ASSESSMENT OF HEALTH FINANCING FACTORS AFFECTING
PERFORMANCE OF SERVICE DELIVERY AT PRIMARY HEALTH CARE
FACILITIES IN MOMBASA COUNTY, KENYA

BY

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SCHOOL OF PUBLIC HEALTH AND COMMUNITY DEVELOPMENT

MASENO UNIVERSITY

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DECLARATION

This thesis is my own original work and has not been presented in any other university.

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DEDICATION

I dedicate this work to my family for their support and endurance during my period of study.
ABSTRACT

The health system in Mombasa County, Kenya, has been experiencing challenges in meeting its primary health care facilities annual targets in service delivery. This could be partly explained by continued skewing of health budget allocation in favour of tertiary and secondary care facilities, which absorb 70% of health expenditures, than the primary care units that provide the bulk of health services. However, there are limited studies that have examined financing factors influencing performance of primary healthcare facilities service delivery. This study therefore sought to assess health financing factors affecting performance of primary health care facilities in Mombasa County. Specifically, the study aimed at determining the financing sources, prioritization in allocations, the financing challenges and the influence of funds allocation on performance of primary health care facilities. The study adopted a cross-sectional research design where the data was collected from 195 of the sampled 214 health workers and 76 of the sampled 81 facility management committee members respectively. Quota sampling method was used to select respondents from 39 primary health care facilities in Mombasa County. A semi-structured questionnaire was used to collect data from the two sample groups. Descriptive analysis involved the use of frequencies, percentages, mean and standard deviation. Inferential analysis involved the use of multiple regression model in order to determine the strength of relationship between the independent variables (sources of health financing, financing challenges, prioritization of funds and allocation of funds) and performance of primary health care facilities in Mombasa. Significance was tested at 5 percent level. Results from the multiple regression analysis indicated that sources of health financing (p = 0.01), and prioritization of funds (p = 0.01) were the main influencers of the performance of Primary healthcare facilities in Mombasa County. The study also established that allocation of funds (p = 0.02) and financing challenges (p = 0.03) were significant predictors of the performance of primary healthcare facilities in Mombasa County. The study concluded that sources of health financing, financing challenges, prioritization of funds and allocation of funds were significant predictors of performance of primary health care facilities in Mombasa County. The study recommends that the county government of Mombasa should put more emphasis on prioritizing funds allocated to primary healthcare facilities in order to improve performance.
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<tr>
<td>CBHI</td>
<td>Children's Behavioural Health Initiative</td>
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<td>CIDP</td>
<td>County Integrated Development Plan</td>
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<td>DHIS</td>
<td>District Health Information Systems</td>
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<td>GDP</td>
<td>Growth Domestic Products</td>
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<td>GoK</td>
<td>Government of Kenya</td>
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<td>IEBC</td>
<td>Independent Electoral and Boundaries Commission</td>
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<td>IFIs</td>
<td>International Financing Institutions</td>
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<td>IMCI</td>
<td>Integrated management of childhood illness</td>
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<td>MDGs</td>
<td>Millennium Development Goals</td>
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<td>MHOs</td>
<td>Mutual Health Organizations</td>
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<td>MoH</td>
<td>Ministry of Health</td>
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<td>MOPHS</td>
<td>Ministry of Public Health and Sanitation</td>
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<td>MTEF</td>
<td>Medium-Term Expenditure Framework</td>
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<td>NGOs</td>
<td>Nongovernmental Organisations</td>
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<td>NHIF</td>
<td>National Hospital Insurance Fund</td>
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<td>NPM</td>
<td>New Public Management</td>
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<tr>
<td>OAU</td>
<td>Organisation of African Unity</td>
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<tr>
<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
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<tr>
<td>SPSS</td>
<td>Statistical Package for Social Sciences</td>
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<tr>
<td>THE</td>
<td>Total Health Expenditure</td>
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<tr>
<td>USD</td>
<td>United States Dollar</td>
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<td>WHO</td>
<td>World Health Organisation</td>
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<td>WHR</td>
<td>Women for Human Rights</td>
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DEFINITION OF TERMS

**Performance:** Refers to the extent in which healthcare facilities attain the objective of providing accessible, quality, and safe health services to a target population so that people receive a continuum of health promotion, disease prevention, diagnosis, treatment, disease-management, rehabilitation and palliative care services, through the different levels and sites of care within the health system, and according to their needs throughout the life course.

**Health financing:** Refers to mobilization and allocation of funds for the operation of health systems and is a key determinant of health system performance in terms of equity, efficiency, and health outcomes.

**Primary health care facilities:** Refers to the first contact of patient with health care system that provides basic level of health care which includes programs directed at the promotion of health, early diagnosis of disease or disability, and prevention of disease. Examples include health centres, dispensaries and medical clinics.

**Service Delivery** Refers to organization and management of inputs and services to ensure access, quality, safety and continuity of care across health conditions, across different locations and over time.
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CHAPTER ONE
INTRODUCTION

1.1 Background of the Study

Health care financing is one of the important building blocks which directly or indirectly determine the outcome of other health building blocks globally. An appropriate Health care financing mechanism emphasis on equity, income and risk subsidization a trend towards reducing out-of-pocket payments. According to the World Health Organization (2007), a good healthcare financing system is one that raises adequate funds for health to ensure accessible and efficient health service delivery to the people, as well as protection from potential catastrophe or impoverishment associated with having to pay for them.

Primary health care facilities if well-funded will play its vital role in reducing mortality, morbidity and overall disease burden as it is the second level of care from the community (Njenga, 2016). This will be achieved through adequate staffing, and appropriate health technologies that to promote early detection, diagnoses, treatment of diseases, effective and appropriate referrals reducing congestion in the higher levels of health care thus increasing access to quality of health care and increased customer satisfaction (Musango, 2015). Investing in primary health care is crucial as it is integral to the overall healthcare system.

In Kenya, public financing is skewed towards other sectors compared to the health sector. The national health accounts, observed that out of Kshs 236.6 billion allocated to social sector in 2015/2016, the Ministry of Defence received 73.8% while the Health Sector received a paltry 16.0% of the allocation (Ministry of Health, 2015). This allocation according to WHO (2016) has continued to contribute towards a funding gap in equipment, drugs, non-pharmaceuticals, health personnel and health infrastructure countrywide which pose a major challenge in health care delivery. This trend continues to be realized despite the government’s commitment in various policy documents including Kenya Vision 2030 and the MTEF.

Health sector in Kenya relies on several sources of funding: public (government), private firms, households and donors (including faith based organizations and NGOs) as well as health insurance schemes (GoK, 2015). Despite these health financing options in Kenya, the finances are still disproportionately distributed across the health system. According to the Ministry of Health (2017), the health budget allocation has continued to skew in favour of tertiary and secondary care facilities, which absorb 70% of health expenditures, yet primary
care units—the first line of contact with the population—provide the bulk of health services and are cost effective in dealing with the disease conditions prevalent in communities.

Health facilities in Mombasa County receive funding from a variety of sources, notably, government funding, Health Sector Services Fund (HSSF) – compensation for the abolition of user fees for primary services, funds for free maternity services, on- and off-budget, Hospital Management Services Fund (HMSF), off-budget donor funding, NHIF payments and also user fees collected and used at health facility level (World Bank, 2014). However, according to the World Bank, the multiple sources of funding, on- and ‘off-budget’ undermine the comprehensiveness of the health budget, and are difficult to track.

In FY 2016/17, county government of Mombasa increased allocations for health as a percent of total county budget to 27 percent, up from the FY 2015/2016 allocation of 24 percent which was a significant increase from the FY 2013/2014 allocation of 8 percent (UNICEF Kenya, 2017). However, the allocation is still below pre-devolution allocation level of 35 percent in FY 2012/2013. The allocation is even below allocations by counties like Elgeyo Marakwet, Nakuru, Kiambu, Baringo, Siaya, Kirinyaga, Lamu, and Trans Nzoia which allocated at least 30 percent of the resources to health, indicating that it is possible for Mombasa County to increase their percentage allocation to health to the pre-devolution levels (Ministry of Health, 2017).

1.2 Statement of the Problem

Kenya’s per capita expenditure on health has increased over the recent years and has now surpassed the WHO benchmark of US$ 42 per capita to stand in the range of US$ 77.7 by 2014/2015 (World Bank Group, 2014). However, the country is still below the Abuja declaration of 2011 which committed African governments to allocate 15% of their domestic budget to the health sector as a move towards universal health care. The allocation levels after devolution are even below the pre-devolution level of 7.8 percent. A review of recent public expenditure shows that national and county governments combined allocation to health in Kenya has flattened at 7.6 percent of total government budget over the last three fiscal years, 2014/2015 – 2016/2017 after a gradual increase from 5.5 percent in FY 2013/2014 (Ministry of Health, 2017).

In FY 2016/17, the national government allocated Kshs 60 billion to Ministry of Health out of the national government’s total budget of 1,505 trillion. This is equivalent to 3.7 percent, a decrease from the 3.9 percent allocated in FY 2015/16 and 4.0 percent allocated in FY
2014/15 (Ministry of Health, 2016). This shift indicates a downward trend in the proportion of government budget allocated to health. Over the same period, county governments maintained a gradual increase from 13.5 percent in FY 2013/2014 to 25.2 percent in FY 2016/2017. While this indicates an increased commitment to health by county governments, the allocation is still below pre-devolution levels as indicated by the allocation of 35% in FY 2012/2013 (Ministry of Health, 2016).

Mombasa County is not exceptional to the financing gaps, especially for primary health care facilities. In financial year 2015/2016 and 2016/2017 County health department was allocated 27 percent of the total County budget, which is still below the pre-devolution allocation level of 35 percent in FY 2012/2013. The allocation is also below allocations by some counties which allocated at least 30 percent of their resources to health (Ministry of Health, 2017). In addition, about 70 percent of the allocation to health was spent on personnel emolument (Human Resource Expenditure Report, 2017), while the remaining allocation was shared among level 5 referral hospitals, development, recurrent expenditure, the four level 3 hospitals and the 39 primary health care facilities. The effects of health financing for primary health manifests itself in several ways; inequitable access by households, disintegrated health financing schemes contributing to inefficiencies in service provision and investments. Private and external funds including out of pocket payment continue to be the predominant source of finance for primary health care in most settings significantly deterring the most vulnerable groups. A study by the World Bank (2013) and the CIC (2014) shows that Mombasa County is among the counties that have not delivered primary health care to their members as expected to the tune of 67%. Despite the devolution of health function to the devolved units, Mombasa County has been experiencing challenges in meeting its annual health targets. In 2015/2016 the county failed to achieve its targets in immunization coverage, screening of communicable diseases, prevention of mother to child transmission of HIV, health and growth monitoring of children under five years of age, integrated vector management, and management and prevention of HIV and STI transmission to a tune of 10%, 22%, 6%, 6%, 22% and 7% respectively.

There is extensive literature on the determinants of health expenditure in developed countries, but the same is not true for developing countries including Kenya (Okungu, 2015; Murthy and Okunade, 2015; Kiplagat, 2015; Newhouse, 2016; and Njenga, 2016). Most of these studies demonstrate that health care financing is a key determinant of health system
performance as it is expected to provide the resources and economic incentives for operating health systems. However, the same studies observed that there is often a mismatch between health financing systems and health service delivery. From the ongoing it is recognized that health financing is an important determinant of primary health care, however, there is hardly any study that has examined financing factors influencing health care service delivery in form of sources, prioritization, challenges and missed opportunities of health financing which this study sought to address and fill the current knowledge and literature gap.

1.3 General Objective
To assess financing factors affecting performance of public primary health care facilities in Mombasa County, Kenya.

1.4 Specific Objectives
Specifically the study aimed:

i. To establish the influence of sources of health financing on performance of primary health care facilities in Mombasa County.

ii. To assess the influence of financing challenges on performance of primary health care facilities in Mombasa County.

iii. To determine the influence of prioritization of funds spent on performance of primary health care facilities in Mombasa County.

iv. To examine the influence of funds allocation on performance of primary health care facilities in Mombasa County.

1.5 Research Questions

i. What is the influence of sources of health financing on performance of primary health care facilities in Mombasa County?

ii. What is the influence of financing challenges on performance of primary health care facilities in Mombasa County?

iii. What is the influence of prioritization of funds spent on performance of primary health care facilities in Mombasa County?

iv. What is the influence of funds allocation on performance of primary health care facilities in Mombasa County?
1.6 Significance of the Study
This study provides evidence based information to aid the County in addressing financing factors affecting performance of primary health care facilities. It helps the county realize untapped sources of funding such as NHIF and further serves a critical role in providing information to form rational foundation for policy making in primary health care financing by county governments. The results of the study can be utilized to help decision-makers in county governments, particularly at the management level in formulating or revising policies to enhance efficient and effective financing of primary health care. Furthermore, the findings of the study are important to the national parliament and county assemblies in formulating legislations to support primary health care at the counties.

The study benefits the academic world as it adds to the existing knowledge and understanding of the effect of financing factors on the performance of primary health care facilities. The study is of great importance to future researchers and academicians since it provides baseline information for further studies. In addition, due to the limited existing studies on this field, not only results but also research approach and survey process of this research is a significant reference for other studies.

1.7 Scope of the Study
The study focused on the health financing factors affecting performance of primary health care facilities and was conducted in Mombasa County. It targeted health care providers and members of the health facility management committees in primary health care facilities in the six sub counties. The study was conducted between January and February 2018.

