A Review of the New Rural Cooperative Medical Scheme Under the Background of Urban and Rural Medical Insurance Integration

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Abstract: TAs the core system of China's rural medical security system, the New Rural Co-operative Medical Scheme has acted significantly in narrowing the urban-rural medical gap. With the ongoing unification of healthcare coverage for urban and rural populations gaining momentum, contradictions such as regional imbalance and reverse redistribution have gradually become prominent. This analysis collated the relevant literatures and summarized the existing research on the practice of the NCMS from multiple dimensions. The research finds that through practice and integration into medical insurance, although the NCMS has effectively improved the supply of medical services through various means, there are still fundamental contradictions of regional differences and group differences. The research conclusion indicates that future reforms need to be fairness oriented. Only by establishing a differentiated mechanism and a better collaborative network can more effective support be provided for the improvement of medical insurance efficiency.

1 INTRODUCTION

The policy of the New Rural Cooperative Medical Scheme (hereinafter referred to as 'the NCMS') originated from the social development problems in China in the 1980s. With the disintegration of the traditional rural health care system, a series of social problems, such as farmers' medical difficulties and the disparity of healthcare resources between urban and rural places, have become increasingly serious. In 2003, the General Office of the State Council of the People's Republic of China forwarded 'the Opinions on Establishing New Rural Cooperative Medical Scheme' (Guobanfa [2003] No. 3), launching the national pilot of the NCMS (General Office of the State Council of China, 2003). By 2010, the NCMS had basically improved coverage in rural areas across the country, with a participation rate of up to 95%. However, the numerous differences in medical resources between urban and rural zones remain a major concern (Office of the People's Government of Lanzhou City, 2011; State Council of China, 2016).

As China continues to promote modernization and development, more and more attention has begun to focus on the deficiencies of the health care system for achieving universal medical insurance and promoting social equity. In 2016, the State Council of China announced 'the Opinions on integrating the Basic Medical Insurance System for Urban and Rural Residents (Guofa [2016] No. 3), marking the launch of the health care integration (State Council of China, 2016). Medical insurance integration refers to the integration of the Urban and Rural Resident Basic Medical Insurance (hereinafter referred to as 'the URRBMI') with the Urban Resident Basic Medical Insurance (hereinafter referred to as 'the URBMI') and the NCMS. It is also one of the core issues of China's medical security system reform in recent years (see Table 1).

Against the backdrop of health coverage merger policy implementation, the NCMS faces various challenges, such as regional development imbalance, reverse redistribution effect and other practical problems. It is necessary to optimize the system effect through more refined policy design, which provides space for discussion and analysis in this explore.

The core goal of the URRBMI is to eliminate urban and rural differences through system integration. Practical measures include unified financing mechanism, unified reimbursement catalog, unified fund management and analysis and treatment support. In particular, the objective calls for government financial subsidies to rise concurrently and for urban and rural populations to pay according to the same levels, integrate the original drug and

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Table 1. The Construction Process of Primary Medical Insurance.

Year	Policy and practice	Stage of development
2002	The CPC Central Committee and the State Council of China announced 'the Decision on Further Strengthening Rural Health Work', suggesting the creation of a new health program for rural places	The framework of the NCMS was clarified at the national level for the first time
2003	The General Office of the State Council forwarded 'the Opinions on Establishing the NCMS' and launched a nationwide pilot program	The programmatic document had emerged that marked the transition from theory to practice of the NCMS, and began to build a rural medical security system covering the whole country.
2007	The pilot program of the URBMI was launched, covering non-employed urban residents	For the first time, a medical insurance system was established for non-employee groups in urban areas, forming an urban-rural division with the NCMS.
2010	The NCMS had basically realized nationwide rural coverage, with a participation rate of over 95%.	
2008-2013	Eight provinces have taken the lead in piloting the integration	
2013	The State Council of China issued 'the Opinions on Integrating the Basic Medical Insurance System for Urban and Rural Residents'	As an authoritative policy document, it clarifies the relevant practical principles
2016	The health insurance programs of both rural and urban residents have been integrated in 31 provinces across the country, and the National Medical Insurance Administration is in charge of unified management.	Achieved complete system, management, and service unification and worked to end the dual division among urban and rural zones.

service catalog in the URBMI and the NCMS. Then, by utilizing different payout percentages to alleviate the issue of resource crowding out of large hospitals, the provincial level will coordinate the medical insurance funds of suburban as well as rural medical funds, increasing the amount that rural residents can be reimbursed. This will improve the efficiency of fund use and encourage patients to seek appropriate medical care.

