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Health Financing in Urban Context of Nepal: A Study of Kathmandu, Lalitpur and Biratnagar Metropolitan City

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Abstract

Effective budget implementation is crucial for achieving health financing objectives, yet challenges persist in translating allocated funds into actual expenditures. This qualitative study explores health budget execution practices in three Metropolitan Cities of Nepal—Kathmandu, Lalitpur, and Biratnagar by investigating the underlying factors contributing to the gap between budget allocation and actual spending. The findings reveal stark disparities in resource distribution, with Kathmandu allocating six times more funds than Lalitpur. Despite these allocations, expenditure rates remained below 50 percent across all three cities, underscoring inefficiencies in budget utilization. Through in-depth key informant interviews with policymakers, municipal officials, and health sector stakeholders, the study identifies critical barriers to effective budget execution. These include weak intergovernmental coordination, inadequate human resource capacity, bureaucratic bottlenecks, and the absence of comprehensive long-term planning frameworks. Additionally, challenges related to procurement delays and rigid financial regulations further hinder efficient spending. The study emphasizes the need for strengthened coordination between different tiers of government, targeted capacity-building initiatives, and strategic health financing reforms to improve budget utilization. Addressing these challenges is crucial to ensuring equitable and efficient urban health service delivery in Nepal, ultimately enhancing the responsiveness and sustainability of the health system in metropolitan areas.

Key words: Allocation, Budget, Expenditure, Health Expenditure, Health Financing.

Introduction

Health financing has become crucial over the years for improving health and health systems. Ensuring people enjoy sustained progress toward universal health coverage and the full benefits of global public goods for health is possible only when resources are adequately, efficiently, and equitably mobilized, pooled, and spent (Ottersen, et al., 2017). Furthermore, health financing is key to enabling interactions between providers and the general population, establishing myriad actions, including who pays for care, when they pay, how much they pay, whom they pay and obtain services from, and what types of services they can receive (Cylus, Sallaku, & Jowett, 2022). It offers the resources and economic incentives needed for the functioning of health systems and is a major factor influencing their performance in areas like cost effectiveness, needs, equity, efficiency and health outcomes.

Despite its global significance, health financing varies widely across regions. In 2024, the World Bank reported that global health expenditure averaged 10.35% of GDP. High-income countries like the United States (16.57%) and Switzerland (11.80%) spent far more than South Asian nations, which averaged only 3.27%. Within South Asia, Nepal's health expenditure stands at 5.42% of GDP in 2021, yet the per capita government investment remains alarmingly low at only USD 20 (National Health Financial Strategy 2080-2090, 2023). This figure is far below the WHO-recommended minimum government expenditure of USD 86 per capita to meet basic healthcare needs (Ottersen et al., 2017). This discrepancy reflects broader challenges in health system decentralization and urban governance, particularly in federal systems where local governments must balance competing priorities with limited resources.

The Constitution of Nepal 2015 envisages basic health facilities and other health responsibilities as fundamental duties of local government, representing a significant shift toward decentralized health governance. This transition mirrors global trends in health system decentralization, where local governments increasingly play crucial roles in healthcare delivery and financing. In the Fiscal Year (FY) 2078/79, the total allocated budget in the health sector by Kathmandu Metropolitan City (KMC) was NRs 828,644,170, and by Biratnagar Metropolitan City (BMC) was NRs 268,239,530. However, the total health budget expenditure by KMC and BMC was only 32.63 and 49.28 percent respectively, highlighting a critical gap between allocation and implementation that has been observed in other decentralizing health systems globally (Gurung et al., 2019).

While existing literature has extensively documented the challenges of health financing in low and middle-income countries, there remains a significant knowledge gap regarding the specific dynamics of urban health financing in federal systems. Recent studies have highlighted the need for a better understanding of how metropolitan governments navigate health financing decisions within decentralized systems (Kumar et al., 2024), but systematic evidence from Nepal's urban context remains limited. A comprehensive review by Thapa et al. (2023) found only three studies examining urban health financing in Nepal, none of which specifically addressed the allocation-expenditure gap or its underlying causes in metropolitan settings.

This study contributes to both theoretical and practical understanding of urban health financing in several ways. First, it provides empirical evidence of how federal structures influence local health financing decisions, adding to the broader discourse on decentralization and health system

performance. Second, it examines the specific challenges metropolitan cities face in translating budget allocations into effective health expenditure, offering insights relevant to other rapidly urbanizing regions in South Asia and beyond. Finally, it explores the interplay between institutional capacity, governance structures, and budget utilization in urban health systems.

The study has two primary objectives: (i) to analyze the health budget allocation of Kathmandu, Lalitpur, and Biratnagar Metropolitan Cities for the fiscal year 2080/81, and (ii) to explore the health expenditure scenario and identify gaps in budget utilization within these three metro cities. Through these objectives, the research aims to generate actionable insights for improving urban health financing efficiency and effectiveness in federal systems, while contributing to the broader theoretical understanding of decentralized health governance in low-resource settings.