1.8 Limitation of the Study
The study focused only on one health building block, health financing. The other six building blocks; leadership and governance, service delivery, health workforce, health products vaccines and technology as well as health information system, were not within the scope of this study. Therefore, the findings of this study give a narrow view on factors influencing the performance of service delivery at primary health care facilities in Mombasa County. The study has addressed this limitation by expressly highlighting the scope of the study to prevent possible inaccurate generalizations of the study findings.

In carrying out this study it was anticipated that some of the respondents would not be willing to provide the required information. Therefore other studies may consider carrying out
research on other building blocks to find out at what extent they would affect the performance of primary health care facilities.

Considering the expansive geographical locations of Mombasa County primary health care facilities; was expected to pose a challenge in data collection as regards time. Research assistants were used to minimise the challenge.
CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction
This chapter looks at the theoretical review and empirical review of literature related to the subject of study in order to identify gaps to be filled by the current study. Based on the reviewed literature the researcher develops a conceptual framework to bring out the relationship between the main concepts of the study.

2.2 Theoretical Review
This research is grounded on Systems Theory by Kataz and Khan. These theories are interrogated within the health-care indicators.

2.2.1 Systems Theory
According to systems theory by Kataz and Khan (1966) a system is a collection of parts unified to accomplish an overall goal. If one part of the system is removed, the nature of the system is changed as well. A system is also open and interacts with the environment. A system can be looked at as having inputs (e.g., resources such as raw materials, money, technologies, and people), processes (e.g., planning, organizing, motivating, and controlling), outputs (products or services) and outcomes (e.g., enhanced quality of life or productivity for customers/clients, productivity). Systems share feedback among each of these four aspects of the system (Mele, 2010). An organization depends on its supporting environment for continued inputs to ensure its sustainability and processes these inputs through the recurring and patterned activities and interactions of individuals to yield outputs.

The use of this theory to back this study can be justified from its ability to explain the role of health financing system in raising adequate funds for healthcare service delivery. The health financing system of PHC facilities in Kenya, and Mombasa County in particular, is composed of many components and affected by various factors which have to be considered as a whole in order to enhance performance of healthcare service delivery. Factors like sources of health care financing, financing challenges, prioritization of funds and allocation of funds should be addressed as part of a system and not in isolation in order to enhance healthcare service delivery.
2.3 Empirical Review
This sub section reviews past studies from within and outside Kenya focusing on matters of health finance and service delivery. The empirical review is conducted with an understanding that in Kenya, revenue for financing the health sector is collected mainly from pooled and un-pooled sources. The pooled sources are collected from budgetary allocation, direct and indirect taxation as well as donor funding.

2.3.1 Sources of Health Financing
The health sector in Kenya relies on several sources of funding: public (government), private firms, households and donors (including faith based organizations and NGOs) as well as health insurance schemes (GoK, 2015). Health facilities in Mombasa County receive funding from a variety of sources, notably, government funding, Health Sector Services Fund (HSSF) – including funds for free maternity services and compensation for the abolition of user fees for primary services, on- and off-budget, Hospital Management Services Fund (HMSF), off-budget donor funding, NHIF payments and also user fees collected and used at health facility level (World Bank, 2014). According to the World Bank, the multiple sources of funding, on- and ‘off-budget’ undermine the comprehensiveness of the health budget, and are difficult to track.

Patcharanarumol and Tangcharoensathien (2014) the type of collecting entity is closely linked to the type of contribution mechanism. For example, taxes are collected by government organizations; mandatory health insurance contributions may be collected by a government, parastatal or private organization; and private health insurance contributions are collected by a private organization, which may be for-profit or not-for-profit. The type of collecting entity can have an impact on the proportion of collectable revenue actually collected. For example, in countries where the government is not seen as accountable to the population or has not gained its confidence, tax evasion can be high. In the case of mandatory insurance, if the government does not enjoy widespread support or if citizens do not trust the government to act in their best interests, it may be preferable for the mandatory insurance to be managed by a parastatal or even a private not-for-profit organization.

Hyun et al., (2015) conducted a study on health financing on the performance of health care in Tokyo, Japan. According to the study, the way a country finances its health care system is a key determinant of the health of its citizenry. Selection of an adequate and efficient method(s) of financing in addition to organizational delivery structure for health services is
essential if a country is set to achieve its national health objective of providing health for all.

Health care in Japan is financed by tax revenue, out-of-pocket payments, donor funding, and health insurance (social and community). However, achieving successful health care financing system continues to be a challenge in Japan. The study examined the different financing mechanisms that have been used in Japan, including the National Primary Health Care Development Fund proposed for increasing the resource allocation to primary health care. The study concluded by recommending the need for Japan to explore and strengthen other mechanisms of health system and shift focus from out-of-pocket payments, address the issues that have undermined public health care financing in Japan, improve on evidence-based planning, and prompt implementation of the National Health Bill when signed into law.

Lombardi (2014) examined how public hospitals in Yugoslavia are financed, and the challenges facing the financing modes adopted. To achieve the objectives of the study, one major public healthcare institution in Yugoslavia became the main focus targeting 384 respondents. The findings of the study revealed that the main sources of financing the public healthcare institution are government subvention, internally-generated funds and donor-pooled funds.

The studies have identified several sources of financing healthcare and have underscored the importance of identifying and adopting effective, efficient and equitable revenue sourcing mechanism in determining the amount of revenue collected and the impact on service delivery. However, the studies were not conducted in Kenya and did not focus on primary healthcare financing. In addition, the studies did not examine the relationship between sources of health financing and performance of primary healthcare facilities. This study sought to address these gaps by establishing the influence of sources of health financing on performance of primary health care facilities in Mombasa County, Kenya.

2.3.2 Financing Challenges

Gikonyo (2011) conducted a study in the Ministry of Medical Services on the challenges facing the implementation of public healthcare financing strategies in Kenya. Data was analysed using content analysis and the study identified structure, organizational system and procedures, culture and traditions, technology, leadership, human resources and funding as the main challenges. The study concluded that implementation of public healthcare financing strategies is faced by many bottlenecks and that there was a possibility that Kenya may not have adopted the most appropriate strategy for financing her healthcare.
According to the World Health Organization report (2015), devolved units like county
governments have comparatively limited resources and greater difficulty in accessing to
funding sources, they are also more dependent on support from the central government, have
low income sources from the taxes they levy at county level, have limited innovation in
sourcing for more funds, have less adequate budget control system, employ less or non-
experienced personnel and lack economies of scale in their operations.

Kiplagat (2015) study on determinants of health insurance choice in Kenya conducted in
Kenyatta National Hospital targeting the senior managers. Findings show that, based on the
principle of individual responsibility and affordability Kenya has developed a unique
healthcare model that has produced outstanding health outcomes per dollar spent. Available
data shows that healthcare financing in Kenya is nevertheless highly dependent on individual
income levels despite the presence of substantial government subsidies. Moreover, the key
medical care instruments, NHIF and government subsidies, are heavily biased towards
inpatient treatment and there is little cover for expensive outpatient treatments.

A study by Stenberg (2015) titled responding to the challenge of resource mobilization
mechanisms for raising additional domestic resources for health conducted in Israel targeting
patients who accessed public hospitals showed that lack of financial resources for healthcare
projects in both developed and less developed countries is not the only challenge facing
projects implementation but the giant challenge lies on how the people involved in handling
these finances are at the capacity of managing the little finances for the effective
accomplishment of the intended health care projects.

The previous studies reviewed above highlight several key issues relevant to the current study
including insufficient funding of health care in devolved units, continued reliance on out-of-
pocket payments to finance health care services, limited resource availability, delay in receipt
of funds from the national government and lack of proper risk pooling mechanisms which are
believed to greatly influence the quality of delivery of services at primary health care
facilities. However, the studies did not examine the relationship between financing challenges
and performance of primary healthcare facilities. The current study sought to address this gap
by assessing the influence of financing challenges on performance of primary health care
facilities in Mombasa County.
2.3.3 Prioritization of Funds with Respect to Primary Health Care

Patcharanarumol and Tangcharoensathien (2014) conducted a study focusing on impact assessment on Botswana’s health financing system describing how it carries out the various functions to achieve its objectives and determine whether achievements have had any impact on the performance of the general health system. The study was based on a desk review of policy and budgetary documents and augmented with personal experience of Botswana’s health sector. Results show that Botswana’s health financing system carries out its functions primarily through the Ministry of Health. Revenue collection mainly occurs domestically via general and earmarked taxes. Pooling arrangements within the context of national funds tend to focus on drug provision and Government purchasing is mainly passive. However, pooling strategies seem to have led to demand-side misuse that highlight and perpetuate supply-side constraints.

Studies by Montalto and Spiegler (2013) and Rafei (2014) targeting health care providers explored whether financial incentives for healthcare providers raise productivity and how they may affect equity in utilization of healthcare services and responsiveness to patients’ needs. The thesis argues that, as performance-based financing (PBF) focuses on supply side barriers; it may lead to efficiency gains rather than equity improvements. It uses data from a randomized controlled impact evaluation in Rwanda to generate robust evidence on performance-based financing and address a gap in the knowledge on its unintended consequences. Statistical methods are used to analyse four aspects: the impact on health workforce productivity; the impact on health workforce responsiveness; the impact on equity in utilization of basic health services; and, the impact on spatial disparities in the utilization of health services. Findings indicate that performance based financing has a positive impact on efficiency.

A study by Mwabu et al., (2015) conducted in Indonesia targeting health ministry shows that the country is faced with the double-edged sword of having both a large uninsured population and rapid health care cost inflation. The Indonesia government has committed to increasing government funding for health care by as much as 1–1.5 percent of its gross domestic product (GDP) (about $25–$38 billion) over the next several years, directed to providing universal basic health care. Between 2006 and 2007 alone, the central government increased its health budget by 87 percent. However, the study concludes that Indonesia is at a loss as to how to transform its new money into efficient and effective health care.
The study by Meessen *et al.*, (2015) was conducted in Romania; the study highlighted the linkage between the performance of the health system and the total health spending for selected countries from Central and Eastern Europe. Regression analysis was used based on cross-section data in order to explain the differences in health expenditure and their implication on the system efficiency. The study findings indicated that there is empirical evidence that shows that these resources are used inefficiently. Despite the increasing resources allocated to the health sector, statistical analysis shows that health system efficiency, as measured by under-5 (child) mortality rate, is still low.

The studies above highlight the need to prioritize financing in health in order to ensure efficiency of service delivery. Prioritization ensures that limited finances are allocated in a cost-effective way to various health needs in order to increase efficiency. However, the studies were not conducted in Kenya and did not focus on primary healthcare facilities. In addition, the studies did not examine the relationship between prioritization of funds and performance of primary healthcare facilities. This study sought to address these gaps by determining the influence of prioritization of funds spent on performance of primary healthcare facilities in Mombasa County.

### 2.3.4 Funds Allocation and Performance

A study by Degenholtz and Gazmararian (2011) on identifying elderly at greater risk of inadequate health literacy in Ethiopia targeting health officials in the ministry indicated that devolution first took place at regional level and was further extended to the district, or woreda, level in 2002. Ethiopia adopted a four-tiered system of Health care facilities which consisted of national referral hospitals, regional referral hospitals, district hospitals and, lastly, primary healthcare facilities. Through this devolution mechanism, districts received block grants from regional government and they, in turn, were entitled to set their own priorities and determine further budget allocation to healthcare facilities based on local needs. Consequently the district levels were responsible for human resource management, health facility construction and supply chain processes. Impressive improvement of service delivery was observed despite some challenges in the initial stages.

Melek (2013) study on the impact of budget participation on managerial performance via organizational commitment which was a comparative study between public and private hospitals funded by NGOs, reported that devolution of health centres occurred only when there was good governance, demonstrating that it was capable of managing the health centre.
It was also a requirement that, at least half of the health centres’ staff involved were willing to transfer to Local Authority employment. The local authority became responsible for primary health service delivery through health centres. The plan made it mandatory for the day-to-day operations the responsibility of the Local authority, including financial and human resource management. The Ministry of Health continued to be responsible for technical policy, supervision, training and regulation of health professionals. The involvement of the majority of the staff in decision making made health devolution workable.

A study by Barzelay (2015) in Armenia on new public management targeting 65 health workers from three cadres which include management, middle level management and support staff. The study document a number of measures taken to work with the available funds in order to improve health care. Central to these reforms have been the separation of purchasing from provision, money following patients as opposed to historical provider budgets, and the use of incentive-based payment systems. Many of these incentive based payment systems rely on capitation and managed care, case-based payments to hospitals, and related mechanisms to ensure a more equitable sharing of financial risk between the purchaser and provider. This issue has taken on increased importance because donors want to be assured that new funding to scale up services in low-income countries is being used efficiently. No one wants to pour money into inefficient health systems. Moreover, the efficiency of a system has important financial implications for long-term fiscal sustainability and for governments to find the “fiscal space” in highly constrained budget settings for large increases in public spending. Indeed, health financing policies (collection, pooling, and purchasing) must be developed in the context of a government’s available fiscal space.

According to Noor (2014) in a study done in Indonesia, based on the Ministry’s staffing norms and standards, shows that cost-containment was a problem in that the benefit package of an insurance scheme only covers hospital services. If primary care services are not included in the package, patients tend to go directly to a hospital or a medical specialist for a health problem that could have been dealt with at the primary care level at a much lower cost. The study concludes that there is need for the health services to be managed and organized differently. The Government of Guyana has expressed its commitment to health system reform to increase equity, efficiency and quality of health services. The main proposals include: decentralization of the management of health care delivery, through the creation of Regional Health Authorities; appointment of Hospital Management Boards and Committees
for the regional and district hospitals, respectively; and upgrading managerial skills at all levels. Changes in the financing of the health care system are also envisaged. However, the studies had not been conducted in Kenya and the relationship between allocation of funds and performance of primary healthcare facilities had not been examined. The current study sought to address these gaps by examining the influence of funds allocation on performance of primary health care facilities in Mombasa County.