The policy design reflects the transition logic from formal integration to substantive fairness. In reality, however, the NCMS's unity has regional economic level disparities, primarily in vast agricultural regions, local fiscal capacity and uneven management efficiency, resulting in significant spatial differentiation in the integration effect.

This article systematically reviewed the existing literatures on the current status of the NCMS, examines how health equity in the combining program of medical insurance for rural and urban dwellers affect the allocation of medical resources and financial burden, while proposing the contributions and shortcomings of existing exploration. It is hoped that, based on the existing exploration, the findings can provide policymakers with operational suggestions such as regional differentiated adjustments and a dynamic monitoring mechanism design.

2 ANALYZE METHODS AND PROCESS

Literature searched for this exploration comes from CNKI and Web of Science.

The keywords for searching in CNKI was 'the New Rural Cooperative Medical Scheme'/'the NCMS', and specific screening was performed through the search commands 'Academic Journals', 'Peking University Core'/'CSSCI', and the literature in the past five years/the top ten most cited literature. A total of 69 studies were screened in the first screening. In the second screening, literature that was not related to the analysis topic (like emphasizing the NCMS's influence on consumption/pension/job choice/fertility intention, etc.) was screened, and a total of 32 literatures remained. The third screening screened literatures that were related to the analysis topic but had too narrow a focus and were not valuable in the analysis of this explore or had

different analysis perspectives from this explore (such as limited to a single disease: heart disease, gastric cancer, cardiovascular and cerebrovascular diseases, etc., a single group: lonely elderly people, left-behind children, etc., a single region: the specific situation of a certain district in a certain city or a certain county, etc.), and finally 14 literatures were left as references for this explore (see Table 2).

In addition, the keyword 'the Urban and Rural Residents Basic Medical Insurance (the URRBMI)' was included, and the search instructions were 'Academic Journals', 'Peking University Core'/'CSSCI', documents from the past five years, and the top 20 most cited documents. Among the basic 11 documents, after screening out documents that were not related to the analysis topic of this exploration, a total of 4 documents remained (see Table 2).

Table 2. Illustration of CNKI Literature Search.

Keywords	Steps	Instructions	The number of remaining documents	Notes
The NCMS/ the New Rural Cooperative Medical Scheme	Primary screening	Academic journals, Peking University core/CSSCI, top 10 most cited in the past 5 years	69	
	Secondary screening	Exclude literatures irrelevant to the topic (such as consumption, elderly care, fertility and other fields with weak correlation)	32	Elimination of 37 articles
	Tertiary screening	Exclude literatures with too narrow a perspective (such as single disease, group, or regional explores, etc.)	13	Elimination of 18 articles
	13 articles in total			
The Urban and Rural Residents Basic Medical Insurance/the URRBMI	Primary screening	Academic journals, Peking University core/CSSCI, top 20 most cited in the past 5 years	11	
	Secondary screening	Exclude literatures irrelevant to the topic	4	Elimination of 7 articles
	4 articles in total			
17 articles in total				

Table 3. Illustration of Web of Science Literature Search.

Keywords	Steps	Instructions	The number of remaining documents	Notes
The New Rural Cooperative Medical Scheme/the NCMS	Primary Screening	Article, Top 20 in the past 5 years/Highly Cited	140	
	Secondary Screening	Exclude non-Q1 partition and low-impact-factor literatures	36	Elimination of 104 articles
	Tertiary Screening	Exclude low-relevance literatures (such as labor supply, single population/disease explores, etc.)	12	Elimination of 24 articles
	12 articles in total			
The Urban and Rural Residents Basic Medical Insurance/the URRBMI	Primary Screening	Article、Q1、Top 20 in the past 5 years/Highly Cited	16	
	Secondary Screening	Exclude literatures irrelevant to the topic	3	Elimination of 13 articles
	3 articles in total			
15 articles in total				

The keywords for the search in Web of Science were 'the New Rural Cooperative Medical Scheme'/'the NCMS', and the search instructions were 'Article', the literature in the past five years/the top 20 most cited literatures. The first screening resulted in a total of 140 literature. In the second screening, the literature that was not in the Q1 partition and had a relatively small impact factor was screened, and a total of 36 articles remained. The third screening screened various types of literature that were less relevant to the analysis topic of this explore and had different perspectives (such as the impact of labor supply, a single social group, the treatment of a single disease, the impact of population mobility, etc.), and finally a total of 12 literatures remained (see Table 3).

