

# Research on the Refined Management of Fund Supervision in Designated Medical Institutions Under Payment Method Reform

Yuanyuan Xu

*Department of Healthcare Security, Hebei Province Hospital of Chinese Medicine, Shijiazhuang, China*

**Abstract:** This study focuses on the issue of fund supervision in designated medical institutions against the backdrop of payment method reform. First, it analyzes the impact of payment method reform on designated medical institutions, explores the challenges and problems in the use of medical insurance funds during the reform process, and highlights shortcomings such as insufficiently refined management and inadequate implementation in fund supervision. Second, based on the current situation analysis, refined fund supervision and management strategies are proposed, emphasizing the optimization of fund utilization efficiency through improved regulatory mechanisms, enhanced technical means, and strengthened data analysis and informatization. Finally, combining policy practice, the paper offers practical policy recommendations aimed at providing targeted management solutions for designated medical institutions and offering theoretical support and practical guidance for government departments in formulating healthcare policies.

**Keywords** Payment method reform, Designated medical institutions, Fund supervision, Refined management, Healthcare security

## INTRODUCTION

In recent years, as China's healthcare reform continues to deepen, payment method reform, as a critical component, has gradually become one of the core measures driving innovation and optimization in the healthcare system [Yan, et al., 2023]. The primary goal of payment method reform is to shift from the traditional fee-for-service model to alternative payment methods such as diagnosis-related groups (DRG), capitation, and clinical pathway-based payments, aiming to better control medical costs, improve service quality, and reduce excessive or irrational expenditures [Wang, et al., 2022]. This reform not only promotes the rational allocation of medical resources but also profoundly influences the provision of medical services and the operational management of medical institutions.

As key service providers in the social security system, designated medical institutions bear essential responsibilities such as delivering medical services to insured patients, implementing medical insurance policies, and managing medical insurance funds [Li, et al., 2022]. However, under the backdrop of payment method reform, these institutions face increasingly complex and diverse challenges. The shift in payment methods alters the billing models for medical services, making the management and efficient use of medical insurance funds a crucial metric for evaluating the operational performance of designated medical institutions [Wang, et al., 2021]. Therefore, how to strengthen refined supervision of medical insurance funds, ensuring compliance, standardization, and efficiency in fund utilization, has become a pressing issue for medical institution management.

Currently, fund supervision in China's designated medical institutions still faces numerous problems. For instance, some institutions exhibit irregularities in fund usage, insufficiently refined supervision methods, and inadequate implementation of payment method reforms. These issues not only affect the efficiency of medical insurance funds but also negatively impact patient experience and service quality [Wang, et al., 2021]. As medical payment reforms advance, achieving refined, intelligent, and scientific management of medical insurance funds has become a key challenge for both medical institutions and healthcare regulatory authorities [Liu, et al., 2020].

This study aims to explore refined management strategies for fund supervision in designated medical institutions under payment method reform. Through an in-depth analysis of the impact of payment method reform on these institutions and an examination of current fund supervision challenges, a series of refined management strategies are proposed to provide more scientific and effective fund supervision solutions. Additionally, the study offers targeted policy recommendations for policymakers, providing theoretical support and practical guidance for the reform and optimization of medical institutions.

## ANALYSIS OF THE IMPACT OF PAYMENT METHOD REFORM ON DESIGNATED MEDICAL INSTITUTIONS

### Economic Impact of Payment Method Reform

#### *Increased Financial Pressure*

For hospitals traditionally reliant on fee-for-service models, payment method reform signifies a shift in

revenue models. Under DRG or capitation, medical institutions may face reduced income risks, compelling them to focus more on cost control, minimizing unnecessary tests and treatments, and improving service efficiency and quality.

#### *Optimization of Revenue Structure*

For most healthcare institutions, payment method reforms help break the traditional revenue model that relied heavily on individual charges for numerous tests, surgeries, and other services. Particularly under the DRG payment system, hospitals must standardize diagnosis and treatment processes while reducing excessive medical interventions to improve economic efficiency. As a result, hospitals' income structures are becoming more diversified, with economic performance increasingly dependent on operational management efficiency and service quality enhancements.

#### *Improved Fund Utilization Efficiency*

New payment models such as DRG, capitation, or pay-for-performance systems can drive healthcare institutions to improve capital utilization efficiency. Under these new models, institutional revenue and expenditures will no longer be directly tied to the volume and frequency of treatment procedures. Instead, hospitals must adopt more refined financial management to ensure efficient healthcare delivery within the total allocated medical insurance payment.

