**Optimizing Subnational Public Health Fiscal Mechanisms**

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**Abstract**  
This study evaluates the effectiveness and challenges of fiscal reform in China’s subnational public health financing. It focuses on earmarked transfers and their role in promoting equitable access to basic health services. Drawing on data from 31 provinces between 2015 and 2022, as well as interviews with health and finance officials, the study identifies institutional bottlenecks. It proposes performance-driven and data-integrated solutions. While central support has increased, policy implementation is hindered by misaligned incentives and local capacity constraints. The study recommends strengthening fiscal accountability, integrating data systems, and building local administrative capacity to improve long-term equity and efficiency.

**Keywords:** public health financing, fiscal decentralization, performance-based transfers, China, subnational governance, equity

**Evidence for Practice**

* Earmarked transfers significantly improved service equity in central and western provinces.
* Substantial variation in fiscal execution undermines uniform policy effectiveness.
* Current performance systems prioritize compliance over actual outcomes.
* Data silos impede real-time evaluation and adaptive planning.
* Reform should target incentive alignment, system interoperability, and local capacity.

China’s Healthy China 2030 strategy prioritizes equitable access to public health services as a key component of modern governance. Since the 2009 healthcare reform, the central government has employed earmarked transfers to support local delivery of basic public health programs such as immunization, chronic disease management, and health record systems. Despite growing financial commitment, implementation remains uneven due to structural tension between centralized objectives and local constraints.¹

Most existing research examines service coverage or aggregate spending trends but does not sufficiently address the institutional logic of fiscal policy design. This paper fills that gap by evaluating how intergovernmental fiscal mechanisms influence subnational governance behavior and what institutional adjustments could improve system performance.²

**Theory**  
We draw on fiscal incentive theory, which examines how financial rewards influence local government behavior, and multi-level governance theory, which explores how authority and coordination are shared across different levels of government in complex systems. The former highlights the role of performance-oriented transfers in shaping local behavior, while the latter underscores coordination complexity in hierarchical health systems.

*Fiscal Contracts and Governance Responsiveness.* When earmarked transfers are tied to clear, outcome-based goals and linked to follow-up allocations, local governments are more likely to respond proactively. However, when indicators are ambiguous or feedback is delayed, formal compliance often supplants substantive performance.

**Methods**  
A mixed-methods approach was used to capture both measurable policy effects and the institutional mechanisms underlying fiscal decision-making. Quantitative analysis employed panel data from 31 provinces (2015–2022) using fixed effects and difference-in-differences models to assess trends in health service outcomes. Qualitative insights were derived from 40 interviews with officials from finance and health departments in Beijing, Sichuan, Gansu, and Hunan, providing context for administrative practices and interpretation of fiscal data. Thematic coding and policy discourse analysis were applied.

**Results**  
Regression results show a positive association between earmarked transfers and health coverage indicators (e.g., immunization rates, health record access), especially in central and western regions ([Table 1 here]). However, fiscal performance varied widely across provinces. Interviews revealed concerns about bureaucratic inertia, unclear performance metrics, and fragmented data systems.

**Discussion**  
Findings confirm the catalytic role of fiscal incentives but highlight three systemic barriers: imprecise goals, delayed feedback, and weak local implementation capacity. Compared with OECD benchmarks, China’s centralized system lacks tailored mechanisms for horizontal and vertical policy coordination.

A “3-in-1” reform strategy is proposed: (1) clearly defined performance contracts; (2) integrated fiscal and health information systems; (3) sustained investment in subnational public management training.

**Conclusion**  
While earmarked transfers have improved health service equity, systemic challenges remain. To ensure long-term effectiveness, reforms must implement a "3-in-1" strategy that includes: improving fiscal precision through clearly defined performance-based contracts; enhancing data interoperability by integrating fiscal and health information systems; and strengthening governance capacity through sustained investment in local administrative training. Coordinated fiscal-health governance is key to realizing China’s public health goals.

**Tables and Figures**  
[Table 1 here] Regression Results on Transfers and Service Coverage  
[Figure 1 here] Geographic Distribution of Transfer Intensity and Health Indicators

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**Conflict of Interest**  
The authors declare no conflict of interest.

**Endnotes**

1. Data sources include the National Health Commission statistical yearbooks (2016–2023) and Ministry of Finance expenditure reports.
2. Interviews covered local officials in four provinces with varying fiscal capacity and demographic profiles.

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