

Institutionalizing Results-Based Financing in Devolved Health Systems: Lessons from Zambia's Northern Province

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Abstract

Zambia has implemented significant health-sector decentralization since 1992, culminating in the devolution of district health services to local authorities under the 2016 Constitutional Amendment. Results-Based Financing (RBF) has been piloted as a performance incentive mechanism, but its institutionalization within devolved structures remains largely unexplored. This study explores the opportunities and challenges of embedding RBF within Zambia's devolved health system, with a focus on Northern Province. A qualitative case study design was used, involving forty-four participants from twelve districts. Purposive sampling selected health workers from provincial and district health offices, local authority representatives, and national stakeholders. Data collection included semi-structured interviews, document reviews, and observations, with thematic analysis conducted using NVivo 9. Most respondents (82%) reported involvement in RBF implementation, and fifty-three% believed that increased Constituency Development Fund (CDF) allocations improved district health services. Key benefits cited were increased accountability (81.8%) and greater community participation (77.3%). Challenges included insufficient funding (83.3%), delays in disbursing funds (91.7%), and limited understanding among local authority implementers. Infrastructure development and procurement of medical equipment were identified as primary areas for CDF improvements (56%). Respondents also agreed (53%) that the Ministry of Health and the Ministry of Local Government would support the institutionalization of RBF. Effective integration of RBF into devolved systems requires harmonizing policies between health and local government ministries, building capacity within local authorities, and aligning RBF with other domestic financing mechanisms, such as CDFs. A phased approach to integration, with clearly defined governance structures, is recommended to ensure sustainable scaling.

Keywords: *Devolved Governance, Health Decentralization, Health Policy Implementation, Health Systems Strengthening, Results-Based Financing, Zambia.*

Introduction

The decentralization of health services has received significant global attention as a governance reform strategy, especially in sub-Saharan Africa, where health outcomes remain poor despite increased health spending. Zambia serves as a compelling case study, having implemented comprehensive health-sector decentralization since 1992--1993 through the creation of the Central Board of Health. The

recent transfer of district health services to local authorities under the Constitutional (Amendment) Act No. 2 of 2016 presents both opportunities and challenges for health financing innovations [1].

Results-Based Financing (RBF) has become a key mechanism in healthcare funding, with the potential to support universal health coverage by linking incentives to performance outcomes. Defined as "any program that rewards the delivery of one or more outputs or

outcomes by one or more incentives, financial or otherwise," RBF signifies a shift from input-based to output-focused financing [2]. Although Zambia has piloted RBF since 2011, with support from the World Bank, its integration into devolved local government structures remain unexplored [3].

This study addresses a key research gap concerning how RBF approaches can be integrated with the decentralization of district health services to local authorities. Specifically, it examines the institutionalization process, stakeholder perceptions, and systemic factors shaping the implementation of RBF in Zambia's Northern Province, offering policy-relevant insights for similar contexts in sub-Saharan Africa.

Methods

Study Design and Setting

This research employed a qualitative case study approach in the Northern Province of Zambia. The province comprises twelve districts with more than 350 health facilities, providing a diverse setting for studying RBF implementation in decentralized systems. The case study method was chosen for its capacity to provide a deep understanding of complex phenomena in real-world environments [4].

Sampling and Participants

Purposive sampling was used to select forty-four participants with direct knowledge of or involvement in RBF implementation. The sample included:

1. Health workers from the Provincial Health Office, District Health Offices, and selected health facilities (93%).
2. Local authority representatives at the provincial and district levels (2%).
3. RBF experts and donor organizations supporting the Ministry of Health (5%).

Participants were excluded if they represented civil society organizations or line ministries not directly involved in health services. The Kasama district had the largest

proportion of respondents (18%), reflecting its status as the provincial capital.

Data Collection

Multiple qualitative data collection methods were employed:

1. Semi-structured interviews: Conducted in English, audio recorded, and transcribed verbatim.
2. Document reviews: Analysis of policy documents, including the Constitution of Zambia (Amendment) Act No. 2 of 2016, the health Sector Devolution Plan 2022, the Zambia National Health Strategic Plan 2022--2026, and relevant fiscal management acts.
3. Observations: Participant and non-participant observation in health facilities and local government offices.
4. Reflective practice: Regular meetings with research assistants to improve objectivity.

