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THE ROLE OF HEALTHCARE BUDGETING ON PERFORMANCE OF HEALTH FACILITIES IN ISIOLO COUNTY, KENYA

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Abstract
Health facilities in Isiolo County face severe operational challenges due to insufficient resources, including limited financing, inadequate human resources, and insufficient facilities. The problems are exacerbated by inadequate fund allocation from the treasury and poor management within the county. This study aimed to explore how healthcare budgeting influences the performance of health facilities in Isiolo County, utilizing Resource Dependency Theory to guide the investigation. Adopting a descriptive research design, the study targeted a population of 293 professionals, including doctors, clinical officers, nurses, laboratory technicians, and accountants from Isiolo County Referral Hospital, Merti Sub County Hospital, and Garbatulla Sub County Hospital. Stratified random sampling was employed to select the sample, and primary data were gathered through semi-structured questionnaires. The data, both qualitative and quantitative, were analyzed using thematic analysis for qualitative data and descriptive and inferential statistics with SPSS (version 28) for quantitative data. The analysis revealed a positive and significant impact of healthcare budgeting on the performance of health facilities ($\beta1=0.516$, p-value=0.000). Based on these findings, it is recommended that health facility management implement a comprehensive budget tracking system to ensure real-time expenditure monitoring, regular audits, and variance analysis to enhance financial accuracy and accountability.

Keywords: *Healthcare Budgeting, Performance, Health Facilities*

INTRODUCTION

Health facilities globally play a crucial role in maintaining individual and community well-being, which enhances productivity, quality of life, and societal contributions. Despite improvements, health facilities in developing nations often struggle with challenges such as low patient satisfaction, long wait times, and suboptimal clinical outcomes (Ansu-Mensah & Udoh, 2019). In contrast, facilities in developed countries generally benefit from better budgeting practices, which contribute to higher efficiency and patient satisfaction. The disparity underscores the importance of effective healthcare budgeting in improving service delivery and addressing the needs of the population.

Liaropoulos and Goranitis (2018) indicate that effective budgeting is essential for enhancing the performance of health facilities, enabling them to provide high-quality care and meet community needs. According to the World Health Organization (2022), global health expenditure reached $12 trillion in 2020, representing 10% of global GDP, with high-income countries accounting for

76% of this expenditure, and low- and middle-income countries contributing 24%. Additionally, out-of-pocket payments constituted 21% of global health expenditure, with significant variations among countries. Debie, Khatri, and Assefa (2022) argue that well-managed budgeting is crucial for achieving healthcare system goals such as improving health outcomes, ensuring access to essential services, and providing financial protection. The differences in budgeting practices reflect the varying political, economic, and social contexts across countries.

In China, a decade of healthcare financing changes, from 2008 to 2018, resulted in a shift from benefiting poorer populations to favoring wealthier groups, which improved access, quality, and availability of services but highlighted inequities in healthcare budgeting (Chen, Zhou, & Si, 2020). Conversely, developing countries like Bangladesh face significant challenges in healthcare financing, leading to deteriorating facilities and reduced care quality due to insufficient budgets (Molla & Chi, 2020). Ansu-Mensah and Udoh (2019) note that Africa's average health sector allocation remains at 5.3%, far below the 15% target set by the Abuja Declaration, indicating a persistent gap in adequate healthcare funding.

In Zambia, Chitalu (2022) shows that effective healthcare budgeting ensures essential resources such as medical equipment and trained personnel are available, which supports facility performance and community needs. In Ethiopia, Debie and Khatri (2022) highlight that health financing initiatives like revenue generation and risk pooling improve facility performance by securing infrastructure and medical supplies. In Kenya, despite efforts to increase public funding, healthcare budgets are still below recommended levels, affecting service quality and resource allocation (African Institute for Development Policy, 2023; Kairu, Orangi, & Mbuthia, 2021; Koros, Korir, & Maru, 2020). Challenges persist, particularly in Isiolo County, where inadequate infrastructure and financial barriers continue to impact healthcare service delivery (Maarifa Centre, 2022).

Statement of the Problem

Isiolo County has a population of 280,911, out of which 45% are less than 15 years, 34% are adults (25-59), 22% are adolescents (15-24) and 0.75% are elderly (60+). To take care of the healthcare needs of this population, the County has three main health facilities: Merti, Isiolo and Garbatulla. These health facilities have been experiencing poor performance as they are characterized by long waiting time, low patient satisfaction and lack of essential services. According to Mulaki and Muchiri (2019), patient satisfaction, turnaround time and efficiency in health care services delivery in Isiolo County remain low. The level of patient satisfaction in County referral hospitals was 67.8%, which is lower than the acceptable customer satisfaction score of between 75% and 85% as indicated by Li, Zolbin and Krimmer (2022). In addition, the waiting time in Isiolo County health facilities was 118.8 minutes, which is higher than the national average of 55.3 minutes (World Health Organization, 2022).