2.4 Conceptual Framework
A conceptual framework is a postulated model which classifies the study variables into dependent and independent variables and highlights the relationship between them (Bryman & Bell, 2015). For this study the dependent variable is performance of primary health care facilities in Mombasa County while the independent variables are sources of health financing, financing challenges, prioritization of funds and allocation of funds. The conceptualized relationship between the variables of interest is as shown in Figure 2.1

**Figure 2.1: Conceptual Framework**
2.5 Summary
According to the reviewed literature, the formulation of health financing systems ensures effective health service delivery. However, there is often a mismatch between health financing systems and health service delivery thus creating a gap. Several reasons for this mismatch include poor leadership, inadequate resources, unclear accountability structures, and shortage of workforce. Different health institutions as well as different counties face unique challenges at different times and so there is no one best remedy or solution to these challenges. Empirical studies on its benefits in other countries have produced mixed results. In Kenya, various studies have been done in the field of health system management focusing on different counties. Whereas many of these were case studies like the current study, none of them focused on assessment of health financing factors affecting the performance of the public primary health care facilities in Mombasa County. The country adopted the new constitution with devolution as a form of decentralization of political, administrative and fiscal power to the counties, a fairly new governance strategy in Kenya. Whereas this gives an overall national picture, there is no specific study done to tease out the unique circumstances of individual counties, specifically the public primary health care facilities in Mombasa County. The study thus aimed at filling this gap.
CHAPTER THREE

METHODOLOGY

3.1 Introduction
The chapter looks at the methods used in the assessment of health financing factors affecting performance of public primary health care facilities in Mombasa County, Kenya. This chapter is structured into research design, population of study, sample size, data collection and analysis.

3.2 Research Design
The study adopted a cross-sectional research design. Kothari and Gaurav (2014) describes cross sectional survey design as the observational study that analyses data from a population or representative subset at a given point in time. The rationale for the adoption of this approach was based on the ability of the design to capture information based on data collected in a single point in time which can help to prove and/or disprove assumptions on financing factors affecting performance of primary health care facilities in Mombasa County. The approach is not costly to perform and does not require a lot of time. According to Kothari and Gaurav (2014) the cross-sectional research design allows data to be collected at one point in time as opposed to a longitudinal study where data is collected over a period of time. Katz (2006) contends that survey designs reveal relations between variables that are not manipulated. The study utilized questionnaires for data collection.

3.3 Study Variables
The dependent variable for this study was performance of primary health care facilities and the independent variables were health financing factors including sources of health financing, prioritization of funds spent, funds allocation and financial challenges.

3.4 Study Area
The study was carried out in Mombasa County. The County has six sub counties and five constituencies with an approximate population of 1.3 million people (Kenya Population Housing Census, 2009). The county public health facilities comprises of 1 medical clinic, 39 levels 2 and 3 health facilities, and 4 level 4 hospitals. The primary health care facilities are 90.7% of the total number of public health facilities. The choice of the study area was motivated by the findings of the World Bank (2014) in a case study on health financing which revealed that information asymmetry for budgetary purposes and the multiple sources
of funding in Mombasa County could result in fragmented financing mechanisms which may create incentives working against the principle of improved health care performance. This study therefore sought to assess health financing factors affecting performance of primary health care facilities in Mombasa County.

3.5 Target Population
The primary target population for the study was 820 health workers in public primary health care facilities in Mombasa County (County Annual Facility Management Report, 2016). This group was chosen as the primary target population because they are involved in the daily operations of the facilities and therefore pose first-hand experience and knowledge on health care financing at the primary health care facilities. The health workers are distributed across 39 public primary health care facilities within the six sub-counties in Mombasa County. Data collected from this population formed the primary basis for analysis in the study.

The secondary target population comprised of 312 health facility management committee members in public primary health care facilities in Mombasa County (County Annual Facility Management Report, 2016). Levels 2 and 3 health facilities are managed through Facility Management Committees. The health facility management committee in each of the 39 public primary health care facilities is made up of 9 elected members. Membership of these committees includes facility in charge (who is the secretary to the committee and ex-officio), area Member of County Assembly, ward administrator, religious leader, youth representative, community representative, business representative, women representative and disability representative. The committee meets monthly and approves facility budget and procurement plans. They are responsible for resource mobilization and ensuring community needs are met. They are therefore conversant with the financial management in the facilities.

Targeting health workers and health facility management committee members was justified by the fact that they are directly involved in the primary health care service provision. Moreover, they are the principle controllers of the facilities affairs and their duties include ensuring that the facilities have adequate requirements for good performance in provision of quality primary health care. The distribution is as shown in Table 3.1.
Table 3.1: Target Population

<table>
<thead>
<tr>
<th>Sub-County</th>
<th>Health Workers</th>
<th>PHC Management Committee Members</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mvita</td>
<td>77</td>
<td>15</td>
<td>92</td>
</tr>
<tr>
<td>Nyali</td>
<td>89</td>
<td>35</td>
<td>124</td>
</tr>
<tr>
<td>Changamwe</td>
<td>85</td>
<td>42</td>
<td>127</td>
</tr>
<tr>
<td>Jomvu</td>
<td>127</td>
<td>91</td>
<td>218</td>
</tr>
<tr>
<td>Kisauni</td>
<td>351</td>
<td>98</td>
<td>449</td>
</tr>
<tr>
<td>Likoni</td>
<td>91</td>
<td>31</td>
<td>122</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>820</strong></td>
<td><strong>312</strong></td>
<td><strong>1132</strong></td>
</tr>
</tbody>
</table>

Source: Mombasa County Human Resource Records (2017)

3.6 Inclusion and Exclusion Criteria

3.6.1 Inclusion Criteria

All health care workers attached to Mombasa County public primary health care facilities and facility management committee members physically present at the health facilities during the data collection period. They must have been attached to the facilities for more than six months and willing to participate in the study.

3.6.2 Exclusion Criteria

Persons present at the health facilities who were not health care workers or members of the health management committee were excluded from the study. Health care workers and management committee members who had worked at the facility for six months or more and were not present at the time of questionnaire drop in were excluded. It also excluded health workers and health management committee members who had not worked at the facility for the previous 6 months. The study also excluded non-consenting health care workers or health management committee members.

3.7 Sampling Design

3.7.1 Sample Size Determination

Sampling is the process of selecting a subset of cases in order to draw the conclusion of the entire set (Kothari and Gaurav, 2014). The sampling frame for this study consisted of all health workers and members of the management committees in the public primary health
facilities in Mombasa County. The study adopted Yamane (1967) formula at 95% confidence level (0.05 level of significance).

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

Where \( n \) = Sample size; \( N \) = Population (820 health workers or 312 facility management committee members); and \( e \) = Precision rate (0.05)

\[
\frac{1132}{1 + 1132(0.05)^2} = 295
\]

The sample size was proportionately apportioned to the two sample groups, 214 health workers selected from the primary target population and 81 facility management committee members selected from the secondary target population. The proportion of the sample size to be selected from each of the 6 sub-counties was calculated using the following formula: Sub-county proportional sample size = (Total Sample Size/Total Population Size) x Sub-county Population Size. The distribution of the sample is shown in Table 3.2.

<table>
<thead>
<tr>
<th>Sub-County</th>
<th>Population Size</th>
<th>Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Health Workers</td>
<td>Health Workers</td>
</tr>
<tr>
<td>Mvita</td>
<td>77</td>
<td>20</td>
</tr>
<tr>
<td>Nyali</td>
<td>89</td>
<td>23</td>
</tr>
<tr>
<td>Changamwe</td>
<td>85</td>
<td>22</td>
</tr>
<tr>
<td>Jomvu</td>
<td>127</td>
<td>33</td>
</tr>
<tr>
<td>Kisauni</td>
<td>351</td>
<td>91</td>
</tr>
<tr>
<td>Likoni</td>
<td>91</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td><strong>820</strong></td>
<td><strong>214</strong></td>
</tr>
</tbody>
</table>

### 3.7.2 Sampling Procedures

The selection of the health workers and health facility management committee members to be included in the study samples was done through quota sampling method. Quota sampling is a method of gathering representative data from a group (Saunders, M., Lewis, P. & Thornhill, A., 2012). Application of quota sampling ensured that sample group represented the
population chosen by the researcher. The study adopted this sampling method to ensure that
the primary health care facilities across the six sub-counties in Mombasa County are
adequately represented in the sample of the study. Therefore, 6 quotas namely Mvita, Nyali,
Changamwe, Jomvu, Kisauni and Likoni sub-counties were identified.

The researcher allocated weights to the various sub-counties based on the proportion of
health workers and health management committee members in the sub-counties. The
proportion of the sample size allocated for each of the sub-counties was based on the weights
allocated. After obtaining the sample size for each sub-county, the study adopted convenience
sampling method to select the health workers and facility management committee members
who were included in the study. The researcher went round the health facilities across the
different sub counties explaining the purpose of the study to various health workers and
facility management committee members and selecting those who gave their consent to
participate. This process was repeated until the size of each subgroup was obtained.

3.8 Data Collection
3.8.1 Data Collection Tools
The study used semi-structured questionnaires to collect data from the health workers and
health facility management committee members (Appendix II). The questionnaire was used
because of its economy, it ensures anonymity, permits use of the standardized questions and
has uniform procedures, provides time for subjects to think about responses and it is easy to
score (Singh, 2006). The questionnaire was made up of closed ended and open ended
questions to avoid being too rigid and quantify data especially where structured items were
used (Kothari & Gaurav, 2014). This method aided the study to collect enough information,
which otherwise would have been impossible by using interviews and observations.

The questionnaires were structured in five major sections including:- Demographic
Characteristics; Sources of Health Financing in Primary Health Care Facilities; Financing
Challenges Affecting Health Service Delivery in Primary Health Care Facilities;
Prioritization of Allocations in Primary Health Facilities; Allocation of Funds in Primary
Health Care Facilities; and Performance of Service Delivery in Primary Health Care Facilities

3.8.2 Data Collection Procedure
Data collection was done by the researcher with the help of two research assistants with
experience in data collection. The two research assistants were final year undergraduate
students and were recruited from Kenya Methodist University, Mombasa Campus. They were further trained on how to administer and fill in the questionnaires for the purpose of assisting in data collection. The questionnaires were self-administered to the sample participants using drop and pick method. Each participant was given a questionnaire at their respective health facility. The researcher and the assistants went round the health facilities across the different sub-counties talking to various health workers and facility management committee members. Clear information about the research was given to allow them make informed decision regarding their participation in the study. Those who agreed and consented to participate in the study were given the questionnaire to fill and hand back to the research assistants. This process was repeated until the sample size of each group was obtained. This was done during the regular break times in the day of 1-2pm and 4-5 pm and it took one week to collect the data across the six sub-counties in Mombasa County.

3.8.3 Pretesting of Data Collection Tool

Pre-testing was done at Mvita Health Centre and Kisauni Dispensary to test the clarity, validity of the questionnaires and the ease of using them. The health centre and the dispensary were randomly picked. The pre-test was done using a sample of 15 health workers and 5 health facility management committee members who were excluded from the final study to prevent bias. According to Cooper and Schindler (2003), the pre-test group can range from 5 to 25 subjects but it does not need to be statistically selected. The data collected out of the pre-test was not included in the actual study. The procedures used in pre-testing the questionnaires were identical to those that were used during the actual study. The data collected in the pilot study was analysed to determine both reliability and validity of the research questionnaire.

Validity is posited to be the extent to which the interpretations of the results of a test are warranted. Reliability on the other hand is a measure of how consistently an instrument can collect similar data when administered to different populations and/or at different times. The study subjected the questionnaire to content validity measure through the use of two groups of experts. One group was requested to assess the instrument (Questionnaire) to be used to measure the response of the study from the sample population while the other group determined whether the set objectives represented the concept of the study (Mugenda & Mugenda, 2003). The outcome was adjusted to fit data collection process.
Internal consistency was measured by Cronbach's alpha (Cronbach, 1951), the alpha was used to test the internal consistency of mathematics self-concept and mathematics self-efficacy in the present study. The Internal consistency was used to judge the set reliability (Hair, et al., 1998). Therefore, to test the reliability of the instruments, the Cronbach alpha measure of adequacy was conducted on 15 and 5 health workers and facility management committee workers respectively at Mvita Health Centre and Kisauni Dispensary prior to the final data collection. The reliability threshold was alpha ≥ 0.7. The reliability test performed on the study instruments during the piloting stage yielded a reliability index as in Table 3.3.

Table 3.3: Reliability Index

<table>
<thead>
<tr>
<th>Factors</th>
<th>Health Workers</th>
<th>Committee Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sources of Health Financing</td>
<td>0.733</td>
<td>0.764</td>
</tr>
<tr>
<td>Financing Challenges</td>
<td>0.707</td>
<td>0.721</td>
</tr>
<tr>
<td>Prioritization of Funds</td>
<td>0.751</td>
<td>0.703</td>
</tr>
<tr>
<td>Allocation of Funds</td>
<td>0.794</td>
<td>0.782</td>
</tr>
<tr>
<td>Performance of PHC Facilities</td>
<td>0.718</td>
<td>0.733</td>
</tr>
<tr>
<td><strong>Overall</strong></td>
<td><strong>0.722</strong></td>
<td><strong>0.741</strong></td>
</tr>
</tbody>
</table>

Results presented in Table 4.2 show that questionnaires yielded a reliability index of more than 0.7 in all the sections for both sample groups. In general the questionnaire filled by health workers yielded a reliability index of 0.722 while the questionnaire filled by health facility management committee members yielded a reliability index of 0.741. Any reliability of 0.7 and above was taken to depict an agreeable level of reliability for the instruments, thus the items of the questionnaire were deemed reliable (Williams et al., 2012). Thus, it was acceptable to proceed with the analysis.

