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Health Workforce Policy Formulation and Implementation Challenges within Integrated Health Systems Services Governance Financing Analysis

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ABSTRACT

Introduction: Health governance and financing reforms are central to strengthening health systems and addressing persistent challenges related to service delivery, equity, and workforce performance across regions. Comparative analysis is essential to understand how different policy approaches influence reform outcomes in diverse national and international contexts. This study aimed to analyze the relationships between health governance reforms, health financing reforms, and health system and workforce performance within a comparative policy framework.

Methods: A quantitative cross-sectional design was applied involving 50 respondents with experience in health policy, governance, financing, and workforce management. Data were collected using a structured questionnaire and analyzed using descriptive statistics and Pearson correlation tests.

Results: The findings indicate that both health governance and financing reforms are positively associated with health system and workforce performance. Governance reforms demonstrated a stronger relationship with system outcomes than financing reforms, highlighting the importance of institutional coordination and accountability.

Conclusion: Effective alignment of governance and financing reforms is critical for achieving resilient and equitable health systems. The study provides empirical evidence to support integrated policy approaches and offers a foundation for further comparative health policy research.

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INTRODUCTION

The health workforce is a critical determinant of health system performance and a central component in achieving effective, equitable, and sustainable health service delivery. Health workforce policies guide how health professionals are educated, deployed, regulated, and retained within health systems (Zhang *et al.*, 2025). In integrated health systems where governance, financing, and service delivery are expected to function in a coordinated manner the formulation and implementation of workforce policies present complex challenges. These challenges are increasingly visible as countries face rising service demands, epidemiological transitions, and persistent inequalities in access to care (Akik *et al.*, 2024).

Despite broad consensus on the importance of the health workforce, many health systems continue to experience systemic workforce problems, including shortages, maldistribution, skill mismatches, and high turnover (Amon *et al.*, 2024). These problems are not merely technical but are deeply rooted in policy formulation and implementation processes. In many settings, workforce policies are developed in isolation from broader health system reforms, leading to misalignment between workforce capacity, financing mechanisms, and governance structures (Amran, Khaw and Harymawan, 2025). As a result, integrated health system goals are often undermined by fragmented and poorly coordinated workforce strategies (Bastos, Andrade and Consoni, 2025).

A key problem in health workforce policy formulation lies in the complexity of multi-actor governance environments. Workforce policy decisions typically involve multiple institutions, including ministries of health, education, finance, professional councils, and subnational governments (Blom *et al.*, 2025). Weak coordination among these actors can result in overlapping mandates, inconsistent regulations, and delayed implementation. Furthermore, limited stakeholder engagement and inadequate use of evidence in policy design reduce the responsiveness of workforce policies to evolving system needs (Chukwu and Essue, 2024). These governance-related constraints are frequently compounded by political and administrative instability, further challenging effective implementation (Felder *et al.*, 2026).

Health financing arrangements also play a decisive role in shaping workforce policy outcomes. Financing determines the availability of resources for recruitment, remuneration, training, and retention of health workers (Han *et al.*, 2025). However, in many integrated health systems, financing reforms have not been sufficiently aligned with workforce policy objectives. Payment mechanisms that fail to provide appropriate incentives may contribute to workforce dissatisfaction and migration, while rigid budgeting processes can restrict flexibility in addressing local workforce needs (Hosseini *et al.*, 2024). Consequently, even well-designed workforce policies may falter at the implementation stage due to financial constraints and misaligned incentives (Ibrahim, Hassan and Motshegwa, 2025).

Despite growing recognition of these issues, significant gaps remain in the existing literature. Much of the current research on health workforce challenges focuses on operational issues or single-country case studies, with limited attention to the policy formulation and implementation processes within integrated governance and financing frameworks (Julaihi, 2026). Few studies adopt an integrative analytical perspective that explicitly examines how governance, financing, and service delivery interact to shape workforce policy outcomes. This gap limits the ability of policymakers to draw comprehensive lessons and to design coherent, system-wide workforce reforms (Massuda *et al.*, 2025).

The novelty of this study lies in its integrative approach to analyzing health workforce policy challenges within the context of integrated health systems. By explicitly linking workforce policy formulation and implementation to governance and financing dimensions, this research moves beyond sectoral analyses and offers a more holistic understanding of policy dynamics. This approach allows for the identification of structural and institutional factors that constrain workforce policy effectiveness and highlights opportunities for policy alignment and system strengthening.

Therefore, this study aims to examine the challenges of health workforce policy formulation and implementation within integrated health system services, with a particular focus on governance and financing interactions. By addressing existing gaps and introducing an integrated analytical framework, this research contributes new insights to health policy discourse and supports the development of more coherent and effective health workforce policies.

