

## BUDGET AND HEALTH SERVICE DELIVERY IN COUNTY GOVERNMENTS OF KENYA

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### ABSTRACT

This study delves into the quality of health outcomes within Kenya's County Governments, underpinned by theoretical frameworks emphasizing citizens as vital stakeholders in budget formulation and execution. The study encompasses patients within County and County-affiliated personnel, adopting a correlational research design. A convenience sampling technique facilitated patient identification from hospitals in targeted County governments. Primary data collection employed well-structured questionnaires, supplemented by secondary data from budget documents and reports. Collected data underwent meticulous coding, editing, and refining, followed by a comprehensive analysis employing both descriptive and inferential methodologies. Descriptive statistics, including frequency distribution, means, and percentages, briefly presented key variables. Rigorous analytical methods aimed to extract nuanced insights into health budget allocation's intricate dynamics and tangible health outcomes within County-level governance structures. The study explored healthcare accessibility, quality, and challenges within Kenyan County governments, employing a cross-sectional design and comprehensive survey data to assess patients' experiences and perceptions on major findings of the study. This study contributes valuable insights into the healthcare landscape within surveyed counties, shedding light on access, affordability, and quality. Suggestions for future research include a more in-depth analysis of geographical influences, real-time monitoring and evaluation, qualitative research methods for richer insights, and comparative studies across regions to identify best practices. These recommendations aim to guide future research endeavors, fostering a nuanced comprehension of healthcare dynamics and contributing to the ongoing enhancement of healthcare systems.

## Background to the study

The provision of quality healthcare services is a fundamental responsibility of governments worldwide. In Kenya, the healthcare system has undergone significant transformations since the implementation of devolution through the 2010 Constitution. Devolution has decentralized the provision of healthcare services to 47 County governments, granting them greater autonomy and responsibility in managing their healthcare budgets and service delivery. The decentralization of healthcare service delivery to County governments in Kenya, following the enactment of the 2010 Constitution, has placed significant responsibilities on these local entities to manage and allocate budgets for healthcare services. It is crucial to understand the relationship between budget allocation and health outcomes to ensure effective resource utilization and improve service delivery within the County (KPMG, 2019).

Effective budget allocation and utilization plays a crucial role in ensuring the availability, accessibility, and quality of healthcare services in County governments. The relationship between the health budget and health outcomes is complex and varied, influenced by various factors such as resource availability, governance structures, policy implementation, and stakeholder dynamics. Therefore, understanding the linkages between budget and health service delivery is essential for informed decision-making and policy formulation in Kenya's County governments.

According to (WHO, 2010), decentralization of health systems has been a global trend, with many percentagewise, including Kenya, devolving health service delivery responsibilities to sub-national levels such as County governments. This shift aims to improve local governance, enhance community participation, and increase responsiveness to local health needs.

(WHO, 2019) asserts that adequate and equitable financing of health systems is crucial for delivering quality healthcare services. Global initiatives, such as the Sustainable Development Goals (SDGs), emphasize the need for increased investment in healthcare to achieve universal health coverage. Allocating sufficient budgetary resources to the health sector is essential for addressing

infrastructure gaps, strengthening human resources, and ensuring access to essential health services.

Effective health service delivery is a priority worldwide. Studies have highlighted the importance of efficient and equitable allocation of resources to improve health outcomes (Chima *et al.*, 2018). Efficient budget management, strategic resource allocation, and effective implementation of health policies and programs are key factors in achieving desired health service delivery outcomes.

Good governance and accountability mechanisms play a critical role in budget allocation and health service delivery. (Kabene *et al.*, 2011) argues that transparency, accountability, and stakeholder engagement are crucial elements in ensuring optimal utilization of resources and achieving desired health outcomes. Effective governance structures and mechanisms are essential for monitoring and evaluating budgetary processes, ensuring financial accountability, and addressing corruption and mismanagement.

Many developing nations, including Kenya, rely on international support and aid to strengthen their health systems. (Ravishankar *et al.*, 2009), opines that international donors and organizations provide financial assistance, technical expertise, and capacity-building initiatives to support budget allocation and health service delivery. However, the impact of external aid on health outcomes and sustainability remains a topic of debate and further research.

The devolution of health systems, similar to Kenya's County governments, has been observed in several nations in the African region. This decentralization aims to improve local governance, enhance community participation, and increase accountability in health service delivery (Wamala *et al.*, 2016).

Many nations in the region face challenges in financing their health systems and achieving Universal Health Coverage (UHC). A study by (McIntyre *et al.*, 2020) shows that limited financial resources, inadequate budget allocation, and inefficient utilization of funds hinder equitable access to quality healthcare. Therefore, strengthening budgetary processes and increasing

domestic resource mobilization are crucial for improving health service delivery.

The availability and distribution of healthcare professionals are significant challenges in the African region. A report by (World Bank, 2013), highlights that insufficient numbers of skilled health workers, particularly in rural areas, affect the delivery of healthcare services. Thus, adequate budget allocation and effective resource management are necessary to address workforce shortages and enhance healthcare capacity.