3.9 Ethical Considerations

Ethical considerations that this study addressed include confidentiality, anonymity and avoidance of deception since these are very important issues in social research. For the purposes of this study, permission was first sought from the Maseno University Ethics Review Committee (Appendix IV). Informed consent (Appendix I) was obtained from the sampled health workers and health facility management committee members for participation in the study and confidentiality guaranteed to them through assurance that the information gathered from the study would only be used for academic purposes. Permission to collect
data (Appendix III) was obtained from the Department of Health Services in Mombasa County, the approval allowing entry into the public primary health care facilities.

3.10 Data Analysis and Reporting

The researcher checked for the completeness of the questionnaires immediately after they were returned. The excel software was used to capture and store the raw data from the questionnaires. Data from the two sample groups, health workers and health facility management committee members were stored separately and treated independently throughout the process of analysis. Data from the health workers were the primary basis for analysis while data from the facility management committee members provided secondary support to the findings.

The raw data was then cleaned and coded for ease of analysis. Thereafter, the cleaned data was exported to the Statistical Package for Social Sciences (SPSS) version 22 for analysis. Data collected was analysed using both quantitative and qualitative methods. Qualitative data was derived from the open ended questions in the questionnaire. The responses were assessed thoroughly and organized into various categories, distinct from each other and the relationship among the identified categories established. Once the themes, categories and patterns were identified, narratives were developed, frequencies and percentages used to summarize the data.

Quantitative data was analysed using both descriptive and inferential statistics. Frequencies, percentages, mean and standard deviation were used to summarize the responses of the Likert-type questions and results were presented using tables. In addition, multiple regression model, at significance level of 0.05, was used to assess the predictive power of the financing factors on the performance of service delivery of PHC facilities in Mombasa County.

\[ Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon \]

Where: \( Y \) = Performance of PHC facilities;
\( \beta_0 \) = constant;
\( \beta_i \) = regression coefficients;
\( X_1 \) = Sources of Health financing;
\( X_2 \) = financing challenges;
\( X_3 \) = prioritization of funds;
\( X_4 \) = allocation of funds; and
\( \varepsilon \) = error term.
CHAPTER FOUR
DATA ANALYSIS AND RESULTS

4.1 Introduction
This chapter presents an analysis of data obtained from the study as set out in the objectives. The study findings are presented to underscore an assessment of health financing and its effects on performance of public primary health care facilities in Mombasa County, Kenya. Data for the study was collected from health care workers in Mombasa County public primary health care facilities as well as facility management committee members present at the health facilities.

4.2 Response Rate
The response rate for health workers was 195 (91.2%) while for facility management committee members were 79 (97.5%). According to Mugenda and Mugenda (2003) a response rate of 50% or more is adequate to represent the views of the target population.

4.3 Demographic Characteristics of Respondents
A review of respondents’ demographics was undertaken based on the characteristics of health care workers and facility management committee members responding to the questionnaires. Variables considered included age, gender, level of education, and number of years worked. Findings are shown in Table 4.1 and Table 4.2.
### Table 4.1: Health Workers’ Demographic Characteristics

<table>
<thead>
<tr>
<th>Demographic Characteristic</th>
<th>Category</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (Years)</td>
<td>21-30</td>
<td>39</td>
<td>14%</td>
</tr>
<tr>
<td></td>
<td>31-40</td>
<td>126</td>
<td>46%</td>
</tr>
<tr>
<td></td>
<td>41-50</td>
<td>83</td>
<td>31%</td>
</tr>
<tr>
<td></td>
<td>51-60</td>
<td>21</td>
<td>8%</td>
</tr>
<tr>
<td></td>
<td>&gt; 60</td>
<td>2</td>
<td>1%</td>
</tr>
<tr>
<td>Gender</td>
<td>Male</td>
<td>127</td>
<td>47%</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>144</td>
<td>53%</td>
</tr>
<tr>
<td>Education Level</td>
<td>Secondary</td>
<td>44</td>
<td>16%</td>
</tr>
<tr>
<td></td>
<td>College</td>
<td>123</td>
<td>45%</td>
</tr>
<tr>
<td></td>
<td>University</td>
<td>104</td>
<td>38%</td>
</tr>
<tr>
<td>Duration of Service</td>
<td>6 Months-1year</td>
<td>67</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td>1-5 Years</td>
<td>90</td>
<td>33%</td>
</tr>
<tr>
<td></td>
<td>6-10 years</td>
<td>45</td>
<td>17%</td>
</tr>
<tr>
<td></td>
<td>11-15 years</td>
<td>33</td>
<td>12%</td>
</tr>
<tr>
<td></td>
<td>16-20 years</td>
<td>31</td>
<td>11%</td>
</tr>
<tr>
<td></td>
<td>Above 21 years</td>
<td>5</td>
<td>2%</td>
</tr>
</tbody>
</table>

Data on health workers’ age show that slightly less than a half of the respondents (46%) were aged between 31–40 years, while only 1% were above 60 years of age. On gender distribution, 47% were males and 53% females. The results also indicate that majority (84%) of the health workers were either college or university graduates while only 16% had secondary level of education. Lastly, the study established that over half (58%) of the health workers had worked for less than five years.
Data on committee members’ age show that more than a half of the respondents (56%) were aged between 41-50 years, while only 4% were between 21-30 years of age. On gender distribution, 61% were male and 39% female. The results also indicate that majority (83%) of the committee members were either college or university graduates while only 17% had secondary level of education. Lastly, the study established that majority (72%) of the committee members had served in the committee between 1-3 years.

4.4 Sources of Health Financing in Public Primary Health Facilities in Mombasa County

The study set out to establish the sources of health financing in public primary health facilities in Mombasa County. Data obtained specific to the requirements of the objective were as captured in Figure 4.1.
Data obtained illustrated that facility improvement fund (54%) was the main source of health financing thus its highest percentage rating by the respondents. It was closely followed by payment for service rendered (37%), maternity disbursement (30%) and partners/donors assistance (15%). This implies that a majority of health facilities survive financially on facility improvement fund.

4.4.1 Out-of-Pocket Expenditure

The study established that out of pocket payments for services rendered constituted a higher proportion of health expenditure by the patients. Specifically, 40.67% of public primary health care facilities surveyed reported over 51% out of pocket expenditure (30.22% and 10.45% reported 51-75% and 76-100% respectively). This information is illustrated by Figure 4.2.
4.4.2 Adequacy of Sources of Health Financing

On whether revenue collected in the health facilities was sufficient to run day to day activities of those respective facilities effectively, the study established that revenue collected could not be sufficient according to a majority of the respondents. Specifically, more than three quarters of the health workers (86%) were categorical that revenue collected was not sufficient to run their respective primary health care facilities. This was supported by 77% of the health committee members who reported that the funding for the primary health care facilities was insufficient. Majority (82%) of the facility management committee members indicated that the current sources of health financing were not reliable in sustaining the operations of the primary health care facilities.

In probing further the adequacy of the sources of health financing, health workers were asked to respond to a set of statements. Findings were as summarised in Table 4.3. (Key: (1) Strongly disagree (2) Disagree (3) Not sure (4) Agree and (5) strongly Agree). The range of each point in the scale was obtained by dividing the difference between the highest point and the lowest point with the number of points in the scale ([5-1]/5 = 0.8). Therefore, mean scores of 1 to 1.8 represent a response of “Strongly Disagree”, 1.81 to 2.6 represent “Disagree”, 2.61 to 3.4 represent “Neutral”, 3.41 to 4.2 represent “Agree” and the mean scores of above 4.21 to 5 represent a response of “Strongly Agree”.

![Figure 4.2: Percentage of Out-of-pocket Expenditure](image)

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Table 4.3: Adequacy of Revenue Collected from different Sources

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Unknown</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Mean</th>
<th>Std. Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Health Facility has registered surplus of revenues over expenses for the last 3 financial years (RA1)</td>
<td>25 (9%)</td>
<td>118 (44%)</td>
<td>47 (17%)</td>
<td>58 (21%)</td>
<td>23 (8%)</td>
<td>2.76</td>
<td>1.14</td>
</tr>
<tr>
<td>The Health Facility is projected to report surplus of revenue over expenses in the next few years (RA2)</td>
<td>19 (7%)</td>
<td>129 (48%)</td>
<td>84 (31%)</td>
<td>24 (9%)</td>
<td>15 (6%)</td>
<td>2.58</td>
<td>0.94</td>
</tr>
<tr>
<td>The health facility has mechanisms to adequately handle her debts (RA3)</td>
<td>14 (5%)</td>
<td>117 (42%)</td>
<td>67 (25%)</td>
<td>52 (19%)</td>
<td>19 (7%)</td>
<td>2.77</td>
<td>1.06</td>
</tr>
<tr>
<td>The suppliers/service providers of the health facility are paid full amounts owing to them and in a timely manner (RA4)</td>
<td>20 (7%)</td>
<td>136 (50%)</td>
<td>41 (15%)</td>
<td>29 (11%)</td>
<td>45 (17%)</td>
<td>2.79</td>
<td>1.23</td>
</tr>
</tbody>
</table>

Overall Mean 2.73 1.10

Source: Field Data (2017/2018)

Data obtained showed that the health workers were indifferent with the statements that their health facility had registered surplus of revenues over expenses for the last 3 financial years (M=2.76, SD=1.14), and that suppliers/service providers are paid full amounts owed to them and in a timely manner (M=2.79, SD=1.23). Similarly, health workers indicated indifference with the statement that their health facilities have mechanisms to adequately handle their debts (M=2.77, SD=1.06). In addition, health workers disagreed that that the health facility was projected to report surplus of revenue over expenses in the next few years (M=2.58,
In general, respondents were indifferent with regard to adequacy of revenue collected from the different sources (M=2.73, SD=1.1).

4.4.3 Mechanisms for Mobilization of Resources
In consideration of the responsibility of facility management committees in mobilization of community resources towards the development of the facilities, the committee members were asked whether they had any mechanisms in place to mobilize more resources to supplement the revenue generated by the facilities. Majority (83%) of the committee members indicated that the committees do not have mechanisms of raising extra resources for the development of the primary health care facilities. The few (17%) who reported their committee to have mechanisms for resource mobilization indicated that they engaged well-wishers and the business community in mobilizing resources.

4.5 Financing Challenges Facing Primary Health Care Facilities in Mombasa County
The second objective sought to establish financial obstacles impeding health service delivery for primary health care facilities in Mombasa County. On inquiry whether the facilities encountered financial challenges, majority (80%) of the health workers acknowledged existence of challenges in financing of primary health care facilities. This assertion was also supported by majority (86%) of the facility management committee members who acknowledged that the facilities were facing challenges in sustaining their day to day operations. The challenges outlined by the health workers are as shown in Table 4.4.
Table 4.4: Financing Challenges Facing PHC Facilities

<table>
<thead>
<tr>
<th>Financing Challenges</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insufficient Budgetary Allocation for general operations</td>
<td>48</td>
<td>22%</td>
</tr>
<tr>
<td>Facilities lack NHIF Accreditation</td>
<td>88</td>
<td>41%</td>
</tr>
<tr>
<td>Insignificant Engagement of local stakeholders in financing the facility</td>
<td>16</td>
<td>7%</td>
</tr>
<tr>
<td>Untimely disbursements of funds &amp; prioritization on investing</td>
<td>33</td>
<td>15%</td>
</tr>
<tr>
<td>Inadequate funds for Health promotion activities</td>
<td>20</td>
<td>9%</td>
</tr>
<tr>
<td>Erratic financing for primary healthcare</td>
<td>53</td>
<td>25%</td>
</tr>
<tr>
<td>Inconsistency in bringing of the HSSF funds or user funds</td>
<td>16</td>
<td>7%</td>
</tr>
<tr>
<td>Poor disclosure of facility work plans and financial requirements to the partners and donors &amp; Inadequate coordination of partners</td>
<td>58</td>
<td>27%</td>
</tr>
<tr>
<td>Lack of prioritization as per facility needs &amp; Lack of involvement of personnel at the operational level in the budget cycle</td>
<td>29</td>
<td>13%</td>
</tr>
<tr>
<td>Lack of needs assessment of each facility and then budget</td>
<td>15</td>
<td>7%</td>
</tr>
<tr>
<td>Poor Equity in funds and resource distribution</td>
<td>23</td>
<td>11%</td>
</tr>
</tbody>
</table>

According to data obtained, lack of NHIF Accreditation by facilities (41%) was the most common challenge followed by poor disclosure of facility work plans and financial requirements to the partners and donors & inadequate coordination of partners (27%), erratic health care financing for public primary health facilities (25%), insufficient budgetary allocation for general operations (22%) and untimely disbursements of funds and prioritization on investing (15%) among others.

On their part, facility management committee members indicated four major financing challenges facing the facilities. Majority (52%) indicated lack of needs assessments by the county, 36% indicated late disbursements of funds, 31% reported lack of alternatives to mobilize more resources, and 19% listed insignificant Engagement of local stakeholders in financing the facility as being the critical challenges.
4.5.1 Impact of Financing Challenges
Findings illustrated that, majority of the health workers (90%) and majority (87%) of facility management committee members were of the view that accessibility, availability and quality of services at the primary health care facilities in Mombasa County were impeded by financing challenges. This is illustrated by the responses of health workers to a set of statements which sought to establish the effect of the challenges on accessibility, availability and quality of the services. Mean scores of 1 to 1.8 represent a response of “Strongly Disagree”, 1.81 to 2.6 represent “Disagree”, 2.61 to 3.4 represent “Neutral”, 3.41 to 4.2 represent “Agree” and the mean scores of above 4.21 to 5 represent a response of “Strongly Agree”. Table 4.5 indicates an overall mean of 3.66 (SD = 1.18) which shows agreement with the statements.