Literature Review

Global Trends in Urban Health Financing

The landscape of urban health financing has evolved significantly in recent years, particularly in low and middle-income countries (LMICs). While the framework established by Walt and Gilson (1994) remains foundational for understanding health sector reforms, contemporary research has substantially expanded our understanding of current challenges. In a comprehensive analysis of urban centers across Asia, persistent challenges in resource mobilization and allocation efficiency have been observed (World Bank [WB], 2015; UN-Habitat, 2016).". Building on this work, McCollum et al. (2022) document how rapid urbanization in LMICs creates unique health financing challenges, particularly in federal systems where multiple governance levels must coordinate resource allocation and service delivery.

Recent global discourse on urban health financing increasingly emphasizes equity and efficiency considerations. Ahmed and Thompson (2023) in their analysis of healthcare financing models across South Asian cities, demonstrate how varying approaches to resource allocation significantly impact healthcare access and outcomes. Their findings align with Chen et al. 's (2024) comprehensive evaluation of resource allocation strategies in decentralized urban health systems, which highlights the critical role of institutional capacity in determining financing effectiveness. These international perspectives provide valuable insights for contextualizing Nepal's challenges within the broader global landscape of urban health financing.

Decentralization and Health Financing in Federal Systems

Contemporary international evidence offers crucial insights into the dynamics of decentralized health financing. Martinez-Vazquez and Smoke (2024), analyzing fiscal decentralization outcomes across 30 countries, demonstrate how institutional capacity fundamentally affects health financing efficiency. Their research reveals that successful decentralization requires robust institutional frameworks and clear accountability mechanisms. Supporting these findings, Kumar et al. (2024) document effective strategies for managing health financing in decentralized systems across South Asia, emphasizing the importance of coordinated planning and implementation mechanisms.

Nepal's federal structure, established under the Constitution of 2015, creates a complex health financing environment with responsibilities distributed across three governance tiers. Recent

analysis by Sharma and Dahal (2024) in the Journal of Health Policy and Management reveals how this structure impacts resource allocation and utilization efficiency. Their detailed study of six metropolitan cities demonstrates that unclear demarcation of responsibilities often leads to duplication of efforts and inefficient resource use. The National Health Financing Strategy 2023-2033 addresses these challenges by outlining strategic priorities for improving financing efficiency. However, Pandey et al. (2024) identify significant implementation obstacles, particularly in metropolitan areas where multiple funding sources and competing priorities complicate resource allocation processes.

Metropolitan Health Financing: Current Evidence and Challenges

Recent empirical research reveals significant disparities in metropolitan health financing patterns and implementation. Singh et al. (2024), publishing in Health Policy and Planning, analyze budget allocation patterns across Nepal's metropolitan cities, documenting how variations in funding sources affect service delivery outcomes. Their findings demonstrate that cities heavily dependent on federal grants often struggle with budget predictability and timely resource availability. This challenge is further complicated by institutional capacity gaps, as identified by Wong et. al. (2020) and Kumar (2024) in their comprehensive assessment of budget execution efficiency.

Implementation challenges extend beyond simple resource constraints. Thapa et al. (2023), writing in the Journal of Health Systems Research, documents how procurement delays and administrative bottlenecks significantly affect program implementation. Their work is complemented by Kim and Lee (2024) examination of innovative financing mechanisms adopted by metropolitan cities, which highlights the potential for alternative resource mobilization strategies. Additionally, Joshi et al. (2024) analyze the effectiveness of different revenue generation approaches, providing valuable insights for improving financial sustainability in urban health systems.

At the federal level, the government holds exclusive authority, grounded in the Constitution of Nepal 2015 over national health policy, service standards, specialized hospitals, and communicable disease control (Clause 57(1), Schedule 5). Similarly, as per the Constitution of Nepal 2015, Provincial governments maintain exclusive jurisdiction over health services as per the constitution and provincial law (Clause 57(2), Schedule 6). There are concurrent responsibilities shared between federal and provincial levels, including oversight of medical professions (Ayurveda, Amchi, and others) and health insurance operations (Clause 57(3), Schedule 7). Local governments exercise exclusive authority over basic health and sanitation through laws made by the Rural Municipal or Municipal Assembly (Clause 57(4), Schedule 8). Finally, certain responsibilities are shared across all three tiers ; federal, provincial, and local levels including general health services and vital statistics management such as birth, death, and marriage registrations (Clause 57(5), Schedule 9). This structure is legally anchored in the constitution and respective laws at each administrative level, creating a comprehensive framework for health governance in Nepal's federal system.

The National Health Policy 2019 builds upon this constitutional framework, focusing on developing health systems within the federal structure while emphasizing service quality improvement and social health protection. This policy marks a significant shift in approach, aiming to transform the health sector from a profit-oriented to a service-oriented model. Supporting this transformation, the National Health Financing Strategy 2023-2033 outlines ten key strategic priorities, including

Universal Health Coverage, domestic resource mobilization, and social health insurance, while emphasizing the integration of traditional medicine and results-based financing approaches.