Inadequate healthcare infrastructure, including facilities and equipment, is a common issue in the region. A study by (Nsiah-Boateng *et al.*, 2018), proves that limited budgetary resources often lead to infrastructure gaps, impacting the quality and accessibility of healthcare services. Hence, allocating sufficient funds for infrastructure development is essential for improving health service delivery.

Nations in the African region have engaged in regional collaborations and knowledge sharing to address common health challenges. Platforms such as the African Union and regional health organizations facilitate information exchange, policy dialogue, and mutual learning, promoting effective budget allocation and health service delivery (Kirigia *et al.*, 2009).

The implementation of devolution in Kenya has decentralized health service delivery to County governments, aiming to improve local governance and accountability (GOK, 2010). This shift has led to changes in budget allocation processes and decision-making structures, influencing health service delivery at the County level.

Kenya faces budgetary challenges in adequately financing its health sector. Limited fiscal space, unpredictable funding, and competing priorities often result in inadequate budget allocation for health service delivery (Nzinga *et al.*, 2017). These challenges affect the availability and accessibility of healthcare services, particularly for vulnerable populations.

The Kenyan government has implemented various policies and strategies to improve health service delivery. The Kenya Health Policy 2014-2030 and the Kenya Health Sector Strategic and Investment

Plan (KHSSP) guide budget allocation and resource utilization for health (GOK, 2014). These policies emphasize equity, quality, and accessibility of healthcare services across the County.

According to (Wambua *et al.*, 2017), Kenya faces Human Resources for Health (HRH) challenges; including workforce shortages, uneven distribution, and inadequate skills mix. Budget allocation plays a critical role in addressing these challenges by investing in HRH training, retention strategies, and infrastructure for health workforce development. This study prompts to assess the quality of health outcomes in County governments of Kenya.

### Budget

Budget allocation is a critical factor influencing the availability and accessibility of quality healthcare services (Mutua *et al.*, 2018). Budgeting should factor the needs of the respective departments, which are influenced and vouched for by the relevant stakeholders as per the demands. The Commission on Revenue Allocation in 2020 developed and advised for adoption a third basis for revenue sharing among County government. Basing their allocation on the Constitution of Kenya 2010 articles 217 and 2016 and the Fifth Schedule Section 16 adopted the following basis as justification for the revenue sharing formula (Third Basis)

**Table 1 Third basis framework for revenue allocation**

Public Sector Function	Indicator	Weight
<b>Objective 1. Enhance services delivery</b>		
1.1 Health	Health index	17%
1.2 Agriculture, livestock & fisheries	Agricultural index	10%
1.3 Other County services	County population	18%
1.4 Public Administration	Basic index	20%
1.5 Urban Services	Urban households	5%
<b>Objective 2. Promote balanced development</b>		
	Land area	8%
	Rural access index	8%
2.1 Infrastructure	Poverty	14%

**Source:** Commission on Revenue Allocation

Based on the formula on revenue share the following characteristics reveal as follows:

**Table 2 Budget allocations**

Per Capita Health Budget Allocation ( In Thousands)				
N County	2014/15	2019/20	2020/21	Average
1 Lamu	5,586.62	8,689.34	10,038.0	8,104.66
2 Isiolo	4,423.14	5,155.19	4,999.48	4,859.27
3 Busia	2,017.92	2,885.25	2,904.77	2,602.65
4 Mombasa	2,246.11	2,753.98	2,704.57	2,568.22
5 Nairobi City	1,568.22	1,486.85	243.96	1,099.68
6 Laikipia	870.58	1,329.41	1,237.50	1,145.83

**Source:** County Budgets

In analyzing the average per capita health budget allocation, the study considered the financial years 2014/2015, 2019/2020, and 2020/2021. These years were chosen as they are closer to the respective census years, indicating minimal changes in population during that period. By focusing on these specific years, the study aimed to capture a more accurate representation of the per capita health budget allocation, taking into a percentage the population size and any potential changes over time.

Nairobi City County has consistently received the largest health budget allocation compared to other County in Kenya. However, despite the high budget allocation, the per capita health budget is relatively low. This is primarily due to the significantly higher population in Nairobi compared to other County. In contrast, some County with lower overall health budget allocations have a higher per capita allocation due to their smaller populations.

**Research problem**

Health sector has experienced a tremendous increase in budget allocation since advent of devolution. Both recurrent and development budget allocations have had a positive trajectory over the last 10 years of devolution. According to the World Health Organization (WHO) framework of health system building blocks, health service delivery is considered to function well when equitable access to a comprehensive range of high-quality health services is ensured within an integrated and person-centered continuum of care.

It is believed that the health of a nation forms the basis for development and economic growth. It is therefore prudent for County governments to ensure optimal health service delivery in order to achieve the desired development and economic growth as a nation. Based on the allocations, it is expected that health service delivery in County governments of Kenya to match with amount of funds disbursed from National treasury. However, there has been no remarkable improvement in health service delivery in County governments of Kenya despite the ever increasing budget allocation towards the health sector.