Data Analysis

Interview transcripts, observation notes, and document extracts were imported into NVivo 9 software for analysis. Thematic framework analysis was carried out following established qualitative methods, with coding guided by the study's conceptual framework and emergent themes [5]. Triangulation across data sources improved validity and reliability.

Ethical Considerations

Ethical approval was obtained from the University of Zambia Health Sciences Research Ethics Committee (Ref: 2023-045) and the National Health Research Authority of Zambia. Written informed consent was secured from all participants after a thorough explanation of the study objectives. Data were anonymized during analysis and reporting. All participants were assured of their right to withdraw from the study.

Results

RBF Implementation Process and Perceptions

Most respondents (80%) described the implementation of RBF in Northern Province as a structured rollout with specific timelines, indicating a systematic approach. A large majority (82%) reported being directly involved in RBF implementation, demonstrating widespread engagement among health sector stakeholders. Regarding impact, 42% agreed, and 24% strongly agreed that RBF had positive effects on healthcare service delivery in their districts [15].

Constituency Development Fund (CDF) Synergies

The link between RBF and increased CDF allocation became a key theme. Most respondents (53%) believed that extra CDF funding improved the district healthcare services. Infrastructure development and the

procurement of medical equipment and supplies were seen as the principal areas of improvement (56%). Participants noted that CDF enabled complementary investments that supported RBF goals, especially in resource-limited settings [14].

Institutional Support and Governance

Participants showed positive views on institutional support for RBF. Specifically, 53% agreed that the Ministry of Health and the Ministry of Local Government would support the institutionalization of RBF, whereas 22% were neutral. However, coordination issues between ministries were observed, particularly with respect to policy consistency and administrative processes across the health and local government sectors.

Implementation Challenges

Several implementation barriers were identified (Table 1):

Table 1: Challenges and Limitations in RBF Implementation

Challenge/Limitation	Percentage of Responses
Inadequate Funding	83.3%
Delays in Fund Disbursement	91.7%
Lack of Trained Personnel	50%
Poor Monitoring and Evaluation	50%

Stakeholder Perspectives on RBF Benefits

Participants identified multiple benefits of RBF institutionalization:

1. Improved accountability in service provision (81.8%).
2. Increased community participation (77.3%).
3. Enhanced financial efficiency (68.2%).
4. Stronger performance monitoring (63.6%).

Local Authority Capacity and Readiness

Concerns were raised about the local authority's capacity to implement RBF. Participants identified knowledge gaps among administrators and a limited understanding of health priorities among the CDF allocation committees. This underscores the need for targeted capacity building in health financing and performance management for local government staff [16].

Discussion

Policy Integration in Devolved Systems

This study shows that successful RBF institutionalization in devolved systems require more than just technical design; it demands careful policy integration across various levels of governance. The Zambian experience highlights both the potential of domestic financing mechanisms, like CDFs, to support RBF, and the challenges of aligning national health priorities with local government decisions. Like findings from Rwanda's RBF scale-up [6], our study emphasizes the importance of national ownership and gradual integration into existing systems.

The phenomenon of policy fragmentation observed in Zambia's devolved health system is not unique; it reflects a common challenge in many low- and middle-income countries (LMICs) pursuing decentralization while implementing innovative financing mechanisms [17]. Although decentralization theoretically brings decision-making closer to service delivery points, in practice it often results in parallel administrative structures that operate with different incentives, reporting requirements, and accountability mechanisms [18]. Our findings suggest that the success of RBF in such contexts depends critically on establishing coherent policy environments where performance incentives align with local governance structures rather than work against them.

The tension between national health priorities and local government autonomy emerged as a recurring theme in our interviews. Local authorities, recently empowered by constitutional amendments, often focus on visible infrastructure projects rather than the less tangible but essential service-delivery improvements targeted by RBF. This mismatch of priorities reflects what Bossert [7] describes as the "decision space" dilemma, in which local authorities have formal authority to make decisions, but may lack the technical capacity

or incentive structures to align those decisions with national health goals. Future policy frameworks must therefore address not only the formal distribution of responsibilities, but also the development of incentive-compatible structures that motivate local authorities to prioritize health outcomes within their broader development mandates [40].

