftermath" to "Prevention"

Jinan City should increase financial support for disabled elderly services based on the actual situation and local elderly service needs. Only by actively seeking financial support, providing subsidies to caregivers for disabled elderly, increasing financial support for the elderly care service industry, and encouraging the participation of social forces, can we increase financial support for the care of disabled elderly and ensure their development without any worries.

We need to increase guidance and assistance policies for nursing institutions that do not have relevant medical qualifications, develop preferential policies, increase their cooperation with medical institutions, and continue to deepen the development of medical and elderly care integration. Adopt various policies to increase assistance to medical and elderly care application institutions, simplifying the approval process, and providing professional training and support.

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