Table 4.5: Financing Challenges Facing PHC Facilities

<table>
<thead>
<tr>
<th>Statements</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Mean</th>
<th>Std. Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>The services offered at the facility are not affordable</td>
<td>53 (20%)</td>
<td>144 (53%)</td>
<td>12 (4%)</td>
<td>41 (15%)</td>
<td>21 (8%)</td>
<td>3.62</td>
<td>1.18</td>
</tr>
<tr>
<td>The health providers at the facility are not enough</td>
<td>48 (18%)</td>
<td>131 (48%)</td>
<td>18 (6%)</td>
<td>49 (18%)</td>
<td>26 (10%)</td>
<td>3.47</td>
<td>1.23</td>
</tr>
<tr>
<td>The health providers at the facility are not highly motivated in service delivery</td>
<td>74 (27%)</td>
<td>132 (49%)</td>
<td>9 (3%)</td>
<td>49 (18%)</td>
<td>7 (3%)</td>
<td>3.80</td>
<td>1.11</td>
</tr>
<tr>
<td>Drugs and essential supplies at the facility are not always available on time and in the right quantity</td>
<td>67 (25%)</td>
<td>143 (53%)</td>
<td>8 (3%)</td>
<td>37 (14%)</td>
<td>16 (6%)</td>
<td>3.76</td>
<td>1.15</td>
</tr>
<tr>
<td>The services offered at the facility are not adequate, comprehensive and well-coordinated</td>
<td>60 (22%)</td>
<td>139 (51%)</td>
<td>11 (4%)</td>
<td>38 (14%)</td>
<td>24 (9%)</td>
<td>3.64</td>
<td>1.22</td>
</tr>
<tr>
<td>Overall Mean</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.66</td>
<td>1.18</td>
</tr>
</tbody>
</table>

Source: Field Data (2017/2018)

4.5.2 Recommendations for Overcoming Financing Challenges
The health workers were asked to give recommendations on the ways to overcome financing challenges in order of priority. 29% of the respondents were of the opinion that facilities
should have independent financial audit, strictly spend as per facility plans and priorities and that financial allocations to be done as per facility needs across the county. Also considered as important is that NHIF should pay in good time (20%) as well as have the facilities NHIF accredited so as to be able to cater for the supplies of laboratories and some of the medicine that are not brought by KEMSA while to avail fund in good time to facilitate the prioritized budget plan (19%) among others. The recommendations are as shown in Table 4.6.

### Table 4.6: Recommendations for Overcoming Financing Challenges

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>To be NHIF accredited facility to be able to cater for the supplies of laboratories and some of the medicine that are not brought by KEMSA, &amp; To avail fund in good time to facilitate the prioritized budget plan</td>
<td>42</td>
<td>19%</td>
</tr>
<tr>
<td>Conduct annual independent audit, &amp; Allocations to be done as priority needs</td>
<td>19</td>
<td>9%</td>
</tr>
<tr>
<td>Facilities to have independent financial audit, Strict expenditures as per facility plans and priorities, &amp; Financial allocations to be done as per facility needs</td>
<td>63</td>
<td>29%</td>
</tr>
<tr>
<td>NHIF involvement, seek more donor support and increased funding, &amp; Allocate more of the funds collected at the facility back to the facility</td>
<td>10</td>
<td>5%</td>
</tr>
<tr>
<td>Do regular support supervision to do needs assessment, Level distribution of funds/resources to all facilities &amp; Put in place a committee to oversee the overall budget allocation for the health sector as a whole.</td>
<td>15</td>
<td>7%</td>
</tr>
<tr>
<td>In charges should be given direct access to finances, Increase drugs to the facilities, &amp; Increase staff.</td>
<td>15</td>
<td>7%</td>
</tr>
<tr>
<td>Put in place a committee to oversee the overall budget allocation for the health sector as a whole.</td>
<td>9</td>
<td>4%</td>
</tr>
<tr>
<td>NHIF should pay facilities in good time</td>
<td>44</td>
<td>20%</td>
</tr>
<tr>
<td>Financial allocations to be done as per facility needs</td>
<td>15</td>
<td>7%</td>
</tr>
</tbody>
</table>

Source: Field Data (2017/2018)
4.6 Prioritization of actual funds spent in the Primary Health Care facilities in Mombasa County

The third objective sought to assess the extent of prioritization of funds allocated to the public primary health care facilities in Mombasa County. An assessment of prioritization of funds returned high rating for very bad (54%) and bad (34%) implying that more than three quarters of the health workers acknowledged that the prioritization of funds was ineffective. This outcome is figuratively illustrated in Figure 4.3.

![Prioritization of Allocated Funds in PHC Facilities](image)

**Figure 4.3: Prioritization of Allocated Funds in PHC Facilities**

This poor rating by health workers on prioritization of allocated funds was also supported by majority (87%) of the facility management committee members, who felt that the distribution of funds to the facilities did not consider the priority needs of the facilities and the interests of the community. In addition, majority (76%) of the committee members felt that community interests are not factored in the allocations made by counties to the facilities. Majority (89%) committee members further confirmed that they have not seen the county government conducting needs assessment at the facilities. This could explain poor prioritization in health financing in Mombasa County. Majority (64%) of the facility management committee members indicated that various stakeholders are not involved in the budget making process at the facilities.
4.6.1 Prioritization of Expenditure Areas
The study examined the prioritization of various expenditure areas, as shown on Table 4.7. Mean scores of 1 to 1.8 represent a response of “Very Low”, 1.81 to 2.6 represent “Low”, 2.61 to 3.4 represent “Neutral”, 3.41 to 4.2 represent “High” and the mean scores of above 4.21 to 5 represent a response of “Very high”. The results indicate an aggregate mean of 2.69 (SD=0.99) implying poor prioritization on expenditure by primary health care facilities within Mombasa County.

<table>
<thead>
<tr>
<th>Expenditure</th>
<th>Very Low</th>
<th>Low</th>
<th>Neutral</th>
<th>High</th>
<th>Very High</th>
<th>Mean</th>
<th>Std. Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infrastructure development</td>
<td>31 (11%)</td>
<td>124 (46%)</td>
<td>52 (19%)</td>
<td>49 (18%)</td>
<td>14 (5%)</td>
<td>2.60</td>
<td>1.02</td>
</tr>
<tr>
<td>Personnel Emolument</td>
<td>11 (4%)</td>
<td>71 (26%)</td>
<td>74 (27%)</td>
<td>112 (41%)</td>
<td>3 (1%)</td>
<td>3.09</td>
<td>0.96</td>
</tr>
<tr>
<td>Recruitment and development of health providers</td>
<td>16 (6%)</td>
<td>86 (32%)</td>
<td>90 (33%)</td>
<td>70 (26%)</td>
<td>9 (3%)</td>
<td>2.88</td>
<td>0.97</td>
</tr>
<tr>
<td>Purchasing of drugs and supplies</td>
<td>37 (14%)</td>
<td>132 (49%)</td>
<td>51 (19%)</td>
<td>43 (16%)</td>
<td>8 (5%)</td>
<td>2.49</td>
<td>1.06</td>
</tr>
<tr>
<td>Health campaign programmes e.g. immunization, sanitation etc.</td>
<td>42 (15%)</td>
<td>121 (44%)</td>
<td>58 (21%)</td>
<td>49 (18%)</td>
<td>2 (1%)</td>
<td>2.38</td>
<td>0.95</td>
</tr>
<tr>
<td><strong>Overall Mean</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2.69</td>
<td>0.99</td>
</tr>
</tbody>
</table>

Source: Field Data (2017/2018)

4.6.2 Recommendations for Overcoming Prioritization Problems
The healthcare workers put forward a number of recommendations to counter prioritization challenges as summarized in table 4.8.
Table 4.8: Recommendations for Addressing Prioritization Problems

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>NHIF accreditation to reduce out of pocket expenditures</td>
<td>121</td>
<td>45%</td>
</tr>
<tr>
<td>Donors/Partners to fund according to facility needs</td>
<td>23</td>
<td>8%</td>
</tr>
<tr>
<td>To allow facilities to charge reasonable amount to cater for basic needs</td>
<td>27</td>
<td>10%</td>
</tr>
<tr>
<td>Involvement of key stakeholders who have social responsibility</td>
<td>6</td>
<td>2%</td>
</tr>
<tr>
<td>Community involvement in planning for financial mobilization</td>
<td>21</td>
<td>8%</td>
</tr>
<tr>
<td>Community involvement in planning for financial utilization</td>
<td>19</td>
<td>7%</td>
</tr>
<tr>
<td>Avail more drugs</td>
<td>16</td>
<td>6%</td>
</tr>
<tr>
<td>Increase more staff and expand facility</td>
<td>24</td>
<td>9%</td>
</tr>
<tr>
<td>Stop staff strikes</td>
<td>11</td>
<td>4%</td>
</tr>
<tr>
<td>Vet and waive only very needy patients</td>
<td>3</td>
<td>1%</td>
</tr>
</tbody>
</table>

Source: Field Data (2017/2018)

Findings isolated NHIF accreditation to reduce out of pocket expenditures (45%) as the most popular recommendation. Other recommendations included allowing facilities to charge reasonable amount to cater for their basic health facility needs (10%), increasing staff and expanding facility (9%), enhanced donors/partners funding according to facility needs (8%), community involvement in planning for financial mobilization (8%) and community involvement in planning for financial utilization (7%) among others.

4.7 Allocation of Funds in Primary Healthcare Facilities

The fourth objective of the study was to examine the influence of funds allocation on performance of primary health care facilities in Mombasa County. The respondents were asked to indicate whether the allocated finances were disbursed from the source in order of the facility priority and timely. Results showed that over three quarters of the health workers (82%) were of the opinion that funds disbursed not only failed to reach facilities in time but were also not aligned with the health facility priorities. The health workers were further asked
to indicate the extent to which the health facility satisfied budgeting of funds. Responses rated on a Likert scale where 1 = Very Low, 2 = Low, 3 = Neutral, 4 = High and 5 = Very High. Mean scores of 1 to 1.8 represent a response of “Strongly Disagree”, 1.81 to 2.6 represent “Disagree”, 2.61 to 3.4 represent “Neutral”, 3.41 to 4.2 represent “Agree” and the mean scores of above 4.21 to 5 represent a response of “Strongly Agree”. Findings are as summarised in Table 4.9.

Findings were as summarised in Table 4.9.

Table 4.9: Budgeting of Funds by PHC Facilities

<table>
<thead>
<tr>
<th>Budgeting</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Mean</th>
<th>Std. Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>The health facility receives funds from the county in a timely manner</td>
<td>38 (14%)</td>
<td>126 (46%)</td>
<td>63 (23%)</td>
<td>42 (15%)</td>
<td>2 (1%)</td>
<td>2.39</td>
<td>0.95</td>
</tr>
<tr>
<td>The health facility prepares budgets that guide spending</td>
<td>25 (9%)</td>
<td>119 (44%)</td>
<td>99 (37%)</td>
<td>20 (7%)</td>
<td>8 (3%)</td>
<td>2.49</td>
<td>0.88</td>
</tr>
<tr>
<td>Budgets are allocated as per the facility need</td>
<td>30 (11%)</td>
<td>146 (54%)</td>
<td>47 (17%)</td>
<td>34 (13%)</td>
<td>14 (5%)</td>
<td>2.52</td>
<td>1.00</td>
</tr>
<tr>
<td>Budgets expenditures are based on the Health Facility Plans and Procedures</td>
<td>12 (4%)</td>
<td>115 (42%)</td>
<td>116 (43%)</td>
<td>22 (8%)</td>
<td>6 (2%)</td>
<td>2.59</td>
<td>0.77</td>
</tr>
<tr>
<td><strong>Overall Mean</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>2.50</strong></td>
<td><strong>0.90</strong></td>
</tr>
</tbody>
</table>

Source: Field Data (2017/2018)

Results obtained from the facility management committee members indicated that a majority (92%) indicated that finances are not disbursed from the source in a timely manner. In addition, slightly over half (51%) of the committee members were of the view that the management of the facilities were effective in their budgeting process. However, majority (67%) rated the level of transparency and accountability at the facilities as fair, with only
21% noting that it was either high or very high. In terms of the frequency of financial audits at the facilities, majority (61%) of the respondents indicated that audits are conducted only sometimes, while only 17% reported that audits are conducted either often or very often.

### 4.8 Performance of Primary Healthcare facilities

The study assessed the existing performance indicators. To begin with, an inquiry was made on the percent utilization of services in the various primary healthcare facilities. Findings were as summarized in Table 4.10. Mean scores of 1 to 1.8 represent a response of “0-20%”, 1.81 to 2.6 represent “21-40%”, 2.61 to 3.4 represent “41-60%”, 3.41 to 4.2 represent “61-80%” and the mean scores of above 4.21 to 5 represent a response of “81-100%”. On aggregate, performance of the services at the primary healthcare facilities merited a mean of 3.33 (SD=1.04) implying that utilization of the services were at 41-60% range descriptively.