In addition, the keywords was included: 'the Urban and Rural Residents Basic Medical Insurance'/'the URRBMI', and the search instructions were 'Article', Q1 partition, literatures in the past five years, and the top 20 most cited literatures. Among the basic 16 literatures, after screening out investigate questions that were not related to the analysis topic of this exploration, a total of 3 literatures remained.

Finally, a total of 33 documents were found by combining the literatures searched by CNKI and Web of Science (see Table 3).

3 LITERATURE REVIEW

3.1 Literature Induction Logic

Based on an extensive review of literatures, an inductive structure is established as shown in the table 4, using a systematic overall framework to analyze the progressive inductive logic from institutional input to policy processing, then to effect output, and finally focusing on feedback regulation (see Table 4).

Table 4: Literature summary structure.

Structural level	Core content
Institutional input level	The necessity, path, and results of combining health insurance in agricultural regions as well as urban zones
	Challenges and coping strategies of regional heterogeneity to policy implementation
Policy processing level	Policy design optimization (such as tiered mechanism reform, payment method innovation)
	Supporting mechanism innovation (fund coordination, information platform construction, etc.)
Effect output level	Health performance and economic performance
	Poverty reduction results and income distribution effects
Feedback adjustment level	Re-examination of group heterogeneity and regional heterogeneity

3.2 System Input Level

3.2.1 Urban-Rural Medical Insurance Pooling and System Integration

The necessity, progression, and evaluation of the melding of both metropolitan and rural medical coverage systems are the main topics of this section. It highlights the importance of unified finance standards, reimbursement ratios, and other methods in reducing the disparity between urban and rural areas. In this part, some literatures explore that in the process of integrating the NCMS with the URBMI, the rate at which rural populations use medical services has considerably increased by unifying financing standards, reimbursement ratios and medical catalogs.

Some scholars have found in their explorations that from 2008 to 2018, the NCMS significantly increased the hospitalization rate of rural residents; and after the integration of medical insurance in areas where the NCMS was implemented, the hospitalization reimbursement rate and reimbursement ratio were also significantly improved (Yan et al, 2022; Huang & Wu, 2020). The integration of medical insurance based on the NCMS has effectively targeted the situation of poverty generated by illness and has significantly reduced the incidence of poverty caused by illness among rural residents by 6.57%. In addition, the targeting effect is more obvious for groups with poor health, chronic diseases, low-to-medium consumption, and high medical expenses (Li et al.,2021).

The disparity in poverty between urban and rural regions must still be reduced, nevertheless, by medical insurance integration using strategies like uniform finance standards and broadened reimbursement scope, because the economic factor is still the key hindering the realization of fairness (Ren et al, 2022). At the same time, regional heterogeneity has also affected the specific results. For instance, compared to eastern China, the degree of improvement in health levels in central and western China is far greater (Meng et al, 2024). To avoid compromising the true impact of medical insurance integration, the NCMS should keep concentrating on the predicament of families with limited assets having to pay for the medical treatment of wealthier areas because of an unequal distribution of resources (Peng & Yue et al, 2020).

Through empirical analysis, Qiu et al. discovered that the degree of economic growth must be the basis for integrating medical insurance in urban as well as rural regions. Taking Dongguan, Taicang and other relatively economically developed regions in China as examples, in addition to lowering the proportion of individual expenses for rural people, the integration model can raise the outpatient benefit rate and standardize financing criteria and benefits. They pointed out that the integration needs to be promoted in stages: developed regions can promote the integration in one step, and underdeveloped regions should adopt a layered integration approach to balance fiscal pressure and insurance demand. Although the integration has alleviated the imbalance of health care resources, a more notable rise has been caused by geographical heterogeneity in hospitalization utilization in the western region in China, and we need to be vigilant about reverse subsidy issues, such as the urban-rural cost gap. Qiu et al. emphasized fair financing and equal benefits in the integration practice, and suggested reducing the cost of institutional separation through unified management and information platforms (Qiu et al, 2011). Other scholars also pointed out that in addition to platform unification and phased promotion, institutional integration should shift from payment for services to payment for disease type, prepayment of total amount or per capita payment to control excessive medical treatment, and alleviate financing fairness through payment by income tiers (Liu & Vortherms, 2017; Luo et al, 2021).

3.2.2 Addressing Regional Heterogeneity

Some scholars focus on the differences in policy effects between regions in China. From the practice of the NCMS to its integration, they propose a discussion on how to deal with the uneven regional resource distribution and structural differences in the degree of benefit.

