

**EXAMINING FUNDING FLOWS AND THEIR INFLUENCE ON  
MATERNAL HEALTH OUTCOMES: A CASE STUDY OF SAMBURU  
COUNTY**

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**A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE  
REQUIREMENTS FOR THE MASTER OF BUSINESS ADMINISTRATION  
IN HEALTHCARE MANAGEMENT AT STRATHMORE UNIVERSITY**

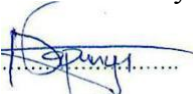
**MAY 2024**

## DECLARATION

I declare that this work has not been previously submitted and approved for the award of a degree by this or any other University. To the best of my knowledge and belief, this dissertation contains no material previously published or written by another person except where due reference is made in the dissertation itself.

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## ABSTRACT

Funding challenges are common in healthcare institutions in developing nations. In many low- and middle- income countries, health financing is fragmented, relying on multiple payment methods from various purchasers. This affects the efficiency and effectiveness of healthcare delivery. Inadequate funding can hinder access to quality healthcare, resulting in poor service delivery and health outcomes. This issue is evident in Kenya, where unpredictable funding flows compromise health service delivery, especially in critical areas like maternal and child health. The study aimed to assess funding flows to public health facilities in Samburu County and their impact on healthcare provider behaviour and maternal health outcomes. A qualitative research design was used, employing purposive sampling to select participants. Data were collected through semi-structured questionnaires, in-depth interviews, and focus group discussions with county officials, healthcare providers and Samburu women. Thematic analysis was used to identify patterns and themes in the qualitative data. Findings indicate that Samburu County receives limited public funding, leading to resource constraints in healthcare facilities. This affects the availability of essential medical supplies, infrastructure, and personnel. Out-of-pocket expenditures remain significant, creating financial barriers to maternal healthcare, especially for low-income households. Despite funding constraints, some healthcare providers demonstrated positive behaviours, such as adherence to clinical guidelines, patient-centred care, professionalism, empathy, and effective communication, promoting good health outcomes. However, negative behaviours like absenteeism, negligence, corruption, and mistreatment of mothers were also reported. Challenges related to funding flows included inadequate resources for training healthcare workers, low remuneration, and poor working conditions, all contributing to poor maternal health outcomes. Cultural factors and hierarchical management structures also influenced provider-patient interactions. The study concluded that consistent funding flows could improve healthcare provider behaviours and maternal health outcomes, reducing maternal morbidity and mortality rates, disease burden, and enhancing the quality of life. The findings will inform policymakers and program managers to develop strategies for improving funding flows, ultimately enhancing service delivery for maternity care and improving maternal health outcomes.

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## LIST OF ABBREVIATIONS

<b>ASAL:</b>	Arid and Semi-Arid Lands
<b>ANC:</b>	Antenatal Care
<b>COK:</b>	Constitution of Kenya
<b>CRF:</b>	County Revenue Fund
<b>EMOC:</b>	Emergency Obstetric Care
<b>FGD:</b>	Focus Group Discussions
<b>GDP:</b>	Gross Domestic Product
<b>GOK:</b>	Government of Kenya
<b>IFC:</b>	International Finance Corporation
<b>KDHS:</b>	Kenya Demographic Health Survey
<b>KHSSP:</b>	Kenya Health Sector Strategic and Investment Plan
<b>KIPPRA:</b>	Kenya Institute for Public Policy Research and Analysis
<b>MCH:</b>	Mother and Child Health
<b>MMR:</b>	Maternal Mortality Ratio
<b>NACOSTI:</b>	National Commission on Science Technology and Innovation
<b>NCPD:</b>	National Council for Population and Development
<b>NHIF:</b>	National Health Insurance Fund
<b>PFM:</b>	Public Finance Management
<b>PNC:</b>	Postnatal Care
<b>PPM:</b>	Provider Payment Methods
<b>RMC:</b>	Respectful Maternity Care
<b>SDGs:</b>	Sustainable Development Goals
<b>UHC:</b>	Universal Health Coverage
<b>WHO:</b>	World Health Organisation

## **ACKNOWLEDGEMENT**

I wish to start by expressing my profound gratitude to God for his guidance and strength during the course.

This study would not have been successfully completed without the guidance and contribution of my supervisor, Dr. Jackline Aridi. I sincerely acknowledge her effort and invaluable support that she accorded me during the development of this study. Her guidance enabled me to complete this project in good time.

I also appreciate my loving family for their support during this academic journey more so my father, Brig. Moses Leriari, you have been my beacon of strength and biggest motivator, thank you! Thank you Mum and Toby for cheering me on.

I am indebted to the county officials, healthcare workers and women of Samburu County for their availability and willingness to participate in the study and for the rich experiences they shared.

A special thanks to the participants of MBA HCM 2020. The shared knowledge and diverse experiences from the participants made the course interesting.

## **DEDICATION**

I dedicate this project to my family, my future children and the Samburu people.

## **CHAPTER ONE: INTRODUCTION**

### **1.1 Introduction**

The cornerstone of a healthy population lies in a well-financed healthcare system. Across nations, health budgets serve as the primary mechanism for financing these systems, ensuring the well-being of citizens. This focus on financing is central to achieving broader health system improvements. Effective resource mobilisation, pooling, and allocation pave the way for robust healthcare systems and progress towards Universal Health Coverage (UHC). As defined by the World Health Organization (WHO), UHC guarantees access to high-quality healthcare services for all, without incurring financial hardship (WHO, 2022). This chapter sets the stage for the dissertation, outlining its structure, presenting the background of the study, stating the problem, and detailing the research objectives and questions.

### **1.2 Background**

Healthcare purchasing is high on the global health financing agenda. Achieving UHC requires not only increased spending but also effective allocation of funds to obtain health services from providers, influencing the equity, quality, and efficiency of service delivery (Mbau et al., 2018). In low- and middle-income countries, fragmented financing arrangements have resulted in a mixed provider payment system (Mathauer et al., 2017; Mathauer et al., 2019).

In Kenya, multiple purchasers operate within the health system. Healthcare providers often engage with many or all of these purchasers, leading to multiple funding flows (Mbau et al., 2018). The Kenyan health sector depends on several funding sources: private firms, donors, health insurance schemes, and the government (GoK, 2017). Despite the various financing options, funds remain disproportionately distributed across the health system. Provider Payment Methods (PPM) are crucial policy levers as they generate signals that may influence healthcare provider behaviour, impacting health system objectives (Langenbrunner et al., 2005). The flow of funds to hospitals and health centres is characterised by unpredictability in amounts and timing, jeopardising the effectiveness and efficiency of service delivery (Barasa et al., 2017).

Several studies in Kenya have highlighted challenges related to the flow of funds to public health facilities under devolution. One study reports delays and unpredictability in disbursements from prepaid sources (county and national government allocations, and NHIF disbursements) due to liquidity-related problems at the national level (Mbau et al., 2018). According to Chesumei (2019), funds reimbursed by the national government were not commensurate with the cost of services offered by hospitals. Maina and Kirigia (2015) note that devolution complicated the Health Sector Services Fund's model of disbursing funds, with county governments insisting on reimbursements to county revenue accounts instead of direct payments to health facilities.

Resource allocation mechanisms for public healthcare facility resources may influence the efficiency and equity of their operations. Payment mechanisms, the efficiency of their disbursements, and the autonomy healthcare facilities have over their finances may generate unintended incentives to healthcare providers and compromise operational efficiencies. The extent to which these aspects of funding flows impact the quality of care, particularly maternity care, remains largely undetermined.

This study aims to understand the flow of funds to public hospitals and healthcare facilities within Samburu County and the subsequent implications on provider behaviour and maternal health outcomes using qualitative methods. The findings will inform policymakers and program managers on the implications of fund flows and strategies to better align provider incentives to improve the quality of maternal health services and outcomes in Samburu County.

### **1.3 Statement of the Problem**

The flow of funds to healthcare facilities and hospitals impacts the effectiveness and efficiency of health service delivery. Inadequate or erratic fund flows can jeopardise access to quality healthcare, leading to poor maternal health outcomes due to poor service delivery. The Kenyan government has shown commitment to reducing maternal mortality through strategies like Linda Mama, a free maternity care program aimed at increasing access to maternal health services nationwide. Despite these efforts, challenges remain, with Kenya still ranked among the countries with very high maternal mortality rates (Integrated African Health Observatory, 2023). These

challenges are pervasive in Arid and Semi-Arid Lands (ASAL) counties, considered marginalised by the Commission of Revenue Allocation, which possess low-performing indicators for child and maternal health outcomes.

The maternal mortality ratio in Samburu County is estimated at 472 deaths per 100,000 live births (NCPD, 2013), with a low facility-based delivery rate of around 50% (KDHS, 2022). Efforts to improve maternal health indicators in Kenya must specifically target marginalised areas (Bourbonnais, 2013). Otieno et al. (2010) found that many women in Kenya do not access maternal health care services due to a lack of transport to reach nearby hospitals. In Samburu, the accessibility of healthcare facilities is hindered by the nomadic lifestyle of residents and long distances from hospitals. The lack of equipment and critical human resources such as doctors and nurses exacerbates the issue (Samburu County Health Strategic and Investment Plan, 2018).

Flow of funds to public health facilities from prepaid sources (County and National Government allocations, and NHIF disbursements) is characterised by delays and unpredictability due to liquidity-related problems at the national level. The funds reimbursed by the National Government do not reflect the cost of services provided by health facilities. Understanding the flow of funds and its impact on maternal healthcare provider behaviours and outcomes in Samburu County is essential for developing effective strategies to improve maternal health services and outcomes.

#### **1.4 Research Objectives**

The broad objective of the study was to assess the funding flows, health provider behaviour, and their influence on maternal health outcomes in Samburu County. The specific objectives were to:

1. Understand the different forms of funding flows from different sources to public health facilities in Samburu County.
2. Assess the self-reported healthcare provider behaviour in response to the different funding flows to health facilities in Samburu County.
3. Assess the experiences and perceptions of women regarding the quality of maternal health services and maternal health outcomes received from healthcare providers at selected public health facilities in Samburu County.

## **1.5 Research Questions**

The study was guided by the following research questions:

1. What are the different forms of funding flows from health service provider payments for public health facilities in Samburu County?
2. What are the behavioural responses by maternal healthcare workers to the different funding flows to health facilities in Samburu County?
3. What are the experiences and perceptions of women and their partners accessing maternal health services at Samburu public health facilities regarding the quality of maternal health services and maternal health outcomes?

## **1.6 Significance of the Study**

Kenya's Vision 2030 aims to make the country a successful middle-income industrial nation by 2030, with the government committed to providing healthcare for all Kenyans (Universal Health Coverage or UHC). This aligns with both Vision 2030 and the Constitution of Kenya 2010. The Kenya Health Policy (KHP 2014-2030) serves as a roadmap to help the health sector adapt to new challenges and reach this long-term health goal.

The findings of the study will inform health financing strategies on how to best align funding mechanisms such as the National Health Insurance Fund (NHIF), social insurance, private insurance, and county revenue to incentivize healthcare providers to offer high-quality care. The study may benefit the Ministry of Health by providing insights into the progress of implementing payment mechanisms, promoting comprehensive service delivery. Additionally, this study can inform researchers and health sector organisations in developing policies to strengthen the purchasing of health services. Identifying strategies for timely payments and improving facility management may positively influence healthcare worker behaviour and lead to better maternal health outcomes. The strategies identified may also benefit other ASAL counties in monitoring planning, formulation, and adoption processes to ensure efficiency in payment systems.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 Introduction**

This chapter reviewed the published literature on the flow of funds to public health facilities and provision of maternal health services in Kenya. It provided both theoretical frameworks and conceptual frameworks that can provide an in-depth understanding of how financing flows influence health care provider behaviour and subsequently, maternal health services delivery and outcomes.