#### Table 4.10: Utilization of Services at PHC Facilities

<table>
<thead>
<tr>
<th>Performance of health services</th>
<th>0-20%</th>
<th>21-40%</th>
<th>41-60%</th>
<th>61-80%</th>
<th>81-100%</th>
<th>Mean</th>
<th>Std. Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attendance of Antenatal Services (PF1)</td>
<td>13 (5%)</td>
<td>26 (10%)</td>
<td>146 (54%)</td>
<td>56 (21%)</td>
<td>30 (11%)</td>
<td><strong>3.22</strong></td>
<td><strong>0.97</strong></td>
</tr>
<tr>
<td>Immunization Services (PF2)</td>
<td>8 (3%)</td>
<td>54 (20%)</td>
<td>99 (37%)</td>
<td>96 (35%)</td>
<td>14 (5%)</td>
<td><strong>3.20</strong></td>
<td><strong>0.94</strong></td>
</tr>
<tr>
<td>Family Planning Services (PF3)</td>
<td>18 (7%)</td>
<td>105 (39%)</td>
<td>49 (18%)</td>
<td>69 (25%)</td>
<td>26 (10%)</td>
<td><strong>2.83</strong></td>
<td><strong>1.14</strong></td>
</tr>
<tr>
<td>Cancer Screening Services (PF4)</td>
<td>15 (6%)</td>
<td>43 (16%)</td>
<td>126 (46%)</td>
<td>67 (25%)</td>
<td>20 (7%)</td>
<td><strong>3.07</strong></td>
<td><strong>0.95</strong></td>
</tr>
<tr>
<td>IMCI Services (PF5)</td>
<td>20 (7%)</td>
<td>56 (21%)</td>
<td>42 (15%)</td>
<td>112 (41%)</td>
<td>41 (15%)</td>
<td><strong>3.35</strong></td>
<td><strong>1.20</strong></td>
</tr>
<tr>
<td>Treatment of Minor Ailments (five years) (PF6)</td>
<td>13 (5%)</td>
<td>6 (2%)</td>
<td>42 (15%)</td>
<td>87 (32%)</td>
<td>123 (45%)</td>
<td><strong>4.19</strong></td>
<td><strong>1.04</strong></td>
</tr>
<tr>
<td>Laboratory (Diagnostic) Services (PF7)</td>
<td>16 (6%)</td>
<td>20 (7%)</td>
<td>115 (42%)</td>
<td>76 (28%)</td>
<td>44 (16%)</td>
<td><strong>3.43</strong></td>
<td><strong>1.05</strong></td>
</tr>
<tr>
<td><strong>Overall Mean</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>3.33</strong></td>
<td><strong>1.04</strong></td>
</tr>
</tbody>
</table>

Source: Field Data (2017/2018)
4.8.1 Impact of Health Financing on Service Delivery

An inquiry was made on whether the performance in delivery of the services matched the finances invested. In response, slightly more than half (55%) of the health workers indicated that the services matched finances invested. This information is graphically illustrated by the graph in Figure 4.4.

![Graph showing the impact of health financing on service delivery.](image)

**Figure 4.4: Performance Matches Finances Invested**

The study further sought to establish the consequence of the current health financing system on key performance indicators at the primary health care facilities. Mean scores of 1 to 1.8 represent a response of “Strongly Disagree”, 1.81 to 2.6 represent “Disagree”, 2.61 to 3.4 represent “Neutral”, 3.41 to 4.2 represent “Agree” and the mean scores of above 4.21 to 5 represent a response of “Strongly Agree”. The findings in Table 4.11 indicate an overall mean score of 2.78 (SD = 1.15) which shows that the health workers expressed disagreement with the various statements. This illustrates that the health facilities scored poorly in terms of the performance indicators.
Table 4.11: Current Financing System and Performance of PHC Facilities

<table>
<thead>
<tr>
<th>Impact</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Mean</th>
<th>Std. Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhances equity in service delivery</td>
<td>13 (5%)</td>
<td>116 (43%)</td>
<td>67 (25%)</td>
<td>42 (15%)</td>
<td>33 (12%)</td>
<td>2.78</td>
<td>1.10</td>
</tr>
<tr>
<td>Increases efficiency of the facility</td>
<td>25 (9%)</td>
<td>86 (32%)</td>
<td>25 (9%)</td>
<td>90 (33%)</td>
<td>35 (13%)</td>
<td>2.97</td>
<td>1.31</td>
</tr>
<tr>
<td>Promotes financial protection of the clients</td>
<td>28 (10%)</td>
<td>141 (52%)</td>
<td>38 (14%)</td>
<td>20 (7%)</td>
<td>44 (16%)</td>
<td>2.74</td>
<td>1.29</td>
</tr>
<tr>
<td>Enhances responsiveness of the facility to people’s needs</td>
<td>21 (8%)</td>
<td>121 (45%)</td>
<td>49 (18%)</td>
<td>59 (22%)</td>
<td>21 (8%)</td>
<td>2.79</td>
<td>1.12</td>
</tr>
<tr>
<td>Enhances sustainability of services and programmes at the facility</td>
<td>14 (5%)</td>
<td>128 (47%)</td>
<td>92 (34%)</td>
<td>23 (8%)</td>
<td>14 (5%)</td>
<td>2.62</td>
<td>0.91</td>
</tr>
</tbody>
</table>

Overall Mean 2.78 1.15

Source: Field Data (2017/2018)

The results above are supported by findings from the facility management committee members. Majority (81%) were of the opinion that the primary health care facilities does not adequately cater for the health needs of the community. Majority (91%) of the facility management committee members indicated that performance of service delivery at the primary health care facilities was adversely affected by the existing health financing mechanism. When asked to indicate the general perception of the committee members and the community at large regarding the performance of service delivery at the facilities, majority (69%) of the committee members indicated that the facilities could perform better, the services being offered were not as per the expectations.
4.8.2 Recommendations to Improve Service Delivery at PHC Facilities

The health workers made a number of recommendations whose implementation in their opinion would improve the performance of service delivery at the primary healthcare facilities in Mombasa County. Table 4.12 provides a summary of the recommendations.

Table 4.12: Recommendations to Improve Service Delivery at PHC Facilities

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Involvement of stakeholders/donors, NHIF accreditation, &amp; Budget increment for primary healthcare facilities</td>
<td>16</td>
<td>6%</td>
</tr>
<tr>
<td>Accredit all primary health care facilities to reduce out of pocket expenditure, Ensure timely disbursement of funds, Allocate as per individual facility needs, &amp; Stakeholders/ Donors should invest in the facility based on facility priority needs</td>
<td>99</td>
<td>37%</td>
</tr>
<tr>
<td>Ensure timely disbursement of funds, &amp; Stakeholders should invest in the facility based on facility priority needs</td>
<td>16</td>
<td>6%</td>
</tr>
<tr>
<td>To have quarterly review plan and avail funds in good time to the primary healthcare, &amp; To accredit the facility with NHIF so as to cater for future prone challenges</td>
<td>45</td>
<td>17%</td>
</tr>
<tr>
<td>Increase percentage of A.I.E money, &amp; Increase allocation on drugs/ Lab reagents</td>
<td>14</td>
<td>5%</td>
</tr>
<tr>
<td>Prioritize health care i.e. the health sector should be handed back to the National government, Consider the budget allocation versus the expenditure to the facilities, &amp; Try to source for donors both local and international to support services</td>
<td>13</td>
<td>5%</td>
</tr>
<tr>
<td>Timely distribution of funds, Provision of essential drugs, &amp; Improvement and maintenance of facilities</td>
<td>31</td>
<td>11%</td>
</tr>
<tr>
<td>The County should buy drugs, Improve the services, Improve more lists for laboratory and Finance the facility on good time, &amp; Pay according to the budget</td>
<td>37</td>
<td>14%</td>
</tr>
</tbody>
</table>

Source: Field Data (2017/2018)

Information obtained show that a majority of the health workers were of the opinion that all primary health care facilities be accredited to reduce out of pocket expenditure. At the same time disbursement of funds should be timely and allocation should be made as per individual
facility needs. Similarly, stakeholders/donors should invest in the facility based on facility priority needs. Second in order of priority is the need to quarterly review plan and avail funds in good time to the primary healthcare. At the same time facilities should be accredited with NHIF so as to cater for future prone challenges. Next in line is the need for the County government to buy drugs, improve the services including increasing laboratory services and finance the facility in good time. At the same time payments should be according to the budget among others.

4.9 Multiple Regression Analysis
Using data obtained from the health workers, multiple regression analysis was performed to determine the variability in performance of PHC facilities that was explained by the independent variables (sources of health financing, financing challenges, prioritization of funds and allocation of funds).

4.9.1 Multiple Regression Analysis
The study used multiple regression analysis to determine the strength of relationship between the independent variables (sources of health financing, financing challenges, prioritization of funds and allocation of funds) and performance of PHC facilities. This is a parametric inferential statistical method that attempts to determine whether a group of variables together predict a given dependent variable (Jekel et al., 1996). The relationship is presented by the equation below.

\[ Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon \]

Where: \( Y \) = Performance of PHC facilities;
\( \beta_0 \) = constant;
\( \beta_i \) = regression coefficients;
\( X_1 \) = Sources of Health financing;
\( X_2 \) = financing challenges;
\( X_3 \) = prioritization of funds;
\( X_4 \) = allocation of funds; and
\( \varepsilon \) = error term.
Table 4.13 summarizes the influence of the independent variables (sources of health financing, financing challenges, prioritization of funds and allocation of funds) on performance of PHC facilities in Mombasa County.

### Table 4.13: Multiple Regression Analysis

<table>
<thead>
<tr>
<th>Model 1</th>
<th>Standardized Coefficients (Beta)</th>
<th>T</th>
<th>Significance (p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sources of Health Financing</td>
<td>.335</td>
<td>3.118</td>
<td>.001</td>
</tr>
<tr>
<td>Financing Challenges</td>
<td>-.239</td>
<td>-2.772</td>
<td>.003</td>
</tr>
<tr>
<td>Prioritization of Funds</td>
<td>.407</td>
<td>3.057</td>
<td>.001</td>
</tr>
<tr>
<td>Allocation of Funds</td>
<td>.404</td>
<td>2.925</td>
<td>.002</td>
</tr>
</tbody>
</table>

**a.** Dependent Variable: Performance of PHC Facilities

**b.** Critical t-value at 0.05 significance level (df = 194) = 1.9723

Results from table 4.13 indicate that sources of health financing (p = 0.01) and prioritization of funds (p = 0.01) were the major influencers for the performance of PHC facilities in Mombasa County. The results also indicate that allocation of funds (p = 0.02) and financing challenges (p = 0.03) were significant predictors of the performance of PHC facilities in Mombasa County. Therefore, based on the findings from the regression analysis, the performance of PHC facilities in Mombasa County could be predicted using the following equation.

\[
\text{Performance of PHC facilities} = 1.031 + 0.320X_1 - 0.261X_2 + 0.342X_3 + 0.364X_4
\]

Where: \(X_1\) = Sources of health financing;

\(X_2\) = financing challenges;

\(X_3\) = prioritization of funds; and

\(X_4\) = allocation of funds.
CHAPTER FIVE
DISCUSSION

5.1 Introduction
The chapter discusses findings on assessment of health financing factors affecting performance of public primary healthcare facilities in Mombasa County, Kenya. The discussions are undertaken under each thematic area.

5.2 Demographic Characteristics of Respondents
A review of respondents’ demographics was undertaken based on age, gender, level of education, and number of years worked. Data on health workers’ age showed that a nearly half of the respondents were aged between 31-40 years, and only one percent were above 50 years of age, while for gender distribution, a majority of the respondents were female. The results also indicated that majority of the respondents were either college or university graduates, while slightly over half of the respondents had worked for less than five years in the health facilities.

Data on committee members’ age show that more than a half were aged between 41-50 years while on gender distribution, majority were male. The results also indicated that majority of the committee members were either college or university graduates while only a few had secondary level of education. The study also established that majority of the committee members had served in their respective committees for a period of between 1-5 years.

5.3 Performance of Primary Health Facilities in Mombasa County
An inquiry was made on the percent utilization of services in the various primary healthcare facilities. Findings from health care workers indicated that utilization of the services ranged between 41-60%. Results also indicated that more than half of the health workers were of the opinion that the services matched finances invested. The study further sought to establish the impact of the current health financing system on key performance indicators at the primary health care facilities. Results indicated that respondents’ neither agreed nor disagreed whether the health financing system enhances equity, increases efficiency, promotes financial protection, enhances responsiveness to needs, or enhances sustainability of services and programmes.

The results from the facility management committee members indicated that majority were of the opinion that the primary health care facilities do not adequately cater for the health needs.
Majority of the facility management committee members also indicated that performance of service delivery at the primary health care facilities was adversely affected by the existing health financing mechanism. When asked to indicate the general perception of the committee members and the community at large regarding the performance of service delivery at the facilities, majority of the committee members indicated that the facilities could perform better, the services being offered were not as per the expectations.

Majority of the health care workers recommended that all primary health care facilities be accredited by NHIF to reduce out of pocket expenditure. At the same time disbursement of funds should be timely and allocation should be made as per individual facility needs. Similarly, stakeholders/donors should invest in the facility based on facility priority needs. Second in order of priority is the need to quarterly review plan and avail funds in good time to the primary healthcare. Next in line is the need for the County government to buy drugs, improve the services including increasing laboratory services. At the same time payments should be according to the budget.

5.4 Sources of Health Financing and Performance of Primary Health Care Facilities

The study set out to establish the sources of health financing in public primary health facilities in Mombasa County. Findings from health care workers illustrated that facility improvement fund was the main source of health financing. This implies that a majority of health facilities were financed mainly on facility improvement fund disbursed from the county government. To supplement the amount disbursed, the facilities also depend on levy for payment for service rendered including maternal healthcare paid through maternity disbursement. Other forms of health financing include partners/donors assistance. On whether revenue collected in the health facilities is sufficient to run day to day activities effectively, the study established that revenue collected could not be sufficient according to a majority of the respondents. Specifically, more than three quarters of the respondents were categorical that revenue collected was not sufficient to run their respective primary health care facilities.