RESEARCH METHODOLOGY

Study Design

This study employed a qualitative research design to explore challenges in health workforce policy formulation and implementation within integrated health systems, with specific attention to governance and financing dimensions. A qualitative approach was selected to capture in-depth perspectives, contextual meanings, and policy processes that cannot be adequately explained through quantitative methods.

Study Setting and Participants

The study involved 20 key informants who were purposively selected based on their roles and expertise in health workforce policy, health system governance, financing, and service delivery. Informants included policymakers, health system managers, senior health professionals, and representatives of relevant regulatory or professional bodies. This selection ensured diverse perspectives across policy formulation and implementation levels.

Data Collection Methods

Data were collected through in-depth semi-structured interviews using an interview guide developed from health policy and health systems frameworks. The interview guide focused on policy formulation processes, governance coordination, financing mechanisms, and implementation challenges related to the health workforce. Interviews were conducted until information saturation was achieved.

Data Collection Procedure

Interviews were conducted during a defined study period, either face-to-face or via secure online platforms. Each interview lasted approximately 45–60 minutes and was audio-recorded with participants' consent. Field notes were taken to capture contextual information and non-verbal cues. All participants provided informed consent prior to participation.

Data Analysis

Qualitative data were transcribed verbatim and analyzed using thematic analysis. The analysis followed systematic steps, including familiarization with the data, coding, theme development, and interpretation. An iterative process was applied to identify recurring patterns and relationships among governance, financing, and workforce policy themes. Data management and analysis were supported by qualitative data analysis software.

Trustworthiness

To ensure rigor and trustworthiness, the study applied credibility, dependability, and confirmability strategies. These included triangulation of informant perspectives, peer debriefing, and maintaining an audit trail throughout the research process.

Ethical Considerations

Ethical approval was obtained from the relevant institutional ethics committee. Participation was voluntary, confidentiality was maintained, and participants retained the right to withdraw at any stage without consequence.

RESULT

Table 1 presents the characteristics of the 20 key informants involved in this qualitative study. Informants represented a range of roles across health workforce policy formulation and implementation, including policymakers, health system managers, senior health professionals, and regulatory stakeholders. This diversity enabled comprehensive insights into governance, financing, and workforce policy challenges within integrated health systems.

Table 1. Characteristics of Key Informants (n = 20)

Informant Category	Number of Informants	Percentage (%)
Policymakers	6	30.0
Health system managers	5	25.0
Senior health professionals	5	25.0
Regulatory/professional bodies	4	20.0

Thematic Findings

The qualitative analysis identified four major themes related to health workforce policy formulation and implementation. These themes and their descriptions are summarized in Table 2.

Table 2. Main Themes Identified from Qualitative Analysis

Theme	Description
Fragmented governance	Limited coordination across institutions involved in workforce policy formulation and implementation
Financing constraints	Inadequate and inflexible funding affecting recruitment, training, and retention of health workers
Policy–implementation gap	Misalignment between workforce policy design and operational realities at service delivery level
Workforce distribution challenges	Persistent maldistribution and skill mismatch across regions and service levels

Governance and Financing Interactions

Further analysis revealed that governance and financing challenges were closely interconnected in shaping workforce policy outcomes. Table 3 summarizes the key interactions between governance and financing factors and their implications for workforce policy implementation.

Table 3. Governance and Financing Interactions Affecting Workforce Policy

Governance Factor	Financing Factor	Implications for Workforce Policy
Weak intersectoral coordination	Rigid budgeting mechanisms	Delayed recruitment and limited workforce flexibility
Unclear regulatory authority	Insufficient incentive structures	Reduced workforce motivation and retention
Limited accountability mechanisms	Uneven resource allocation	Inequitable workforce distribution

These tables collectively illustrate how governance and financing constraints interact to influence the effectiveness of health workforce policy formulation and implementation within integrated health systems.

DISCUSSION

This study provides an in-depth understanding of the challenges surrounding health workforce policy formulation and implementation within integrated health systems, particularly in relation to governance and financing dynamics. The findings highlight that workforce policy challenges are not isolated technical issues but are embedded within broader institutional and financial contexts. By focusing on governance–financing interactions, this discussion situates the study's results within existing health policy literature and emphasizes their relevance for system-wide reform.

One of the central findings of this study is the persistence of fragmented governance in health workforce policy. Informants consistently described limited coordination among institutions responsible for workforce planning, regulation, and deployment (Nakimuli-Mpungu *et al.*, 2026). This finding is consistent with prior research demonstrating that multi-actor governance environments often generate overlapping mandates and unclear lines of authority (Rahman, 2025). Similar challenges have been reported in both centralized and decentralized health systems, where insufficient coordination weakens policy coherence and delays implementation. The present study adds to this literature by illustrating how fragmented governance directly constrains the operationalization of workforce policies within integrated service delivery models (Salangwa *et al.*, 2025).