### **2.2 Theoretical Framework**

This section described the theory that relates to the topic of the study, indicating its significant contributions and assumptions. The theoretical foundation for this study is Economic Theory which provides a framework for analysing funding flows to public hospitals which was used to guide this study. By applying economic principles and models, policymakers can make informed decisions about healthcare funding and ensure that resources are allocated efficiently and equitably (Smith, 2018).

Economic Theory is linked to the study objectives by offering insights into how financial resource allocation can affect the efficiency and effectiveness of healthcare services, particularly in maternal health. By understanding these economic principles, we can evaluate the impact of different funding mechanisms on healthcare delivery and maternal health outcomes.

Healthcare resources are finite, and their allocation should be based on the principles of efficiency, equity, and access. In healthcare, market failure can occur due to information asymmetry, externalities, and imperfect competition. This means that the market may not allocate resources efficiently, leading to suboptimal outcomes. Government intervention, such as regulating prices or subsidising healthcare services, can help address market failures and improve access to healthcare for all individuals. In analysing funding flows to public hospitals, economic theory emphasises the need for transparent and efficient allocation of resources. The goal is to achieve the best possible health outcomes for the population, while ensuring that the resources allocated are used effectively and efficiently.

Delving deeper into economic theory, models such as the "production function approach" focus on maximising healthcare service output given the resources

available. This approach is relevant to this study as it helps in understanding how different levels of funding impact the quality of maternal health services provided. The "cost-effectiveness analysis" model compares the costs and benefits of various healthcare interventions, providing a basis for determining the most efficient allocation of resources. These economic models are crucial for policymakers to design interventions that optimise health outcomes, aligning with the study's objectives.

## **2.3 Empirical Literature Review**

This section discussed the existing studies relating to health care financing and flow of funds to public health facilities in Kenya and their implications for the quality of maternity care services.

### **2.3.1 Health Care Financing, Funding Flows and Purchasing of Health Care Services in Kenya**

Traditionally, health financing reforms have centred on the first two functions outlined by the World Health Organization: raising revenue and pooling resources (WHO, 2010). However, there's a growing emphasis on the third function – purchasing healthcare services. This involves allocating funds from a designated buyer (purchasing agent) to healthcare providers in exchange for delivering specific services (WHO, 2010). As evidenced by recent studies (Mathauer et al., 2017; WHO, 2017; Hanson et al., 2019; Sanderson et al., 2019), this purchasing function is gaining significant attention within health financing reforms.

The healthcare purchasing function involves making three key decisions: 1) What services to cover (defining the benefits or services patients are entitled to receive), 2) Who will provide those services (selecting the healthcare facilities involved), and 3) How providers will be paid (determining the payment methods and contracts between purchasers and healthcare facilities) (WHO, 2010; RESYST, 2014).

A funding flow in the healthcare context, represents the movement of resources – not just money, but also things like sending healthcare workers or supplying medicine – from the party paying for services (purchaser) to the facility delivering the care (provider). This exchange allows the provider to offer healthcare services (Barasa *et al.*, 2021).

Studies have shown that different funding sources, such as government budgets, out-of-pocket payments, and insurance schemes, impact the stability and efficiency of healthcare providers' finances (Kazungu et al., 2018). For example, (Kairu et al. 2021) found that public hospitals, which use a significant portion of health funding, can account for 30 to 50% of health budgets. The consistency of funding sources directly affects efforts to protect patients from financial burdens associated with healthcare

Funding flows considers even OOP payments from patients to healthcare facilities, even though these patients aren't a formal purchasing entity. While healthcare provider refers to organisations delivering care (hospitals, clinics) and not individual healthcare workers (doctors, nurses) (Barasa *et al.*, 2021).

Public hospitals play a central role in providing essential healthcare services in low-and-middle income countries. However, they also use a significant portion of health funding. In fact, studies show they can account for 30 to 50% of health budgets (Kairu et al., 2021). The success of public healthcare facilities hinges heavily on how they are funded, particularly the specific methods used to pay for their operations. These funding mechanisms significantly influence how well the healthcare system achieves its overall objectives. For example, the consistency of funding sources can directly impact efforts to protect patients from financial burdens associated with healthcare (Kairu et al., 2021).

Facilities with insufficient funding are more likely to deliver lower quality services and have poorer patient outcomes. Additionally, the way resources are allocated to these facilities can affect how efficiently and fairly they operate, ultimately impacting the quality of care provided. Furthermore, the way healthcare providers are paid, how quickly they receive those funds, and the level of control they have over their budget can have unintended consequences. These consequences can range from negatively impacting how providers approach patient care to hindering the overall smooth operation of the facilities themselves (Kairu et al., 2021).

Health system financing mechanisms serve as a critical determinant for achieving Universal Health Coverage (UHC). They directly influence the accessibility, affordability, and acceptability of healthcare services for the population. Broadly, health financing encompasses three core functions: resource mobilisation, resource pooling, and service purchasing. Empirical evidence suggests that funding healthcare

through progressive taxation or social health insurance schemes demonstrably improves equity and access compared to reliance on private health insurance (PHI) or out-of-pocket (OOP) payments (Onwujekwe et al., 2020).

Purchasing, a central function within health financing, facilitates the transfer of pooled resources to healthcare providers in exchange for delivered services. This function occupies a prominent position on the UHC agenda due to its critical role in achieving this objective. The purchasing process embodies the principle of purchasers acting as agents for the population when procuring healthcare services. Effective fulfilment of this agency role necessitates robust mechanisms that identify the needs, preferences, and values of the population in purchasing decisions. Additionally, purchasers must maintain accountability to the population they serve (Onwujekwe et al., 2020).

Economic theory explains that different ways of paying healthcare providers can influence how they work, potentially impacting how efficiently, fairly, and well they deliver care (Kazungu et al., 2018). Having multiple funding sources can affect how stable healthcare providers' finances are. These funding streams send messages to providers, which can have both positive and negative effects on their behavior. Unless these funding sources are planned and work together as a system, it can make it harder for those paying for healthcare (purchasers) to make strategic decisions about how to spend money.

The report of the RESYST multi-country study on strategic purchasing found that where multiple purchasing mechanisms operate within a health system, it is important to understand the signals sent by each mechanism and funding flow and determine how these together influence the behaviours of healthcare providers (RESYST, 2018). Purchasing is undertaken within a healthcare market by various purchasing actors, such as the Ministry of Health, a social or national health insurance agency, (for-profit) private health insurance schemes, community-based health insurance funds, or non-governmental organisations (WHO, 2010). While individuals contribute directly to healthcare providers through out-of-pocket payments, their interaction and negotiation power differ significantly from that wielded by formal purchasing agencies (Smith et al., 2005).

Although numerous policies and organisational structures shape provider behaviour, a cornerstone policy tool within strategic purchasing lies in the methods employed by purchasers to compensate healthcare providers (Barasa *et al.*, 2021). Research on strategic purchasing has also tended to adopt the perspective of the purchaser to describe the purchasing arrangements they apply in their relationships with providers (Etiaba *et al.*, 2018).

However, in practice, purchasers typically use a range of PPMs to pay healthcare providers for different types of services. Further, low- and middle-income have healthcare systems with multiple purchasers to pay for services. This can mean there are different payers for things like hospital stays, clinic visits, or specific diseases. From a healthcare provider's point of view, this means they receive money from various sources for different services (Barasa *et al.*, 2021).

While understanding the incentives generated by individual PPMs is an important starting point, there is a need to expand this focus to analyse the interactions of multiple funding flows and the combined effect of their inherent incentives from the perspective of the healthcare provider (Mathauer and Dkhimi, 2019). The availability of health care facilities ensures the relevant maternal health care services; Antenatal Care (ANC), Delivery Care, Postnatal Care (PNC), Newborns Care as well as Emergency Obstetric Care (EmOC), are well delivered to expectant mothers and newborns. Expectant mothers are recommended to receive four or more antenatal clinics. The facilities might also be available but inaccessible due to distance or lack of knowledge on the importance of delivery at the facility. The cost at the facility might also discourage attendance. This has led to most births in rural areas being home deliveries.

Health facility financial autonomy is a key aspect of health financing, and determines the function and performance of public health facilities. The legal framework and structure of public finance management (PFM) systems determines the extent of financial autonomy that public facilities have. Different studies in Kenya have assessed the topic of financial autonomy. One such study Mwacha (2018) investigated different factors affecting the provision of healthcare services in Nyamira County health centres. The study established that the healthcare system delivered by the county government hospitals had improved, and health facilities were networked to

allow exchange of information. However, this study did not go on to explore the relationship and presented a gap since the nexus between the flow of funds and its implication on service delivery was not explored. Finance constraints are limiting Africa's ability to develop and expand healthcare services.

According to International Finance Corporation (IFC), Sub-Saharan Africa has 11% of the global population but has 24% of the global health illness challenges with spending in the health care being less than 1% of the global spending. Healthcare spending in the public sector is still inadequate and not evenly distributed across the African continent. Despite most African States signing the Abuja Declaration promising to commit 15% of their National budget to the health sector, many African countries are still far from fulfilling the goal with 21 countries have slashed their proportion of Government spending on health between the years 2001 and 2015 (Gatome-Munyua and Olalere, 2020).

In 2010, Kenya's Ministry of Health implemented a demand-driven approach to supplying essential drugs, known as the 'pull system'. This replaced the previous 'push system' outlined in the National Health Sector Strategic Plan II (2005-2012). Under the 'push system', facilities received predetermined quantities of medicines, regardless of their specific needs. The new 'pull system' empowers healthcare facilities to order supplies based on actual patient needs, aiming to ensure a more reliable availability of essential drugs throughout the country's healthcare system.

Funding flows for public facilities changed dramatically in Kenya in 2013 with transition to devolution (Mulaki, A., & Muchiri, S. (2019)). Under this devolved governance arrangement, the national government retained policy formulation and regulation roles while the service delivery function was transferred to counties (Tsofa, Goodman, Gilson, & Molyneux, 2017). In 2013, just as the transition to a devolved system of government was commencing, the newly elected national government abolished user fees completely in public health centres and dispensaries (Kairu *et al.*, 2021).

The government set up a user fee reimbursement fund to replace user fees forgone and structured this as a conditional grant to the county governments, ring-fenced for use by primary healthcare facilities. Public hospitals continued to charge user fees. Kenya Institute for Public Policy Research and Analysis did an assessment on the use of

public healthcare services in the County Governments and found that healthcare service delivery has improved overall (KIPPRA, 2018).

According to the report, the total budget allocated by county governments to health increased from 13 percent of the total county budgets in 2013/14 to about 25 per cent in 2015/16. The national budget increased from Kshs 36 billion to Kshs 60 billion between 2013/14 and 2016/17, an increase of about 67 per cent (KIPPRA, 2018). This clearly demonstrates that healthcare is gaining priority at both national and county levels. Despite the increased budgetary allocations, there are financing gaps in reproductive health that limit adequate service delivery (KIPPRA, 2018).