In the practice of the NCMS, regional heterogeneity has long been reflected. The NCMS's major disease insurance has decreased the frequency of poverty vulnerability in the center and western family units in China despite the health care system's influence on poverty reduction is more noticeable in the central and westernmost fields, as was previously indicated, and the degree of advantage is much greater than it is in the eastern zone (Gao & Ding, 2021). In such economically underdeveloped regions, although the policy tilt effect is more obvious, due to the absolute disadvantages in per capita income and medical service utilization, the potential migration of medical resources from countryside to metropolitan regions (also known as the reverse subsidy dilemma) presents a problem for medical fairness in central and western agricultural regions (Ren et al, 2022; Peng & Yue, 2020).

Taking the study of Gao & Ding as an example, the empirical results show that in the western and central portions of the state, the NCMS's major disease insurance has a much deeper effect on poverty reduction than in the eastern area. Additionally, the central and western areas have seen a greater decline in the incidence of poverty vulnerability, but the eastern region has seen a somewhat limited effect. This difference is due to the weak economic foundation and medical resource scarcity in the western and central areas, and the higher marginal utility brought by policy bias (Gao & Ding, 2021). Some academics stress that actively expanding health care coverage, reducing economic inequities, and optimizing regional resource allocation are necessary to address regional heterogeneity and attain the full inclusivity of medical cover system (Ren et al, 2022; Meng, 2024).

3.3 Policy Operation and Processing Level

3.3.1 Policy Design Optimization

This subsection mainly refers to the investigative perspective that focuses on the defects of medical insurance, such as the tiering mechanism and the adverse selection while proposing optimization and reform suggestions. From this perspective, it is mainly reflected in the further expansion and improvement based on the practical results of the NCMS.

The deviations in informal systems and understandings of insured persons, such as interpersonal relationships and information quality, have led to problems such as insufficient transparency of medical insurance policies and adverse distribution (Office of the People's Government of Lanzhou City, 2011; Yuan et al, 2020; Xiong, 2022). Based on the empirical analysis of the NCMS, Yip & Hsiao concluded that the previous approach disregards outpatient costs for chronic diseases and was overly preoccupied with hospitalization prevention, resulting in limited poverty reduction effects. Through the comparison of the experimental rural mutual medical care model (RMHC), they confirmed that the strategy of covering outpatient services, canceling deductibles and integrating funding pools can reduce the poverty gap by 17%-18.5%, significantly reducing the risk of medical poverty. Yip Winnie also advocated the abolition of the Medical Savings Accounts (MSA) and the transfer of resources to outpatient and chronic disease protection, emphasizing that policy design needs to adapt to the epidemiological characteristics of the disease burden (Yip & Hsiao, 2009).

3.3.2 Innovation of Supporting Mechanisms

As scholar Yu reported, from 2003 to 2010, the NCMS rapidly increased the participation rate and the utilization rate of inpatient services for rural residents by implementing a strategy of low payment thresholds and high fiscal subsidies, but there are still fundamental problems such as low welfare levels, adverse distribution, and regional imbalances. Through analysis, Yu suggested that a dynamic adjustment mechanism and differentiated subsidies linked to farmers' income should be established, and that the reform and optimization of mechanisms, including cross-departmental collaboration of fund advances, risk warning mechanisms, and insurance incentives for welfare supplements, should be promoted (Yu, 2015). At the same time, according to the decline in individual disease prevention rates generated by the increase in insurance participation rates, health risks can be classified and multi-level insurance contracts can be designed to alleviate the corresponding ex-ante moral risks (Guo & Zhou, 2021). Based on the practical measures of city Beijing's medical insurance, its system can be actively refined and medical service needs can be met by refining payment methods and establishing a national unified data monitoring and dynamic evaluation system (Liu & Vortherms, 2017).

In short, policy design needs to balance efficiency and fairness, and adapt to disease burden and group needs through benefit measures such as weakening individual power differences and promoting coordination and integration (Zhai, 2021).

3.4 Effect Output Level

3.4.1 Health Performance and Economic Performance

This component focuses on assessing the primary consequences of the NCMS on medical resource consumption (hospitalization rate, total cost) and health level (expressed health, mental health, and objective health), while paying attention to changes in economic burden.