Financing Mechanisms and Sustainability

The substitution effect observed between RBF grants and regular government funding reflects concerns raised in the Zambia RBF Impact Evaluation [8]. To ensure sustainability, RBF should not be designed as complementary funding but rather as a more systemic funding mechanism to avoid becoming a substitute for financing. Our findings suggest that linking RBF indicators to government budget performance at multiple levels could help reduce substitution risks and promote domestic resource mobilization.

The relationship between RBF and domestic financing mechanisms is a crucial aspect of sustainability that requires deeper analysis [19]. In Zambia's context, the Constituency Development Fund (CDF) has become an important source of local health financing, with 56% of respondents citing it as essential for infrastructure and equipment investments. However, our data highlight a key point: while CDF supports RBF in terms of capital investments, it rarely aligns with the performance incentives central to RBF design. This creates a fragmented financing landscape where input-based funding (CDF) and output-based funding (RBF) operate separately rather than together.

This fragmentation has implications for sustainability that go beyond funding levels alone. As Meessen et al. [9] argue, the sustainability of RBF depends not only on ongoing financial inflows but also on institutional ownership and integration into regular government systems. When RBF

functions as a donor-driven project in parallel with government systems, it risks creating separate structures that collapse once external funding stops. The Zambian experience suggests that integrating with domestic mechanisms, like CDF, offers a possible pathway toward institutionalization, but only if these mechanisms are designed to include performance principles [34].

The timing of financing also became a crucial factor for sustainability. Our finding that 91.7% of respondents reported delays in fund disbursement highlights a systemic issue that weakens the effectiveness of RBF. Performance incentives lose their motivating effect when rewards are delayed, especially in resource-limited settings where front-line providers may have already paid out-of-pocket expenses to deliver services [35]. This issue is more pronounced in devolved systems, where funds must pass through multiple administrative layers before reaching service points. Future RBF design in devolved contexts should include streamlined disbursement methods that reduce administrative delays while ensuring accountability [20].

Governance Structures for Devolved RBF

The study emphasizes the need for clear governance structures that define roles and responsibilities at the national, provincial, and district levels. Just as Burundi created Local Fund Holder Agencies [10], Zambia could benefit from dedicated structures for RBF administration within its decentralized systems. However, these structures must balance independence with accountability to avoid fragmentation.

The governance challenge in devolved RBF systems occurs on multiple levels. At the institutional level, our findings highlight ongoing coordination issues between the Ministry of Health and the Ministry of Local Government, with only 53% of respondents expressing confidence in inter-ministerial

support for RBF institutionalization. This reflects a core tension in health-sector decentralization: while health service delivery requires specialized technical expertise traditionally held by health ministries, devolution shifts administrative authority to local government bodies that may lack such expertise. The resulting governance gap can only be addressed through intentional institutional design that clearly defines mandates and establishes mechanisms for technical support and oversight [21].

The experience of other countries offers valuable comparative insights. Rwanda's approach to RBF governance, characterized by strong central leadership combined with clear delegation to districts, has shown promising results in maintaining national standards while allowing local adaptation [6]. In contrast, Uganda's experience with performance-based contracting illustrates the risks of inadequate governance structures, where unclear accountability lines contributed to implementation challenges [11]. Zambia's emerging model is navigating a middle path, with national frameworks providing overall direction, while districts have increased autonomy over implementation details. However, our data suggest this balance remains precarious, with significant variation in district-level capacity creates inequities in implementation quality.

At the operational level, governance challenges manifest in monitoring and evaluation (M&E) systems. Our finding that 50% of respondents identified poor M&E as a key challenge, pointing to a critical gap in RBF implementation. Effective RBF fundamentally depends on robust verification of performance results, but devolved systems complicate this process. When health facilities report to district health offices, which in turn reports to local authorities with varying technical capacity, the verification chain becomes vulnerable to breakdowns at multiple points [22]. Future governance reforms must therefore prioritize

the development of M&E systems that are both technically rigorous and administratively feasible within decentralized structures.