### **2.3.2 Quality of Maternal Health Services in Kenya**

Maternal health is the state of women during pregnancy, childbirth and the postpartum period. Maternity care covers the healthcare dimension of family planning, preconception, prenatal and postnatal care so as to reduce maternal morbidity and mortality (Alkali & Hussain, 2016). Globally, maternity service use has increased substantially since 2006 where three-quarters of women now deliver with a skilled birth attendant and two-thirds receive at least four antenatal care visits worldwide (Filippi *et al.*, 2016). This mismatch between burden and coverage exposes a crucial gap in quality of care. Data from low- and middle-income countries, including Kenya suggest inconsistent quality of care (Davies *et al.*, 2020).

The challenge to ensure consistent quality is greatest in Sub-Saharan Africa and South Asia, where mortality is highest and health systems are weakest (Oluoch-Aridi *et al.*, 2018). The Health Sustainable Development Goal (SDGs) include a direct reference to reducing maternal mortality with an aim to (“By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births by 2030.”) 26 nations made no progress, and in 12 countries including the USA, maternal mortality ratios increased. A woman’s lifetime risk of dying due to pregnancy and childbirth remains more than 100 times higher in sub-Saharan Africa than in high-income countries (Roos & von Xylander, 2016).

The quality of maternal health care is a profound factor that impacts on the delivery of continuum of care among women in most of the Sub-Saharan African countries. This is attributed to existence inequalities within and between the developing countries in

the way operation management of health care services is implemented. This situation subsequently affects the quality of care, and it increases the women's use of alternative health care services as opposed to the conventional public-supported health care facilities.

Several factors hinder access to the health care services needed to avert maternal and newborn deaths and morbidity. These include cultural norms, gender discrimination and lack of a rights-based approach which emphasises human dignity and attention to the needs of women in planning and delivering health services, inadequate knowledge of signs and symptoms of illness and services available, cost of services, lack of transport options and poor quality of care. The latter, quality of care, has recently received greater attention as a key reason for maternal mortality and morbidity remaining high in several countries despite substantial increases in coverage of maternal health services.

Kruk et al. (2020) reported that 520 000 stillbirths could be prevented and 670 000 neonatal and 86 000 maternal lives could be saved in Low and Middle income countries by 2020 if adequate quality of care is provided at current levels of health system use. The Integrated Africa Health Observatory (2023) reported that Kenya's Maternal Mortality Ratio (MMR) was at 530 maternal deaths per 100,000 live births in 2020 which was still far below the SDG target of 70 maternal mortalities per 100,000 live births. Kenya continues to witness a number of negative maternal health outcomes including premature birth, low-birth weight, maternal mortality, severe maternal morbidity, and increased risk of postpartum depression (Njuguna, Karimi, & Cheburet, 2020). Pregnancy-related complications, for instance, constitute the main causes of morbidity and mortality among women in the nation, translating to 362 maternal deaths per 100,000 live births (Banke-Thomas *et al.*, 2020). These negative outcomes are all in spite of enhanced efforts by the government to improve access to and utilisation of facility-based maternal care to all mothers.

Sharma (2017) discovered that quality of maternal care was low, particularly clinical quality of antenatal and delivery care, which averaged 0.52 and 0.58 out of 1 respectively, compared to 0.68 for structural inputs to care. Maternal healthcare quality varied by poverty level: at the facility level, all quality metrics were lowest for the most impoverished areas and increased significantly with greater wealth.

Experiences from different countries have demonstrated that improvement in the utilisation of maternal health services without concomitant increase in quality of care is inadequate (Koblinsky *et al.*, 2016). The presumption that expansion in maternal service coverage would automatically lead to sustained reductions in maternal and neonatal deaths as well as other maternal health outcomes not only compromises nations' abilities to close the gap in women's health, but also results in farfetched inefficiency in the use of the already limited resources (Gitobu, Gichangi, & Mwanda, 2017).

Serious quality deficits at some hospitals, more so at lower level facilities, have been identified in many nations. An analysis of national health system surveys in Kenya, Namibia, Rwanda, Tanzania, and Uganda by Kruk *et al.* (2016) reveals that more than 40 percent of facility deliveries in these nations occurred in primary care facilities, which scored poorly on basic measures of maternal care quality. In an assessment of 484 maternal deaths reported in Kenya's District Health Information System in 2014, 81 percent were due to substandard care, indicating that a better standard of care could have prevented many of these deaths (Odallo, Opondo, & Onyango, 2018). Therefore, in recent years a more focused attention to assessment and improvement of quality of care for maternal and newborn care, particularly in low- and middle-income countries has been called for (WHO 2020). According to Tama *et al.* (2018), improving the quality of maternity care requires adequate investments in infrastructure, medical commodities and human resources. This requires adequate flow of funds especially in public health systems.

Mahato, Van Teijlingen, Simkhada & Angell, 2018) suggest that financial resources available to health facilities are indeed helpful in improving the quality of services in a low- and middle-income countries' setting. Public healthcare facilities especially are not only a major avenue for the delivery of key healthcare interventions, but also require a substantial amount of resources. Otieno *et al.* (2010) found out that the majority of women in various regions in Kenya mostly do not access maternal health care services due to lack of transport in order to reach the nearby hospital in their surroundings. This is not unique, in Samburu accessibility of health care facilities is dependent on the distance of the facility from the user. Accessibility within the arid and semi-arid areas is difficult because of the nomadic way of living of most of the

residents. Otieno *et al.* (2010) established that abrupt delivery and lack of enough hospital maternal facilities and tools also include some of the conditions that have resulted in high maternal mortality rate in Kenya especially in a number of rural areas in the country. This challenge has been largely attributed to among other issues including inadequate funding, erratic and untimely disbursement of funds to health facilities which hinder the achievement of improving healthcare outcomes in the county. (Samburu County Health Strategic and Investment Plan, 2018).

Samburu County has several government health care facilities; Baragoi Sub-district Hospital, Kisima Health Centre, Loroki, Lesirkan, Saidia Health Centre, Marti Dispensary, South Horr Centre, Suguta Marmar Health Centre and Maralal District Hospital. Overall, public healthcare facilities in Samburu County deliver poor quality care due to infrastructure and major gaps in medical supplies and equipment. In addition, the distance between government health facilities makes it a challenge for expectant mothers to access the services provided. These identified gaps subsequently compromise skilled birth attendant's capacity to provide safe deliveries in health facilities especially in the most remote areas in the county (Kermode *et al.*, 2017; Odallo, Opondo, & Onyango, 2018). The County government of Samburu has come up with a strategy of ensuring accessibility to the health facilities by introducing and availing motorcycles and bicycles to facilitate health officers' access to remote parts.

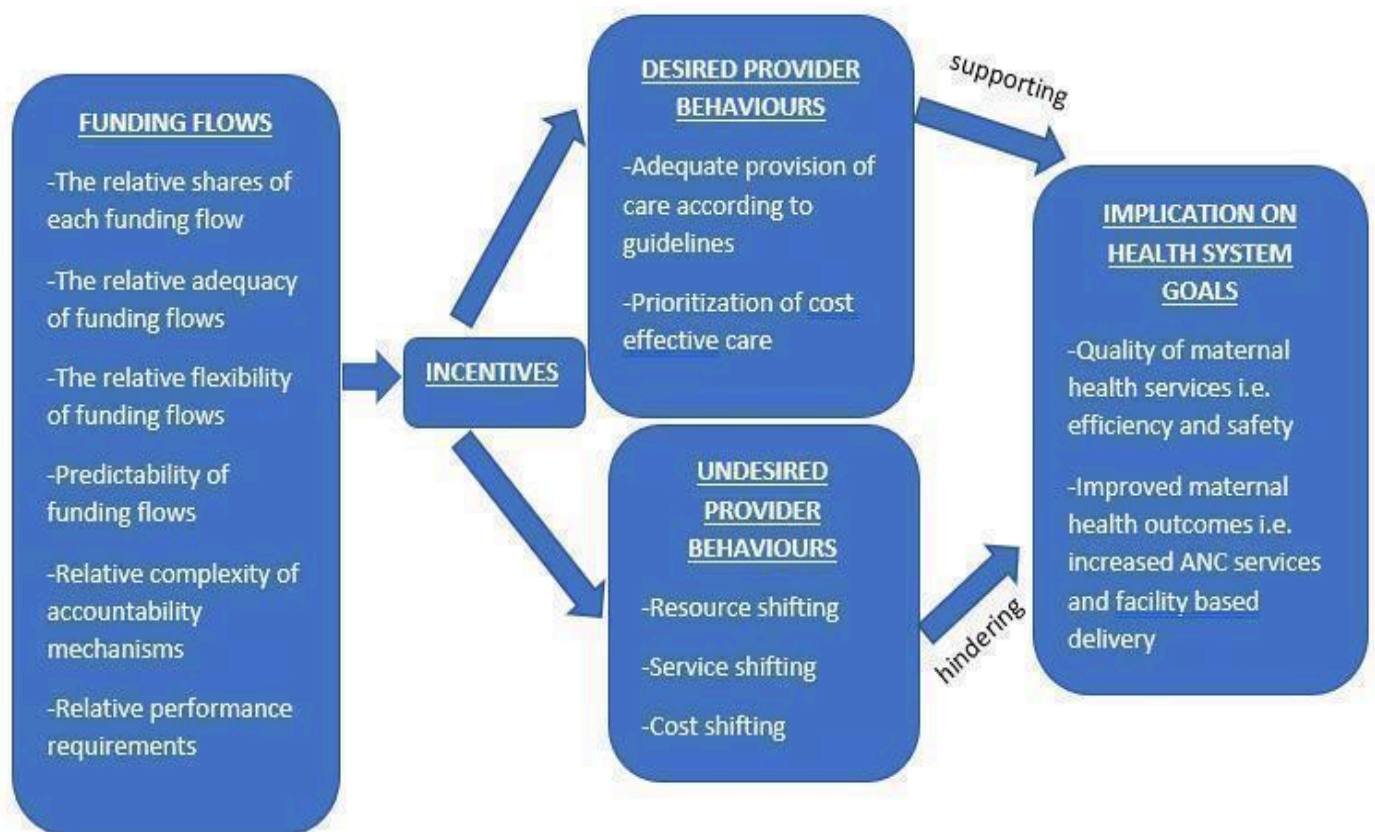
## **2.4 Conceptual Framework**

This study analysed how funding flows influence behaviour of healthcare providers and the implications of these behaviours on health systems goals of efficiency, equity, and quality. Healthcare provider was used in this study to refer to organisations that provide healthcare services (e.g., hospitals), rather than individual healthcare workers working in these organisations or independently (e.g., doctors). A funding flow refers to any transfer of funds, in cash or kind, from a purchaser to a healthcare provider that is characterised by a distinct combination of arrangements.

Individual funding flows would have their own attributes/characteristics and incentives, which include: duplication or gaps in service coverage across multiple funding flows; contribution of each funding flow as a share of total; adequacy of funding flow to cover the costs of services purchased; flexibility that healthcare providers have over funding flow; accountability mechanisms; predictability;

performance requirements; and inherent incentives generated by the provider payment mechanisms. The presence of multiple funding flows creates an additional layer of response defined by the relativeness of these attributes across funding flows. As shown in Figure 1 below, the interaction of these characteristics across funding flows could generate any of three behavioural responses among providers, namely: shifting costs between different funding mechanisms; shifting patients between funding flows; and shifting resources from less attractive to more attractive flows.

The conceptual framework links the study objectives with theoretical and empirical findings, illustrating the pathways through which funding flows impact maternal health service delivery and outcomes.