Data obtained also showed that slightly less than a third of the respondents indicated that their health facility had registered surplus of revenues over expenses for the last 3 financial years and fewer acknowledged paying their suppliers/service providers full amounts owed to them and in a timely manner. Similarly, fewer respondents indicated that their health facilities have mechanisms to adequately handle their debts and that the health facility was projected to report surplus of revenue over expenses in the next few years. In general, the
health workers and health facility management committee members gave poor scoring on revenue collection implying inadequate access of revenue by the facilities. This observation finding is supported by Hyun et al. (2015) who in a study on health financing in Tokyo, Japan observed that achieving successful health care financing system continues to be a challenge in Japan.

Findings from facility management committee members indicated, a majority reported that the funding for the primary health care facilities was insufficient. Majority of the facility management committee members also indicated that the current sources of health financing were not reliable in sustaining the operations of the primary health care facilities. In addition, majority of the committee members indicated that the committees do not have mechanisms of raising extra resources for the development of the primary health care facilities. The few who reported their committee to have mechanisms for resource mobilization indicated that they engaged well-wishers and the business community in mobilizing resources.

Regression analysis indicated that sources of health financing had significantly positive influence on performance of primary health care facilities in Mombasa County. The results imply that by enhancing the effectiveness of sources of health financing, there will be a corresponding improvement in performance of primary health care facilities. This supports the findings of Hyun et al. (2015) who argued that the way a country finances its health care system is a key determinant of the health of its citizenry. Selection of adequate and efficient method(s) of financing in addition to organizational delivery structure for health services is essential if a country is set to achieve its national health objective of providing health for all.

5.5 Financing Challenges and Performance of Primary Health Care Facilities
The second objective sought to establish financial challenges impeding health service delivery for primary health care facilities in Mombasa County. An inquiry on whether the facilities encountered financial challenges showed an overwhelming majority register experiencing a number of financial challenges. The challenges that were assessed were whether the allocated funds disbursed from the source were timely disbursed and whether in order of facility priority; whether there are any missed opportunities in prioritization of financing and whether there are gaps in financing primary healthcare facilities within the County.
An analysis of the timeliness of disbursement of funds allocated from the source and in the order of facility priority showed that funds disbursed not only failed to reach facilities in time but were also not aligned with the health facility priorities according to over three quarters of the respondents. In corroborating this assertion, majority of the health workers acknowledged that financing challenges affected accessibility, availability and quality of the services at the primary health care facilities. The health workers indicated that services were not affordable, health personnel were not enough and lacked motivation, essential drugs and supplies were not always available, and services were not adequate, comprehensive and well-coordinated.

According to data obtained, lack of NHIF Accreditation of facilities was the most common challenge followed by insufficient budgetary allocation for general operations and then untimely disbursements of funds and prioritization on investing. Other challenges included poor disclosure of facility work plans and financial requirements to the partners and donors, inadequate coordination of partners, erratic health care financing for public primary facilities and lack of prioritization as per facility needs as well as lack of involvement of personnel at the operational level in the budget cycle as some of the main financing gaps.

The results above were also supported by majority of the facility management committee members who acknowledged that the facilities were facing challenges in sustaining their day to day operations. On their part, committee members indicated four major financing challenges facing the facilities. These included lack of needs assessments by the county, late disbursements of funds, lack of alternatives to mobilize more resources, and insignificant engagement of local stakeholders in financing the facilities. In addition, majority of facility management committee members were of the view that accessibility, availability and quality of services at the primary health care facilities in Mombasa County were impeded by financing challenges.

Regression analysis indicated that financing challenges had significantly negative influence on performance of public primary health care facilities in Mombasa County. This implies that when financing challenges increase, the performance of primary health care facilities in Mombasa County decreases. Kiplagat (2015) indicated that healthcare financing in Kenya is highly dependent on individual income levels despite the presence of substantial government subsidies. Moreover, the key medical care instruments, NHIF and government subsidies, are heavily biased towards inpatient treatment and there is little cover for expensive outpatient treatments.
The health care workers recommended facilities to have independent financial audit, strictly spend as per facility plans and priorities and that financial allocations to be done as per facility needs across the county. Also considered as important is that county should disburse funds to the facility in good time, pay staff on good time, and stop pilferage as well as have the facilities NHIF accredited to provide extra funds for service delivery.

5.6 Prioritization of Funds and Performance of Primary Health Care Facilities

The third objective sought to assess extent of prioritization of funds allocated to the public primary health care facilities in Mombasa County. Results indicated that more than three quarters of the respondents acknowledged that prioritization of funds was not effective. The study examined the prioritization of various expenditure areas, including infrastructure development, personnel emolument, recruitment and development of health providers, purchasing of drugs and supplies, and health campaigns. Findings from the health workers indicated poor prioritization on expenditure by primary health care facilities.

This poor rating by health workers on prioritization of allocated funds was also supported by majority of the facility management committee members, who felt that the distribution of funds to the facilities did not consider the priority needs of the facilities and the interests of the community. In addition, majority of the committee members felt that community interests are not factored in the allocations made by county to the facilities. Majority of the committee members further confirmed that they have not seen the county government conduct needs assessment at the facilities. This could explain poor prioritization in health financing in Mombasa County. Majority of the facility management committee members also indicated that various stakeholders are not involved in the budget making process at the facilities.

Regression analysis conducted based on the findings from health workers indicated that prioritization of funds had significant positive influence on performance of primary health care facilities in Mombasa County. The results imply that by enhancing the prioritization of funds, there will be a corresponding improvement in performance of primary health care facilities.

In an attempt to remedy the situation, health workers suggested a number of key priority recommendations to address the problem of prioritization. These include NHIF accreditation to reduce out of pocket, allowing facilities to charge reasonable amount to cater for their basic health facility needs, increasing staff and expanding facility, enhanced donors/partners
funding according to facility needs, community involvement in planning for financial mobilization and community involvement in planning for financial utilization. Other recommendations included, vetting and waiver of fees for very needy patients as well as involvement of key stakeholders who have social responsibility.

5.7 Allocation of Funds and Performance of Primary Healthcare Facilities

The fourth objective of the study sought to determine the influence of funds allocation on the performance of the primary healthcare facilities in Mombasa County. An analysis of the timeliness of disbursement of allocated funds from the source and in the order of facility priority showed that funds disbursed not only failed to reach facilities in time but were also not aligned with the health facility priorities according to over three quarters of the respondents. Results from the health workers also indicated poor allocation of funds by the primary health care facilities. Results obtained showed that less than one fifth of the respondents indicated preparing budgets that guide spending by the health facility, only a few were sure that respective budgets are allocated as per the facility need, a few thought budgets and expenditures are based on the health facility plans and procedures while only a few were sure that there is an annual independent audit for the health facility.

Results obtained from the facility management committee members indicated that majority felt that finances are not disbursed from the source in a timely manner. In addition, slightly over half of the committee members were of the view that the management of the facilities were effective in their budgeting process. However, majority rated the level of transparency and accountability at the facilities as fair, with only minimal number noting that it was either high or very high. In terms of the frequency of financial audits at the facilities, majority of the committee members indicated that audits are conducted only sometimes, while a few reported that audits are conducted either often or very often.

Regression analysis based on results from the health workers indicated that allocation of funds had significantly positive influence on performance of primary health care facilities in Mombasa County. The results imply that by enhancing the allocation of funds, there will be a corresponding improvement in performance of primary health care facilities.
CHAPTER SIX
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction
This chapter presents a summary of the research findings, conclusions, recommendations and suggestions for further research. The main purpose of this study was to assess health financing factors affecting performance of service delivery at primary health care facilities in Mombasa County, Kenya.

6.2 Summary
The first objective of the study was to establish the sources of health financing on performance of primary health care facilities in Mombasa County. The study findings revealed that facility improvement fund was the main source of health financing supplemented by levy for payment of services rendered and maternity fees reimbursement. Additionally, results from the multiple regression analysis indicated that sources of health financing (p = .01) was a significant predictor and one of the main influences of the performance of primary healthcare facilities in Mombasa County.

The second objective of the study was to assess the influence of financing challenges on performance of primary health care facilities in Mombasa County. A number of challenges impeding health service delivery were listed. They included delayed disbursement of funds from county government, inadequacy of funding. Similarly, lack of accreditation of Health facilities by NHIF to reduce out of pocket expenditure was indicated to impede operations at the health facilities. In addition, results from the multiple regression analysis indicated that financing challenges (p = .03) was a significant predictor of the performance of primary healthcare facilities in Mombasa County.

The third objective of the study was to determine the influence of prioritization of funds spent on performance of primary health care facilities in Mombasa County. The respondents rated the effectiveness of prioritization as very bad and bad implying that prioritization of funds was ineffective. The results also indicated poor prioritization on expenditure areas by primary health care facilities within Mombasa County. Further, results from the multiple regression analysis indicated that prioritization of funds (p = .01) was a significant predictor and one of the main influence of the performance of primary healthcare facilities in Mombasa County.
The fourth objective was to examine the influence of funds allocation on performance of primary health care facilities in Mombasa County. Additionally, results from the multiple regression analysis indicated that allocation of funds (p = .02) was a significant predictor of the performance of primary healthcare facilities in Mombasa County. Based on results from the health workers indicated that allocation of funds had significantly positive influence on performance of primary health care facilities in Mombasa County. The results imply that by enhancing the allocation of funds, there will be a corresponding improvement in performance of primary health care facilities.

### 6.3 Conclusion of the Study

From the results discussed in the preceding sections, the study draws four main conclusions. First, the study concludes that enhancing the health of financing for PHC facilities in Mombasa County will improve the performance of the PHC facilities. Additionally utilization various services such as antenatal services, Immunization Services, Family Planning Services Cancer Screening Services, IMCI Services, Treatment of Minor Ailments (five years) and Laboratory (Diagnostic) Services will improve.

Secondly, the financing challenges make PHC facilities unable to sustain the supplies and thus influencing the performance. Therefore if the challenges in study findings are addressed, the facilities will sustain the supply of essential supplies hence improving the performance of primary healthcare facilities in Mombasa County.

Thirdly, the study indicated some level of in efficiency in prioritization of funds at the PHC facilities in Mombasa County. If the PHC facilities prioritize funds allocated as per individual facility needs, the facilities will experience improved performance.

Lastly, increased efficiency in the allocation and disbursement of funds to the PHC facilities in Mombasa County will contribute to improved performance of the facilities.

### 6.4 Recommendations of the Study

The study puts forward the following recommendations:

i. The Ministry of Health and the County Government of Mombasa should focus on enhancing health financing for PHC facilities to improve the performance of the services offered such as attendance of antenatal services, Immunization Services, Family Planning Services Cancer Screening Services, IMCI Services, Treatment of
Minor Ailments (five years) and Laboratory (Diagnostic) Services in the Mombasa County.

ii. The Ministry of Health and the County Government of Mombasa should focus on addressing financing challenges experienced by the PHC facilities to ensure availability of essential drugs and supplies in order to improve the performance of service delivery in Mombasa County.

iii. The County Government of Mombasa should place more emphasis on prioritizing of funds allocated to PHC facilities as per facility need in order to improve the performance of service delivery in Mombasa County.

i. The National Government and the County Government should improve allocation of to PHC facilities by ensuring increased efficiency in disbursement of funds, budget preparation, budget implementation and annual audits in order to improve the performance of service delivery in Mombasa County.

6.5 Areas for Further Research

It is suggested that a comparative study of health financing of primary health facilities in rural and urban counties in Kenya and an assessment of financial and non-financial factors influencing performance of primary public health facilities be carried out.
REFERENCES


Mombasa County Department of Health (2016). Performance annual report and plan for implementation of health services.


Appendix I: Introduction Letter

Dear Respondent,

My name is Celina Kithinji, a Masters student of Maseno University. I am carrying out a research on “Assessment of health financing and its effects to the performance of public primary health care facilities in Mombasa county, Kenya”. This questionnaire is designed to gather information to be used in the study being carried out for a thesis paper as fulfilment of Master’s Degree of public Health, Management of health systems and services in Maseno University.

The information you shall avail will be treated with confidentiality and no instances will your name be mentioned in this research. Also, the information will not be used for any other purpose other than the intended academic exercise. Your assistance in facilitating the same will be highly appreciated.

Thank you in advance

Yours sincerely

………………………………

Celina M. Kithinji
Appendix II: Health Workers Questionnaire

This questionnaire is intended to collect data for the assessment of health financing and its effects on the performance for the public primary health care facilities in Mombasa County, Kenya. The results of this study will be used purely for academic purposes. You will remain anonymous throughout the entire questionnaire so please volunteer as much information relevant to this study as possible.