Disease burden data from 2019 reveals a significant shift in health challenges, with non-communicable diseases (NCDs) accounting for 71.10 percent of total deaths. Chronic obstructive pulmonary disease (COPD) (16.3%) and ischemic heart disease (12.30%) emerge as the leading causes of NCDs (National Health and Research Council [NHRC] et.al., 2021). Communicable, maternal, neonatal, and nutritional (CMNN) diseases contribute to 21.10 percent of deaths, primarily from lower respiratory infections (4.5%), drug-susceptible Tuberculosis (TB) (3.5%), and diarrheal diseases (2.9%). Injuries account for the remaining 7.80 percent of deaths (NHRC et.al., 2021).

Health budget data for FY 2080/81 were extracted from official metropolitan cities reports. Comparing the health budget in FY 2080/81, it was found that metropolitan health financing in Nepal shows striking disparities (Kathmandu Metropolitan City [KMC], 2023; Lalitpur Metropolitan City [LMC], 2023; Bharatpur Metropolitan City [BMC], 2023; Birgunj Metropolitan City [BgMC], 2023; Biratnagar Metropolitan City [BnMC], 2023; Pokhara Metropolitan City [PMC], 2023). KMC leads with the highest health budget allocation (850.32 million), while Birgunj allocates the lowest amount, demonstrating a 17-fold difference between the highest and lowest funded cities. While Lalitpur Metropolitan City (LMC) allocates six times less (91.60 million) than that allocated by the KMC in the health sector, Biratnagar allocates 161.688 million in the health sector. Besides, sources of funding also vary significantly across metropolitan areas, with federal conditional grants typically providing the majority (52-70%) of health budgets, followed by internal resources (24-39%), and provincial grants (6-8%). Biratnagar presents an exception to this pattern, with 71 percent of its funding coming from provincial revenue (KMC, 2023; LMC, 2023; BMC, 2023; BgMC, 2023; BnMC, 2023; PMC, 2023).

Similarly, Budget allocation priorities across Metropolitan Cities from the health budget data for FY 2080/81 reveal that human resources and administration consume the largest share (33%), followed by drug purchase and supply chain management (19.58%) (KMC, 2023; LMC, 2023; BMC, 2023; BgMC, 2023; BnMC, 2023; PMC, 2023). Physical infrastructure development and community health programs each receive approximately 8.7 percent of allocations, while non-communicable diseases and RMNCAH (Reproductive, Maternal, Newborn, Child, and Adolescent Health) programs receive 7.29 percent and 6.11 percent respectively. Social health protection services receive 3.78 percent of the total budget (KMC, 2023; LMC, 2023; BMC, 2023; BgMC, 2023; BnMC, 2023; PMC, 2023).

Research evidence supports these observations about Nepal's evolving health system. Thapa et al. (2018) highlight the emphasis on maternal and child health in national policies, while Adhikari et al. (2019) document the varying health financing strategies across local governments following federalization. Marahatta et al. (2020) emphasize the crucial role of local governments in managing drug supply and community health initiatives. Similarly, Gurung and Regmi (2021) highlight inequalities caused by uneven resource allocation among metropolitan areas, stressing the need for targeted interventions to bridge these gaps.

Further analysis by Thapa et al. (2018) explores the challenges and opportunities presented by health system federalization. Acharya and Mishra (2022) identify inefficiencies in budget execution as a significant barrier to achieving equitable healthcare in Nepal's urban settings. Bhandari et al. (2020) underscore the importance of capacity-building initiatives for local governments to improve budget utilization and enhance service delivery outcomes. Moreover, Lamichhane et al. (2021) emphasize integrating community-based health financing mechanisms to strengthen local-level resource mobilization. In contrast, Sharma et al. (2021) investigate the role of public-private partnerships in enhancing healthcare access in urban Nepal, noting their potential to bridge resource gaps and improve efficiency in service delivery.

Despite Nepal's progressive policies, underspending and resource misallocation persist as significant issues. Paudel and Shrestha (2020) examine health inequities among urban populations in Nepal, highlighting the need for targeted policies to address the social determinants of health. Furthermore, research by Mishra et al. (2015) highlights the critical role of decentralized governance in ensuring accountability and transparency in health financing. Rana et al. (2022) emphasize that inadequate health financing not only limits access to healthcare but also exacerbates urban health disparities, particularly among marginalized communities. These findings underscore the need for targeted interventions to bridge funding gaps and ensure resource efficiency. The overall analysis reveals a complex health financing landscape shaped by Nepal's federal structure. The term "complex health financing landscape" reflects the intricate interplay of funding sources, governance structures, and evolving health priorities shaping resource allocation in Nepal's health sector (Walt & Gilson, 1994). The decentralized system involves contributions from federal, provincial, and local governments, each with distinct priorities, resulting in significant disparities and inefficiencies (Bossert & Mitchell, 2011). Additionally, the transition from communicable to non-communicable disease burdens complicates equitable service delivery. Addressing these challenges requires transparent fiscal policies, capacity-building, and accountability mechanisms to align resources with local health needs (Kutzin et al., 2017).

While the constitutional and policy framework provides a strong foundation for health service delivery, significant variations in metropolitan health budgets and funding sources indicate ongoing challenges in achieving equitable health service delivery. The transition to federalism continues to present both challenges and opportunities, particularly in balancing administrative costs with service delivery and managing the growing burden of non-communicable diseases while maintaining traditional healthcare systems.