**Figure 1:** Conceptual Framework  
**Source:** Researcher (2024)

Previous studies available have tended to focus on the free maternity policy which is one among the financing arrangements for public facilities in Kenya while ignoring the rest which also greatly affect healthcare delivery in these facilities. These studies include that of Bourbonnais (2013), Kasina (2016), Muithya (2016), Odallo, Opondo, and Onyango (2018), Tama *et al.* (2018), Lang'at, Mwanri, and Temmerman (2019) and Masaba and Mmusi-Phetoe (2020). The study by Kairu *et al.* (2021), though highly relevant to this current study, only explores funding flows in general as part of health facility financing in Kenya in the context of devolution. It does not assess their implications on healthcare outcomes. Thus, this current study is crucial in a bid to address the above-mentioned research gaps.

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1 Introduction**

This chapter discussed the procedures used by the researcher in conducting the study and explains the research design and methodologies that were applied. It stipulated the systematic approach, procedure and the techniques that were utilised in data collection and analysis. The chapter described the target population, sample and sampling techniques used, as well as the instruments for data collection.

### **3.2 Study Design**

This study adopted a qualitative research design to assess funding flows to public health facilities and how they influence provider behaviours, and its implications for the quality of maternity care provided in Samburu County Health facilities. Qualitative research method was developed in the social sciences to enable researchers to study social and cultural phenomena: observe feelings, thoughts, behaviours and the belief of the mass society (Ramesh, 2008).

The qualitative study intended to explore from the perspective of health system actors, such as the healthcare providers and county officials, the impact of funding flows on health provider behaviour and maternal health service delivery and consequently outcomes. The specific qualitative data collection tools included in-depth interviews, semi-structured questionnaires and focus group discussions administered to selected county government officials, healthcare workers and women within Samburu County.

### **3.3 Study Population**

The study population comprised county government officials in health, healthcare providers working in Samburu County Referral Hospital and local women who have received maternal services in the public health facilities in Samburu county. 20 respondents were sampled for Key Informant Interviews (KIIs) and questionnaires, comprising at least 10 Samburu County officials- (5 administrators and 5 policy makers), as well as 10 health care workers from both hospitals and health facilities. The targeted health care workers included medical officers, clinical officers, nurses, laboratory officers from Samburu County Referral Hospital. The Data from the KIIs and questionnaires was triangulated with focus group discussions (FGDs) targeting 2

small groups of 5-8 women who had received prenatal, delivery and post-natal care services from public health facilities in Samburu County.

Participants were provided with informed consent forms and only participants who give informed consent were allowed to participate in the study. Respondents were made aware of the potential benefit of the study. Permission was sought from the local administration and translators from the region were to be used in areas with language barriers.

### **3.4 Sampling Design and Sampling Procedure**

Sampling procedure is a systematic process of identifying individuals for a study to represent a larger group from which they are selected (Mugenda & Mugenda, 2003). This study employed a purposive and convenience sampling method for the selection of 26 participants. Purposive sampling refers to the intentional choice of samples according to the needs of the study. Convenience sampling, a non-probability method, involves choosing participants based on their availability, making it easy to implement and cost-effective (Polit & Beck, 2004). This method was used to select participants who were readily available to avoid disrupting service provision. In contrast, purposive sampling targets a specific group of people who possess certain characteristics or essential knowledge for the study (Bowling, 2010). Snow-balling sampling strategy was used to identify respondents particularly the women who had received care in the public hospitals.

### **3.5 Data Collection**

This being a qualitative study, primary data was collected using semi-structured questionnaires (See Appendix 6). The questionnaire had five main domains that addressed a unique area of financing of healthcare service namely 1) Sources of funding, 2) Adequacy of funding allocation, 3) Efficiency and effectiveness of funding allocations, 4) Access and Delivery of health care services and 5) Healthcare Provider Behaviours and it was administered to a total of ten county healthcare workers.

Selected County Government Officials were administered with key informant interviews (See Appendix 7) to explore how they interact with funding flows. Focus Group Discussions were conducted with women to assess the quality of maternal

health services received at health facilities and the possible maternal health outcomes within Samburu County (See Appendix 5). It covered the structural elements such as availability of services, processes such as the interactions between women and health care workers in the continuum of maternal health services (ANC, delivery and PNC) as well as their birth outcomes. The FGD guide also sought responses on how they financed services received from the health facilities.

### **3.6 Data Analysis**

The qualitative data was analysed using thematic analysis. After coding, the data was classified on the basis of common characteristics and attributes and analysis was applied to identify patterns of meanings and issues of potential interest and emerging themes (Braune & Clark, 2006).

Qualitative data component was analysed using N-Vivo. Interview data were transcribed in English and exported into NVivo. Framework approach was used for analysis. First, the researcher read through the transcripts to familiarise with the data then developed a preliminary thematic framework from the study objectives and from themes. The study sought to determine the nature and characteristics of funding flows for Health Financing in Samburu County. Therefore, the respondents were asked to describe their experiences of funding flows. The results were analysed using NVivo and findings presented in thematic issues follows.

### **3.7 Validity and Reliability of the Instruments**

Validity relates to the appropriateness of measures to assess the construct it intends to measure (Burns and Burns, 2008). To ensure that the instruments accurately measured the variables of interest to the study, each of the items in the questionnaire was tested by conducting a pilot study by administering the questionnaire to some individuals to ascertain if the questionnaire will be valid enough to be used and to collect enough and valid information. Reliability is related to the questions of whether the results of a study are repeatable (Bryman, 2012).

According to Burns and Burns (2008), reliability is the consistency and the stability of findings that enables findings to be replicated. To ensure that the instruments accurately measured the variables of interest to the study, each of the items in the questionnaire and interviews was discussed with peers and research supervisor.

### **3.9 Ethical Issues**

The study was conducted after approval from the Institutional Review Board of Strathmore University and a research permit obtained from the National Commission for Science Technology and Innovation (NACOSTI). Permission was also sought from the Samburu County Health Department to interview the health providers and administrators. The study ensured privacy during the interviews as well confidentiality of the information provided by the respondents. With the ethical safeguards, the respondents were encouraged to provide information freely and voluntarily.

## CHAPTER FOUR: RESULTS

### 4.1 Introduction

This chapter contains information about the participants and outlines the study findings and interpretation of the data collected. The study findings have been presented in line with the objectives.

### 4.2 Demographics of Participants

This section has focused on the characteristics and responses to the KIIs, semi structured questionnaires and FGDs. The respondents were Samburu county government officials, healthcare workers working in Samburu County Referral Hospital and women. A total of 26 participants were recruited in the study.

**Table 4.1: Demographic profile of respondents**

<b>Variable</b>	<b>Participant response</b>	<b>Frequency (percentage)</b>
<b>Gender</b>	<b>Male</b>	<b>8 (50%)</b>
	<b>Female</b>	<b>18 (50%)</b>
		<b>26 ( 100%)</b>
<b>Level of education</b>	<b>Tertiary College</b>	<b>6 (37.5%)</b>
	<b>Postgraduate</b>	<b>6 (37.5%)</b>
	<b>Undergraduate</b>	<b>4 (25%)</b>
		<b>16 (100%)</b>
<b>Length of service in years</b>	<b>Less than 3</b>	<b>5</b>
	<b>3 to 5</b>	<b>1</b>
	<b>6 to 10</b>	<b>3</b>
	<b>Above 10</b>	<b>7</b>
		<b>16( 100%)</b>

(Source: Research Data 2024)

#### 4.2.1 Background Information on County Government Officers, Healthcare Providers and Women

This subsection presents the background information on respondents roles and cadres.

**Table 4.2: Distribution of Respondents by Current Positions**

<b>Key Informant Interviews</b>	<b>f</b>
Health Admin Officer	1
Deputy In-Charge: Maternal Child Health	1
Principal Accountant: Health Services	1
Reproductive Health Coordinator	1
Chief Officer: Health	1
Health Promotion Officer	1
<b>Total (N)</b>	<b>6</b>
<b>Research Questionnaires</b>	<b>f</b>
Medical Officer	1
Clinical Officers	2
Nursing Officers	5
Medical Lab Officer	1
Anaesthetist	1
<b>Total (N)</b>	<b>10</b>
<b>Focus Group Discussions</b>	<b>f</b>
Local Samburu Women (ANC visit)	5
Local Samburu Women (MCH Clinic)	5
<b>Total (N)</b>	<b>10</b>

**Source: Research Data (2024)**

From Table 4.2 above, a total of six county government officials were interviewed, 10 health care workers administered with a research questionnaire and 2 focus group discussions were done consisting of 5 women each who had come for their ANC visits and MCH clinic respectively. The participants interviewed comprised: one health administrative officer; one deputy in charge of maternal health; one principal accountant in charge of health services; one reproductive health officer; one chief officer for health; and one health promotion officer. The participants administered with a research questionnaire comprised: one medical officer; two clinical officers; five nursing officers; one medical laboratory officer; and one anaesthetist. This is a fair reflection of the structure of the healthcare human resources in the County.

### **4.3 Qualitative Analysis**

The study undertook Key Informant Interviews (KIIs) and Focus Group Discussions (FGDs) with all categories of the respondents to determine the behaviour of Health Service Providers in Samburu County, and its implications on Funding Flows and Health Outcomes. Thematic analysis was used to generate themes and emerging issues from the data. The six steps of thematic analysis as described by Braun & Clarke (2006) were applied on the qualitative data.

The first step entailed the researcher familiarising with the data to not only internalise the issues as they were reported but also immerse into the depth of the meaning and context through repeated reading and active processing of the information for understanding. Data was transcribed and analysed using Nvivo to bring out the underlying themes. The second step involved generating initial codes which are the list of ideas and the interesting aspects of those ideas including points of convergence and divergence of the ideas as per the different respondents. Data from each interview was coded by listing units with appropriate significance. The simultaneous grouping of words, sentences, and events enabled this practice to begin. The purpose of data analysis through coding was to classify elements that were common in the data (Simon, 2011). The coding for this study was theory driven where the three key research questions were used to determine key areas in the data that were of greater interest. The use of a coding system allows for the organisation and examination of interview question responses for categorization and thematic data analysis. Some of the codes that were listed are; funding, county government, donors, partners, activities, health, adequate, resources, unpredictable and services.

Step three of thematic analysis entails searching for themes where all the codes are sorted and grouped into potential broader themes through combining different codes to form a broader theme. A total of 7 broader themes emerged from step three; National government and County Government funding, Donor grants to public health facilities, funding flows to public health facilities and effect to service delivery, public health facilities funding adequacy, effectiveness of fund administration, maternal health services and outcomes and health care provider behaviour and maternal health services.

The next step involved review of the themes formed in step 3 and making changes accordingly guided by available content for each potential theme. From this process, the broader list of 7 themes was reduced to 5 with 2 of the themes collapsed to be part of the 5. The following five themes were identified: County Government is the prominent source of funding for maternal health services, Inadequate funding flows to Samburu county, Delays in funding leading to stock-outs of essential commodities and medication, access to lifesaving maternal health services, and health care provider behaviour both positive and negative. Step 5 of thematic analysis involved defining the themes through refining and ensuring coherence for content under each theme and the aspect of the study questions the data was responding to with a detailed account under each theme in relation to the study objectives. Finally, step 6 was writing the report through concrete presentation of the findings in light of the study objectives and study questions. The study sought to know the opinion of respondents on various aspects of Funding flows in Samburu County.

#### **4.3.1: Funding Flows**

This section addresses the first objective of the study which sought to understand the different forms of funding flows from different sources to public health facilities in Samburu County.