#### **Impact on Medical Service Quality**

##### *Promotion of Service Quality Improvement*

Under payment models such as DRG or capitation, healthcare institutions are typically required to control costs through standardized treatment processes and avoid unnecessary medical interventions. This shift incentivizes hospitals to enhance the standardization and scientific rigor of diagnosis and treatment, reduce excessive medical practices, and thereby improve the quality of healthcare services. Particularly in the management of chronic and common diseases, healthcare providers must optimize clinical pathways and enhance the quality of patient care to meet the demands of payment reform.

##### *Patient-Oriented Service Improvements*

Payment reforms, especially pay-for-performance models, often link reimbursement to patient outcomes and satisfaction. This requires designated healthcare institutions to place greater emphasis on patient needs and experiences, improving the overall quality of medical services. For example, factors such as patient wait times, staff attitude, and environmental comfort may become part of hospital performance metrics, driving improvements in non-clinical areas.

#### *Reduction in Over-Treatment and Waste*

The traditional fee-for-service model tends to incentivize healthcare providers to increase unnecessary tests, surgeries, and other treatments to maximize reimbursement. However, payment reforms decouple reimbursement standards from the volume of specific medical procedures, compelling institutions to reduce over-treatment and ensure the quality and effectiveness of healthcare services.

#### **Impact on Institutional Management Models**

##### *Restructuring of Incentive Mechanisms*

Payment reforms, particularly pay-for-performance and DRG models, require healthcare institutions to reassess their incentive structures. Hospitals must motivate medical staff to improve efficiency while controlling costs and avoiding unnecessary expenditures. Refined management has become a key tool for enhancing operational effectiveness, including stricter process control, quality management, and cost containment in medical services.

##### *Advancement of Informatization*

As payment reforms progress, designated healthcare providers must strengthen their IT infrastructure, particularly in digitizing medical records, clinical pathways, and cost accounting. Data-driven management enables more precise financial oversight, resource allocation, and service quality improvements. For instance, through electronic health records and telemedicine platforms, hospitals can better track patient treatment processes and ensure payment rationality.

##### *Talent and Organizational Adjustments*

Payment reforms compel healthcare institutions to reevaluate staffing and management frameworks. Under DRG or capitation models, providers may need more administrative and financial personnel for cost control and budgeting. Additionally, hospitals must foster closer collaboration between clinicians and administrators to optimize resource allocation and streamline service delivery.

### **CURRENT STATUS AND ISSUES IN FUND SUPERVISION**

Although payment method reforms and IT advancements have propelled the modernization of fund supervision, designated medical institutions still face several challenges in fund regulation, primarily manifested in the following aspects.

#### **Lack of Unified Regulatory Standards**

Currently, medical institutions across different regions and categories operate under varying fund supervision standards, with no unified norms or

benchmarks. This inconsistency undermines the fairness and uniformity of fund regulation. For instance, designated medical institutions in different regions may be subject to disparate inspection and audit criteria, resulting in inconsistent enforcement.

### **Regulatory Challenges Posed by Payment Method Reforms**

New payment models (e.g., DRG, capitation) demand more meticulous scrutiny of the appropriateness of medical services both before and after payment. However, due to the complexity of healthcare services and individual patient variations, establishing equitable payment standards and monitoring mechanisms remains a technical challenge. The implementation of payment method reforms often exacerbates regulatory difficulties.

### **Imperfect Regulatory Framework**

The current fund supervision system for designated medical institutions suffers from certain limitations, chiefly inadequate communication and coordination between regulatory bodies and medical institutions. This results in delays and gaps in regulatory information. Moreover, some institutions may engage in regulatory evasion or fraudulent claims, diminishing the effectiveness of oversight.

## **DESIGN AND OPTIMIZATION OF REFINED MANAGEMENT STRATEGIES**

In the context of payment method reform, refined management has become particularly crucial as the transformation of payment models presents significant challenges to traditional supervision approaches. This paper focuses on designing and optimizing refined management strategies for fund supervision in designated medical institutions.

### **Construction of a Refined Management Framework**

#### *Data-Driven Supervision Framework*

With the rapid advancement of information technology, medical service and expenditure data from designated healthcare institutions can now be collected in real-time through electronic medical records and medical insurance settlement systems. The implementation of a refined supervision framework based on big data analytics provides robust data support for fund oversight. First, intelligent cost analysis utilizes big data technology to monitor abnormal fluctuations in medical expenses, identifying non-compliant high-cost items or excessive medical practices. Second, behavioral pattern recognition employs data mining algorithms to conduct in-depth analysis of medical institutions' diagnostic and treatment behaviors, detecting potential abuse and fraudulent activities.

