HEALTH SYSTEM INFLUENCE ON FUNCTIONALITY OF MANAGERS IN PUBLIC HOSPITALS: A CASE OF SUB COUNTY HOSPITALS IN BUNGOMA COUNTY

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DECLARATION AND RECOMMENDATION

Declaration by the Student

This thesis is my original work and has not been presented for a degree or any other award in any other university.

Signed…….....Date……

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HSM-3-0336-1/2017

Recommendation

This thesis has been submitted for examination with our approval as university supervisors

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DEDICATION

I dedicate this work particularly to my family members for their endless support. God bless you.

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I thank the almighty God for this far he has been ebenezer. My special thanks go to my supervisors, Ms. Lillian Muiruri and Mr. Musa Oluoch for the endless guidance that yielded into this thesis. I would like to thank Director of health Bungoma County for granting me permission to carry out the study, I extend my appreciation to the medical superintendents of the 10 sub county hospitals in Bungoma County for their overwhelming support and cooperation during the study.

ABSTRACT

Healthcare in developing countries is a multi-billion-dollar investment. Health managers tasked with leading and managing the hospitals often have little formal preparation. Various studies have identified challenges in execution of management functions by managers in public hospitals. The study objectives were to establish the influence of management knowledge, organization capacity building systems, internal work environment and hospital finance on the functionality of managers in public Sub County hospitals in Bungoma County. The study was descriptive and purposive sampling was adopted to identify managers in the hospitals. The population target was 170 managers from the 10 Public Sub County hospitals in Bungoma County. A closed ended questionnaire was self-administered. Research ethics was observed with ethical approvals from Kenya Methodist University Scientific Ethics Review Committee and National Commission for Science, Technology, and Innovation. The data was analyzed using SPSS version 24. Descriptive statistics, Bivariate Pearson correlation and univariate regression model were adopted. The results indicated that management knowledge of a manager had a positive and significant influence on manager's functionality to manage Sub-County Hospitals ($\beta = 0.263$; P-value <0.05). This implies that a unit increase in manager's management knowledge leads to a significant improvement in management of Sub-County Hospitals by 0.263 units it's an important factor in management of Sub-County Hospitals, managers with higher levels of work experience, qualifications, leadership knowledge and knowledge on overall health systems structure managed public hospitals more effectively. It was established organization capacity building systems had a positive and significant influence on management of Public Hospitals ($\beta = 0.327$; P-value < 0.05). This implies that a unit increase in development of organization's capacity building systems i.e training, mentorship and support supervision leads to a significant improvement in management of Sub-County Hospitals by 0.327 units. Internal work environment had a positive and significant influence on management of Public Hospitals ($\beta = 0.360$; P-value < 0.05). This implies that a unit improvement in the hospital's internal work environment leads to a significant improvement in management of Public Hospitals by 0.360 units, availability of adequate resources for managers such as finance, human resources and information led to effective management of hospitals. It was established health finance had a positive and significant influence on management of Public Hospitals ($\beta = 0.112$; P-value < 0.05). This implies that a unit increase in allocation of hospital finance leads to a significant increase in management of the Sub-County hospitals by 0.112 units. The study recommends the county government of Bungoma County to set aside a budget to recruit health workers to address human resource gaps. The county government to enhance their financial commitment towards the running of the hospitals in the county. Increase proportion of their exchequer to the public hospital the current proportion is not adequate. County top leaders to revise the finance accountability frameworks for efficient funds utilization. Furthermore, the local political leaders should collectively rework their conflict resolution mechanisms with the management of the hospitals and look for alternatives problem solving mechanism to reduce interference with the normal operation of hospitals.

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ABBREVIATIONS AND ACRONYMS

ANOVA Analysis of Variance

COVID 19 An infectious respiratory disease caused by coronavirus

CHMT County Health Management Team

DANIDA Danish International Development Agency

ENT Ear Nose Throat

KEMU Kenya Methodist University

MSH Management Science for Health

MOH Ministry of Health

NACOSTI National Commission for Science, Technology, and Innovation

NHIF National Hospital Insurance Fund

PhD Doctor of Philosophy

PFM Public Finance Management

SERC Scientific Ethics Review Committee

SPSS Statistical Package for Social Sciences

SMS Short Message Service

WHO World Health Organization

USAID United States Agency for International Development

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

World health organization (WHO) defines leadership and governance as a process of ensuring strategic policy frameworks exist combined with effective oversight, coalition building, provision of appropriate regulations and incentives, attention to system design, and accountability.

World health organization defines health systems as organizations, people, and actions whose primary intent is to promote, restore or maintain health. Harold Koontz define management as the art of coordinating the acts of people to achieve organization goals and objectives utilizing available resources effectively and efficiently. According to Fayol (1949) management entails forecasting and planning, organizing, commanding, and coordinating of service delivery.

Highlighted in the World Health Organization Working Paper No 11(2007) Strengthening health systems management in low income countries defines a hospital manager us someone who spends a good portion of their time managing coverage of health services by planning, organizing and evaluation of programs, management of resources which entails: human resource, finance, medical drugs, medical equipment's, infrastructure, health information, management of external relations with stakeholders and consumers of health services.

In a study by Pillay (2008). Management competency of hospital managers in South Africa; The study was conducted in public and private hospitals; Pillay concludes there

are inadequacies in the management capacity within the public sector in South Africa there is a significant gap between private and public sectors.