##### **4.3.1.1: County Government is the prominent source of funding for maternal health services**

The first theme under analysis was funding flows to public health facilities and its effects on health care service delivery. Five of the respondents had consensus that the county governments were the biggest contributors to funding of health care in public health facilities in Samburu County. These included the Deputy in Charge-Maternal child health, Principal accountant-health services, reproductive health coordinator, Chief Officer Health and health promotion officer. This observation is consistent with the feedback from the county government officers and health service providers that showed over 50% of responses indicating that the health facilities in the county received minimal funding from private corporate bodies. Consequently, this meant that all public health facilities fully relied on the funding received from the National Government through the County Government. This indicated that regardless of the challenges surrounding funding flows in public health facilities, the county

governments were the penultimate steward of provision of healthcare in public health facilities at county level.

In regard to funding flows, the Chief Officer Health had this to say:

*“The biggest share of funding is from the government, the county government. Let me say about 80% is from the government. Then the others are from partners. Those are donor partners, though the funding from donors is not direct. It is the support activities relating to health.”*

“Chief Officer Health, Samburu County”

In support of the above assertion, the Health Promotion Officer reported that:

*“There is funding from the national government whereby we have the HSSF (Health Sector Strategic Funding) in attempts to improve the operations of facilities. Then from the county government there is a kit that gives some funds like HSSF but now at the county level. Then for operations we have health system strengthening partners who give funding for outreaches to improve health indicators.”*

“Health Promotion Officer, Samburu County”

The principal accountant also confirmed this by reporting that:

*‘Funding for Samburu county healthcare providers is inadequate and unpredictable, with 80% coming from the government and the rest from donors.’*

#### **4.3.1.2: Inadequate funding flows to Samburu County**

The second theme was adequacy of funding for public health facilities. Similarly, there was consensus from all the interviewees that funding for public health facilities was inadequate and significantly contributed to a myriad of challenges in health care service delivery in Samburu County. This position is consistent with the responses in the questionnaire regarding the question of whether the funding to public health facilities was adequate with 80% and 10% disagreeing and strongly disagreeing respectively.

The Chief officer health had this to say:

*“Let me say they're not adequate. Not adequate though the county thinks that health is the highest funded department, but actually if you look at what is allocated, it is not adequate to cater for everything. Yeah, so it's not adequate and not very timely.”*

*“Because of the inadequate funding, we might not be able to provide everything that is required. So though we prioritise things like commodities, ambulances are also a priority to us but you'll find with the funding we get, it might not be adequate enough to cater for everything.”*

The reproductive health coordinator also mentioned that:

*‘Funding for Samburu county healthcare providers are inadequate and then again they are not timely because they disburse the money quarterly. There are things the partners do not support so we just rely on the funds from the national government.’*

*“Health facilities in Samburu receive funding from government, partners, and donors, but it's not enough to cover maternal health needs.”*

The principal accountant also shared that:

*“Funding flows to health facilities in Samburu County have been erratic. It is not something that has been flowing, it is erratic and mostly on a quarterly basis. They are not so frequent and are somehow predictable depending on the exchequer from the national treasury.”*

Other interviewees in support of the above assertion made the following statements;

*“The funding is not enough because sometimes health facilities lack basics. At a facility level you may miss essential things that you need to provide adequate care for the mother when it comes to deliveries.”*

*“Our facilities face inadequate funding, with insufficient resources and delayed payments. We have experienced closure of health facilities due to lack of staff and resources.”*

*“Healthcare providers in Samburu face challenges with inadequate funding, stock-outs, and delays in salary payments, affecting their ability to provide quality care.”*

#### **4.3.1.3: Delays in funding leading to stock-outs of essential commodities and medication**

All the key informants were in consensus that the different funding flows affected health care provided to patients especially due implications on availability of commodities and supplies needed at the various service delivery points. One of the respondents reported that

*“...you find yourself like if there's an emergency or someone who is hypertensive, you've been stocked out for hypertensive medication and you have to refer that patient, which you could have given to make the situation better at that point. You see it brings your morale down...”*

To add emphasis on this, other officials made the following comments;

*“Because of the inadequate funding, we might not be able to provide everything that is required. So though we prioritise things like commodities, ambulances are also a priority to us but you'll find with the funding we get, it might not be adequate enough to cater for everything.”*

*“It affects because when funding is received on time it motivates the staff on the issue of service delivery”.*

*“Delay in funding causes a disruption in services and supplies to deliver care for patients”.*

Generally, all the county Government officers and health service providers observed that the funding flows affected service delivery at public health facilities in key aspects including planning and decision-making, continuity of services, commodity and supply management and stock outs, motivation of staff to provide quality services and delivery of timely and quality services. On her part, the Reproductive Health Coordinator had this to say about efficiency of health financing:

*“We face inadequate funding for health facilities, with insufficient resources and delayed payments.”*

The Principal accountant-health services resonated with this view noting that the delayed payments made it very difficult to run day to day operations in public health

facilities including ensuring timely payment of suppliers of non-medical commodities such as foodstuffs for patients in units including the maternity wards.

The study determined that health providers in Samburu County ensured that healthcare services were accessible to all residents, including those in remote areas, by establishing outreach programs. In this respect, an FGD participant had this to say: *“We do not pay for any delivery services- we are covered under the Linda Mama Program”*.

Regarding effectiveness of fund administration, an interviewee had this to say:

*“Usually what happens is you just utilise what you have and if let's say in health facilities if items are out of stock or if there is no medication, you just close down the hospital until the funding is back.”*

In addition, one interviewee had this to say:

*“In Samburu County, we have limited flexibility in funding healthcare services, with some funds earmarked for specific activities. Unpredictable funding flows affect healthcare provider performance, including stock-outs of medication and commodities.”*

#### **4.3.2: Healthcare Providers Behaviours**

This section addresses the second objective of the study which was to assess the self-reported health care provider behaviour involved in provision of maternal health service provision in response to the different funding flows to health facilities in Samburu County.

##### **4.3.2.1: Staff health worker attitudes**

The study further established that the health providers demonstrated some positive behaviours that included cultural sensitivity by understanding and respecting the traditions and beliefs of the Samburu people. This fostered trust and encouraged community members to seek healthcare without fear of judgement or discrimination. The study also determined that health providers actively engaged with the local community to understand their healthcare needs and preferences. This involvement helped tailor services to better meet the specific requirements of the population.

Additionally, health providers in Samburu County empowered patients by positive behaviours despite the funding flows such as championing promotive public health

services by educating them about preventive measures, treatment options, and the importance of adhering to medical advice. This encouraged self-care and promoted better health outcomes.

The study also determined that health providers upheld high standards of care by ensuring that staff complied to best practices in healthcare delivery.

However the study also established that some health providers demonstrated cultural insensitivity by poor communication and not providing feedback to mothers during Antenatal care and delivery services. This in turn led to mistrust and a reluctance among community members to seek further healthcare services. In this regard, a respondent had this to say:

*“There is a need to improve feedback mechanisms and address staff attitudes through continuous training.”*

#### **4.3.2.2 Differential treatment of wealthier women**

The research further determined that there were a few instances of weak financial accountability within the healthcare system that could result in unequal access to care, with those who could afford to pay receiving preferential treatment over those who could not. In this regard, a respondent had this to say:

*“It is necessary to maintain practices to treat all patients equally, regardless of their ability to pay.”*

The study also revealed a significant disparity in access to healthcare services among women based on their insurance coverage. This practice highlights the challenges faced by young women in obtaining essential healthcare coverage due to bureaucratic hurdles and highlights the necessity for more inclusive policies to ensure equitable access to healthcare services for all women, irrespective of their age.

The reproductive health coordinator shed some light on this by sharing:

*“Most of the women who come for delivery are below 18 years and do not have identity cards in order to register for NHIF. In order to be enrolled onto Linda Mama we advise them to use a guardians identity card which could be their husbands, their mother’s or mother-in-law’s identity card. If they come while in labour and aren’t registered on Linda Mama, they will have to pay cash for the delivery.”*

#### 4.3.2.3 Communication barriers

The study findings established that there were communication barriers due to language differences between healthcare providers and patients which could hinder the delivery of quality care and lead to misunderstandings or misdiagnoses. In this respect, a respondent had to say: *“There is a need for literacy and speaking skills in healthcare for improved service delivery.”* This means that the public health facilities were not in a position to allocate financial resources towards facilitation of language translators to support effective communication between the healthcare workers and the patients.

On the question of preferred funding flow, 5 out of the 10 County Government Officers who filled the questionnaires, reported the funding flow from the National Government through the County Government as the most preferred source of funding for various reasons including the funding being reliable and shared equitably. One of the officers stated the reason as *“because county Governments are able to procure required commodities and take care of Human Resource”*. On the other hand, three of the officers reported to prefer health facility own revenue with their reasons as stated in the following statements; *“Because this is direct to hospital revenue account which is accessible”*. This reason was supported by another respondent stating that funds collected were retained and utilised at source for health care services including maternal health services. Two of the officials preferred funding flow from the National Health Insurance Fund (NHIF) stating that the source provided enough funds which helped in availability of services to patients.

Four out of the 10 respondents reported not sure on the question of shifting costs to funding flows that are adequate in covering the cost of purchased services with another three stating that funds were not being shifted and the remaining three reporting that funds were being shifted. One of the respondents who reported that funds were not being shifted stated that *“no because it is not part of the J.D, its covered by relevant bodies”* with the other respondent almost agreeing to this view by reporting that funding flow followed Government regulation. On the contrary, three respondents were of the view that funding was shifted to more reliable sources, to NHIF and that some costs were shifted to patient needs.

Respondents were asked to share their views on health care provider behaviour in terms of offering services to patients covered by funding flows that are less predictable or timely. A good majority with 8 out of the 10 respondents confirmed that services were being offered based on the fact that the Government had taken the responsibility to take care of most of the health care costs. The respondents made observations in terms of different factors on their access to health care services. In terms of availability and consistency, the respondents reported that, *“Yes, services are being rendered to these patients always”*. On the aspect of cost, respondents reported that, *“Yes, most of the services are free, Government dependent”* while another one stated, *“Yes, the facility offers free services, for most of the services are funded by the Government”*. However, some respondents shared concerns on the effect of the inadequate funding flows by stating, *“Yes, services are offered, however services can be compromised”* with another one stating, *“Yes, in case the ones covered with NHIF, that’s not paid”*.

One of the respondents actually confirmed that services at their department was free for all regardless of funding flows.

#### **4.3.3 Access to life saving maternal health services**

This section addresses the third objective of the study which sought to assess the experiences and perceptions of women with respect to the quality of maternal health services and maternal health outcomes received from health care providers at selected public health facilities in Samburu County.

##### **Group 1: ANC Clinic Attendees**

The first group comprised five women attending the ANC clinic. They collectively emphasised the importance of hospital deliveries for safety reasons, particularly to avoid excessive bleeding, a concern amplified by stories of severe haemorrhage during home births. *“I heard of women bleeding a lot when delivering at home, which is why I want to deliver in the hospital,”* one woman remarked, highlighting a common fear among the participants.

Despite recognizing the importance of hospital deliveries, the majority were reliant on the Linda Mama program, with only one woman having an NHIF cover, which she had not paid premiums for in two years. A significant barrier to NHIF registration was the lack of identity cards, particularly among the younger women

who were often below 18 years. *"I don't have an ID to register for NHIF, so I use my mother's ID card for Linda Mama,"* shared one participant, reflecting a widespread workaround in the community.