According to World Health Organization (WHO), optimal health care cannot be delivered by simply ensuring coexistence of infrastructure, medical supplies and health care providers. Improvement in health care delivery requires a deliberate focus on quality of health services, which involves providing effective, safe, people-centered care that is timely, equitable, integrated and efficient. Quality of care is the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge.

This study therefore focuses on customer and patient experience in health centers, dispensaries and referral hospitals to establish the relationship between budget and health service delivery in County governments of Kenya.

**Research objectives**

The general objective of this study is to examine the quality of health outcomes in Kenya. The specific objectives are to:

- a. To identify the factors that underpins health outcomes in County governments in Kenya.
- b. To assess the quality of healthcare provisions in County governments of Kenya.
- c. To infer appropriate policies recommendations in County governments of Kenya.

## LITERATURE REVIEW

### Theoretical review

#### Budgetary allocation theory

Budgetary allocation theory is one of the important theories that explain allocation of resources to different government entities. In his theory, Fozzard (2001) argues that organizations must evaluate each program and allocate funds to the programs that have the highest potential impact. The theory provides a structured approach to allocating resources in a way that maximizes their benefits and helps organizations achieve their goals.

Leu (1986) emphasizes the importance of aligning resource allocation decisions with the organization's goals and priorities. He suggests that resources should be directed towards those programs and activities that are essential to achieving the organization's mission and that are performing well.

Khan (2002) theory recognizes that resource allocation decisions are influenced by a range of factors beyond program performance. It highlights the importance of taking into account the political and social context of an organization when making resource allocation decisions. This includes considering factors such as public opinion, stakeholder interests, and the availability of resources. The theory provides a framework for making resource allocation decisions that are sensitive to the socio-political environment of an organization. It emphasizes the importance of aligning resource allocation decisions with the organization's goals and values while taking into account the broader context in which it operates.

The relevance of the theories in the study is they provide a structured approach to resource allocation in healthcare that emphasizes the importance of aligning resource allocation decisions with the organization's goals and values. They highlight the need for transparency, participation, and evaluation to ensure that resources are used effectively and efficiently to improve the health of the population.

#### Theory of healthcare spending

Babcock (2019) emphasizes the importance of a data-driven approach to healthcare spending, which requires the use of advanced analytics and data management tools. He suggests that healthcare

organizations must invest in data infrastructure, workforce training, and organizational culture to effectively implement the Babcock theory of healthcare spending. The theory provides a structured approach to healthcare spending that emphasizes the importance of aligning spending decisions with established priorities and evaluating the outcomes of healthcare spending. The theory highlights the need for a data-driven approach to healthcare spending, which requires investment in data infrastructure and workforce training.

Raghupathi (2020) emphasizes the importance of stakeholder engagement and collaboration in the health spending process, particularly in the development and implementation of programs and interventions. He suggests that effective health spending requires a collaborative approach that involves healthcare providers, policymakers, and the wider community. He further provides a comprehensive framework for health spending that emphasizes the importance of establishing clear goals, allocating resources based on specific health needs, and monitoring outcomes to ensure the overall effectiveness and efficiency of healthcare delivery. The theory highlights the need for stakeholder engagement and collaboration in the health spending process to ensure that resources are used effectively and efficiently to improve population health.

The World Health Organization (WHO) 2018 report on global health care spending provides an overview of the patterns and trends in health care spending across the world. The report highlights the importance of investing in health care systems to improve health outcomes and reduce the economic burden of disease. The report notes that global health spending has been increasing over the past few decades, with total health spending reaching \$7.5 trillion in 2016. However, the report also notes that spending levels vary widely across different nations and regions. Despite the overall increase in health care spending, many people still face significant out-of-pocket costs for health care. The report notes that this is a particular issue in low- and middle-income nations, where people often face financial hardship due to health care costs. The report emphasizes the importance of investing in health care systems to achieve universal health coverage, which means ensuring that all people have access to quality health

care without experiencing financial hardship. The report notes that achieving universal health coverage requires a sustained commitment to health spending. The report highlights the potential economic benefits of investing in health care systems, including increased productivity, reduced poverty, and improved economic growth.

### **Empirical review**

The study by Mbindyo *et al.* (2018) examine the changes that occurred in budget allocation, healthcare infrastructure, and service delivery outcomes after the devolution of healthcare services to County governments. The study sheds light on the challenges and opportunities associated with devolution in the context of healthcare delivery in Kenya. By analyzing data and conducting interviews, the researchers provide a comprehensive understanding of the effects of devolution on health services, helping policymakers and stakeholders make informed decisions to enhance service delivery in County governments.

In another research by Chege *et al.* (2020), the main objective was to establish the influence of budget execution on the service delivery of public County health facilities in Kenya. The study concluded that there is a positive relationship between budgetary allocations and service delivery in the facilities, as more budgetary allocations would ensure efficient and effective service delivery.