Health facilities in Isiolo County are almost crippled due to the scarcity of resources, that is, financing, human resource and facilities among others. This is due to the inadequate funds allocation from treasury coupled with poor management within the county. As observed by Maarifa Centre (2022), health facilities in Isiolo County are characterized by stock-outs of medical products, which are attributed to shortage of facilities and inadequate resources including medical supplies and equipment. According to Isiolo County Health Department (2022), health facilities in Isiolo County have a 78.43% deficit in the number of consultants, 88.24% deficit in the number of dentists, 94.44% deficit in the number of dentists, 87.19% deficit in the number of laboratory technologists, 32.81% deficit in the number of clinicians and 30% deficit in the number of nurses. Despite the poor performance of health facilities in Isiolo

County, Isiolo County government allocation to the health sector still remains below 15% just like other Counties in Kenya, which makes inadequate financing one of the main challenges affecting the sector (Maarifa Centre, 2022). It was therefore important to understand how healthcare financing in Isiolo County affects service delivery on health facilities.

Among studies conducted in the healthcare sector in Kenya, some of them have focused on healthcare financing. For instance, Mwaambi (2019) examined the relationship between healthcare financing and access to health care services in the Coastal region of Kenya; Indiazi (2021) examined the influence of devolved healthcare financing on delivery of health services among public health facilities in Western Counties; and Kundu and Gichure (2022) examined the effect of healthcare financing on performance of sub county hospitals in Trans Nzoia County. However, the healthcare infrastructure in Kenya differs with Counties and regions and hence the findings of these studies cannot be generalized to Arid and Semi-Arid Counties in Kenya. As such, this study sought to examine the influence of healthcare budgeting on service delivery in health facilities in Isiolo County.

LITERATURE REVIEW

Performance of Health Facilities

The performance of health facilities is evaluated through key indicators such as efficiency, availability of services, and patient satisfaction. Efficiency, often measured by waiting time, reflects how swiftly patients receive care upon arrival; shorter waiting times generally indicate better resource management and streamlined processes (Smith, Jones & Johnson, 2019). Availability of services assesses the range and accessibility of medical services provided, ensuring comprehensive care that meets the diverse needs of patients. Patient satisfaction, a critical measure of performance, encompasses patients' perceptions of the quality of care, the responsiveness of health personnel, and the overall healthcare experience (Agyemang et al., 2018). High levels of patient satisfaction are typically associated with effective communication, compassionate care, and positive health outcomes. Collectively, these indicators provide a holistic view of a health facility's ability to deliver timely, accessible, and satisfactory healthcare services.

Efficiency (Waiting Time)

A study by Smith, Jones and Johnson (2019) conducted a global review of health facility performance and found that efficiency, measured by waiting times, significantly impacts patient satisfaction and healthcare outcomes across different regions. They indicated that long waiting times can lead to frustration and dissatisfaction among patients. It is not just the actual time spent waiting, but also the perception of waiting that affects patient satisfaction. In addition, efficient healthcare delivery directly impacts health outcomes. Prompt access to care can prevent conditions from worsening, facilitate early intervention, and improve disease management. Also, efficiency in healthcare ensures optimal use of resources, including staff time, equipment, and facilities. However, this study adopted systematic review of literature and hence no primary data was collected.

In a study conducted by Agyemang et al. (2018) in Ghana, researchers found that reducing waiting times in health facilities led to increased patient satisfaction and improved access to healthcare services. In a comprehensive investigation undertaken by Agyemang et al. (2018) within Ghana, researchers discerned a significant correlation between diminishing waiting durations in healthcare facilities and heightened levels of patient contentment, alongside enhanced accessibility to essential medical services. Their study shed light on the pivotal role of efficiency in healthcare delivery, showcasing how streamlined processes not only elevate patient

satisfaction but also facilitate broader and more equitable access to vital healthcare resources. In comparison with the study on healthcare financing and health facility performance in Isiolo County, methodological gaps such as the focus on Ghanaian settings, this may not fully capture the specific challenges and dynamics of healthcare delivery in Isiolo County, Kenya.

In a localized inquiry led by the Isiolo County Health Department (2022), researchers scrutinized health facility efficiency within the region, centering their assessment on waiting times and patient feedback. By leveraging these insights, they aimed to pinpoint areas necessitating improvement, thereby bolstering service delivery standards. Additionally, a community-driven investigation by Isiolo Health Watch (2018) delved into service availability and patient satisfaction levels across Isiolo County, furnishing invaluable data on local healthcare performance. These studies collectively offer vital insights for stakeholders, guiding strategic interventions to optimize healthcare access, enhance patient experiences, and fortify healthcare delivery within Isiolo County's healthcare infrastructure.

