

Rongjie Shao, MS¹, Boya Zhao, PhD^{1,2}, Jing Wu, PhD^{1,3*}

¹ School of Pharmaceutical Science and Technology, Faculty of Medicine, Tianjin University, Tianjin, China

² School of Public Health, Peking University, Beijing, China

³ Center for Social Science Survey and Data, Tianjin University, Tianjin, China

INTRODUCTION

- The regional global budget with a floating payment system (RGB-FPS), implemented in countries like Germany and China, allocates a fixed budget across providers based on their share of services delivered. While effective for cost containment, RGB-FPS may incentivize overprovision and excessive competition.

OBJECTIVES

- This study presents a conceptual framework based on physician service capacity to guide rational expectations and promote sustainable healthcare delivery.

METHODS

- Using a mixed-methods approach, we first estimated capacity thresholds for outpatient physicians in City A based on historical service volumes. City A was among the first in China to adopt RGB-FPS for both outpatient and inpatient care, transitioning from a fixed institutional budget in April 2022. We analyzed monthly claims data from 2019–2023 using payment points as a proxy for volume, comparing annual growth across institution types, service categories, and physician titles. We also conducted stakeholder interviews and drew on best practices from another representative city to inform the framework.

RESULTS

- We identified 31,366 outpatient physicians annually, practicing across 1,192 institutions in City A. Most worked in tertiary (36.9%) or non-patient-contracted primary care (non-PCPC) institutions (28.2%). Resident physicians comprised 54.7%.
- Physicians in non-PCPC institutions (94% private) showed the highest growth in service volume (9.5% annually), driven by Western and herbal medicine.

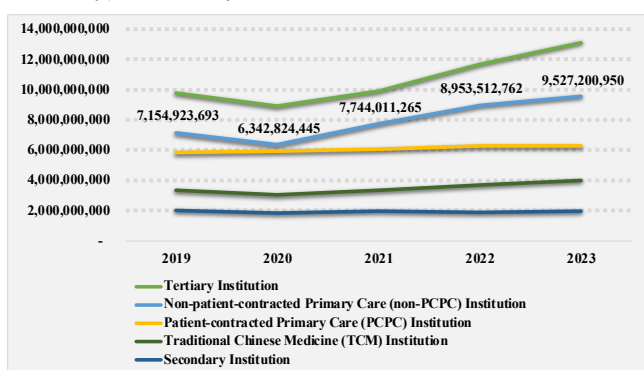


Figure 1. The total service volume by different institutional types

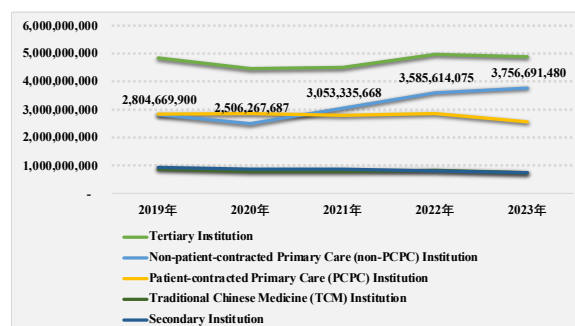


Figure 2. The service volume of Western medicine

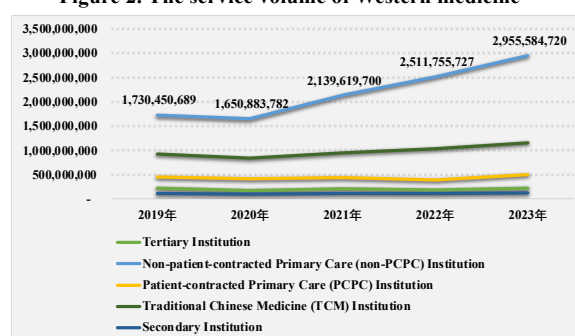


Figure 3. The service volume of herbal medicine

- Service day growth was highest among residents (12.9%), suggesting weak incentives for senior providers.

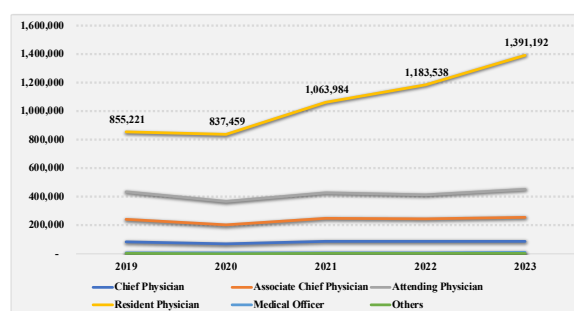


Figure 4. The service days by different physician titles

- Therefore, we developed a framework categorizing services into four groups: Western medicine, Chinese patent medicine, herbal medicine, and medical services. Individual annual volume thresholds were set based on daily service averages, workdays, and title-based coefficients (chief: 1.2, associate chief: 1.1, attending: 1.0, resident/others: 0.9). Services exceeding thresholds would be reimbursed at discounted rates to align expectations and reduce excessive competition.

CONCLUSION

- This framework aligns physician behavior with payment incentives under RGB-FPS and mitigates excessive competition. Further research is needed to refine discounting mechanisms for excess volumes.