Based on the national health service survey data from 2003 to 2013, according to Zhang et al., the NCMS considerably raised rural residents' inpatient service usage rates (from 2.7% to 7.7%) and eliminated the urban-rural income gap in service utilization, but the risk of catastrophic medical expenditures for low-income groups still remained high (for example, in 2013, the proportion of medical expenditures of the lowest-income households exceeding 40% reached 24.7%, while that of the highest-income households was only 2.5%). Even though middle-class and upper-class families now bear less medical expense, the contradiction between health needs and the payment ability of low-income groups has intensified, and the economic risks have not been effectively alleviated. They emphasized that although the NCMS has implemented remarkable results in health equity, financial protection for low-income families still needs to be strengthened (Zhang et al, 2021).

During the healthcare system integration phase, empirical studies reveal that unifying urban-rural medical coverage effectively improves beneficiaries' self-assessed wellness, psychological conditions, and clinical health indicators, while simultaneously narrowing urban-rural health outcome gaps and mitigating disparities across socioeconomic groups (Zheng et al, 2021).

In terms of economic performance, out-of-pocket medical expenses fell from 60 percent in 2001 to 35 percent in 2011, raising per capita income of farmers participating in the NCMS by about 4 percent. The rate of medical service usage, overall medical care, and out-of-pocket medical costs all rise with the incorporation of medical insurance (Yu, 2015; Qi, 2011; Ma & Li, 2021). Although the integration of health care has improved health coverage, it has exacerbated overall health inequalities, which tend to

increase over time (He & Shen, 2021).

Cheng & Zhang pointed out that, taking the elderly as an example, the NCMS has raised the rate of medical care usage and considerably improved the health of those who are insured by reducing the phenomenon of abandoning medical care due to poverty. However, actual medical expenditures have not decreased significantly and the incidence of major disease expenditures has not improved either. The demand for medical services is relatively elastic, resulting in price subsidies stimulating consumer demand, offsetting the cost control effect, and limited economic performance. The compensation mechanism needs to be optimized to balance health improvement and economic burden (Cheng & Zhang, 2012).

In summary, although the practice and integration of the NCMS have accomplished remarkable results in improving health, the insurance mechanism needs to be further optimized to alleviate the outpatient burden of insured farmers and to realize the effectiveness of medical insurance through policy publicity and resource coordination (Bei et al, 2024; Zhang et al, 2024).

3.4.2 Poverty Reduction and Income Distribution Effects

The NCMS's regulatory implications for poverty rates, catastrophic medical costs, economic disparities, and the likelihood of unequal distribution are made clear.

Qi systematically evaluated the poverty reduction and income distribution effects of the NCMS based on micro panel data from 30 provinces and regions across the country from 2003 to 2006. His analysis found that the NCMS significantly reduced the probability of poverty at the farmer level and contributed favorably to the decrease of poverty. By reducing the economic disparity inside the village, the NCMS simultaneously decreased the hamlet's Gini coefficient by 6.4%; nevertheless, this had no obvious impact on the province's overall income distribution. Agriculturalists with low and intermediate earnings are the primary beneficiaries of the NCMS's income-increasing effect, and they need to count on the external economic climate for assistance, while high-income farmers have limited benefits. This shows that although the NCMS has effectively alleviated local poverty and inequality within the village, higher-level income distribution regulation still needs institutional optimization and coordinated policy support (Qi, 2011).

Income redistribution is harmed by the basic medical insurance system, even while medical coverage helps to bridge the income gap caused by growing medical expenditures. Additionally, rising medical costs reduce the real impact of poverty reduction. The effect varies from system to system (Liao & Yu, 2021; Li et al, 2020).

In addition to the effectiveness of the NCMS, the problem of reverse distribution among different income groups is particularly prominent. For instance, high-income groups benefit more from the NCMS's ability to reduce poverty, the introduction of critical sickness insurance indirectly widens the income gap, and the likelihood of catastrophic medical expenses is negatively correlated with group income (Luo & Yan, 2022; Zhao, 2021). In addition, the program offers those with limited incomes only a restricted degree of economic protection. In 2013, China's National Health Service Survey indicated that 24.7% of the lowest-income families had medical costs that accounted for more than 40% of their income (while the highest-income families only had 2.5%) (Zhang et al, 2021). From this perspective, the academic community is concerned that although the NCMS has alleviated some poverty, the overall catastrophic expenditure has not been improved well, and it is necessary to balance the fairness of distribution by strengthening the monitoring of medical insurance integration, optimizing the reimbursement ratio, improving the financing mechanism and improving the level of protection for low-income groups (Liu & Vortherms, 2017; Wang et al, 2020; Jin et al, 2020).