Availability of Services

In their thorough examination of health facility performance within Tanzania, Mwanri, Mushi, and Shayo (2021) unveiled a compelling association between the availability of essential healthcare services, including medications and diagnostic tools, and the levels of patient satisfaction. Their study underscored the critical importance of ensuring consistent access to fundamental medical resources in healthcare settings, emphasizing how deficiencies in service availability can directly impact patient experiences and perceptions of care quality. By shining a spotlight on this correlation, their findings underscore the imperative for healthcare systems to prioritize resource allocation and infrastructure development efforts to enhance service accessibility, thereby fostering improved patient satisfaction and overall healthcare efficacy. Having been conducted in Kenya, the findings of this study cannot be generalized to health facilities in Isiolo County.

Wang, Zhang and Chen (2020) investigated factors influencing emergency department (ED) waiting times in urban hospitals. Using mixed methods including patient surveys and staff interviews, the study found that effective patient triage systems and optimized staff allocation were critical in reducing ED waiting times. Improved patient throughput and satisfaction scores underscored the importance of strategic management practices in enhancing healthcare efficiency. Methodologically, the study utilized mixed methods but lacks generalizability beyond urban hospitals. Conceptually, their focus on operational practices in EDs could benefit from a more integrated framework considering broader systemic factors. Contextually, the study's urban hospital setting did not fully capture variations in ED performance across different healthcare contexts, limiting its applicability to diverse healthcare settings like Isiolo County.

Patient Satisfaction

A research by Brown, Garcia and Patel (2020) analyzed health facility performance indicators worldwide and emphasized the importance of timely access to services in improving patient satisfaction and overall healthcare quality. Their research underscores the critical significance of minimizing waiting times as a fundamental component of effective healthcare delivery systems worldwide. By emphasizing the correlation between efficient service provision and positive patient experiences, their findings advocate for strategic interventions aimed at optimizing operational processes to ensure prompt access to healthcare services, ultimately contributing to improved healthcare outcomes and bolstered patient satisfaction across diverse healthcare settings. However, there are methodological gaps such as the lack of specific focus on rural or resource-constrained settings like Isiolo, potentially overlooking unique challenges and solutions

pertinent to these contexts. Conceptually, while emphasizing timely service access, their global perspective may not fully capture local healthcare dynamics and intricacies specific to Isiolo County.

Ahmed, Bural and Uddin (2020) conducted a cross-sectional study on patient satisfaction in Pakistani hospitals. Utilizing structured questionnaires and focus group discussions, the study identified communication quality, cleanliness, and staff behavior as critical factors influencing patient experiences. The conclusion highlights the need for hospitals to prioritize patient-centered care practices to enhance overall satisfaction and healthcare service delivery. While the study emphasized on patient-centered care, it overlooks broader systemic factors impacting healthcare service delivery. The focus on urban hospitals in Pakistan contrasts with rural settings like Isiolo County, potentially missing context-specific challenges and solutions crucial for enhancing healthcare.

Health Budgeting and Performance of Health Facilities

Health budgeting is a critical process that ensures the effective allocation and utilization of financial resources in healthcare systems (Müller, Schmidt & Wagner, 2019). Expense categorization is the initial step, involving the classification of expenses into various categories such as personnel, medical supplies, infrastructure, and administrative costs, which helps in identifying and prioritizing financial needs (Nkosi, Mwanri & Mapoma, 2019). Budget development follows, where a detailed plan is created based on the categorized expenses, projected revenues, and policy objectives, ensuring that funds are allocated efficiently to meet the healthcare needs and strategic goals (Smith, Johnson & Martinez, 2018). Also, budget monitoring is essential for tracking financial performance against the budget, enabling timely adjustments and ensuring that expenditures align with the allocated resources. Continuous monitoring helps in maintaining financial discipline, identifying variances, and ensuring accountability, ultimately contributing to the sustainability and effectiveness of healthcare services (Ochieng, Muga & Kithinji, 2021).

Expense Categorization

In Ghana, Nkosi, Mwanri and Mapoma (2019) explored how health budgeting practices, including expense categorization influence the performance of health facilities. A mixed-methods approach was utilized, involving the collection of budgeting data and performance metrics from healthcare facilities. Quantitative analysis, such as regression analysis, was conducted alongside qualitative insights from interviews with healthcare stakeholders. The study revealed that facilities with adequate and transparent budgeting processes tend to provide higher-quality care, achieve better health outcomes, and have more satisfied patients. Contextually, their study's emphasis on budgeting's influence on healthcare outcomes contrasts with the complex interplay of funding sources, operational efficiency, and resource allocation issues specific to Isiolo County's healthcare system, suggesting a need for contextually tailored research to address local health financing dynamics comprehensively.