Methodology

The study employed a rigorous thematic analysis grounded in interpretive research methodologies. Using Braun and Clarke's six-phase framework, the research aimed to uncover nuanced insights into health financing practices across Nepal's urban metropolitan cities. Semi-structured interviews were conducted with six key informants—Chief Administrative Officers and Chiefs of Health Sectionsfrom Kathmandu, Lalitpur, and Biratnagar metropolitan cities. The interview protocol, designed to elicit comprehensive perspectives, combined open-ended and probing questions to explore decision-making processes, systemic challenges, and strategic considerations in health financing.

The analysis adopted an iterative coding process. Initial open coding involved a line-by-line examination of interview transcripts to generate preliminary codes reflecting participants' narratives. Subsequent phases compared, consolidated, and refined these codes into higher-level conceptual themes. This hybrid approach integrated inductive reasoning, allowing themes to emerge organically from the data, and deductive analysis informed by established health policy frameworks.

To ensure methodological rigor, the researchers implemented triangulation and validation strategies. Interview data were cross-referenced with documentary sources, insights were compared across metropolitan contexts, and potential biases were critically examined. Peer debriefing sessions further validated interpretations through collaborative reviews of coding schemas and group discussions.

The thematic analysis extended beyond descriptive categorization to interrogate structural and systemic dynamics shaping urban health financing. Researchers investigated power relations, institutional logics, contextual constraints, and systemic challenges inherent to Nepal's decentralized health governance. The interpretive process sought to deliver nuanced, context-sensitive insights that centered on participants' lived experiences and institutional perspectives.

Ethical adherence was prioritized: informed consent was obtained from all participants, confidentiality protocols were strictly enforced, and institutional review board approval was secured. The study acknowledged limitations, including potential researcher bias and the context-bound nature of qualitative findings.

Ultimately, the analysis aimed to advance understanding of health policy implementation within Nepal's complex governance landscape. By elucidating the interplay of institutional, political, and socioeconomic factors in health financing, the research highlighted the intricate decision-making processes governing urban health resource allocation.

The qualitative data analysis employed a rigorous thematic analysis approach grounded in interpretive research methodologies. Utilizing Braun and Clarke's six-phase framework, the research sought to uncover nuanced insights into health financing practices across urban Nepalese metropolitan cities.

Semi-structured interviews were conducted with six key informants from Kathmandu, Lalitpur, and Biratnagar metropolitan cities, specifically targeting Chief Administrative Officers and Chiefs of Health Sections. The interview protocol was meticulously designed to elicit comprehensive insights into health financing decision-making, challenges, and strategic considerations through open-ended and probing questions.

Ethical considerations were paramount throughout the research. Informed consent was obtained from all participants, confidentiality was strictly maintained, and institutional review board approval was secured. The research acknowledged its inherent limitations, including potential researcher bias and the context-specific nature of qualitative findings.

Ultimately, the qualitative analysis sought to contribute a deeper understanding of health policy implementation in Nepal's complex governance landscape. By providing rich, interpretive insights

into health financing practices, the research aimed to illuminate the intricate decision-making processes that shape urban health resource allocation.

Study Area Selection:

The selection of Lalitpur, Kathmandu, and Biratnagar Metropolitan Cities for the study was guided by a purposive sampling strategy, which is common in health policy research (Patton, 2002) to identify information-rich cases (Palinkas et al., 2015). These three cities were chosen to capture the diversity of health financing practices in urban Nepal. KMC and LMC located within Kathmandu Valley, represent the most urbanized areas with high population density and greater access to resources, while BMC, situated in the eastern region, offers insights into health financing in a non-valley, yet metropolitan, context. Furthermore, Biratnagar is the youngest metropolitan city in Nepal. Together, these cities provide both regional and contextual diversity, allowing for intra-valley and inter-regional comparisons (CBS, 2021; Creswell & Plano Clark, 2011). Additionally, these cities play significant administrative roles in implementing health policies under Nepal's federal system, making them particularly relevant to the study objectives (MoHP, 2019). Accessibility and feasibility considerations also influenced their selection (Patton, 2002).

Interviewee Selection:

The qualitative component included key informant interviews, a widely used method in health policy research to gather in-depth information from individuals with specific knowledge or influence (Gilson et al., 2011). Interviewees included Chief Administrative Officers (CAOs) and Chiefs of Health Sections from the three metropolitan cities. However, in one metropolitan city, the CAO was unavailable for the interview due to a busy schedule. In this case, the Chief of the Health Section, who was directly involved in health budgeting and implementation, was interviewed instead. This adjustment ensured the relevance of the data collected while addressing practical constraints, consistent with qualitative research principles (Patton, 2002).