Capacity Building Priorities

The identified knowledge gaps among local authority staff highlight the need for targeted capacity building. Training should go beyond health workers to include local government officials involved in health planning and budgeting. This aligns with the decision space framework [7], which emphasizes the relationship among decentralization policies, organizational capacity, and performance outcomes.

Our findings reveal a multidimensional capacity gap that extends beyond simple knowledge deficits. First, at the technical level, local authority staff often lack an understanding of health financing principles in general and RBF mechanics in particular. This is compounded by high turnover rates in local government positions, which means that even when training is provided, institutional memory remains fragile [23]. Second, at the managerial level, challenges emerge in integrating health performance data with broader local government planning processes. Health indicators often compete with other development priorities in resource allocation decisions, and local government officials may lack the analytical frameworks to make evidence-based trade-offs.

The capacity challenge is particularly acute at the interface between health systems and community structures [24]. Our data indicate strong community participation (77.3%) as a benefit of RBF, but this participation often occurs without adequate support structures. Community health committees and other participatory mechanisms may lack the technical expertise to monitor health services effectively, or to provide meaningful input into planning processes. This represents both a challenge and an opportunity: while weak community capacity limits the effectiveness of

participatory governance, targeted capacity building at this level could transform communities from passive beneficiaries to active partners in health system governance [25].

The temporal dimension of capacity building requires particular attention. Our data indicate that current training methods are often episodic and project-specific rather than ongoing and integrated. This pattern aligns with what Ssenooba et al. [11] identify as a common issue in health system reforms: capacity building that addresses immediate project needs without developing lasting institutional capabilities. A more strategic approach would integrate RBF capacity building into existing local government training programs and career development pathways, fostering sustainable expertise rather than temporary, project-specific knowledge.

Equity Considerations in Devolved RBF

An important aspect that naturally emerged from our data but warrants explicit discussion is the equity implications of RBF in decentralized systems. Although not the focus of our study, several respondents expressed concern that RBF could exacerbate existing inequalities among districts with varying baseline capacities [36]. High-performing districts with stronger management systems may receive a larger share of performance incentives, leading to a "Matthew effect" in which resource gaps widen over time.

This equity challenge manifests in several ways. First, districts with weaker health infrastructure and human resources may struggle to meet performance targets not because of a lack of effort, but because of structural barriers. Second, the transaction costs of participating in RBF schemes—including data collection, reporting, and verification—may place a heavier burden on smaller or more remote districts, potentially discouraging participation or diverting limited resources from service delivery. Third, the emphasis on

measurable indicators in RBF might unintentionally shift attention away from harder-to-measure but equally important aspects of the health system performance, such as equity of access or quality of care for vulnerable populations [26].

The international experience offers cautionary tales in this regard. Studies from other African contexts have documented how performance-based financing can sometimes lead to "cream-skimming" or the neglect of hard-to-reach populations [12]. In Zambia's devolved context, where districts have varying demographic and epidemiological profiles, a uniform set of performance indicators might unfairly disadvantaged districts facing particularly challenging circumstances. Future RBF designs should therefore incorporate equity-sensitive elements, such as risk-adjusted performance targets, additional support for low-capacity districts, or equity-focused bonus indicators that reward improvements in serving marginalized populations [37].

Adaptive Learning and Contextualization

A final critical dimension emerging from our analysis is the importance of adaptive learning in RBF implementation [27]. The standardized rollout approach described by 80% of respondents, while ensuring consistency, may limit opportunities for contextual adaptation. Health systems are complex adaptive systems that respond unpredictably to interventions, and this complexity is magnified in devolved contexts where local conditions vary significantly.

The tension between standardization and contextualization highlights a key design challenge for RBF in decentralized systems. While standardization promotes comparability, reduces manipulation, and simplifies management, overly strict standards can create inflexible structures that overlook local priorities or fail to adjust to evolving conditions [28]. Our data indicate that Zambia's current

strategy favors standardization, but several respondents emphasized the benefit of granting districts some flexibility in meeting performance targets.