The study conducted by Obadha *et al.* (2019) focuses on examining the impact of health financing reforms on healthcare equity in Kenya. The researchers investigate how budget allocation, healthcare financing mechanisms, and service delivery reforms influence equitable access to healthcare services. By analyzing the effects of health financing reforms, the study provides insights into the strategies and policies that can contribute to improved equity in healthcare. The findings contribute to the existing empirical literature on health financing and equity, providing evidence-based recommendations for policymakers and stakeholders in the Kenyan healthcare system.

Waweru *et al.* (2018) examines the role of budget allocation and policy formulation in financing universal health coverage and improving health service delivery. By mapping out the health

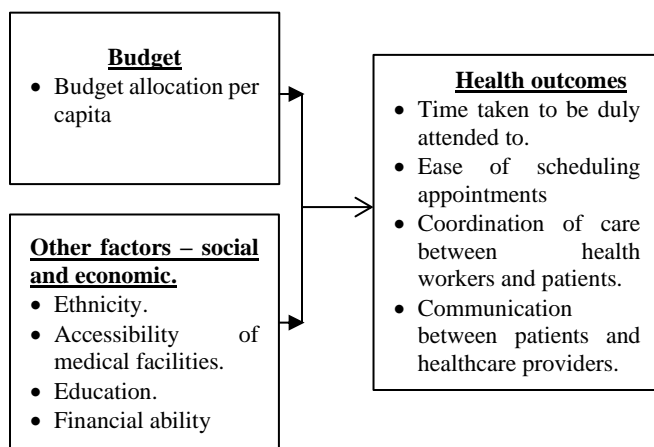
financing policy landscape, the review provides an overview of the strategies, mechanisms, and challenges involved in financing healthcare systems. The findings contribute to a better understanding of the health financing context in Kenya and other African percentageries, informing policymakers and stakeholders in their efforts to achieve universal health coverage and enhance health service delivery.

The qualitative study conducted by Goudge *et al.* (2018) focuses on the impact of health reforms on health financing, human resources for health, and health outcomes in rural South Africa. Through in-depth interviews and observations, the study provides valuable insights into the effects of these reforms on the healthcare system. It highlights the importance of effective budget allocation and resource utilization in achieving improved health service delivery. By examining the experiences and perspectives of key stakeholders, the study contributes to the understanding of health system strengthening and policy implementation in resource-constrained settings.

In the analysis of the effective budgeting, Bednarska-Olejniczak *et al.* (2020) credits the participatory mechanisms in the impressive performance of cities in quality indicators that include per capita consumption, literacy, life expectancy, child mortality and number of hospital beds. The findings of a research by Cabannes and Lipietz (2018) suggest that effective budgeting is an appropriate mechanism that promotes capital investment, which essentially contributes to the reduction in poverty rates. The finding from this research study is significant since it demonstrates the impact of the redistributive budget in the long-run. The same study also indicated that municipalities that have engaged in effective budgeting have recorded better scores in areas that include healthcare delivery and accessibility to water and sanitation.

### **Conceptual framework**

The conceptual frames work here presents the independent and dependent variables and how they relate in reference to the objectives of the study. The conceptual framework developed for the proposed research study is shown in the figure 2.1 below.



**Figure 1 Conceptual framework.**

## RESEARCH METHODOLOGY

The study adopted a cross-sectional survey design. The research design uses survey questionnaires to collect important information and data for analysis. The survey questionnaires is an appropriate means for collecting data from the respondents since it ensures originality and thus improves the reliability and accuracy of the data. In this research study, the main issue under investigation is quality of health outcomes in County governments of Kenya. This implies that the research study targets the County governments. Given that there are 47 County governments in Kenya, the research study considered Lamu, Isiolo, Busia, Mombasa, Laikipia and Nairobi City County Government to other County Governments. The choice of the County governments as the population of the study is due to the per capita health budget allocations and the urban/rural set up of the respective County. The research study employed stratified random sampling technique to identify patients in hospitals within the County under study.

The study selected Lamu, Isiolo, Busia, Mombasa, Laikipia and Nairobi City County. The study adopted the following sample to collect information. The sample design includes patients from various hospitals in the respective County. The survey questionnaire was used to collect the primary data required for the study. The survey questionnaire was administered to patients in hospitals within the County under study. The secondary data used in this study are statistical records from the Office of the Controller of Budget and the Office of the Auditor

General. The records provide insight on the trend of budget allocations to County governments and their expenditure which is a basis for justification of the study.

The data collected was processed mainly by coding, editing and cleaning to make it ready for analysis (Mohajan, 2018). This was done using the Statistical Package for Social Sciences (SPSS). Descriptive statistics mainly frequency distribution, means and mean percentage was employed to describe key variables of the study. Trend analysis has been carried out to establish the various allocations to the health subsector in comparison to other subsectors.