Chattopadhyay, Roy and Gupta (2021) aimed to analyze how different methods of expense categorization impact the performance of health facilities in India. The researchers employed a quantitative approach, collecting data from 100 public and private health facilities across various states in India. The data were gathered through structured questionnaires and financial records from 2016 to 2020. The study found that health facilities with detailed and transparent expense categorization systems performed better in terms of resource allocation efficiency, patient satisfaction, and service delivery. Facilities that categorized expenses by specific functional areas, such as patient care, administration, and infrastructure, showed a marked improvement in

managing resources effectively. While the study provides robust quantitative data and a comprehensive analysis, it is limited by its cross-sectional design, which does not account for changes over time.

Budget Development

Chen, Wang and Liu (2020) investigate the impact of budget development on the performance of health facilities in Asia. A quantitative research design was employed, involving the collection of data on health budget allocation and performance metrics from health facilities across Asia. The study found that health facilities with more transparent and participatory budgeting processes tend to demonstrate better performance outcomes in terms of patient satisfaction, resource utilization, and financial management. However, the study was limited to Asia and hence the findings cannot be generalized to health facilities in Kenya.

In Kenya, Ochieng, Muga and Kithinji (2021) examined the impact of health budgeting practices, like budget development on the performance of health facilities in Kenya. A quantitative analysis was conducted, involving the collection of data on health budgeting practices and facility performance indicators from healthcare facilities across Kenya. Statistical techniques, such as hierarchical linear modeling or structural equation modeling, were employed to explore the causal relationships between budget development and budget monitoring and facility performance. The study found that facilities with transparent and participatory budgeting processes tend to have better financial management, higher levels of staff satisfaction, and improved patient outcomes compared to those with opaque or top-down budgeting approaches. In comparison with the study on healthcare financing and health facility performance in Isiolo County, the research highlights methodological gaps, such as the exclusive use of quantitative analysis without integrating qualitative insights which may limit understanding of underlying issues in Isiolo.

Budget Monitoring

Müller, Schmidt and Wagner (2019) assessed the relationship between health budget monitoring and facility performance in Europe. Data on health budget allocation and hospital performance indicators were collected from a sample of European hospitals. Econometric models, such as stochastic frontier analysis, were employed to analyze the efficiency of budget utilization and its impact on facility performance. The study found that hospitals with more equitable and transparent budgeting processes tend to achieve higher levels of efficiency and better performance outcomes in terms of patient care and resource utilization. However, the study was limited to European hospitals and utilized econometric models, such as stochastic frontier analysis.

In public county health facilities, Chege, Mwenja, Kiambati and Mbugua (2019) examined the relationship between budget monitoring and service delivery. Employing an explanatory survey research design, the study targeted doctors, clinical officers (COs), and nurses across hospitals in Kenya. The findings indicated a positive and significant relationship between budget monitoring and service delivery. The findings imply that when budget allocations fall short of healthcare workers' remuneration demands, service delivery may suffer due to strikes, reduced motivation among staff, and attrition of skilled personnel. Therefore, ensuring sufficient and timely budget allocations is crucial for maintaining effective service delivery in healthcare facilities. Conceptually, while focusing on the relationship between budget monitoring and service delivery, their research might not fully explore the broader impacts of various healthcare financing sources and operational processes specific to Isiolo.

Theoretical framework

This study was anchored on Resource Dependency Theory (RDT), developed by Pfeffer and Salancik (1978). RDT provides a theoretical framework explaining how organizations depend on external resources to survive and thrive. According to RDT, organizations are embedded in environments marked by resource scarcity and uncertainty, making them reliant on external sources like suppliers, customers, government agencies, and community stakeholders for essential resources such as capital, information, technology, and legitimacy (Cruz, Barros & Souza, 2022). This dependency creates power dynamics and interdependencies, as organizations must strategically manage these relationships to secure vital resources and mitigate vulnerability to external shocks (Yeager & Diana, 2019).

In healthcare facilities in Isiolo County, RDT highlights how the allocation and management of financial resources directly impact organizational stability and effectiveness. Health facilities rely on external resources, including funding and budget allocations, to function optimally and achieve their objectives. Adequate and well-managed health budgeting is crucial for ensuring that these facilities can provide quality care, maintain infrastructure, and address community health needs. RDT asserts that effective utilization of budgetary resources reduces dependency on external pressures, enhancing the performance and sustainability of health facilities (Ashfaq & Acquadro, 2020).

Conceptual Framework

Conceptual framework shows the relationship between the independent variable and the dependent variable. As shown in Figure 1, the independent variable in this study was health budgeting. The dependent variable was performance of health facilities in Isiolo County.