The international literature on health system innovation highlights the importance of "positive deviance" approaches, in which system learning occurs by examining unusually successful implementations in similar settings [29]. In Zambia's decentralized system, this could involve developing structured learning platforms that enable districts to share effective strategies to improve specific indicators. These platforms could supplement formal M&E systems by capturing tacit knowledge and innovative practices that may not be apparent in quantitative performance data.

The importance of digital technologies in supporting adaptive learning deserves special attention [38]. Although it is not a primary focus of our study, several respondents mentioned challenges with data systems for RBF monitoring. New digital tools, including mobile data-collection platforms and data-visualization dashboards could enhance both the efficiency of RBF management and the quality of learning from implementation experiences. However, as Mbau et al. [13] caution, digital health interventions must be carefully designed, taking into account for local infrastructure limitations and digital literacy levels to avoid exacerbating existing inequalities.

The Political Economy of RBF Institutionalization

Beyond technical design considerations, our findings highlight key political-economic factors shaping the institutionalization of RBF in decentralized systems. The transfer of the health service authority to the local governments is not just an administrative change but a redistribution of power and resources. Therefore, RBF implementation inevitably interacts with local political

dynamics, including competition for resources, patronage networks, and electoral cycles [30].

Several respondents mentioned these political aspects, often indirectly. The focus on visible infrastructure projects through CDF, for example, may reflect not only technical choices but also political motives, as infrastructure provides more concrete evidence of government action to constituents. Likewise, delays in fund disbursement might result in not only from administrative issues but also from political considerations about when to distribute resources.

The political economy perspective helps explain some paradoxical findings. For example, why would local authorities support RBF institutionalization (as shown by 53% of respondents), while showing limited understanding of its principles? One reason is that RBF is not just a technical tool, but also a potential source of additional resources and authority. Local officials might support RBF in theory while resisting aspects that could limit their discretionary power or reveal performance weaknesses [31].

Understanding these political economy dimensions is crucial for designing implementation strategies that are both technically sound and politically feasible. As Ssengooba et al. [11] argue, health policy reforms often fail not because of technical deficiencies but because of inadequate attention to political and institutional constraints. Future RBF initiatives in devolved contexts should therefore incorporate explicit political economy analysis into their design and implementation, identify potential sources of resistance, and develop strategies to build coalitions for reform.

The discussion above explores multiple interconnected aspects of RBF institutionalization in decentralized health systems, going beyond the initial findings to examine equity issues, adaptive learning processes, and political economy factors. These broader considerations emphasize that

successful RBF institutionalization requires managing complex technical, governance, and political challenges simultaneously [32].

The Zambian experience, though specific to its context, offers broader lessons for other countries pursuing similar reforms. First, it shows that domestic financing mechanisms, such as CDFs, can serve as important entry points for RBF institutionalization, but they require careful redesign to align with performance principles [39]. Second, it emphasizes the critical importance of capacity building that goes beyond health workers to include local government officials and community structures. Third, it highlights the need for governance frameworks that balance local autonomy with national standards, especially in monitoring and verification systems [33].

Most importantly, the Zambian case shows that RBF in devolved systems cannot be treated as just a technical fix. Its success depends on integrating it into broader health system reforms, aligning it with local governance structures, and remaining responsive to political realities. As countries across sub-Saharan Africa continue to pursue both decentralization and health financing innovations, lessons from Zambia's Northern Province offers valuable insights for navigating this complex terrain.

Limitations

This study has several limitations. Although its qualitative approach provides depth, it limits the ability to generalize the findings. Focusing on Northern Province may miss regional variations in RBF implementation. Additionally, responses about RBF effectiveness may be affected by social desirability bias. Future research employing mixed methods design across multiple provinces would strengthen the evidence base.

Conclusion

This study provides an in-depth analysis of how Results-Based Financing (RBF) would

operate within Zambia's decentralized health system, focusing on the Northern Province as a key example. The findings indicate that although RBF may improve accountability, community involvement, and health service efficiency, integrating it into decentralized governance poses complex challenges. Successfully establishing RBF requires moving beyond technical design to a comprehensive approach that addresses systemic, financial, governance, and human resource issues simultaneously.