## FINDINGS AND DISCUSSIONS

### Other factors

The first objective of the study was to identify the factors that underpins health outcomes in County governments in Kenya

### Medical insurance cover

The upcoming figure sheds light on the medical insurance coverage status among our respondents. Access to healthcare services is closely intertwined with insurance coverage, making this analysis pivotal in assessing the healthcare landscape within our study population. The results indicate that 52.3% of the respondents in the study have medical insurance cover, while 47.7% do not have medical insurance cover. This suggests that a significant proportion of the participants have access to medical insurance, which influence their utilization and access to healthcare services. Counties like Lamu and Isiolo have a higher percentage of 77% and 75% of the respondents respectively with medical insurance cover, which may reflect better access to insurance services in those areas.

### Acceptance of medical insurance payments by hospitals

In all Counties (Lamu, Isiolo, Mombasa, Busia, Laikipia, and Nairobi), all hospitals accept medical insurance payment. The percentage of hospitals accepting insurance payment is 100.0% in all counties. The results indicate that all hospitals in the selected Counties accept medical insurance payments. This suggests that patients with medical insurance coverage have the option to utilize their

insurance for healthcare services in any hospital within these Counties.

**Purchase of prescribed medicine by respondents**

There are instances where hospitals may not have specific medications in stock. In such cases, patients often resort to purchasing these prescribed medicines externally. This section investigates the prevalence and experiences related to patients' purchase of prescribed medications that were unavailable within hospital pharmacies. The results show that 376 (62.67%) of the 600 respondents across the counties actually purchase their prescribed medicine from other sources other than the hospital they visited. This suggests a significant demand for prescribed medications, emphasizing the importance of ensuring their availability in hospital pharmacies.

**Reasons for respondents not purchasing prescribed medicine**

In the realm of healthcare, the availability of prescribed medicines plays a pivotal role in ensuring timely and effective treatment. However, there are instances where hospitals may not have specific medications in stock. In such cases, patients often resort to purchasing these prescribed medicines externally. This section investigates the prevalence and experiences related to patients' purchases of prescribed medications that were unavailable within hospital pharmacies.

**Table 4: Respondents reasons for not purchasing prescribed medicine**

County	Medicine was not available In the nearest Chemistry		Cost of medicine was too high		Total
Lamu	15	34.88%	28	65.12%	43
Isiolo	15	34.09%	29	65.91%	44
Mombasa	12	75.00%	4	25.00%	16
Busia	9	37.50%	15	62.50%	24
Laikipia	3	23.08%	10	76.92%	13
Nairobi	3	18.75%	13	81.25%	16
<b>Total</b>	<b>57</b>	<b>36.54%</b>	<b>99</b>	<b>63.46%</b>	<b>156</b>

The results show that 99/156 (63.46%) of the respondents mentioned the high cost of prescribed medicine as the primary reason for not purchasing it from private pharmacies. This indicates that the affordability of medication is a crucial factor that

influences patients' decisions regarding where to obtain their prescribed medicine.

**Affordability and accessibility of prescribed medicine purchase from another source**

The affordability and accessibility of prescribed medicines are pivotal determinants of patients' decisions to obtain their medications from sources other than hospital pharmacies. In many healthcare systems, the cost and convenience of accessing essential medicines outside of the hospital setting can significantly impact patients' adherence to treatment regimens and, consequently, their health outcomes. This section examines the interplay between affordability, accessibility, and the choice to purchase prescribed medicines from alternative sources, providing insights into the complex factors influencing patients' medication acquisition behaviors.

**Table 5: Respondents rating of affordability and accessibility of medicine bought**

County	1 – 4	%	5 - 7	%	8 – 10	Total
Lamu	13	13%	87.00	87	0	100
Isiolo	19	19%	81.00	81	0	100
Mombasa	27	27%	73.00	73	0	100
Busia	15	15%	85.00	85	0	100
Laikipia	13	13%	87.00	87	0	100
Nairobi	15	15%	85.00	85	0	100
<b>Total</b>	<b>102</b>	<b>17%</b>	<b>498.00</b>	<b>83</b>	<b>0</b>	<b>600</b>

Rating 5, 6, 7: These ratings indicate that 83% of the respondents perceive healthcare services to be moderately to highly affordable. This is a positive sign as it suggests that a significant portion of the population in these Counties can access healthcare services without significant financial burdens.

The lower ratings of 2, 3 and 4 indicate that 17% of the respondents view healthcare services as less affordable. These ratings may suggest that a segment of population in these Counties face financial challenges in accessing healthcare services.

**Time taken by respondents to walk to hospitals**

The duration it takes for individuals to walk from their residences to a healthcare facility is a critical component of healthcare accessibility. In this section, we explore the time it takes for respondents



to walk from their homes to the hospital, offering insights into the geographical distribution of healthcare facilities and their accessibility to the population.