When discussing why some women still opt for home births, several factors were cited, including the distance to healthcare facilities, lack of transportation, cultural norms, and insufficient education on the benefits of hospital deliveries. *"Even if roads are there, we have no means to get to the hospital,"* one woman noted, emphasising logistical challenges. Additionally, cultural practices and the influence of husbands and traditional midwives play a significant role in these decisions.

The timing of ANC visits was another concern, with most women attending only a month or two before their due date due to a lack of awareness about the importance of early ANC visits. Those not registered with Linda Mama or NHIF faced the burden of paying for delivery services out of pocket.

### **Group 2: MCH Clinic Attendees**

The second group included five women who had previously delivered at various healthcare facilities. All participants utilised the Linda Mama program, which covered their delivery expenses. They were unanimous in their praise for the care they received, noting the presence of both a nurse and a midwife during their normal deliveries. *"I had my husband with me, and the nurses were very supportive,"* one woman shared, reflecting a positive delivery experience.

One woman interviewee provided evidence about the limited range of delivery services at the health facility where she delivered including lack of Emergency Obstetric Services (EMOC) that are essential during delivery in case of an emergency as seen below:

*"Woman who delivered at health centre A - mentioned that she received good delivery services but she wouldn't recommend it because of the limitation of the range of services at the facility. One, they don't offer Caesarean Section services so in case of any emergency you will have to rely on an ambulance (which is not usually available due to lack of fuel) to refer you to the county referral hospital."*

Another woman interviewee also provided additional evidence to the range of limited services at a sub-County hospital where she delivered in comparison with the County Referral Hospital:

*“A woman who delivered at health centre B- while she also did receive good services, she had to come to Samburu county referral which is 164 km away for specialised treatment and for the MCH clinic. The sub county hospital is limited in terms of the services they offer as compared to the Samburu county referral hospital.”*

The decision to deliver in health facilities was driven by concerns for their babies' health and the advice they received from healthcare providers. However, challenges such as premature labour, lack of transportation, and insufficient education on the importance of hospital deliveries were cited as reasons for home births. *"My husband and mother-in-law decided I should deliver in the hospital,"* one participant mentioned, underscoring the significant role of family members in these decisions.

Overall, the women expressed a desire for improvements in local healthcare facilities, including the availability of more doctors, surgical theatres, and better ambulance services. *"More sensitization is needed for women to understand the benefits of hospital deliveries,"* one woman suggested, highlighting the need for enhanced community education and outreach.

These findings underscore the critical need for improved healthcare infrastructure, enhanced community education on maternal health, and the expansion of healthcare services at the local level to ensure safe and accessible maternal care for all women in Samburu County.

## **CHAPTER FIVE: DISCUSSION, CONCLUSION AND RECOMMENDATIONS**

### **5.1 Introduction**

This chapter consists of discussion of the findings in relation to the study objectives, conclusion drawn and recommendations of the study.

### **5.2 Discussion**

The study assessed the funding flows to public health facilities within Samburu County and their influence on maternal healthcare provider behaviour and maternal health outcomes. The study sought to understand the different forms of funding flows to public health facilities, the self-reported healthcare provider behaviour involved in provision of maternal child as related to the different funding flows and the experiences and perceptions of women with respect to the quality of maternal health services and maternal health outcomes.

#### **5.2.1 Funding Flows**

The findings established that funding flows were both inadequate and inconsistent which negatively affected access and quality of health care services. This is similar to the findings of (Barasa *et al.*, 2017) that described flow of funds to hospitals and health centres as unpredictable in terms of amounts and timing which jeopardises effectiveness and efficiency in service delivery to the people.

Of a greater concern was the negative impact of the funding flows on maternal and child health services and maternal health outcomes. Generally, the healthcare system in Samburu County heavily relies on public financing sources. Public funding comes from government allocations by both National and County governments, donor support, and health insurance schemes such as the National Hospital Insurance Fund (NHIF), and safety nets such as Linda Mama Project. Limited public funding often leads to resource constraints in healthcare facilities, affecting the availability of essential medical supplies, infrastructure, and personnel. Out-of-pocket expenditures remain significant for many residents of Samburu, leading to financial barriers to accessing healthcare, particularly for low-income individuals and families. This study findings compare well with other Kenyans who also experience significant out-of-

-pocket expenditures, particularly those in poorer households in rural counties similar to Samburu (Salari et al 2018).

### **5.2.2 Healthcare Provider Behavior**

The study findings indicated both positive and negative healthcare provider behaviour with more positive healthcare provider behaviour as compared to the negative ones. Positive behaviours among healthcare providers included adherence to clinical guidelines, professionalism, empathy, and effective communication with patients. Organising regular outreach programs to far-off communities had a great significance in not only increasing access to healthcare services but improving maternal health outcomes in Samburu County. The study found this aspect to be important in delivery of critical services such as maternal and child health services which targeted women and children who are generally amongst the most vulnerable in Samburu County. The study also pointed to a patient-centred approach to healthcare where services were delivered at the patients' and communities most convenient place and time. Further, adherence to clinical guidelines translated to quality healthcare services which ensured the safety and wellbeing of the patients as guided by requirements of the medical professional ethics and standards. The study findings indicated that despite the challenges and gaps caused by inadequate and inconsistent funding flows, positive healthcare provider behaviour significantly improved maternal health outcomes in Samburu County.

The aspect of healthcare providers in Samburu County empowering patients through education and awareness has potential of long term effects including improved maternal health outcomes in reduction of diseases as a result of uptake of preventive measures and improved adherence to treatment. Understanding and respecting the traditions and beliefs of the Samburu people proved to cultivate ownership and a positive attitude by community members towards healthcare services at public healthcare facilities.

However, negative behaviours such as absenteeism, negligence, corruption, and mistreatment of patients were reported in some instances. Mistreatment of women has previously been identified in other Kenyan settings (Oluoch-Aridi *et al* 2018). Challenges such as inadequate training, low remuneration, and poor working conditions contributed to negative provider behaviours. Additionally, cultural factors

and hierarchical structures within healthcare facilities were also reported to influence provider-patient interactions which further negatively influenced healthcare service delivery and outcomes.

### **5.2.3 Maternal Health Service Delivery and Outcomes**

Health outcomes in Samburu County are influenced by a range of factors beyond healthcare, including socioeconomic status, sanitation, and access to clean water. Positive healthcare provider behaviours, such as adherence to evidence-based practices and patient-centred care, can contribute to improved health outcomes, including lower mortality rates, reduced disease burden, and better quality of life.

Conversely, the inadequate and inconsistent funding flows causes systemic challenges including delayed procurement of essential commodities and supplies which consequently have a ripple effect on healthcare services outcomes. This is likely to lead to adverse outcomes, including increased morbidity and mortality, decreased trust in the healthcare system, and financial burdens on individuals and families.

As noted by (Oluoch-Aridi et al 2018), discriminatory practices exist regarding age and socioeconomic status. For instance, underage women who haven't enrolled in NHIF or Linda Mama are required to pay for delivery services due to lack of identity cards required for registration. This highlights the urgency for inclusive policies to guarantee equal access to maternal services regardless of a woman's age or financial capacity.

### **5.2.4 Interventions and Policy Implications**

Addressing the interplay between health financing, healthcare provider behaviour, and maternal health outcomes in Samburu County requires comprehensive strategies that encompass financial reforms, workforce development, governance reforms, and community engagement to ensure equitable access to quality healthcare and improved health outcomes for all.

Firstly, a policy framework that ensures sustainable and progressive public funding, improved efficiency in financial resources disbursements will go a long way in not only responding to funding flows challenges but also in improving access and quality of healthcare services in the county. Further, more efforts are required towards the expansion of health insurance coverage which can help reduce financial barriers to healthcare access especially to vulnerable households. This finding aligns with

(Salari et al 2018) that highlights the limitations of current interventions aimed at financial risk protection. Out-of-pocket (OOP) expenses place a greater burden on those who can least afford it. Therefore, additional investments are crucial to achieve a healthcare financing system that is equitable. Strengthening healthcare systems through investments in infrastructure, workforce development, and governance can improve healthcare delivery and mitigate negative provider behaviours.

Secondly, it is important to highlight that the majority of the respondents agreed that adequate funding is received, but disagree it's enough to cater for the budget. This highlights a potential gap between resource allocation and utilisation. This gap could be due to misuse of funds through corruption and conflicts of interests where decisions made benefit someone or an entity financially, even if it harms the overall healthcare system. Promoting accountability, transparency, and ethical standards among healthcare providers can support a systemic and transformative approach for sustainable and effective healthcare provider behaviour. This needs to be supported by robust regulatory mechanisms and oversight which is essential for enhancing trust in the healthcare system and improving health outcomes.

Thirdly, as (Warren C. et al 2017) points out, the topic of provider attitudes has been a recurring conversation for many years, yet progress has been elusive. Despite respondents mentioning that they undergo continuous training, there is a gap between skills training and provider behaviour. To address this, Respectful Maternity Care (RMC) workshops could be offered through professional development channels. These workshops should involve the entire maternity unit as a team, promoting collaboration and a sense of value for all staff.

Lastly, quality of maternal health services and achievement of desired maternal health outcomes heavily rely on the successful implementation of both the policy framework on funding flows and promotion of accountable, transparent and ethical standards among healthcare providers. These strategies will effectively translate to addressing reported gaps in quality maternal health services and health outcomes. Implementation of the funding flows policy framework will ensure accessible, available, affordable and quality maternal health services to women in Samburu County.

### **5.3 Recommendations**

The study made the following recommendations on the improvement of health financing, healthcare provider behaviour, and health outcomes in Samburu County:

#### **5.3.1 Funding Flows**

The study recommends increased and sustained advocacy efforts by stakeholders towards both the National and County Governments as the primary duty bearers for increased government funding for healthcare in Samburu County even while still relying on donor support and out-of-pocket payments. Stakeholder engagement and participation forums at National and sub-national levels starting at village, ward, sub-county, county and finally at national are key platforms for the advocacy agenda. Both the County assembly and the Senate have a mandate to push for increased public funding on health in order for Kenya to make sustainable progress towards achievement of SDG three aiming at Good health and well-being.

There is a need to address barriers emerging from the findings related to registration criteria and requirements for government driven health services policy such as the *'Linda mama'* free maternity services at public health facilities. A policy framework needs to be put in place to address both registration criteria challenges and cultural gender perspectives which inhibit women from making individual decisions when it comes to seeking maternal health services. The registration criteria challenges majorly affected pregnant adolescent and young women who are below 18 years or have no identification documents to qualify to be registered on the maternal health services. Socio-economic challenges with the majority of women being the most vulnerable led to inability to service regular household or individual payments for health insurance schemes like the National Hospital Insurance Fund (NHIF). The policy framework will cushion women including pregnant adolescent and young women most vulnerable and effectively improve access to quality maternal health services.

Findings from both community members and health facilities administration staff confirmed capacity gaps including language and communication barriers between healthcare workers and patients. There is a need to allocate resources to support communication and translation activities with consideration to actively involve community health workers or volunteers who can play this role.

Priority needs to be given for infrastructure and capacity development for communities in far-off and rural underserved locations that have poor infrastructure and long distances to public health facilities. There is a need for allocation of financial resources to improve road networks and facilities such as ambulances to improve access to health care services especially for women and children in need of maternal and child health services. Additionally, the County should prioritise and allocate resources for improving the capacity of public health facilities from the village level, ward level and to sub-county level in terms of human resources and medical equipment to reduce the number of women who have to travel to the County health facilities to access services such as Caesarian section.