Our research confirms that the devolution of health services under Zambia's 2016 constitutional amendment creates a dual reality: it opens opportunities for localized, responsive health financing while bringing about complexities in coordination, policy alignment, and capacity. The observed connection between RBF and the Constituency Development Fund (CDF) indicates that domestic financing mechanisms can be strong allies in expanding performance-based incentives. However, this potential is currently hindered by ongoing issues, including insufficient funding, delays in disbursement, and a significant knowledge gap among local authority implementers.

The experiences documented in Northern Province align with broader regional evidence, confirming that the institutionalization of health financing innovations in decentralized settings is neither straightforward nor guaranteed. It is a negotiated process that involves balancing national health priorities with local political economies, standardizing performance metrics while allowing for contextual adjustments and building sustainable capacity across various levels of government. Zambia's experience emphasizes that the sustainability of RBF depends not on ongoing external support but on its strategic integration into domestic systems, budgets, and accountability frameworks.

This study contends that RBF in a devolved system mainly acts as a catalyst for broader health system change rather than as an

independent financing tool. When properly institutionalized, it can enhance governance, boost transparency, and foster a results-oriented culture. However, success relies on intentional, phased, and context-sensitive strategies that learn from real implementation experiences. The lessons from Zambia's Northern Province, therefore, provide valuable empirical insights into the global discussion on decentralizing health systems and financing for universal health coverage in resource-limited settings.

Policy Recommendations

Based on the detailed findings and discussion, we suggest the following multidimensional policy recommendations targeting various levels of the health system:

1. Strategic Policy and Governance Harmonization

- **Develop an Integrated RBF Devolution Framework:** The Ministry of Health (MOH) and the Ministry of Local Government (MLG) should jointly develop and legislate a clear, integrated framework for RBF within devolved systems. This framework must unambiguously delineate roles, responsibilities, reporting lines, and accountability mechanisms for each tier of government (national, provincial, district, and facility). It should explicitly state that RBF complements, rather than substitutes for, regular health budgets and other domestic funds, such as CDF.
- **Establish a Joint Technical Secretariat:** Create a permanent inter-ministerial technical secretariat or committee made up of representatives from MOH, MLG, and the Ministry of Finance. This body would be responsible for maintaining continuous policy alignment, resolving administrative bottlenecks (especially in fund flows), monitoring overall system performance, and

encouraging regular dialogue between the health and local government sectors.

- Establish Minimum Health Spending Floors: To shield health budgets from political or fiscal fluctuations at the local level, national policy should require a minimum percentage of the District Council's equitable share and CDF to be allocated to health. This would establish a predictable baseline of funding, which RBF incentives can leverage as additional, performance-based resources.
2. Strengthened Financing Architecture and Sustainability
- Design Hybrid Financing Models: Move beyond a standalone RBF project approach. Develop hybrid financing strategies that integrate input-based funding (for critical infrastructure and human resources through CDF and regular budgets) with output- and outcome-based RBF incentives (focused on quality, coverage, and equity). Performance indicators should be clearly connected to the effective use of all health funds at the district level.
 - Reform Fund Disbursement Protocols: To tackle the genuine issue of delayed disbursements (reported by 91.7% of respondents), the government and partners should pilot and expand streamlined, automated treasury systems. Using a "performance-advance" model, in which a portion of verified incentives is provided upfront based on past performance, could alleviate cash-flow issues at the facility level and maintain motivation.
 - Create an Equity-Adjusted Incentive Pool: To prevent RBF from worsening inter-district inequalities, a portion of the national RBF allocation should be

reserved as an equity pool. Districts facing greater structural challenges (e.g., remote locations, high disease burden, exceptionally low baseline capacity) would access this pool through risk-adjusted targets or additional incentives for serving marginalized populations, ensuring a fair playing field.