**Table 6: Respondents walking time to hospitals**

County		Less than 30 min		More than 1 hour	
		30 min	hour	hour	hour
Lamu		40	60	0	100
Isiolo		27	64	9	100
Mombasa		18	58	24	100
Busia		23	58	19	100
Laikipia		18	39	43	100
Nairobi		14	43	43	100
Total		140	322	138	600

The results suggest that the walking time from home to the hospital varies across the Counties. 322 of the total 600 respondents reported walking times between 30 minutes and 1 hour, indicating that 53.67% of the population in these Counties lives within a reasonable walking distance to hospitals.

In general, a relatively smaller proportion of 23% of the respondents reported walking times of more than 1 hour. This could suggest that in some areas, hospitals may not be as readily accessible within a short walking distance.

**Time taken by respondents to schedule appointments and receive treatment at the hospital**

The efficiency of healthcare services is often measured by the time it takes for patients to schedule appointments and subsequently receive treatment. Timely access to medical care is a fundamental aspect of healthcare quality and can impact patient outcomes. In this section, we delve into the time-related aspects of healthcare services, examining the duration it takes for respondents to schedule appointments and the overall waiting times for treatment, providing valuable insights into the healthcare system's responsiveness and patient experiences.

**Table 7: Time taken to schedule appointments and receive treatment**

County	Hours	Less than				Total
		0.5	0.5 - 1	1 - 2	2 - 3	
Lamu		12	34	35	13	100
Isiolo		9	18	44	29	100
Mombasa		10	19	61	10	100
Busia		13	18	51	18	100
Laikipia		6	10	67	15	100
Nairobi		2	32	47	15	100
Total		52	131	305	100	600

The results suggest that the time taken to schedule appointments and receive treatment varies across the Counties. 30.33% of respondents in across all counties reported relatively shorter time intervals (less than 1 hour) to schedule appointments and receive treatment. This indicates that many individuals were not able to access medical care relatively quickly.

**Factors limiting one from visiting the hospital**

Access to healthcare is influenced by various factors, and understanding what limits individuals from seeking medical attention is crucial for improving healthcare services. In this section, we explore the factors that deter individuals from visiting hospitals, shedding light on the barriers and challenges that affect healthcare utilization. The results suggest that there are different factors affecting hospital visits across the County. Here are some key points to consider:

**Fear and Distrust:** 218 out of 600 respondents cited "Fear and distrust" as a factor limiting hospital visits in most Counties. This may be due to cultural beliefs, previous negative experiences, or lack of confidence in the healthcare system.

**Financial Constraints:** "Financial constraints" are reported as a common factor in most Counties, with 183 out of 600 respondents. High healthcare costs can deter people from seeking medical care, especially in low-income regions.

**Lack of Awareness or Health Literacy:** A notable proportion of 48 out of 600 respondents reported "lack of awareness or health literacy" as a factor limiting their hospital visits. This highlights the importance of health education and awareness campaigns in these regions.

**Distance and Transportation:** "Distance and transportation" is another factor limiting hospital visits, as reported by 148 of the 600 respondents. Limited access to transportation can hinder individuals from reaching healthcare facilities.

**Quality of healthcare provision**

The second objective of the study was to assess the quality of healthcare provisions in County governments of Kenya

**Availability of essential medical equipment and supplies**

Availability of such critical resources is fundamental in ensuring quality healthcare delivery, and this analysis is vital for evaluating the overall healthcare infrastructure in our study context. The forthcoming table provides valuable insights into the presence and accessibility of essential medical equipment and supplies within the healthcare facilities that our respondents frequent. The results indicate that the availability of essential medical equipment and supplies in hospitals varies across the selected County. While some County have higher ratings for availability (e.g., Lamu with 55% rating it as 8 and 17% rating it as 9), others have more moderate ratings (e.g., Mombasa, Busia, Laikipia, and Nairobi, where 47%, 53%, 38% and 39 % respectively rated it as 6).

**Receiving medical care and treatment**

The subsequent table investigates the occurrence of delays in receiving essential medical care or treatment among the surveyed individuals. Delays in accessing healthcare can have significant implications for patient outcomes, making this analysis crucial in understanding potential challenges within the healthcare system and identifying areas for improvement.

**Table 8: Delays in receiving medical care or treatment**

	Yes	No	Total
County Lamu	22	78	100
Isiolo	57	43	100
Mombasa	100	0	100
Busia	100	0	100
Laikipia	98	2	100
Nairobi	100	0	100
Total	477	123	600

The results indicate that 79.5% of the respondents experienced delays in receiving medical care or treatment in hospitals across all Counties in the study. The percentage of respondents who reported experiencing delays varies significantly among the County, with the highest percentages found in Mombasa, Busia, and Nairobi, where 100% of the respondents reported experiencing delays.

On the other hand, Lamu and Isiolo had a substantial percentage of respondents (22% and 57%, respectively) who experienced delays. Laikipia had 98% of the respondents reporting delays, indicating a major concern in the promptness of medical care or treatment in the County.

**Cleanliness and hygiene practices**

The following table examines the cleanliness and hygiene practices observed at the hospitals where the surveyed individuals sought medical care. Maintaining high standards of cleanliness and hygiene within healthcare facilities is essential for ensuring patient safety and overall healthcare quality.