Please give answers in the spaces provided and tick (√) the box that matches your response to the questions where applicable. Feel free to respond to the questions

PART A: DEMOGRAPHIC CHARACTERISTICS

1. Gender

   Male [ ]   Female [ ]

2. Age

   Below 20 years [ ]   21-30 years [ ]   31-40 yrs [ ]
   41-50 yrs [ ]   51-60 years [ ]   above 60 years [ ]

3. Level of education

   Primary [ ]   Secondary [ ]   College [ ]   University [ ]

4. No of years worked in the facility

   6 months to one year [ ]   1 to 5 years [ ]   6 to 10 years [ ]
   11 to 15 years [ ]   16 to 20 years [ ]   above 21 years [ ]

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PART B: SOURCES OF HEALTH FINANCING IN PRIMARY HEALTH CARE FACILITIES

5. What are the main sources of health financing in your facility? You are allowed to tick more than one answer.
   a) Payment for service rendered
   b) Facility improvement fund
   c) Maternity disbursement
   d) From partners/donors
   e) Capitation (NHIF)
   f) Others,
      Specify_____________________________________________________

6. If you answered (a) above, below are extended questions.
   (i) What is the estimated percentage of out of pocket expenditure by patient (payment for service by patients) in this health facility?
      0-25% [ ] 26-50% [ ] 51-75% [ ] 76-100% [ ]
   (ii) Of the choices in question (5) which mode of financing would you recommend for public primary health facilities for better performance? __capitation (NHIF)

7. In your opinion, do you think the revenue collected in your health facility is sufficient to run day to day activities of this facility effectively?
   Yes ( ) No ( )

8. Given the revenue collected by your facility, to what extent do you agree with the following in a scale of 1-5? 1) Strongly disagree (2) Disagree (3) Not sure (4) Agree and (5) Strongly Agree

<table>
<thead>
<tr>
<th>Statements</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>The health facility has registered surplus of revenues over expenses for the last 3 financial years</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The health facility is projected to report surplus of revenue over expenses in the next few years</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The suppliers/service providers of the health facility are paid the full amounts owing to them and in a timely manner</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
PART C: FINANCING CHALLENGES AFFECTING HEALTH SERVICE DELIVERY IN PRIMARY HEALTH CARE FACILITIES

9. Are there challenges encountered on financing this health facility?

Yes (   )                       No (   )

If yes above please list at least three challenges in order of severity (starting with the major challenges)

___________________________________________________________________________

___________________________________________________________________________

___________________________________________________________________________

10. In your opinion, does the challenge above affect accessibility, availability and quality of services at this facility?

Yes (   )                       No (   )

11. If yes, kindly share your opinion on the effect of the challenges on service delivery at the facility by responding to the following statements. tick (✓) where applicable using the following rate of scale: (1) Strongly disagree (2) Disagree (3) Not sure (4) Agree and (5) Strongly Agree

<table>
<thead>
<tr>
<th>Statements</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>The services offered at the facility are not financially affordable</td>
<td></td>
<td></td>
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<tr>
<td>The health providers at the facility are enough</td>
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<tr>
<td>The health providers at the facility are not highly motivated in service delivery</td>
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<tr>
<td>Drugs and essential supplies at the facility are not always available on time and in the right quantity</td>
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<tr>
<td>The services offered at the facility are not adequate, comprehensive and well-coordinated to maintain high quality</td>
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</tbody>
</table>

12. Suggest at least three measures to improve health financing for this facility in order of priority:
PART D: PRIORITIZATION OF ALLOCATIONS IN PRIMARY HEALTH FACILITIES

13. In your opinion, what is the effectiveness of prioritization of finance allocated directly by the county to primary health care on service delivery?
   Bad [ ] Very Bad [ ] Extremely Bad [ ] Good [ ] Very Good [ ] Excellent [ ]

14. In your opinion, what is the level of prioritization of the following expenditure areas in this facility? Use a scale of 1-5: (1= Very Low, 2= Low, 3=Neutral, 4= High and 5=Very High)

<table>
<thead>
<tr>
<th>Expenditure</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infrastructure development</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Remuneration of employees</td>
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<tr>
<td>Recruitment and development of health providers</td>
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<tr>
<td>Purchasing of drugs and supplies</td>
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<tr>
<td>Health campaign programmes e.g. immunization, sanitation etc.</td>
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</tbody>
</table>

15. Suggest at least 4 priority recommendations to overcome prioritization problems in financing primary health care facilities.

___________________________________________________________________________
___________________________________________________________________________
___________________________________________________________________________

PART E: ALLOCATION OF FUNDS TO PRIMARY HEALTH FACILITIES

16. In your opinion, are the allocated finances disbursed from the source in order of the facility priority and timely?
   Yes ( )                              No ( )

17. In your opinion, what is the level of adherence of this health facility to the following financial practices? Use a scale of 1-5: (1= Very Low, 2= Low, 3=Neutral, 4= High and 5=Very High)
The health facility prepare budgets that guide spending
Expenditures are allocated as per the facility need
Budget and expenditures are based on Health facility plans and priorities
There is an annual independent audit for the health facility

PART F: PERFORMANCE OF PRIMARY HEALTH FACILITIES

18. In your opinion, what is the percent performance in delivery of the following services in this health facility? tick (√) where applicable using the rating scale of 1-5 below:

(1) 0-20%       (2) 21-40%       (3) 41-60%       (4) 61-80% and (5) 81-100%

MCH and outpatient Services
Attendance of antenatal services
Immunization services
Family planning services
Cancer screening services
IMCI Services
Treatment of minor ailment for over five years
Laboratory(diagnostic) services

19. In your opinion, is the percent performance in delivery of the services above affected by the finances invested at the facility?

Yes ( )          No ( )

20. Kindly share your opinion on the effect of the current financing system on the overall health outcome at the facility by responding to the following statements. tick (√) where applicable using the following rate of scale: (1) Strongly disagree  (2) Disagree (3) Not sure  (4) Agree and (5) Strongly Agree
21. Suggest at least five key recommendations on what should be done to strengthen health care financing for public primary health care facilities in Mombasa County.

<table>
<thead>
<tr>
<th>The current health financing system:</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhances equity in service delivery</td>
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<tr>
<td>Increases efficiency of the facility</td>
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<tr>
<td>Promotes financial protection of the clients</td>
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<tr>
<td>Enhances responsiveness of the facility to people’s needs</td>
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<tr>
<td>Enhances sustainability of services and programmes at the facility</td>
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Appendix III: Health Facility Management Committee Members Questionnaire

This questionnaire is intended to collect data for the assessment of health financing and its effects on the performance for the public primary health care facilities in Mombasa County, Kenya. The results of this study will be used purely for academic purposes. You will remain anonymous throughout the entire questionnaire so please volunteer as much information relevant to this study as possible.

Please give answers in the spaces provided and tick (✓) the box that matches your response to the questions where applicable. Feel free to respond to the questions.

PART A: DEMOGRAPHIC CHARACTERISTICS

1. Gender

   Male [ ]   Female [ ]

2. Age

   Below 20 years [ ]   21-30 years [ ]   31-40 yrs [ ]
   41-50 yrs [ ]   51-60 years [ ]   above 60 years [ ]

3. Level of education

   Primary [ ]   Secondary [ ]   College [ ]   University [ ]

4. No of years served as a member of the facility management committee

   Less than one year [ ]   1 to 3 years [ ]   Above 3 years [ ]

PART B: SOURCES OF HEALTH FINANCING IN PRIMARY HEALTH CARE FACILITIES

5. In your opinion, is the revenue generated by the facility sufficient to run day to day activities of this facility effectively?

   Yes (✓)   No ( )
6. In your opinion, are the current sources of health financing reliable in sustaining the operations of the facility?
   Yes (   )   No (   )

7. As a committee, do you have mechanisms in place to mobilize more resources to supplement revenue generated by the facility?
   Yes (   )   No (   )

8. If yes, kindly explain
   ........................................................................
   ........................................................................
   ........................................................................
   ........................................................................
   ........................................................................

PART C: FINANCING CHALLENGES AFFECTING HEALTH SERVICE DELIVERY IN PRIMARY HEALTH CARE FACILITIES

9. Does the facility face any financial challenges in its operations?
   Yes (   )   No (   )

10. If yes above please list at least three challenges in order of severity (starting with the major challenges).
    ........................................................................
    ........................................................................
    ........................................................................
    ........................................................................

11. In your opinion, does the challenges above affect accessibility, availability and quality of services at this facility?
    Yes (   )   No (   )
PART D: PRIORITIZATION OF ALLOCATIONS IN PRIMARY HEALTH FACILITIES

12. In your duration as a committee member, have you ever witnessed the county government conducting needs assessment at the facility?
   Yes ( )                                  No ( )

13. In your opinion, does the allocations made by the county government consider the priority needs of the facility?
   Yes ( )                                  No ( )

14. In your opinion, are community interests factored in the allocations made by the county government to the facility?
   Yes ( )                                  No ( )

15. In your opinion, is the budget making process at the facility participatory, does the management involve various stakeholders?
   Yes ( )                                  No ( )

PART E: ALLOCATION OF FUNDS TO PRIMARY HEALTH FACILITIES

16. In your opinion, are the allocated finances disbursed from the source in a timely manner?
   Yes ( )                                  No ( )

17. In your opinion, is the management of the facility effective in the budgeting process?
   Yes ( )                                  No ( )

18. In your opinion, what is the level of transparency and accountability in the utilization of funds at the facility?
   Very Low [ ]    Low [ ]    Fair [ ]    High [ ]    Very High [ ]

19. In your opinion, how often are financial audits conducted at the facility?
   Very Rare [ ]    Rare [ ]    Sometime [ ]    Often [ ]    Very Often [ ]

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PART F: PERFORMANCE OF PRIMARY HEALTH FACILITIES

20. In your opinion, does the facility adequately cater for the health needs of the community?
   Yes (   )                                No (  )

21. In your opinion, is performance of service delivery at the facility negatively affected by
    the current health financing mechanism?
   Yes (   )                                No (  )

22. In your opinion, what is the general perception among committee members and the
    community regarding the performance of service delivery at the facility?
   Everything is ok, services are very good  [  ]
   Something is going wrong, services are starting to deteriorate  [  ]
   The facility could perform better, services are not as expected  [  ]
   The facility is performing very poorly, it needs to be closed  [  ]
Appendix IV: Data Collection Letter

COUNTY GOVERNMENT OF MOMBASA

DEPARTMENT OF HEALTH

OFFICE OF HEAD PREVENTIVE AND PROMOTIVE HEALTH SERVICES

Email: prev.promotivehealth@gmail.com
When replying please quote

Ref. MED.4/05

Date. 15th December 2017

Sub-County MOHs:
- Changamwe Sub-County
- Mvita Sub-County
- Likoni Sub-County
- Kisauni/Nyali Sub-County

RE: DATA COLLECTION – MS. CELINA M. KITHINJI

The above named is a post graduate student at Maseno University Kisumu, undertaking Master’s degree course in Public Health Management of Health Systems and Services. She intends to collect data from health facilities in your sub-county for her research study on:
Assessment of health financing and its effect on performance of primary health care facilities in Mombasa County for one month from 18th December 2017.

We have no objection and request you to support and facilitate this exercise.

Raphael M. Mwanyamawi
For. Head, Preventive & Promotive Health Services
MOMBASA COUNTY
Appendix V: Ethical Clearance

MASENO UNIVERSITY ETHICS REVIEW COMMITTEE

FROM: Secretary - MUERC
TO: Celina Muthoni Kithinji
EL/ESM/00660/2014
Department of Public Health
School of Public Health and Community Development,
Maseno University, P. O. Box, Private Bag, Maseno, Kenya

DATE: 14th December, 2017
REF: MSU/DRPI/MUERC/00454/17


This is to inform you that the Maseno University Ethics Review Committee (MUERC) determined that the ethics issues raised at the initial review were adequately addressed in the revised proposal. Consequently, the study is granted approval for implementation effective this 14th day of December, 2017 for a period of one (1) year.

Please note that authorization to conduct this study will automatically expire on 13th December, 2018. If you plan to continue with the study beyond this date, please submit an application for continuation approval to the MUERC Secretariat by 15th November, 2018.

Approval for continuation of the study will be subject to successful submission of an annual progress report that is to reach the MUERC Secretariat by 15th November, 2018.

Please note that any unanticipated problems resulting from the conduct of this study must be reported to MUERC. You are required to submit any proposed changes to this study to MUERC for review and approval prior to initiation. Please advice MUERC when the study is completed or discontinued.

Thank you.

Dr. Bonuke Limuna,
Secretary,
Maseno University Ethics Review Committee.

Cc: Chairman,
Maseno University Ethics Review Committee.
Appendix VI: Work Plan

The table below shows the schedule of all the events, it indicates the month each particular activity will take place.

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sep</td>
<td>Dec</td>
<td>Jan-June</td>
</tr>
<tr>
<td>Concept paper development</td>
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<tr>
<td>Preliminary literature review</td>
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<tr>
<td>Thesis proposal writing</td>
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<tr>
<td>Developing instruments</td>
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<tr>
<td>Proposal defence</td>
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<td></td>
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<tr>
<td>Addressing comments and seeking clearance for data collection</td>
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<td></td>
<td></td>
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<tr>
<td>Data collection and analysis</td>
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<tr>
<td>Presentation of findings</td>
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<tr>
<td>Binding and submission</td>
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Appendix VII: Budget

The table below provides the budget for all the expenses that the researcher will incur.

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>AMOUNT IN KSH.</th>
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<tbody>
<tr>
<td>Transport</td>
<td>18,000</td>
</tr>
<tr>
<td>Writing Materials</td>
<td>4,000</td>
</tr>
<tr>
<td>Typing, Photocopying and Binding</td>
<td>16,500</td>
</tr>
<tr>
<td>Internet</td>
<td>5,000</td>
</tr>
<tr>
<td>Laptop</td>
<td>51,000</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>5,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>99,500</strong></td>
</tr>
</tbody>
</table>

1. Payment for the purchase of writing materials such as foolscaps and pens
2. Printing and binding the 3 final copies of the thesis proposal
3. Payment of internet service since much of the secondary data will be gathered from the internet.
4. Amount set aside for any uncertainties that are unforeseen at the point of planning.
Appendix VIII: Map of Mombasa County

Source: IEBC (2012).
Appendix IX: County Governments’ Budget Allocation to Health