3.5 Feedback Adjustment Level

Mainly includes analyzing the differentiated impact of policies on urban and rural areas, income, age, health behavior and other groups, highlighting the problem of unequal benefits for vulnerable groups.

The policy effect of the NCMS also needs to focus on the challenges of resource allocation and benefit fairness. Since the high-income group's poverty vulnerability is effectively reduced while the low-income group's poverty is not, income stratification has made the poverty reduction effect more pronounced in this group. Beyond that, the earnings growth of the wealthy individual class was much more than that of those with reduced incomes (this is referred to as the economically disadvantaged class only rises by 5%, while the high-income group increases by 10-15%) (Luo & Yan, 2022; Zhao, 2021). At the same time, differences in gender, chronic diseases, age and other aspects also lead to different poverty reduction effects, and the elderly

group has a higher hospitalization rate, and the outpatient rate of male insured persons is significantly higher than that of female insured persons (Luo et al, 2021; Ding et al, 2023).

Taking Peng & Yue's analysis as an example, they focus on the group differences and structural equity in the integration of the NCMS. Its primary conclusion is that because of the significant difference in the cost and use rate of inpatient treatments throughout urban and agricultural areas, there is a chance that reverse subsidies from rural to urban medical insurance funds will occur after medical insurance unification. Similarly, inequalities in the risk-sharing system are exacerbated by the differences in income and medical resources between villages and towns. Therefore, they pointed out that the integration of medical insurance must be careful, by strengthening the system design and rural health construction to promote the effectiveness of integration (Peng & Yue, 2020).

To put it briefly, because of the regional and group variations in the medical insurance system, distinct security measures must be incorporated into the policy design for various groups in order to integrate the NCMS into medical security and further encourage integration, such as vulnerable groups and low-income groups, to accomplish the overall equality of medical services (Huang & Wu, 2020; Zhang et al, 2021; Zheng et al, 2021; Ma & Li, 2021).

4 MAIN CONTRIBUTIONS AND DEFICIENCIES OF EXISTING EXPLORES

4.1 Contributions

Existing exploration in the field of practice and integration of the NCMS mainly reflects the following important contributions:

Research confirms the beneficial effects of the NCMS on rural inhabitants' health and services, while confirming that medical insurance integration has effectively narrowed the urban-rural health inequality. In addition, some explores have accomplished the visualization of policy effects in the population and spatial dimensions by constructing policy transmission paths and analysis models. At the level of constructing integration theory, some literatures innovatively proposed different gradual reform paths, systematically demonstrated the core mechanisms such as the unification of the overall coordination mechanism and the standardization of management services, and provided theoretical support for practical operations.

4.2 Limitations and Shortcomings

Although the existing investigations have made significant progress, there are still the following limitations and deficiencies:

The existing investigations appear insufficient on regional links. Existing results mostly adopt the macro-division method of the east, middle and west, or analyze and investigate specific concentrated areas, lack of systematic analysis on the adaptability of policy tools to realize links between different regions, and less attention to national-level plans and actions to achieve transition based on distinct principles.

Enhancement of the strategy's outcome evaluation mechanism is expected. Most explores are limited to cross-sectional data analysis, and the long-term effects of the integration of the NCMS are not tracked enough. A standardized indicator system has not yet been formed in terms of fund sustainability assessment and service quality monitoring.

There is a gap in the analysis on micro-mechanisms. Although existing literatures focus on theoretical propositions of moral hazard, such as induced medical demand, empirical investigations on the behavioral decision-making patterns of insured subjects and their policy awareness is still weak.

4.3 Explore Prospects

In view of some of the shortcomings shown in the analysis, future investigations can pay additional attention to the following aspects:

Quantitative investigation on regional heterogeneity. In the view of the practical problem of regional resource allocation differences as mentioned above, the exploration should be based on the traditional division of east, middle and west, and explore a regional classification system that is more in line with the needs of medical insurance policies. That is, pay more attention to core indicators such as economic level (per capita disposable income/financial self-sufficiency rate), medical resource density (number of beds per thousand people/primary hospital coverage rate) and population structure (aging rate/proportion of floating population) at the county level, realize the spatial division formulated according to different demand levels to provide more accurate analysis for differentiated compensation policies.

Focus on cross-domain policy transmission exploration. Exploration should pay more attention to the balance of policy effects among regions. The lagging of medical insurance policies in some regions is not entirely due to financial capacity, but also includes policy cognition gaps and administrative coordination costs. The primary role of non-economic issues in the progressive merger route and the health care insurance system's operation must be actively investigated, and solutions and analysis must be offered to make collaborative management a reality.