### **5.3.2 Healthcare Provider Behavior**

The study recommends investment in continuous training and capacity building programs like Respectful Maternity Care (RMC) workshops for healthcare providers to improve clinical skills, professionalism, and health care services. The study also recommends implementation of robust supervision and oversight mechanisms to monitor healthcare provider behaviour, address issues of absenteeism, negligence, and corruption, and enforce accountability. Moreover, the study recommends that healthcare providers adopt a patient-centred approach by prioritising empathy, effective communication, and cultural sensitivity in their interactions with patients.

### **5.3.3 Maternal Health service delivery and outcomes**

The study recommends strengthening of community outreach and mobile clinical programs that integrate maternal health care services especially to far-off and underserved rural locations faced by the poor infrastructure and long distances. The study also suggests prioritisation of preventive healthcare interventions, including health education, vaccination programs, and screening services, to reduce the burden of preventable diseases and promote overall health and well-being. Finally, the study recommends implementation of multi-sectoral approaches to address social determinants of health such as poverty, education, sanitation, and access to clean water, which significantly impact health outcomes in Samburu County.

## **5.4 Limitations of the Study**

The study focused on Samburu County, hence the findings may not be generalised to other counties due to contextual differences. Secondly, due to the purposive sampling

the views represented were localised to a few county officers and might not have been representative to all county officials as this was a small sample size. In addition, the study used a strong reliance on qualitative data using thematic analysis, hence limited statistical analysis to determine significance of the relationships between health funding flows and maternal health services and outcomes.

## **5.5 Conclusion**

Based on the findings of the study, various conclusions regarding health financing, healthcare provider behaviour, and health outcomes in Samburu County were made. Broadly Samburu County faces significant challenges in health financing, with limited public funding from both the National and County Government and reliance on donor support and significant out-of-pocket payments from residents for maternal health services and other medical services. This insufficient funding often results in resource constraints within healthcare facilities, such as the availability of essential medical supplies, infrastructure, and personnel.

Healthcare providers exhibited both positive and negative behaviours in response to the poor financing. Despite the inadequate financing the study illustrated that positive healthcare provider behaviours were reported this included but not limited to adherence to clinical guidelines, professionalism, and patient-centred care all behaviours essential for improving maternal health outcomes in Samburu County.

However, negative behaviours were also reported, these included absenteeism, negligence, political interference, undermining the quality of care and eroding trust in the healthcare system.

Addressing health financing challenges in Samburu County requires efforts to increase public funding, improve the efficiency of resource allocation, and expand health insurance coverage to reduce financial barriers to healthcare access. Strengthening healthcare systems through investments in infrastructure, workforce development, and governance reforms is crucial for improving healthcare delivery and mitigating negative provider behaviours. Promoting accountability, transparency, and ethical standards among healthcare providers, supported by effective regulatory mechanisms and community engagement, is essential for enhancing trust in the healthcare system and improving health outcomes in Samburu County.

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## APPENDICES

### Appendix 1: Introduction Letter

Ole Sangale Rd, Madaraka Estate,  
P.O Box 59857 00200, Nairobi, Kenya.  
Cell: +254 703 414/6/7, Twitter: @S35Kenya  
Email: [info@sbs.ac.ke](mailto:info@sbs.ac.ke) or visit [www.sbs.strathmore.edu](http://www.sbs.strathmore.edu)



Thursday, 4<sup>th</sup> May 2023.

To Whom It May Concern,

**RE: FACILITATION OF RESEARCH – NELLY NAPUNYU LERIARI.**

This is to introduce Nelly Napunyu Leriari, a Master of Business Management in Healthcare Management (MBA-HCM) student at Strathmore University Business School, admission number MBA HCM/80706/20. As part of our MBA-HCM Program, Nelly is expected to do applied research and undertake a project. This partially fulfills the requirements of the MBA-HCM course; to this effect, she would like to request appropriate data from your organization.

Nelly is undertaking a research paper on “**Funding Flows and Their Influence on Maternal Health Outcomes: A Case Study of Samburu County**” The information obtained shall be treated confidentially and used for academic purposes only.

Our MBA-HCM Programme seeks to establish links with industry, and one of these ways is by directing our research to areas that would be of direct use to the industry. We would be glad to share our findings with you after the research, and we trust that you will find them of great interest and practical value to your organization.

We appreciate your support and will be willing to provide further information if required.

Yours sincerely,

A handwritten signature in black ink, appearing to be "Alois Njenga".

Alois Njenga.  
Manager – Graduate Programme.

Association of African  
Business Schools



Strathmore Business School is a Proud member of:



## Appendix 2: Ethics Approval



20<sup>th</sup> June 2023

Ms Leriari Nelly Napunyu,  
nelly.leriari@strathmore.edu

Dear Ms Leriari,

### **RE: Funding Flows and their Influence on Maternal Health Outcomes: A Case Study of Samburu County**

This is to inform you that SU-ISERC has reviewed and **approved** your above **SU-masters** research proposal. Your application reference number is **SU-ISERC1736/23**. The approval period is from **20<sup>th</sup> June 2023 to 19<sup>th</sup> June 2024**.

This approval is subject to compliance with the following requirements:

- i. Only approved documents including (informed consents, study instruments, MTA) will be used.
- ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by SU-ISERC.
- iii. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to SU-ISERC within 72 hours of notification.
- iv. Any changes anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to SU-ISERC within 72 hours.
- v. Clearance for the export of biological specimens must be obtained from relevant institutions.
- vi. Submission of a request for renewal of approval at least 60 days prior to the expiry of the approval period. Attach a comprehensive progress report to support the renewal.
- vii. Submission of an executive summary report within 90 days of completion of the study to SU-ISERC.

Before commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology, and Innovation (NACOSTI) <https://research-portal.nacosti.go.ke/> and obtain other clearances needed.


Yours sincerely,


A handwritten signature in blue ink, appearing to read "Ambrose Rachier".

for: **Mr Ambrose Rachier,**  
**Chairperson; SU-ISERC**




### Appendix 3: NACOSTI Research License

  
**REPUBLIC OF KENYA**

  
**NATIONAL COMMISSION FOR  
SCIENCE, TECHNOLOGY & INNOVATION**

Ref No: **771041** Date of Issue: **18/May/2023**

**RESEARCH LICENSE**




**This is to Certify that Miss.. Nelly Napunyu Napunyu of Strathmore University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Samburu on the topic: FUNDING FLOWS HEALTH PROVIDER BEHAVIOUR AND THEIR INFLUENCE ON MATERNAL HEALTH OUTCOMES: A CASE STUDY OF SAMBURU COUNTY for the period ending : 18/May/2024.**

License No: **NACOSTI/P/23/25944**

**771041**  
Applicant Identification Number

  
Director General  
**NATIONAL COMMISSION FOR  
SCIENCE, TECHNOLOGY &  
INNOVATION**

Verification QR Code



**NOTE: This is a computer generated License. To verify the authenticity of this document,  
Scan the QR Code using QR scanner application.**

**See overleaf for conditions**

## Appendix 4: Samburu County Approval Letter



COUNTY GOVERNMENT OF SAMBURU  
EXECUTIVE OFFICE OF THE COUNTY SECRETARY & HEAD OF COUNTY PUBLIC  
SERVICE

County Government of Samburu  
P.O. Box 3 – 20600, Maralal.  
Our Ref: CGS/CS/GEN.VOL.1/24

Date: 22<sup>nd</sup> January, 2024

### TO WHOM IT MAY CONCERN

**RE: CLEARANCE TO CONDUCT RESEARCH IN SAMBURU COUNTY**

We have received a request from Ms. Nelly Napunyu Leriari, a Master of Business Administration in Healthcare Management (MBA-HCM) student at Strathmore University Business School. Her research topic is on "Funding Flows and their influence on Maternal Health Outcomes: A case study of Samburu County".

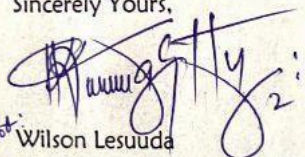
We have duly inspected her documents and found that she has been cleared by NACOSTI to carry out the research in partial fulfillment of the requirements for the award of Masters in Business Administration in Healthcare Management (MBA-HCM). She thus does not need any further clearance with another regulatory body in order to conduct research within the county of Samburu.

In view of the above, you are hereby kindly requested to accord her the necessary assistance during the research period. This note also accords her the duty to provide a feedback on her research findings to the county at the conclusion of her research

Any assistance accorded to her will be highly appreciated.

Thanking you in advance.

Sincerely Yours,

  
For: Wilson Lesuuda

County Secretary & Head of County Public Service  
**COUNTY GOVERNMENT OF SAMBURU**



## Appendix 5: Study Tool for Focus group discussion guide

**Step 1:** Researcher to introduce themselves to the participants. Describe the purpose of the interview and how information will be used. Obtain oral/written consent.

**Step 2:** Ask the participants to identify themselves. Interviewer: fill out the information below FOR EACH WOMAN prior to beginning the discussion.

**Step 3:** Conduct the discussion. Please remember to audio record the discussion.

### Participant information

Participant age (write in): \_\_\_\_\_

Location (urban/rural): \_\_\_\_\_

Religion (write in): \_\_\_\_\_

Total number of living children (write in): \_\_\_\_\_

Total number of deliveries (write in): \_\_\_\_\_

Number of deliveries in a facility (write in): \_\_\_\_\_

Number of deliveries outside the health facility (write in): \_\_\_\_\_

Name of health facility delivered at (write in): \_\_\_\_\_

Discussion date: \_\_\_\_\_

Start time: \_\_\_\_\_

End time: \_\_\_\_\_

Interviewer: \_\_\_\_\_

### **QUESTIONS:**

#### A. Childbirth narrative

**1. Please take a moment to think about how women give birth in your community. Could you tell me about how women give birth in your community?**

- a. Why do women give birth in health facilities?
- b. Why do women give birth at home?
- c. Who is involved in making this decision about where to give birth?
  - i. How are they involved?
- d. Do you feel that women in your community have control over decisions that are made during their childbirth? Please explain. For example, the position that they deliver in? [Probe: lying on your back, kneeling, squatting or other?
  - i. Do midwives offer for women to deliver in different positions? Please explain.

**2. Now I would like to talk to you about the hospital/health facility that you delivered in. From the time you arrived until you had to start pushing,**

**what do you remember about your surroundings? Who was there?**

**(Interviewer: use probes below):**

- a. Where were you?
- b. What was the room like?
- c. What did you do while you were in this room [probe: move/walk around, take fluids]?
- d. Who else was there?
- e. While you were in labour [during contractions but before pushing], was someone with you besides a health worker? For example, a family member, friend or husband?
  - i. Probe: what was this person's role during this time?
- f. Would you recommend that a friend deliver in this hospital? Why or why not?
- g. Is there anything that you would change about this place? Please explain.

**3. Lastly, I would like to understand your overall experience?**

- a. Were you returned home or referred to another hospital due to lack of provision of maternal health services?
- b. Do you have any insurance scheme that covers your medical costs? If yes, which one? Did you use it for your ANC or delivery services or PNC? Did you need to pay for any expenses out of pocket?
- c. Were you discriminated upon by healthcare providers because of your payment method?