Research Participants:

The study involved interviews with six participants across the three metropolitan city offices, as detailed in Table 2:

Table 2: Research Participants

S.N	Name of the Metropolitan City Office	Research Participants	Number
1	Kathmandu	Chief Administrative Officer (1), Chief of Health Section(1)	2
2	Lalitpur	Chief Administrative Officer (0), Chief of Health Section(1)	1
3	Biratnagar	Chief Administrative Officer (1), Chief of Health Section(1)	2
	Total		5

The findings drawn from the descriptive data were used to generate the checklist for the qualitative study and the qualitative data enriched the discussions drawn from the red books of the Metropolitan Cities. Data Collection and Analysis:

To improve the quality of this study, secondary data sources were utilized, including government documents such as the red book and budget reports of the three metropolitan city offices. This approach aligns with policy analysis methodologies that rely on official documents for financial data (Walt et al., 2008). An interview checklist with open-ended and probing questions was developed, reflecting best practices in qualitative research design (Patton, 2002). The qualitative data gathered through semi-structured interviews, were transcribed, coded, and analyzed using thematic analysis (Braun & Clarke, 2006). The themes and subthemes were identified through iterative categorization, focusing on recurring challenges that have been discussed in the findings and discussion section.

The information gathered from the fieldwork was transcribed and analyzed using coding and categorization techniques to identify themes and subthemes for the analysis and interpretation of information (Gupta, 2019; Gupta et al., 2020). Additionally, documents such as the Constitution of Nepal, Nation Health Policy 2019, National Health Financing Strategy 2023-2033, and red books of the three Metropolitan City offices were analyzed. Throughout this research, ethical standards were strictly adhered to ensure the integrity and reliability of the study.

Ethical Considerations:

Ethical standards were strictly adhered to throughout the study to ensure the reliability and integrity of the findings. Informed consent was obtained from all participants, and data confidentiality was maintained. Interviews were conducted in Nepali to ensure cultural appropriateness and accurate interpretation (Squires, 2009).

Findings and Discussions

Findings

The findings of this study have been presented in four different themes namely, 'preventive aspirations overshadowed by curative spending realities', 'resource imbalance impedes local government health program parity', 'subtle misalignment of technical knowledge and administrative procedures', and 'delays in disbursement of funds and misaligned program priorities' as presented below:

Preventive aspirations overshadowed by curative spending realities

Kathmandu, Lalitpur, and Biratnagar Metropolitan Cities are three of the 753 local governments in Nepal. These three local governments collectively need to cater health needs of five percent of the total population in the country i.e., 1399425 people (CBS, 2021). Prioritization helps in balancing the allocation or reallocation and optimum utilization of available limited financial resources for the changing population health needs (Terwindt et. Al, 2021). Officials from all three cities emphasized prioritizing preventive and promotive health programs to reduce long-term burdens on curative care.

In this scenario, the CAO of BMC stated:

> "As mentioned in the Constitution of Nepal, providing basic health services has been the major priority of BMC." (Interviewee #R4, Chief Administrative Officer of BMC, 27 June 2024).

Similarly, the Chief Administration Officer of KMC expressed:

> "KMC has been providing effective health service through distributive and welfare funding for those suffering from chronic diseases. Most of the programs are of preventive and promotive nature." (Interviewee #R2, Chief Administrative Officer of KMC 25 June 2024).

Very much likely with the priorities of KMC, Health Section Chief of LMC shared:

> "Most of the health programs of LMC are preventive and promotive health programs. We run awareness programs and vaccinations so that we can prevent health diseases thereby reducing the burden over the curative programs in the long run." (Interviewee #R1, Health Section Chief of LMC, 24 June 2024).

However, the Health department chief of KMC echoed:

> "Most of the programs of the health sector are to cater immediate care needs at urban health centers like medicines and treatments." (Interviewee #R3, Health Section Chief of KMC, 26 June 2024).

While the officials have been highlighting the focus of the Metropolitan City office on areas such as preventive and promotional activities, the budget allocation by those three local governments in FY 2080/81 indicates a different picture. The data reveals that the majority of the health budget is spent on administrative overhead. Besides the administrative expenditures, KMC has been spending most of its health budget (25.27%) on drug purchase and supply chain management. Lalitpur has been spending most of the budget (14.96%) on drug purchases followed by 13.12 percent on FCHV, DOTS & Community Health Programmes. However, Biratnagar has been spending most of its budget (28.08%) on physical infrastructure development and improvement followed by 21.26 percent on FCHV, DOTS & Community Health Programmes.

The Chief of the health section of LMC had echoed:

> "The elected representatives always seek immediate results and the priority shifts towards providing drugs and treatments."

Analyzing the views and data, it is suggested that Metropolitan Cities mostly emphasize programs that provide immediate results such as drug distribution, over preventive measures.

Resource Imbalance and Health Program Prioritization

Financial resources are always limited. However, in Metropolitan Cities of Bagmati Province, Paudyal and Upadhyaya (2023) found that the budgetary resource is not a constraint in Metropolitan Cities of Bagmati Province and the problem of prioritization is the one that existed here. While KMC benefits from substantial internal revenue, LMC and BMC report challenges in meeting growing health demands.

Health Section Chief of KMC stated:

> "KMC, due to its revenue potential, has adequate resources to finance long-term programs on health. However, the absence of periodic plans or the Medium-Term Expenditure Framework (MTEF) has negated any possibilities as such". (Interviewee #R3, Health Section Chief of KMC, 26 June 2024).

However, Health Section Chief of LMC stated:

> "Health service being "public good" should be kept in highest priority by the local government. However, LMC has not yet been able to prioritize the health sector in terms of the budget allocated and the programs functional at the Metropolitan City." (Interviewee #R1, Health Section Chief of LMC, 24 June 2024).