#### *Full-Cycle Fund Management*

Refined supervision should not be limited to post-payment audits, but rather encompass the entire fund utilization process, including cost control, treatment plan selection, and medical record management. First, pre-payment supervision involves using algorithms and models to evaluate the necessity and appropriateness of medical services prior to payment, thereby preventing overtreatment or unnecessary examinations. Second, a real-time monitoring and early warning system continuously tracks the medical activities of designated institutions, promptly identifying irregular practices and issuing alerts to prevent improper fund expenditures.

### **Optimization of Alignment Between Payment Methods and Supervision Approaches**

The payment method reform has facilitated the implementation of various payment models including DRG, capitation, and fee-for-service. The design of refined management strategies requires optimal matching with different payment methods to ensure rational fund utilization.

#### *Optimization of DRG Payment Model*

First, precise disease classification and payment standards should be established by accurately setting payment benchmarks according to treatment complexity and duration for different disease categories. Refined disease classification ensures appropriate payment for medical services across different patient groups, preventing underpayment or overpayment. Second, differentiated cost management should be implemented by designing more flexible and precise settlement standards that incorporate treatment difficulty, regional variations, and technological disparities, thereby avoiding inequities caused by uniform standards.

#### *Adjustment of Capitation Payment Model*

First, accurate risk stratification management should be conducted by classifying insured individuals according to health status and disease risk levels, establishing differentiated payment standards to accommodate the medical needs of patients with varying risk profiles. For chronic and severe cases, payment standards should be appropriately increased to ensure adequate medical resource allocation. Second, precise medical service demand forecasting should be performed by analyzing historical data from healthcare institutions and insured populations to predict service demands, reducing over-reliance on uniform payment standards and minimizing irrational service shortages or wastage.

#### *Reform of Fee-for-Service Payment Model*

First, itemized refinement and adjustment of service fees should be implemented by scientifically

pricing different treatment items based on actual consumables, medications, and human resource consumption during treatment processes, avoiding sole reliance on traditional fee-for-service pricing models that may create regulatory loopholes. Second, a dynamic adjustment and feedback mechanism should be introduced in fee-for-service supervision to promptly adjust pricing based on market conditions, medical technology advancements, and disease spectrum changes, while ensuring real-time updates in fund supervision.

### **Enhancement of Risk Management and Compliance Audits**

Refined management should not only focus on cost control, but also emphasize the compliance of medical practices to ensure proper use of medical insurance funds. Particularly after payment method reforms, effectively preventing improper payments and fraudulent activities through compliance audits and risk management has become a crucial task in fund supervision.

#### *Intelligent Risk Assessment Models*

First, establish a risk assessment system by constructing a multi-dimensional and dynamic framework to implement categorized and tiered supervision of healthcare institutions. Utilizing big data and machine learning algorithms, develop risk scoring models to evaluate the risk levels of medical fund utilization and provide early warnings for potential risks. Second, implement fraud detection and prevention measures. By employing intelligent algorithms to cross-validate medical expenses, clinical practices, and patient information, identify potential fraudulent activities such as fictitious treatments, duplicate billing, and unnecessary medical procedures.

#### *Compliance Inspection and Audit Mechanisms*

First, combine regular audits with random inspections to establish a dual monitoring mechanism, ensuring designated healthcare institutions remain under consistent supervision during daily operations. Routine audits help promptly identify management loopholes and non-compliant behaviors, while unannounced inspections prevent institutions from preparing in advance for checks. Second, conduct fund flow tracking audits. Perform traceability audits on every medical insurance fund transaction to ensure all expenditures comply with payment standards and usage regulations, thereby preventing fund wastage and misuse.

## **CONCLUSIONS**

This study examines the impact of payment method reform on fund supervision in designated medical institutions, analyzes existing problems in the current fund supervision system, and proposes refined management strategies. The research findings indicate that while payment method reform promotes the transformation of medical service models, it also introduces new regulatory challenges, including lagging supervision mechanisms, information opacity, and insufficient risk early warning systems. To address these challenges, the implementation of refined management strategies proves particularly crucial, especially in optimizing information system development, data sharing, compliance audits, and intelligent auditing processes. Through precise fund supervision and efficient management approaches, the utilization efficiency of funds can be enhanced, thereby promoting the healthy development of the healthcare industry.

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