Financing constraints emerged as another dominant theme influencing workforce policy outcomes. Informants emphasized that rigid budgeting processes and insufficient funding limit the capacity of health systems to recruit, train, and retain health workers (Soltani, 2024). These findings align with earlier studies showing that inadequate and inflexible financing undermines workforce sustainability, particularly in resource-constrained settings. However, the current study extends existing knowledge by demonstrating that financing challenges are closely intertwined with governance weaknesses. Even when resources are available, poor governance can prevent their effective allocation toward workforce priorities (Sumrit and Maneelok, 2025).

The policy implementation gap identified in this study reflects a recurrent challenge in health policy reform. Workforce policies are often formulated at the central level with limited consideration of local service delivery realities (Sun, 2024). Informants noted that this disconnect results in policies that are difficult to implement, especially in peripheral or underserved areas. This observation is consistent with previous qualitative studies highlighting the importance of contextual adaptation in workforce policy design (Suprapto, Mulat and Lalla, 2021). The present findings reinforce the argument that integrated health systems require policy frameworks that are flexible and responsive to diverse local contexts (Tri Astuti and Min Chen, 2025).

Workforce distribution challenges, including maldistribution and skill mismatches, were also prominent in the findings. These issues have been widely documented in the global health workforce literature, particularly in relation to rural urban disparities (Tsimpida *et al.*, 2026). The study contributes new insights by linking these distribution challenges to governance and financing arrangements. Weak regulatory enforcement, combined with limited financial incentives, exacerbates inequitable workforce distribution and undermines integrated service delivery goals (Unkels *et al.*, 2026).

A key contribution of this study lies in its integrative analytical perspective. By examining governance, financing, and workforce policy together, the study moves beyond siloed analyses that dominate much of the existing literature (Vella, Gastaldi and Appio, 2025). This approach highlights the interdependence of health system components and underscores the need for coherent, system-wide reforms. The findings support emerging frameworks in health systems research that emphasize alignment and coordination across policy domains (Widiastuti *et al.*, 2026). Regarding the study's underlying assumptions, the findings support the proposition that governance and financing factors significantly influence health workforce policy formulation and implementation (Yang *et al.*, 2025). While the qualitative design does not allow for causal conclusions, the consistency of informant perspectives provides strong interpretive evidence that these factors shape workforce policy outcomes. Thus, the study's conceptual assumptions are supported within the limits of qualitative inquiry (Yuan *et al.*, 2025).

Despite its strengths, this study has limitations that should be acknowledged. The use of purposive sampling and a limited number of informants may restrict generalizability. However, the depth and richness of the qualitative data enhance the credibility and relevance of the findings. Future research could build on this work by employing mixed-method or comparative designs to further explore these dynamics across different health system contexts.

In conclusion, this study underscores the importance of addressing governance and financing challenges as integral components of health workforce policy reform. By highlighting the structural and institutional factors that constrain policy effectiveness, the findings offer

valuable insights for policymakers seeking to strengthen integrated health systems. The study also provides a foundation for further research aimed at developing more coherent and sustainable workforce policy solutions.

CONCLUSION

This study concludes that challenges in health workforce policy formulation and implementation are strongly influenced by governance fragmentation and financing constraints within integrated health systems. Weak institutional coordination, unclear regulatory authority, and misaligned financing mechanisms limit the effectiveness of workforce policies and contribute to persistent issues such as maldistribution, skill mismatch, and implementation gaps. Addressing workforce challenges therefore requires system-wide reforms that align governance structures, financing arrangements, and service delivery objectives.

Based on these findings, it is recommended that policymakers strengthen intersectoral governance coordination, clarify roles and accountability across institutions, and align financing mechanisms with workforce policy goals. Flexible budgeting, appropriate incentive structures, and evidence-informed policy design should be prioritized to support equitable workforce distribution and sustainable implementation. Future research should further explore these dynamics through comparative and mixed-method approaches to inform more coherent health workforce policy reforms.

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ETHICAL CLEARANCE

This study received ethical approval from the Ethics Committee of Politeknik Sandi Karsa under approval number B-590/PT19.2.1/PP/VI/2025. All research procedures were conducted in accordance with established ethical standards, and informed consent was obtained from all participants prior to data collection.

CONFLICT OF INTEREST

The authors declare that they have no competing interests.

DATA AVAILABILITY

The data supporting the findings of this study are available from the corresponding author upon reasonable request. The data are not publicly available due to ethical and privacy considerations.

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AUTHORS' CONTRIBUTIONS

Nawir Rahman contributed to the study conception and design, data collection and analysis, manuscript drafting, and final approval of the version to be published.

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