Unlike other Metropolitan City offices, the Health Section Chief of BMC expressed:

> "Budget has always been prioritized for the health and education sector. The health sector alone received 9 crore budget from its internal revenue. However, the allocated and available budget is too low for meeting the expectations of local people which is too high."

While some programs are designed to cater to the special needs of the population of different dynamics in the three Metropolitan Cities, the majority of the budget is still spent on the administrative overhead by KMC and LMC whereas BMC spends that on physical infrastructures. NHRC et. al. (2021) show that 71.10 percent of the total deaths in the country are due to NCDs followed by CMNN diseases that cause 21.10 percent of the total deaths. While BMC seems to have been focusing on CMNN and community health programs, KMC is found to have been spending most of the budget on drug purchase and supply management.

Discrepancy between technical knowledge and administrative procedures

Agyepong et al. (2018) emphasized building capacity among health leaders and administrators is crucial for effective health service delivery. However, Bossert and Mitchell (2011) found tension between technical needs in the health sector and administrative constraints noting the complexities of local decision-making in health services. Findings in this study also reveal a disconnect between health departments and administrative units.

The health department chief of LMC shared a slight discrepancy between the technical knowledge and administrative procedures:

> "The health section needs to organize maximum training for updating health professionals with the new technologies, approaches, and diseases without which the effective health service delivery would be hampered. Similarly, review meetings are organized by the health section which is very crucial for the health team to identify the gaps, challenges, problems, and ways forward. However, the administration keeps telling the health section to reduce the number of trainings and cut out review meetings" (Interviewee #R1, Health Section Chief of LMC, 24 June 2024).

Similar to the LMC, the Health chief of BMC expressed:

> "There are times when we are questioned for organizing many trainings and review meetings.

> But we are only requested to reduce the numbers of trainings and meetings if possible. We have never been forced to do so which indicates that health programs are always a priority for the elected representatives as well as administrators." (Interviewee #R5, Health Section Chief of BMC, 27 June 2024).
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> Further, the Health Section Chief of LMC shared:
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> "There are various meetings held in the LMC office as well as ministries. While the Mayor and CAO do attend the meetings related to physical infrastructures and urban development, they are always busy attending the meetings related to the health sector in ministries. But the participation of officials of the health department in those meetings cannot be as strong as that of the presence of the Mayor and CAO." (Interviewee #R1, Health Section Chief of LMC, 24 June 2024).

The administrators and elected representatives though ask the health section to reduce the number of training and review meetings however, they are not forced to do so. This indicates that they understand the importance of health programs. Nevertheless, for continuous and effective support, their understanding of the importance of review meetings and different types of training is very crucial. In other words, aligning administrative procedures with technical needs is essential to sustain long-term improvements in service delivery.

Tsofa et al. (2016), found health sector priorities often struggle to compete with other development agendas in local government settings which was relevant in the context of LMC too. The presence of higher-level authorities in ministerial meetings also indicates the level of importance health programs are being given. Hence, the findings suggest that the higher-level authorities' presence in health-related meetings and support in the training and review meetings would enhance motivation among the team of the health section.

Delays in the disbursement of funds and misaligned program priorities

Prioritization is a complex process that is influenced by financial, organizational, and political factors, which can often lead to shifting from ideal priorities (Frew & Breheny, 2020; Wanjau et. al., 2021) as well as unnecessary deployment and utilization of scarce resources. Conditional grants from federal and provincial governments face significant implementation challenges.

> The Health Section Chief of LMC expressed:
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> "LMC has a very small budget for the health sector because of which more than 90 percent of the allocated budget gets spent. However, the budget that remains unspent is the conditional grant received from the federal and provinces. The conditions under which the received budget needs to be spent do not apply to us." (Interviewee #R1, Health Section Chief of LMC, 24 June 2024).
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> The Health Section Chief of KMC echoed:
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> "KMC has no constraint of budgetary resources. However, the federal government provides conditional grants to achieve its national targets, and the grants are scattered in peanut-sized. The small amount of budget like 20000-30000 grants is not enough for the allocated overheads and hence remains unspent. Furthermore, the grants from the federal and province are not

> received timely because of which the programs cannot be conducted." (Interviewee #R3, Health Section Chief of KMC, 26 June 2024).
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> Similarly, Health Section Chief of BMC expressed:
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> "Grants from the federal and province are not received timely due to which the programs are delayed or are impossible to conduct resulting in underspending of the health budget. Furthermore, employees in health services have not received a salary for six months now which has made the life of employees difficult indicating low morale for them." (Interviewee #R5, Health Section Chief of BMC, 27 June 2024).

It is important to trace problems in budget execution back to the responsible agencies to take adequate mitigation measures (WB, 2021). The conditional grants sent by the federal and province remain unspent largely because the resources are not disbursed timely, and the conditions are set in a blanket approach. It was found that the federal government sends certain conditional grants to LMC for birthing centers. However, the amount cannot be used by LMC because there is no birthing center in the area. A similar case exists for provincial grants too. Hence, the conditions set in a blanket approach for all local governments indicated misaligned priorities of the federal, provincial, and local governments.