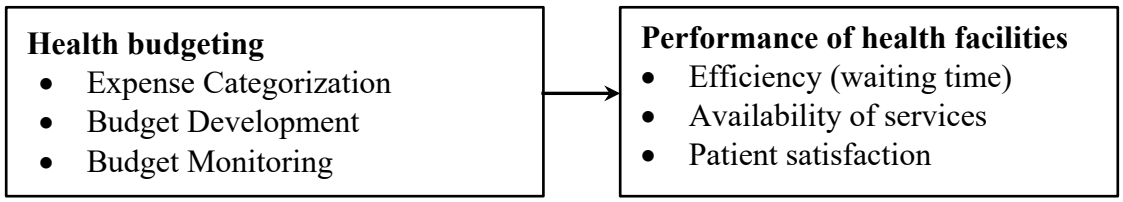

Figure 1: Conceptual Framework

METHODOLOGY

This study adopted a descriptive research design. The target population in this study was the staff working in Isiolo County Referral Hospital, Merti Sub County Hospital and Garbatulla Sub County Hospital. The unit of observation was staff working in these health facilities including doctors, clinical officers, nurses, laboratory technicians and accountants. The staff working in health facilities were selected because they are directly impacted by healthcare financing decisions and policies. Therefore, the target population was 293 doctors, clinical officers, nurses, laboratory technicians and accountants working in Isiolo County Referral Hospital, Merti Sub County Hospital and Garbatulla Sub County Hospital.

Table 1: Target Population

Category	Target Population			Total
	Isiolo County Referral Hospital	Merti Sub County Hospital	Garbatulla Sub County Hospital	
Doctors	7	4	3	14
Clinical officers	26	15	11	52
Nurses	92	45	39	176

Laboratory technicians	18	14	10	42
Accountants	4	3	2	9
Total	**147**	**81**	**65**	**293**

Sample size determination refers to the act of choosing the number of observations or replicates to include in a statistical sample (Bryman, 2022). The study used Slovin's formula in the determination of the sample size.

$$n = \frac{N}{1 + N(e)^2}$$

Where: n = no. of samples; N = total population; and e = error margin / margin of error (0.05)

$$n = \frac{293}{1 + (293 * (0.05^2))}$$

$$n = 169$$

The study used stratified random sampling in the selection of the sample size. The strata in this study were doctors, clinical officers, nurses, laboratory technicians and accountants. By dividing the population into homogeneous subgroups or strata based on specific characteristics, stratified random sampling allows for more precise estimates of population parameters.

In this study, semi-structured questionnaires were used in the collection of primary data. A pre-test was conducted in Garissa County Referral Hospital due to similarity of characteristics with those of health facilities in Isiolo County. The pre-test group was sampled randomly and comprised of 10% of the sample size. According to Kumar (2019), 10% of the sample required for a full study should be used in a sample size.

The research instruments yielded both qualitative and quantitative[0]data. Qualitative data from open-ended questions were analyzed using thematic analysis. Quantitative data was analyzed using descriptive and inferential statistics with the help of Statistical Package for Social Sciences (SPSS version 28). Descriptive statistics included including frequency distribution, percentages, mean and standard deviation. Inferential statistics comprised of Pearson correlation analysis and regression analysis. The regression model was structured as follows:

$$Y = \beta_0 + \beta_1 X_1 + \varepsilon$$

Whereby: Y = Performance of health facilities; β_0 = Constant; β_1 = Coefficients of determination; X_1 = Health budgeting; and ε = Error term

RESULTS AND DISCUSSION

This research targeted 169 staff working in Isiolo County Referral Hospital, Merti Sub County Hospital and Garbatulla Sub County Hospital. Out of 169 questionnaires that the researcher distributed, 160 of them were dully and returned therefore giving a response rate of 94.67%. Babbie (2021) contends that a response rate of 75% is sufficient for data processing, making conclusion, and providing recommendation. This indicates that a response rate of 94.67% was sufficient for analyzing the data, making recommendations, and drawing conclusions.

Table 2: Questionnaires' Response Rate

Category	Sample Size	Responses	Response Rate
Doctors	8	8	100.00
Clinical officers	30	28	93.33
Nurses	102	97	95.10
Laboratory technicians	24	22	91.67
Accountants	5	5	100.00

Total	**169**	**160**	**94.67**

Demographic Characteristics of the Respondents

Demographic characteristics are measurable attributes or traits of a population or group of people. In this research, demographic characteristics included gender of the respondents, highest level of education as well as the duration they have been working in the organization. From the outcomes, as shown in Table 3, 114(71.3%) of the participants stated that they were male while 46(28.8%) stated that they were female. This indicates that majority of the participants in this research were male. These findings agree with Mulaki and Muchiri (2019) observation that most of the healthcare professionals in Isiolo County are female.

The highest education level plays a critical role in shaping the role of healthcare financing and the performance of healthcare facilities in Isiolo County. Educated individuals bring expertise, leadership, innovation, and advocacy skills to the healthcare system, driving positive change and ultimately improving health outcomes for the population. From the results, 104(61.18%) of the respondents indicated that they had undergraduate degrees, 38 (22.35%) had college diplomas and 18 (10.59%) had college certificates. This implies that that majority of the participants in this research had undergraduate degrees. These findings are in line with Li et al. (2022) findings that majority of healthcare professionals have under graduate degrees.