## **Translated Focus Group Discussion Questions to Samburu Language**

### **Mbaa eishoi te Samburr**

#### **1.Kaamon taparraai neikununo mbaa eishoi teetwa lkereti loo samburr,aji eiko nkituaa lomon leishoi te Samburr?**

- a) enkaraki inyo peiki ntomonok sipitali?
- b) Tenkaraki inyo peiki ntomonok enkanj'?
- c) Ng'ai ishi eitore ng'oji neiki ntomonok te Samburr?
  - i. Taa oitei eitore?
- d) Idol etuwana keitore ntomonok ate te lkereti loo Samburr te nkoitei eishoi enche? Tang'amata esaisai,atuwana neiko tonowon aisho?Atuwana aperr te oriong',tanaa agil kung',o nkule kumok
  - i. Oo nkaretok,aji eiko teneret ntomonok?

#### **2.Kayeu nikiimaki neikununo mbaa e sipitali,aang'asu piibaya mpaka ning'asu airenyu nkerai,nyo iparru nikinyikita teinia katai? Ng'ai likitii tebata?**

- a) Aji apa itii?
- b) Kaji etui nkaji nitii teinia katai?
- c) Kaji iyasita teinia aji isaisai?
- d) Ng'ai likai liyata teinia katai?
- e) Ama isaisai ng'ai likai likiboitere o lkitarii,atuwana nchore ino?
- f) Nyo kintaasita ninye teinia katai?
- g) Indim nirrepaki nchore ino metiiki sipitali?
- h) Keetai niyeu neasi teinia sipitali neitu kintaasi?

#### **3.Nesedi,kayeu nayelou nikiliki nitoduaa teinia katai eishoi ino?**

- a) Ikitirinyoki shomo tiiki nkang' tanaa kieterewaki tiiki nkai sipitali tenkaraki meatai ntokitin pookin nikireteki?
- b) Iyata nkaad e insurance e biotisho?Tanaa silinkini kaash italaa kutuka iloito kilinik mpaka ishoi?
- c) Ikiitemena lkitarini tenkaraki nkoitei nilakie sipitali?

## Appendix 6: Research Questionnaire

### Background information

#### Gender

- a. Gender of respondent: Male [ ] Female [ ]
- b. Service please specify.....
- c. Location \_\_\_\_\_  
Date \_\_\_\_\_

#### Kindly indicate your highest level of education

- i. Tertiary college level [ ]
- ii. Undergraduate level [ ]
- iii. Postgraduate level [ ]
- iv. Others  
(specify).....

#### How long have you been in your current position?

- i. Less than three years [ ]
- ii. 3-5 years [ ]
- iii. 6-10 years [ ]
- iv. Above 10 years [ ]
- v. Others  
(specify).....

#### Sources of funds

1. Using the scale below, please specify if you concur or disagree with the statements below;
- Strongly Agree (SA)
  - Agree (A)
  - Not Sure (NS)
  - Disagree (D)
  - Strongly Disagree (SD)

	Statement	S A	A	N S	D	S D
1.	The health facilities receive efficient funding from donors					

2.	Health facilities in the county receives minimal funding from private corporate bodies					
3.	The health facilities get finances from user fees on patients					
4.	Health facilities in the county has income generating activities that brings revenue					
5.	Health facilities receive adequate funding from the national and county governments					

### Adequate funds allocation

2. Using the scale below, please specify if you concur or disagree with the statements below;
- Strongly Agree (SA)
  - Agree (A)
  - Not Sure (NS)
  - Disagree (D)
  - Strongly Disagree (SD)

	Statement	S A	A	N S	D	S D
1.	The funds disbursed to health facilities are sufficient to cater for the hospital budget					
2.	The Health facilities are adequately staffed in all departments					
3.	The health facilities staff are remunerated adequately as per job group placement					
4.	Funds disbursed to Health facilities are executed in time					
5.	Health facilities staff receive trainings regularly					

### Efficiency and effectiveness

3. Using the scale below, please specify if you concur or disagree with the statements below;
- Strongly Agree (SA)
  - Agree (A)
  - Not Sure (NS)
  - Disagree (D)
  - Strongly Disagree (SD)

	Statement	S A	A	N S	D	S D
6.	Are the funds disbursed to county health facilities allocated fairly?					
7.	Are the cases of medicine and supplies stock out in Health facilities minimal?					
8.	Are there cases of political interference in decision making processes in the health facilities?					
9.	Are there cases of conflicts of interests in funds distribution?					
10.	Health facilities staff receive trainings regularly					

#### **Access and Delivery of services**

4. Using the scale below, please specify if you concur or disagree with the statements below;
- Strongly Agree (SA)
  - Agree (A)
  - Not Sure (NS)
  - Disagree (D)
  - Strongly Disagree (SD)

	Statement	S A	A	N S	D	S D
11.	Are maternal health services provided in Samburu county always available?					
12.	Are there accessible roads to health facilities and hospitals?					

13.	Has devolved governance ensured an increase in patients accessing maternal health services?					
14.	Are healthcare workers always available to offer necessary healthcare services?					
15.	What are some of the challenges that the health department faces in delivery of services?					

### **Healthcare Provider Behaviours**

1. Do different funding flows affect how you provide care to patients? If yes please elaborate
2. Which is your preferred funding flow to the health facility you work in and why?
3. Do you shift costs to funding flows that are adequate in covering the cost of purchased services? Please explain
4. Do you offer services to patients covered by funding flows that are less predictable/ timely? Please elaborate
5. Do you shift resources away from services paid for by the funding flow that is inadequate, to services that are paid for by the funding flow that is adequate in covering the costs of services purchased? Please explain

**Thank you for your time and cooperation**

## Appendix 7: Interview Guide

### Background information

#### Gender

Gender of respondent      Male      [ ]      Female      [ ]

Service please specify.....

Location \_\_\_\_\_ Date \_\_\_\_\_

#### Kindly indicate your highest level of education

v. Tertiary college level      [ ]

vi. Undergraduate level      [ ]

vii. Postgraduate level      [ ]

viii. Others  
(specify).....

#### How long have you been in your current position?

vi. Less than three years      [ ]

vii. 3-5 years      [ ]

viii. 6-10 years      [ ]

ix. Above 10 years      [ ]

x. Others  
(specify).....

#### QUESTIONS:

1. How would you describe the funding flows allocated to health facilities in Samburu County?
2. Which funding flows contribute to a larger share of resources compared to others?
3. Is one funding flow adequate to cover the cost of purchased services if another is inadequate?
4. Do Samburu county healthcare providers have flexibility over the use of one funding flow compared to the other flows?
5. Do specific funding flows have complex/ burdensome accountability requirements?
6. Are funding flows predictable in terms of the amounts and timeliness?
7. Are funding flows linked to performance of healthcare providers? If so, which ones?
8. Does the county government regularly supervise delivery of services in the healthcare facilities?
9. Do healthcare providers shift costs to funding flows that are adequate in covering costs of the purchased services?
10. Do healthcare providers shift resources away from services paid for by the funding flow that is inadequate, to services that are paid for by the funding flow that is adequate in covering the costs of services purchased?

## **Appendix 8: Consent Form**

**Investigator:** NELLY NAPUNYU (MBA- Healthcare Management, Strathmore Business School, Strathmore University).

**Study Title: FUNDING FLOWS AND THEIR INFLUENCE ON MATERNAL HEALTH OUTCOMES: A CASE STUDY OF SAMBURU COUNTY.**

### **Purpose of the Study:**

The purpose of this research study is to investigate the relationship between funding flows and maternal health outcomes in Samburu County. The study aims to explore how funding sources, allocation, and utilisation impact maternal health outcomes in the region. The findings from this study will contribute to the understanding of the factors that influence maternal health outcomes in low-income countries and inform policies and interventions aimed at improving maternal health.

### **How to Participate:**

If you agree to participate, you will be asked to provide information about your experiences with funding flows and maternal health services in Samburu County. You will be asked to complete a questionnaire and/or participate in a one-on-one interview or participate in a focus group discussion. The survey will take approximately 30 minutes to complete, and the focus group discussion and/or interview will last approximately one hour.

### **Right to Refusal or Withdrawal:**

Participation in this study is entirely voluntary. You have the right to refuse to participate in the study without giving any reason. If you decide to participate, you can withdraw from the study at any time without any victimisation.

### **Confidentiality and Privacy:**

The information you provide will be kept confidential and will only be used for research purposes. Your name will not be used in any reports or publications resulting from this study. All data collected will be stored securely and will only be accessible to the research team. Any information that is disclosed to the research team will be kept confidential and will not be disclosed to any other party without your consent, except as required by law.

**Data Protection:**

All data collected during the study will be treated with strict confidentiality. Only authorised researchers will have access to the data, and they will use it solely for research purposes ensuring participants privacy. Robust security measures will be employed to protect the collected data from unauthorised access, theft, loss or damage. Electronic data will be stored on secure servers with restricted access and physical copies will be stored securely in locked cabinets.

**Risks and benefits:** There are no risks or discomforts associated with this study and neither are there any direct benefits to you for taking part in.

**Investigator:** Nelly Napunyu (Mobile: 0714001100 or Email nelly.leriari@strathmore.edu)

**My Supervisor:** Dr. Jackline Aridi (Mobile: 0715961081 or Email: jackline.aridi@strathmore.edu)

**Enquiries to:** The Secretary- Strathmore University Institutional Ethics Review Board,

P.O BOX 59857-00200, NAIROBI; Email: ethicsreview@strathmore.edu; Tel No: +254 703 034 375

**Signature Section:**

I have read and understand the information provided above. I agree to participate in the study, and I understand that I have the right to withdraw at any time. I give my consent for the information I provide to be used for research purposes.

**Participant Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**OR**

**Participant Thumbprint:**

**Research Personnel Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

## Appendix 9: Work Plan

### WORK PLAN

<b>Progress Stage</b>	<b>Stage Description</b>	<b>Proposed dates</b>
1	Scoping of the research study	21 <sup>st</sup> -25 <sup>th</sup> June 2022
2	Choice of Research Topic	28 <sup>th</sup> June 2022
3	Research Problem clarification, research objectives, purpose and significance	1 <sup>st</sup> -14 <sup>th</sup> July 2022
4	Literature review	21 <sup>st</sup> August-8 <sup>th</sup> Sept 2022
5	Research methodology	11 <sup>th</sup> -19 <sup>th</sup> Oct 2022
6	Completing and submitting the research proposal	16 <sup>th</sup> January 2023
7	Proposal defence	13 <sup>th</sup> -17 <sup>th</sup> Feb 2023
8	Corrections and approval	15 <sup>th</sup> - 30 <sup>th</sup> March 2023
9	Ethics Approval	1 <sup>st</sup> -30 <sup>th</sup> April 2023
10	NACOSTI Application and Approval	1 <sup>st</sup> -30 <sup>th</sup> May 2023
8	Data collection	20 <sup>th</sup> -25 <sup>th</sup> August 2023
9	Data analysis and Interpretation	20 <sup>th</sup> - 23 <sup>rd</sup> December 2023
10	Research report writing – first draft	23 <sup>rd</sup> -26 <sup>th</sup> January 2024
11	Final draft of research report	1 <sup>st</sup> Feb 2024
12	Submission of research for examination	28 <sup>th</sup> Feb 2024

Any remarks:

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### Appendix 10: Research Study Budget

ITEM	UNIT PRICE	QUANTITY	TOTAL (KSHS)
Printing cost of questionnaires	45	200	9,000
Research Assistants involved in data collection	3	1,500	4,500
Translators involved in data collection	3	2000	6000
Data analysis	1	25,000	25,000
Printing and binding of dissertation	3	1,500	4,500
Miscellaneous	1	10,000	10,000
<b>GRAND TOTAL</b>			<b>59,000</b>