5 CONCLUSION

The relationship between integration and the NCMS's practical impact may be summed up as follows, based on the aforementioned literature overview, system integration analysis, and policy impacts analysis:

The system integration reform focuses on overall coordination and regional dynamic optimization, which has significantly improved the health performance and poverty reduction effects, but there are conflicts in the reverse distribution of policy effects and regional resource allocation differences, that is, the overall efficiency and fairness measurement problem.

The overall optimization design of the policy has improved the overall situation in each region to a certain extent, but the group differences within each region, urban-rural differences, and differences in resource allocation between regions are difficult to effectively solve in a short period of time.

The accuracy of the medical insurance system (involving various groups) and the reimbursement mechanism must be considered in the real optimization of the aforementioned issues; the balance of policy effects between the east and the west in regional coordination management; and to discover benefit measures to deal with adverse selection and social capital dependence.

In summary, institutional integration has driven the optimization of policy effects through unified standards, regional inclination, and dynamic optimization, but its design flaws, such as insufficient inclusiveness and low transparency, have generated an imbalance in the distribution of health and economic benefits. Future reforms need to be guided by fairness while realizing two-way optimization of institutional integration and policy effects through precision, regional coordination, and transparency measures.

REFERENCES

Bie, F., Yan, X., Qiu, W., Mao, A., Meng, Y., Cai, M., Yang, R., Zhang, Y. 2024. Does supplemental private health insurance impact health care utilization and seeking behavior of residents covered by social health insurance? Evidence from China National Health Services Survey. *International Journal for Equity in Health* 23(1).

Cheng, L., Zhang, Y. 2012. The New Rural Cooperative Medical Scheme: economic performance or health performance? *Economic Explore* 47(01):120-133.

Ding, J., Zhang, B., Kang, Z. 2023. Can medical insurance alleviate the poverty vulnerability of rural residents? -- From the Perspective of the Income and Expenditure Effect of the New Rural Cooperative Medical Scheme. *Nankai Economic Research* (07):49-69.

Gao, J., Ding, J. 2021. Can the New Rural Cooperative Medical Scheme for Major Diseases Alleviate Long-term Rural Poverty?—An Examination from the Perspective of Poverty Vulnerability. *Lanzhou Journal* (04):170-181.

General Office of the State Council of China. 2003. Notice of the General Office of the State Council on forwarding the opinions of the Ministry of Health and other departments on establishing a new rural cooperative medical system. https://www.gov.cn/gongbao/content/2003/content_62600.htm, last accessed 2025-3-20.

Gu, X., Zhou, Y. 2021. New Rural Cooperative Medical Scheme: Adverse Selection and Moral Hazard. *Shanghai Financial Finance* (02):15-25.

He, W., Shen, S. 2021. Does the integrated urban and rural medical insurance policy alleviate health inequality? ——Empirical evidence from a quasi-natural experiment in prefecture-level cities in China. *China Rural Observation* (03):67-85.

Huang, X., Wu, B. 2020. Impact of urban-rural health insurance integration on health care: Evidence from rural China. *South China Economic Review* 64.

Jin, S., Yu, J., Tian, R. 2020. Does China's basic medical insurance system promote fair benefits? -- Empirical Analysis Based on the Survey of Chinese Household Finance. *Quarterly Journal of Economics* 19(04):1291-1314.

Li, F., Wu, Y., Yuan, Q., Zou, K., Yang, M., Chen, D. 2020. Do health insurances reduce catastrophic health expenditure in China? *A systematic evidence synthesis*. PLOS ONE 15(9).

Li, H., Li, Z. 2021. Does the integration of urban and rural residents' medical insurance alleviate the poverty caused by illness in rural areas? *Modern Economic Discussion* (07):31-39.

Liao, Z., Yu, J. 2021. Explore on the income redistribution effect of China's basic medical insurance system - empirical analysis based on China's household financial survey data. *Explore on Financial Issues* (07):57-65.

Liu, G.G., Vortherms, S.A., Hong, X. 2017. China's Health Reform Update. *Annual Review of Public Health* 38:431-448.

Luo, D., Deng, J., Becker, E.R. 2021. Urban-rural differences in healthcare utilization among beneficiaries in China's new cooperative medical scheme. *BMC Public Health* 21(1).