From the results, 90(56.3%) of the respondents indicated that they have been working in the organization for between 5 and 10 years, 28(17.5%) have been working between 11 and 20 years, 27(16.9%) have been working for less than 5 years while 15(9.4%) have been working for above 20 years. This implies that majority of the respondents have been working for between 5 and 10 years. This indicates that working for 5 to 10 years in healthcare financing in Isiolo County offers a unique opportunity to make a substantial and lasting impact on the performance of healthcare facilities by leveraging local insights, building partnerships, honing financial management skills, shaping policies, and implementing evidence-based strategies for improvement. The findings agree with Mulaki and Muchiri (2019) observation that most of the healthcare professionals in Isiolo County had undergraduate degrees.

Table 1: Demographic Characteristics of the Respondents

Category	Frequency	Percent
Gender		
Male	114	71.3
Female	46	28.8
Total	**160**	**100**
Highest education level		
Undergraduate Degree	104	61.18
College Diploma	38	22.35
College Certificate	18	10.59
Total	**160**	**100**
Working duration		
Less than 5 years	27	16.9
5 to 10 years	90	56.3
11 to 20 years	28	17.5
Above 20 years	15	9.4
Total	**160**	**100**

Health Budgeting

The participants were asked to state their level of concurrence with different statements on health budgeting on performance of health facilities in Isiolo County. The outcomes were as presented in Table 4. From outcomes, respondents agreed with a mean of 3.968 (SD=0.305) that the expense categories used in health facility budgets are clear and easy to understand. The findings are in concurrence with Smith, et al. (2018) findings that the management of health facilities should ensure that expenses are categories as per the needs so as to guide budgeting. In addition, with a mean of 2.962 (SD=1.109), participants were neutral with the statement indicating that expenditures are regularly compared to the budget and analysed for variances. Also, with a mean of 2.937(SD=0.414), participants were neutral with the statement indicating that the expense categories reflect the actual needs of the health facility. The results are in disagreement with Müller et al. (2019) observation that expense categories should reflect health facility's needs.

However, with a mean of 2.025(SD=0.192), participants disagreed with the statement indicating that there is a clear system for tracking and monitoring budget expenditures. The findings agree with Müller et al. (2019) observation that health facilities should have a clear system of tracking and monitoring budget expectations. Similarly, with a mean of 2.006 (SD=0.427), participants disagreed with the statement indicating that the budget development process is participatory and includes input from various stakeholders. The findings disagree with Chen et al. (2020) argument that all stakeholders should be involved in budget development process. Furthermore, participants disagreed with a mean of 1.975(SD=0.387) with the statement indicating that the budget realistically reflects the expected funding available to the health facility.

Similarly, participants disagreed with a mean of 1.968 (SD= 0.481) with the statement indicating that the health facility regularly monitors its budget to ensure funds are being utilized effectively. With a mean of 1.968(SD=0.325), participants disagreed with the statement indicating that the health facility effectively categorizes its expenses to ensure transparency and accountability. The findings disagree with Ochieng et al. (2021) argument that health facilities should ensure that expenses are categorized to ensure accountability. In addition, participants disagreed with a mean of 1.956 (SD=0.394) that budget development at the health facility considers the actual needs of the community.

The participants also disagreed with the statement indicating that any deviations from the budget are promptly investigated and addressed as shown by a mean of 1.943(SD=0.408). In addition, participants strongly disagreed with a mean of 1.143 (SD=0.524) that the budget aligns with the strategic objectives of the health facility. The findings disagree with Smith et al. (2018) observations that the budget of a health facility should reflect its goals and objectives. In addition, with a mean of 1.112 (SD=0.419), participants strongly disagreed with the statement indicating that they are satisfied with how the health facility categorizes its expenses for budgeting purposes. The findings agree with Nkosi et al. (2019) assertion that health facilities portray poor expense categorization.

Table 2: Aspects of health budgeting on performance of health facilities

	Mean	Std. Deviation
The expense categories used in health facility budgets are clear and easy to understand	3.968	.305
The expense categories reflect the actual needs of the health facility	2.937	.414
The health facility effectively categorizes its expenses to ensure transparency and accountability	1.968	.325

I am satisfied with how the health facility categorizes its expenses for budgeting purposes	1.112	.419
The budget development process is participatory and includes input from various stakeholders.	2.006	.4270
The budget realistically reflects the expected funding available to the health facility.	1.975	.387
The budget aligns with the strategic objectives of the health facility.	1.143	.524
Budget development at the health facility considers the actual needs of the community	1.956	.394
There is a clear system for tracking and monitoring budget expenditures.	2.025	.192
Expenditures are regularly compared to the budget and analysed for variances.	2.962	1.109
Any deviations from the budget are promptly investigated and addressed.	1.943	.408
The health facility regularly monitors its budget to ensure funds are being utilized effectively.	1.968	.481