**Table 9: Ratings for cleanliness and hygiene practices by respondents**

	1	2	3	4	5	6	7	8	9	10	Total
CountyLamu	0	10	17	26	14	12	11	9	1	0	100
Isiolo	3	17	23	20	11	8	9	8	1	0	100
Mombasa	1	14	12	17	19	19	16	2	0	0	100
Busia	5	10	15	15	19	17	11	5	3	0	100
Laikipia	0	10	19	26	25	10	8	2	0	0	100
Nairobi	4	8	12	17	28	15	9	7	0	0	100
Total	13	69	98	121	116	81	64	33	5	0	600

The results indicate that the level of patient’s satisfaction on cleanliness and hygiene practices in hospitals is very low, with only 30.5 % of the total respondents rating it at 6 and above.

**Clarity and understandability of information received at the hospital**

The upcoming table assesses the clarity and understandability of the information provided to patients during their hospital visits. Effective communication between healthcare providers and patients is paramount for ensuring that patients are well-informed about their conditions and treatment options, ultimately contributing to better healthcare outcomes.

**Table 10: Responses to clarity and understandability of information**

	1	2	3	4	5	6	7	8	9	10	Total
CountyLamu	0	4	23	27	16	15	5	6	4	0	100
Isiolo	2	12	18	20	24	12	8	4	0	0	100
Mombasa	0	7	22	18	27	21	4	1	0	0	100
Busia	5	10	13	15	31	16	10	0	0	0	100
Laikipia	0	22	28	11	19	7	13	0	0	0	100
Nairobi	1	8	7	22	36	14	12	0	0	0	100
Total	8	63	111	113	153	85	52	11	4	0	600

The results suggest that the perceptions of the clarity and understandability of information provided to patients does not vary significantly among different Counties. Respondents across all the counties had relatively lower ratings for the clarity and understandability of information, with a 74.67% of respondents giving ratings 5 and below.

**Incidents of negative cases during treatment**

Understanding the occurrence of negative incidents is crucial for evaluating patient safety and the overall quality of healthcare services. The forthcoming figure examines incidents or complications that occurred during the course of medical treatment. This analysis sheds light on areas where improvements may be needed to enhance patient care and minimize adverse events.

The results indicate that the occurrence of negative incidents during treatment is at 3.67% across all Counties. This is a positive finding, as it suggests that hospitals are generally providing safe and satisfactory care to patients. However, it is essential for healthcare providers and administrators to address the reported negative incidents to further improve the quality of care.

**Progress of treatment at the hospital**

The following table provides insights into the progress of treatment received at the hospital by respondents. Monitoring the progression of treatment is essential in assessing the effectiveness of healthcare interventions and ensuring positive health outcomes for patients. This analysis offers valuable information on how patients perceive the trajectory of their treatment, which can inform healthcare providers and policymakers in optimizing the care delivery process.

**Table 11: Respondents satisfaction with progress of treatment responses**

	1	2	3	4	5	6	7	8	9	10	Total
CountyLamu	0	4	15	15	13	12	23	18	0	0	100
Isiolo	0	12	16	22	15	19	6	10	0	0	100
Mombasa	0	9	20	26	18	16	11	0	0	0	100
Busia	0	5	27	23	15	13	17	0	0	0	100
Laikipia	0	11	20	31	17	10	8	3	0	0	100
Nairobi	0	10	10	27	28	16	9	0	0	0	100
Total	0	51	108	144	106	86	74	31	0	0	600

The results show that 31.83% of the patients in the surveyed County rated the progress of their treatment ratings in the range of 6 to 8. This suggests 68.17% of individuals expressed dissatisfaction with their treatment experience.

The distribution of ratings across County indicates that there may be variations in the quality of healthcare services and the effectiveness of treatment in different regions. It is crucial for healthcare facilities and County governments to examine the factors contributing to these variations and identify areas for improvement, which includes doctor to patient ratio.

**Availability of ward facilities**

The availability of adequate ward facilities is a fundamental aspect of healthcare infrastructure. Patients' experiences and outcomes are often closely tied to the quality and accessibility of inpatient care. The following figure examines the extent to which respondents perceived the availability and adequacy of ward facilities during their hospital stay. Understanding this aspect of healthcare provision is crucial for evaluating the capacity of healthcare facilities to meet patient needs and ensure a conducive environment for recovery and treatment.

The results suggest that 100% of the respondents in Lamu, Isiolo, Laikipia, and Nairobi affirmed the availability of ward facilities in hospitals. In Mombasa and Busia counties, 97% of those surveyed affirmed the availability of ward facilities. Having ward facilities in hospitals is essential for providing inpatient care and accommodating patients who require hospitalization. Wards are designated areas within hospitals where patients can receive continuous medical care and monitoring during their stay. The presence of ward facilities is crucial for managing various medical conditions,

especially those that require extended periods of hospitalization

**Availability of medicine in hospital pharmacies**

Access to essential medicines is a cornerstone of effective healthcare delivery. The availability of a well-stocked pharmacy within a healthcare facility can significantly impact patient outcomes. This section explores the perceptions of respondents regarding the availability and accessibility of medicines in hospital pharmacies. Ensuring a reliable supply of medications is integral to the quality of healthcare services and patient satisfaction.