Luo, D., Yan, S. 2022. New Rural Cooperative Medical Scheme, catastrophic medical expenditure and poverty vulnerability. *Taxation and Economy* (01):69-76.

Ma, W., Li, H. 2021. From the New Rural Cooperative Medical Scheme to the basic medical insurance for urban and rural residents: an analysis of the policy effects of urban and rural medical insurance integration. *Chinese Economic Issues* (04):146-157.

Meng, Y., Yu, R., Bai, H., Han, J. 2024. Evidence From the China Family Panel Studies Survey on the Effect of Integrating the Basic Medical Insurance System for Urban and Rural Residents on the Health Equity of Residents: Difference-in-Differences Analysis. *JMIR Public Health and Surveillance* 10.

Office of the People's Government of Lanzhou City. 2011. Statistical Communiqué of the People's Republic of China on the National Economic and Social Development in 2010(3). https://tjj.lanzhou.gov.cn/art/2011/12/12/art_4850_311628.html, last accessed 2025-3-20.

Peng, H., Yue, J. 2020. Integration of China's basic medical insurance system: theoretical debate, practical progress and future prospects. *Academic Monthly* 52(11):55-65.

Qi, L. 2011. Explore on the poverty reduction, income increase and redistribution effects of the New Rural Cooperative Medical Scheme. *Explore on Quantitative and Technical Economics* 28(08):35-52.

Qiu, Y., Zhai, S., Hao, J. 2011. Explore on the coordinated development of urban and rural medical insurance: theory, empirical evidence and countermeasures. *China Soft Science* (04):75-87.

Ren, Y., Zhou, Z., Cao, D., Ma, B., Shen, C., Lai, S., Chen, G. 2022. Did the Integrated Urban and Rural Resident Basic Medical Insurance Improve Benefit Equity in China? *Value in Health* 25(9):1548-1558.

State Council of China. 2016. Opinions of the State Council on integrating the basic medical insurance system for urban and rural residents. https://www.gov.cn/zhengce/zhengceku/2016-01/12/content_10582.htm, last accessed 2025-3-22.

Wang, J., Zhu, H., Liu, H., Wu, K., Zhang, X., Zhao, M., Yin, H., Qi, X., Hao, Y., Li, Y., Liang, L., Jiao, M., Xu, J., Liu, B., Wu, Q., Shan, L. 2020. Can the reform of integrating health insurance reduce inequity in catastrophic health expenditure? Evidence from China. *International Journal for Equity in Health* 19(1).

Xiong, J. 2022. Competitive Allocation of Welfare Benefits of New Rural Cooperative Medical System Participants. *Agricultural Technology and Economy* (10):40-52.

Yan, X., Liu, Y., Cai, M., Liu, Q., Xie, X., Rao, K. 2022. Trends in disparities in healthcare utilisation between and within health insurances in China between 2008 and 2018: a repeated cross-sectional study. *International Journal for Equity in Health* 21(1).

Yip, W., Hsiao, W.C. 2009. Non-evidence-based policy: How effective is China's new cooperative medical scheme in reducing medical impoverishment? *Social Science & Medicine* 68(2):201-209.

Yu, H. 2015. Universal health insurance coverage for 1.3 billion people: What accounts for China's success? *Health Policy* 119(9):1145-1152.

Yuan, B., Jian, W., Martinez-Alvarez, M., McKee, M., Balabanova, D. 2020. Health system reforms in China a half century apart: Continuity but adaptation. *Social Science & Medicine* 265.

Zhai, F. 2021. Divergence and Choice: The Basic Principles of my country's Integrated Universal Health Insurance System. *Medicine and Philosophy* 42(05):45-50.

Zhang, J., Luo, J., Chen, G., Zhang, C., Wang, J., Li, L. 2024. High-quality Development of Public Health in Guizhou Province, China. *Journal of Resources and Ecology* 15(4):925-936.

Zhang, Y., Dong, D., Xu, L., Miao, Z., Mao, W., Sloan, F., Tang, S. 2021. Ten-year impacts of China's rural health scheme: lessons for universal health coverage. *Global Health* 6(4).

Zhao, W. 2021. The impact effect and transmission mechanism of social medical insurance on rural residents' income - empirical evidence from the New Rural Cooperative Medical Scheme for serious illnesses. *Financial Forum* (06):56-66.

Zheng, C., Wang, X., Sun, Q. 2021. Explore on urban and rural medical insurance pooling policy, residents' health and health inequality. *Nankai Economic Explore* (04):234-256.