Performance of Health Facilities

The dependent variable of this research was the performance of health facilities in Isiolo County. The participants were asked to state their level of concurrence with different statements on performance of health facilities. The outcomes were as presented in Table 5. From outcomes, respondent strongly agreed with a mean of 4.931 (SD=0.421) that they believe there are gaps in the availability of certain healthcare services at the health facility. The findings agree with Brown et al. (2020) argument that most of the health facilities in developing countries have gaps in service availability. The respondents also, strongly agreed with a mean of 4.925 (SD=0.442) that patient waiting times are a concern and need improvement at the health facility. These findings agree with Ahmed, Bural and Uddin (2020) findings that it should be the objective of the management of health facilities to reduce patient waiting time.

The findings concur with Smith, Jones and Johnson (2019) observations that efficiency, measured by waiting times, significantly impacts patient satisfaction and healthcare outcomes across different regions. With a mean of 4.100 (SD=437), participants agreed with the statement indicating access to essential healthcare services is a priority and should be improved at the health facility. The findings are in line with Agyemang et al. (2018) argument that access to essential services in the priority of every government and health facility.

However, the respondents disagreed with the statement indicating that the health facility offers a wide range of essential healthcare services to meet the needs of the community as shown by a mean of 2.000 (SD=0.434). In addition, with a mean of 1.793 (SD=0.561), participants disagreed with the statement indicating that the health facility actively seeks and addresses patient feedback to improve service delivery. With a mean of 1.768 (SD=0.561), the participants disagreed with the statement indicating that patients are generally satisfied with the quality of care and services provided by the health facility. The findings agreed with Mulaki and Muchiri (2019) observations that patient satisfaction, turnaround time and efficiency in health care services delivery in Isiolo County remain low.

Furthermore, the respondents disagreed with a mean of 1.575 (SD=0.901) that the health facility efficiently manages patient waiting times for accessing healthcare services. The findings are contrary to Wang et al. (2020) findings that the management of health facilities should ensure

efficiency in service delivery. In addition, the respondents strongly disagreed with the statement indicating that patients experience minimal waiting time to access healthcare services as shown by a mean of 1.500 (SD=1.303). Similarly, with a mean of 1.387 (SD=0.571), the respondents strongly disagreed with the statement indicating that there are efficient systems in place to manage patient flow and reduce waiting times. The findings are contrary to Li et al. (2022) findings that waiting times remains high in health facilities.

Additionally, the respondents strongly disagreed with a mean of 1.206 (SD=0.594) that the health facility values patient feedback and actively seeks to improve satisfaction level. These findings disagree with Nyamongo et al. (2019) observation that health facilities should value and collect patient feedback so as to identify areas of improvement. Also, the respondents strongly disagreed with the statement indicating that there are effective mechanisms in place to address patient complaints and grievances as shown by a mean of 1.156 (SD=0.532). With a mean of 1.118 (SD=425), participants strongly disagreed with the statement indicating that patients can easily access the services they need without having to travel long distances. The findings are contrary to Mwanri, Mushi, and Shayo (2021) findings that the government should ensure that patients can easily access the health services closer to their homes.

Table 5: Aspects of performance of health facilities

	Mean	Std. Deviation
Patients experience minimal waiting time to access healthcare services.	1.500	1.303
There are efficient systems in place to manage patient flow and reduce waiting times.	1.387	.571
Patient waiting times are a concern and need improvement at the health facility.	4.925	.442
The health facility efficiently manages patient waiting times for accessing healthcare services.	1.575	.901
The health facility offers a wide range of essential healthcare services to meet the needs of the community.	2.000	.434
Patients can easily access the services they need without having to travel long distances.	1.118	.425
I believe there are gaps in the availability of certain healthcare services at the health facility.	4.931	.421
Access to essential healthcare services is a priority and should be improved at the health facility.	4.100	.437
Patients are generally satisfied with the quality of care and services provided by the health facility.	1.768	.606
The health facility actively seeks and addresses patient feedback to improve service delivery.	1.793	.561
There are effective mechanisms in place to address patient complaints and grievances.	1.156	.532
The health facility values patient feedback and actively seeks to improve satisfaction levels.	1.206	.594

Inferential Statistics

Inferential statistics like multivariate regression and correlation analysis were used to assess effect of healthcare budgeting, funding sources, healthcare operational process and health facility expenditure on performance of health facilities in Isiolo County.