Discussions

A key finding from the qualitative data was that these Metropolitan Cities tend to focus on preventive and promotive health programs, aligning with national health strategies. However, there's a noticeable tension between long-term health planning and the desire for immediate results. The quantitative data suggests that the focus has been on providing free drugs and treatments. The elected representatives often push for programs that deliver quick, visible outcomes because they have a tenure of five years. However, it must be understood that the short-term focus can sometimes overshadow more strategic, long-term health initiatives (Fafard & Cassola, 2020).

KMC has no budget constraints for health programs. This is in stark contrast to Metropolitan Cities like Lalitpur and Biratnagar, which face more significant budgetary limitations. Biratnagar, in particular, allocates a substantial portion of its internal revenue to health but still struggles to meet the high expectations of residents. This disparity in financial resources highlights the varying capacities of different Metropolitan Cities to address health needs and services effectively. Despite the budget allocations, a significant amount remains underspent in all Metropolitan Cities. One of the major reasons for so is the absence of medium to long-term planning frameworks. Hence, implementing long-term planning frameworks like the Medium-Term Expenditure Framework (MTEF) to align resources with health priorities (Glassman & Ezeh, 2014) is crucial in metropolitan cities.

Tsofa et al. (2017) found that the lack of a comprehensive planning framework led to fragmented decision-making and inefficient resource allocation in county health systems. Long-term vision plans in urban health systems, particularly in developing countries, have been identified as a major obstacle to sustainable health improvements (Tsofa et. al., 2017). Similarly, Glassman and Ezeh (2014) argue that the absence of long-term planning in urban health systems often results in reactive rather than proactive health policies. These findings are in line with the findings of Gurung

et al. (2019) which examined the challenges of health system federalization in Nepal. They note that Metropolitan Cities without robust planning mechanisms tend to focus on immediate health crises at the expense of addressing underlying determinants of health, which requires sustained, long-term interventions (Tsofa et. al., 2017; Glassman & Ezeh, 2014; Gurung et. al., 2019).

Inter-sectoral coordination emerges as a significant challenge in the management of health programs. Health department officials often find themselves at odds with administrative departments regarding the frequency and necessity of training sessions and review meetings. These meetings are crucial for updating health professionals on new technologies, approaches, and emerging health issues. However, administrative departments sometimes view these activities as excessive. Furthermore, health officials report difficulties in securing high-level administrative participation in important health-related meetings, potentially undermining the sector's ability to advocate for its needs effectively. There was no expenditure made on line items related to training and capacity building on allocations from the federal government in KMC in two consecutive FY 2078/79 and 2079/80. Similarly, out of the total budget allocated for the capacity building of the health officials and citizens on health issues by BMC, only 9.09 percent and 44.72 percent were spent in FY 2078/79 and 2079/80 respectively. Evidence from Tsofa et al. (2016) highlights the need for stronger collaboration between technical and administrative units to optimize service delivery.

A significant issue highlighted is the challenge of timely disbursement and utilization of conditional grants from federal and provincial governments. Some Metropolitan Cities report difficulty in spending these funds due to mismatched conditions, leading to underspent budgets in critical health areas. Furthermore, the allocated budget is disbursed late resulting in non-implementation of the health programs. This indicates a need for better alignment between grant conditions and local health priorities and capacities. A common challenge in public health financing is bottlenecks in funding flows and budget execution from the national to subnational levels and from there to frontline health providers (World Health Organization [WHO], 2010). Lack of incentives for efficiency and quality, along with limited managerial autonomy in more rigid input-based budget systems, can also erode performance and public trust (Kutzin et al., 2017). As a result, a parallel private sector has emerged to meet the demand for health services, which together with the chronic underfunding of public facilities often leads to high out-of-pocket payments for patients and weak financial protection (WHO, 2018). Out-of-pocket payments continue to account for more than half of total health expenditures in many low- and middle-income countries (WB, 2019).

By addressing these systemic barriers such as the misalignment of priorities, inadequate coordination, and inefficiencies in resource allocation—and fostering a more integrated approach to health service delivery, Nepal's Metropolitan Cities can significantly improve the accessibility, efficiency, and equity of healthcare services. Such improvements are essential to overcoming the current challenges faced by urban populations, ensuring that health services meet the evolving needs of diverse communities. Ultimately, this approach will lead to better health outcomes for urban residents, helping to bridge the disparities in health service delivery across different metropolitan areas (Mishra et al., 2015; Sharma et al., 2021).

The research unveils a complex landscape of health financing that exposes profound institutional, administrative, and political challenges within Nepal's decentralized governance framework. At the

core of these findings lies a critical tension between aspirational health policy and the pragmatic realities of budget execution, revealing systemic inefficiencies that fundamentally undermine effective health service delivery.

The institutional dynamics uncovered demonstrate a significant misalignment between technical health requirements and administrative procedures. Metropolitan cities like Kathmandu, Lalitpur and Biratnagar represent microcosms of broader national health governance challenges, where well-intentioned preventive health strategies are consistently overshadowed by immediate, curative interventions. This phenomenon reflects deeper structural issues where political pressures and short-term visibility take precedence over long-term population health investments.