**Table 12: Availability of prescribed medicine in hospital pharmacies**

County	Obtain it from the hospital	Purchase it from elsewhere	Total
Lamu	92	8	100
Isiolo	82	18	100
Mombasa	16	84	100
Busia	30	70	100
Laikipia	33	67	100
Nairobi	30	70	100
Total	283	317	600

The results indicate that 47.17% of the respondents obtained their prescribed medicine from the hospital, while 52.83% had to purchase the medicine from somewhere else.

**Conclusion**

The study's findings lead to several notable conclusions:

Firstly, disparities in access to healthcare facilities were identified among counties, highlighting the urgent need to address these discrepancies and ensure equitable access for all residents. ii.

Secondly, the allocation of budgets for health, whether in recurrent or development votes, lacks uniformity or an established formula across counties. This inconsistency contributes to the varying quality of healthcare provision.

Moving on, respondents negatively rated the quality of healthcare services, specifically aspects such as cleanliness, hygiene, and effective communication with healthcare providers. This negative feedback

indicates an unmaintained and patient-unfriendly healthcare environment.

Financial constraints emerged as a significant barrier to healthcare access, emphasizing the crucial need to make healthcare more affordable and inclusive for individuals facing economic challenges.

Furthermore, the study revealed a need for improvement in literacy regarding healthcare-seeking behavior. Insufficient awareness and health literacy levels were found to deter some individuals from seeking medical attention when needed. Consequently, enhancing health education and awareness programs is deemed essential.

Lastly, the study revealed need for improved doctor to patient ratio in order to reduce patients waiting time and the better quality of treatment received at the hospitals.

**Recommendations**

Based on the study's findings and conclusions, the following recommendations are proposed to enhance the healthcare system and tackle identified challenges:

The office of the Controller of Budget should establish a standardized policy that sets clear guidelines for allocating funds to health departments across all counties. This policy should encompass both recurrent and development budgets. Such standardization will ensure consistency across counties, addressing issues such as patient-to-staff ratio, the development of additional health facilities aligned with each County Integrated Development Plan, and the provision of necessary drugs and equipment. This will contribute to a uniform improvement in the quality of healthcare services across all counties.

The Ministry of Health, under the leadership of the Cabinet Secretary, should formulate a policy to address the availability and affordability of drugs. The policy should also focus on progressively improving the doctor-to-patient ratio, implementing patient awareness programs, and enhancing the overall quality of healthcare in counties. These policies should be communicated to and implemented by the respective county health departments.

Additionally, the Ministry of Health needs to develop measures that ensure changes in county government leadership after each election do not adversely affect health service delivery. Establishing continuity plans and protocols can help maintain the smooth functioning of healthcare services during transitions.

Each county, through its Department of Health and the County Executive Member, should implement measures to address the issue of distance to health facilities. Introducing mobile clinics in areas where distance is a significant challenge can enhance healthcare accessibility. Furthermore, public opinions raised during the formulation of County Integrated Development Plans related to health facilities should be actively implemented. This ensures that community needs and preferences are considered, contributing to more effective and responsive healthcare services at the local level.

### Limitations of the study

While the study contributes valuable insights, it is important to acknowledge certain limitations:

Patient contact was one-off, relying on a survey questionnaire for data collection. The study did not involve continuous patient follow-up over an extended period to observe trends and changes in factors influencing the quality of healthcare outcomes and other relevant health-related variables.

Geographical factors were not fully accounted for. The surveyed counties exhibit diverse geographical characteristics that can significantly impact healthcare access and services. These variations were not comprehensively addressed in the study, potentially limiting the generalizability of the findings.

The dynamic nature of the healthcare landscape poses a challenge. The study captures a snapshot of the healthcare situation at a specific point in time, but the healthcare field is subject to continuous change in policies and services. Consequently, the findings may have limited relevance to future situations as the healthcare landscape evolves.

Despite these acknowledged limitations, the study remains valuable as it provides significant insights into the healthcare situation within the surveyed

counties, serving as a representative snapshot of the overall scenario. It lays the foundation for further research and considerations for policymakers and stakeholders aiming to address healthcare challenges in diverse geographic and dynamic healthcare environments.

### Suggestions for future research

Future research in this area could build upon the current study and address some of its limitations. Here are some suggestions for future research:

**Longitudinal studies:** Future research could employ longitudinal study designs, following participants over an extended period to observe trends and changes in healthcare access, affordability, and quality. This approach would allow for a more comprehensive understanding of the dynamic nature of healthcare factors over time and provide insights into the long-term effectiveness of healthcare policies and interventions

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