Correlation Analysis

Pearson product moment correlation coefficient was utilized to evaluate strength of correlation between independent variable (healthcare budgeting) and dependent variable (performance of health facilities). The findings were represented in Table 6. The research discovered that there exists significant positive correlation between healthcare budgeting and performance of health facilities in Isiolo County (r= 0.740, p-value =0.000). Moreover, the p-value 0.000 was below significant level of 0.05, indicating that correlation was significant. The findings are in agreement with Nkosi, Mwanri and Mapoma (2019) observation that healthcare budgeting has an impact on the performance of health facilities.

Table 6: Correlation Coefficients

		Performance	Healthcare budgeting
Performance	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	160	
Healthcare budgeting	Pearson Correlation	.740**	1
	Sig. (2-tailed)	.000	
	N	160	160

Regression Analysis

Linear regression analysis was employed to evaluate how healthcare budgeting (independent variable) impacts the performance of health facilities (dependent variable). This statistical method quantified the relationship between budgeting decisions and facility outcomes. The analysis aimed to identify the strength and direction of this influence. Table 7 presents the r-squared for the relationship between healthcare budgeting and performance of health facilities. The r-squared (R^2) is a statistical measure that represents the proportion of variance in dependent variable that can be explained by independent variables in a regression model. The r-squared in this research was 0.327, which implies that 32.7% of variation in performance of health facilities could be explained by healthcare budgeting.

Table 7: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.572[a]	0.327	0.298	0.2263

ANOVA can also be applied to assess the overall significance of a regression model. F-calculated was 149.939 while F-critical from the F-distribution Table was 2.71. Because F-calculated was above F-critical and p-value of 0.000 was not more than 0.05, model0used was deemed to be good fit for research data.

Table 8: Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.533	1	7.533	149.939	.000[b]
	Residual	7.938	158	0.050		
	Total	15.471	159			

Regression equation was;

$Y = 0.891 + 0.516X_1 + \varepsilon$

The researcher found that health budgeting has a positive and significant effect on performance of health facilities in Isiolo County (β_1=0.516, p-value=0.000). The p-value (0.000) was not more

than 0.05 hence, relationship was regarded significant. This shows that an improvement in health budgeting would lead to a subsequent improvement in performance of health facilities in Isiolo County. The outcomes are in line with Chen, Wang and Liu (2020) observation that health budgeting practices has an influence on the performance of health facilities in Asia. The findings also agree with Smith et al. (2018) findings that there is a positive association between budgeting strategies and the performance of health facilities in the United States.

Table 9: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.891	0.134		6.649	0.000
	Healthcare budgeting	0.516	0.098	0.698	5.265	0.000

Conclusion

The research concludes that health budgeting has a positive and significant impact on performance of health facilities in Isiolo County. The study highlights the critical importance of a well-defined and supportive health budgeting system for the performance of health facilities. It reveals several key issues: the absence of a clear system for tracking and monitoring budget expenditures, a non-participatory budget development process that excludes stakeholder input, ineffective expense categorization, and unrealistic budget projections that do not reflect actual funding. Additionally, it finds that the health facility lacks regular budget monitoring, fails to consider community needs, does not promptly investigate budget deviations, and misaligns the budget with strategic objectives. Furthermore, employees are dissatisfied with the current expense categorization for budgeting purposes.

Recommendations

The study found that the budget development process is not participatory and does not include input from various stakeholders. As such, the study recommends that the health facility create a participatory budget development process that involves input from various stakeholders, including healthcare staff, community representatives, and local government officials. This can be achieved through regular budget planning meetings and workshops. The study further established that the health facilities do not regularly monitor its budget to ensure funds are being utilized effectively. As such, the study recommends that the health facility establish a routine for periodic budget reviews to ensure funds are utilized effectively. This should involve monthly or quarterly budget meetings to assess expenditure against budgeted amounts and make necessary adjustments.

The study found that the health facility does not effectively categorize its expenses to ensure transparency and accountability. As such, the study recommends that the health facility implement a detailed expense categorization system that aligns with best practices in financial management. Each expense category should be clearly defined and monitored to ensure transparency and accountability in financial reporting. The study established that the budget does not align with the strategic objectives of the health facility. As such, the study recommends that the health facility ensure that the budgeting process is aligned with the health facility's strategic plan. This involves setting budget priorities that support long-term goals, such as improving health outcomes, enhancing service delivery, and building infrastructure.

Suggestions for Further Research

The study sought to examine the influence of health budgeting on performance of health facilities in Isiolo County. However, having been limited to Isiolo County, the findings cannot be generalized to other counties in Kenya. As such, the study recommends further studies to be conducted on the influence of healthcare financing on performance of health facilities in other counties in Kenya. In addition, the study shows that healthcare financing practices could explain 70.2% of performance of health facilities in Isiolo County. Therefore, further studies should be conducted to identify other factors affecting health facilities in Isiolo County. The study found that there was poor health budgeting in health facilities in Isiolo County. As such, the study suggests further studies on factors affecting health budgeting in health facilities in Isiolo County.

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