Budget allocation patterns expose a troubling narrative of misaligned priorities. While city administrators rhetorically emphasize preventive and promotional health programs, actual expenditure tells a different story. Kathmandu Metropolitan City's allocation of 25.27% of its health budget to drug purchases, Lalitpur's 14.96% drug procurement, and Biratnagar's infrastructure-heavy spending underscore a reactive rather than proactive approach to public health management. These allocations reveal a fundamental disconnect between strategic health planning and budgetary implementation.

The research critically illuminates the challenges of intergovernmental financial coordination. Conditional grants from federal and provincial governments emerge as particularly problematic mechanisms, characterized by impractical conditions, delayed disbursements, and a blanket approach that fails to recognize local contextual nuances. For instance, grants allocated for birthing centers in areas without such facilities exemplify the rigid, top-down approach that undermines local government's adaptive capacity.

Resource distribution disparities further complicate the health financing landscape. While Kathmandu benefits from substantial internal revenue potential however, Lalitpur and Biratnagar struggle with limited resources and escalating health demands. This uneven financial capacity creates inherent inequities in health service provision, challenging the fundamental principle of universal healthcare access.

The administrative ecosystem reveals additional layers of complexity. Health departments consistently face bureaucratic resistance to professional development initiatives, with administrators frequently questioning the necessity of training programs and review meetings. This resistance reflects a deeper institutional culture that undervalues continuous learning and technical capacity building in the health sector.

Mortality data provides a crucial context for these financing challenges. With 71.10% of national deaths attributed to Non-Communicable Diseases (NCDs) and 21.10% to Communicable, Maternal, Neonatal, and Nutritional (CMNN) diseases, the current financing approach appears misaligned with the most pressing health challenges.

The research suggests several transformative recommendations for addressing these systemic challenges. First, there is an urgent need to develop more flexible, context-sensitive grant mechanisms that allow local governments genuine adaptability. Second, comprehensive capacity-building initiatives must be designed to enhance both technical skills and strategic planning capabilities of health administrators.

Implementing robust Medium-Term Expenditure Frameworks could provide a structured approach to long-term health sector planning. These frameworks would enable more strategic, predictive budgeting that moves beyond annual, fragmented financial allocations. Additionally, performance-based budgeting mechanisms could incentivize more efficient and impactful health service delivery.

Community participation emerges as another potential avenue for improvement. By integrating local stakeholder perspectives into health planning and budget allocation processes, metropolitan cities could develop more responsive, needs-driven health strategies.

Theoretically, this research contributes significantly to understanding decentralized health governance in low-resource settings. It empirically demonstrates the complex implementation gaps that emerge when national health policies encounter local administrative realities. The findings challenge simplistic assumptions about local government health financing capabilities and highlight the need for nuanced, adaptive policy approaches.

Conclusions

Nepal's Metropolitan Cities face a complex landscape in providing health services, as mandated by the constitution. While all three tiers of government share responsibility for basic health services, metropolitan areas encounter significant challenges in fulfilling this obligation. The variation in financial resources among these cities hampers their ability to meet diverse health needs, with Kathmandu leading in budget allocation, while Lalitpur and Biratnagar struggle with lower funding. Furthermore, these cities face issues such as balancing health aspirations against the reality of curative spending, poor coordination between health sections and administrative units, underspending of health grants, and a tendency to prioritize short-term, politically driven outcomes over long-term strategic planning.

To address these issues, the study underscores the need for strengthening coordination among the three levels of government. Specifically, the development of robust capacity-building programs for local governments is crucial for enhancing budget utilization and service delivery outcomes. Additionally, the adoption of comprehensive, long-term health financing strategies, supported by effective monitoring and evaluation frameworks, can help align resource allocation with public health priorities. These measures are essential not only to ensure the constitutional right to healthcare but also to create a sustainable health system that can adapt to the emerging challenges of urban populations.

In conclusion, by addressing these systemic barriers and fostering a more integrated approach to health service delivery, Nepal's Metropolitan Cities can improve the accessibility, efficiency, and equity of healthcare, ultimately leading to better health outcomes for urban residents.

Balancing preventive health aspirations against the reality of curative spending, often favoring short-term, visible outcomes over long-term strategic initiatives due to political pressures. Financial resources vary widely among cities, greatly impacting their ability to address health needs effectively. Coordination issues between health sections and administrative units hinder crucial training and review processes, potentially undermining the sector's responsiveness to emerging health issues. Metropolitan Cities struggle with disbursement and utilization of conditional grants, leading to underspent budgets in critical health areas. The lack of comprehensive long-

term planning frameworks in some Metropolitan Cities results in a focus on short-term goals at the expense of strategic direction. These challenges collectively underscore the need for flexible, context-specific approaches to health financing and program implementation.

Improved coordination among the three tiers of government is crucial to overcome issues such as underspending and misaligned priorities. To effectively manage health services and guarantee the constitutional right to healthcare, Metropolitan Cities must address limitations in capacity, human resources, technology, and updated knowledge. By tackling these multifaceted challenges, Nepal's Metropolitan Cities can work towards ensuring more effective, equitable, and sustainable health service delivery, ultimately contributing to improved health outcomes and quality of life for urban residents across the country.

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