3. Comprehensive, Tiered Capacity Development

- Implement a Cadre-Specific Capacity Building Strategy: Shift from ad-hoc training to a structured, accredited capacity-building program tailored to different actors.
 - For local government officials (council secretaries, planning officers, finance officers): Concentrate on the health sector priorities, health financing principles, interpreting health data, and incorporating health into integrated development plans.
 - For health managers at district and facility levels: Enhance skills in data-driven management, the financial administration of RBF, quality improvement methods, and community engagement.
 - For Community Structures (Health Centre Committees, Neighbourhood Health Committees): Strengthen skills in basic monitoring, social accountability tools, and giving feedback to facilities.
- Institutionalize Learning Platforms: Establish regular district-level "Communities of Practice" and annual provincial learning forums where implementers can share challenges, solutions, and innovations related to RBF. Document and disseminate case studies of positive

deviance to promote peer-to-peer learning.

- Leverage digital tools to support capacity: Develop or customize straightforward, mobile-friendly digital job aids, decision-support tools, and ongoing learning modules for local implementers to offer just-in-time knowledge reinforcement.

4. Robust Monitoring, Evaluation, and Learning Systems

- Enhance Integrated Health Management Information Systems (HMIS): Invest in making the national HMIS more real-time, interoperable, and accessible at the district and facility levels. RBF verification should, where possible, utilize this routine system to minimize parallel data collection and improve data ownership.
- Develop a balanced scorecard for Devolved RBF: Establish a thorough monitoring framework that tracks not only health output indicators but also system-level indicators such as fund absorption rates, disbursement timeliness, capacity building coverage, and stakeholder perceptions of fairness and transparency.
- Mandate Independent Third-Party Verification with a Learning Function: While maintaining independent verification for incentive payments, reform the role of verifiers to include a "learning and facilitation" component. Their reports should provide constructive feedback to districts on how to improve systems, rather than merely whether targets were met.

5. Phased, Adaptive, and Context-Sensitive Scale-Up

- Adopt a Maturity Model for Scale-Up: Classify districts based on a readiness assessment that considers

governance, fiscal management, HMIS functionality, and leadership, then implement a differentiated approach. High-readiness districts can implement a full RBF model, whereas lower-readiness districts enter a preparatory phase focused on strengthening foundational systems through targeted support.

- Pilot Localized Indicator Adaptation: Enable a group of mature districts, in collaboration with provincial and national authorities, to evaluate the adaptation of up to 20% of their RBF indicators to target urgent local health priorities not covered by the national set. This encourages local ownership and evaluates models for contextualization.
- Embed Implementation Research: Allocate resources to ongoing implementation research alongside the scale-up process. This will generate evidence on what works, for whom, and under which conditions in the Zambian devolved context, enabling real-time policy adjustments and contributing to global knowledge.

6. Fostering Political Commitment and Public Accountability

- Generate and Share Localized Evidence for Advocacy: Regularly create and share user-friendly reports, dashboards, and success stories that highlight the impact of RBF on local health outcomes in the district Councillors, Members of Parliament, and traditional leaders. This helps build a constituency of political support based on evidence.
- Enhance Public Transparency: Require the public display of RBF performance results, funds received, and how incentives were used at health facilities and district council offices. This enables communities to

hold service providers and local governments accountable, in line with the observed rise in the community participation.

By implementing this comprehensive set of recommendations, Zambia can navigate the complexities of its decentralized health system to embed RBF as a lasting driver of performance, accountability, and equity. This process, though challenging, offers a way not only to improve health outcomes, but also to strengthen the foundation of decentralized governance in health.

Author Contributions

Mayeya Paul Mayeya: Conceptualization, methodology, investigation, data curation, writing original draft.

Ernest Mutale: Supervision, validation, writing review, and editing.

Chibwe Chimbala: Investigation, formal analysis, visualization.

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Ethical Approval

Ethical approval was granted by the University of Zambia Health Sciences Research Ethics Committee (Ref: 2023-045) and the National Health Research Authority of Zambia.

Data Availability

The datasets generated and analysed during this study are available from the corresponding author upon reasonable request, subject to confidentiality agreements.

Conflict of Interest Statement

The authors declare no conflicts of interest.

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