A study by Kimathi (2017) titled challenges of the devolved health sector in Kenya; Teething problems or systemic contradictions she highlights that management of hospitals under devolution in the counties is a challenge many counties are grappling with. The county governments are facing management capacity challenges, hospitals are managed by managers who are equipped with good clinical skills and experience but inadequate knowledge and skills on management skills to enable them to ensure efficient use of available resources and navigate various devolution challenges.

A paper by O'Neil et al. (2013) titled leadership and management to empower health workforce, she highlights health service delivery in third world countries is a multi-billion-dollar investment, yet hospital managers tasked with the mandate of leading and managing this institution often lack adequate preparation to execute the functions of management. Senior healthcare managers around the world shared the immediate need to professionalize health systems management. They argued the need for better preparation of a hospital manager, based on challenges experienced by them.

One of the leaders heading a department in Kenya Ministry of Health highlights he received a letter of appointment as a district medical officer of health, he was working in a surgical ward in one of the hospital. His new role entailed management of the entire district. He felt inadequately prepared to execute the role as it was totally different from the clinical work.

It is a frequent practice to promote good clinicians into management positions, but this often has the unfortunate consequence that the system loses a good clinician and gain

a mediocre or weak manager. Conversations with health managers across the continent have revealed many reasons why health management has not been high on the agenda of institutions that produce health professionals or governments that employ them.

Role of health care managers is not well understood and thus cannot be fully valued, Curricula for health professional training is very crowded hence no space for management modules, the cost of poor management is not known, there is an assumption that good doctors and nurses will be good managers.

As a result, the clinicians who progress into management positions encounter challenges they are unable to overcome. In a study by Nyikuri et al. (2015), Titled crises and resilience of primary health care facility in charges under devolution in a sub-county on the Kenya coastal region. She highlights several issues; one is lack clearly stipulated job description for a health facility managers that could be referred to. The Sub County managers defined primary health facility in charges as the experienced senior officer working in the health facility, they are assigned both clinical and managerial duties. The Sub County managers described primary health facility managers on what they do on day-to-day work, this entailed managing coverage of health services, planning the service delivery points, flow of patients and allocation of staff in various departments.

Primary health facility managers are expected to manage human resource for health, health information management, health budgeting process and commodity management under direct supervision of sub county managers. They play a key role on hiring of casual workers in consultation with s health facility management committee. The technical health workers are deployed by the sub county and County teams, health managers make request when staffing gaps are identified.

The primary health facility manager is tasked to develop an annual work plan with participation of various stakeholders, the plan should outline the activities, resources, and responsible persons. This forms the health facility budget and the facility manager as the authorizing and accounting officer.

The findings of the study demonstrated health facility managers have various persons to answer to i.e upwards to sub county managers, implementing partners, local political leaders, and health workers associations. Horizontal hierarchal to the direct reports and downward reporting to health facility management committee. They also spend considerable time attending meetings and trainings on technical areas of work and managerial tasks. Primary health facility managers lack adequate preparation to assume managerial role. This based on the design of the basic training curriculum which has put minimal emphasis on leadership and management.

In a study by Mogere (2013) on management and leadership skills, competency and ability among hospital managers working in tier three, four and five hospitals in Nyanza region, he found majority of hospital managers are not prepared to manage hospital management functions. This demonstrates a clear need to train and mentor them with management knowledge and skills to enable them better to manage vital leadership challenges they encounter during their work.

The above literature highlights the challenges of knowledge, skills in management among health facility managers across the globe which affect the execution of management functions. This study therefore interrogated and gathered more evidence

on the influence health systems on the functionality of a manager in Public Sub County hospital.

1.2 Statement of the Problem

The current Kenya constitution, health is a devolved function with health as a right for every Kenyan citizen, access the highest attainable standard of health, through strengthening efficiency and effectiveness in health service delivery in the country. The delivery of health services depends on effective management of health facilities through execution of management functions as outlined by Henry Fayol on general and industrial management.

Management of hospitals has been ignored resulting in management gaps that have an impact on the quality of health service delivery. Stakeholders have tried to mitigate this gap through professionalization of health systems management, in-service training, leadership, and management development programs. these efforts are still at infancy and require the political goodwill to improve the overall management of health facilities in the country.

In a study by Omondi (2016) Titled factors influencing health service delivery in government hospitals a case study of Nairobi City County, his findings are health facility management influenced on the day-to-day management of public hospitals. This indicates a gap on management of public hospitals. There are gaps in execution of management functions in public hospitals in Kenya.

In a study by Tumlinson et al. (2019) on understanding health worker's absenteeism in Kenya, his findings where health worker's absence from work was a common occurrence in public hospitals in Kenya, this is associated to hospital level issues this

entailed lack of supervision, weak accountability systems and lack of professional consequences. This points a clear gap in the directing function of management in public hospitals.

This study sought to generate further evidence on the relationship between health systems influence and managers' functionality to manage a public hospitals in Bungoma County as there is no Known similar study that has been conducted in Western region of Kenya. This then aimed to generate further evidence in management of public hospitals.

1.3 Purpose of the Study

The Study aims to investigate the how health system plays a critical role in the management of public sub county hospitals.

1.4 Objectives

1.4.1 Main Objective

The main objective of the study was to establish the influence of health system to managers functionality to manage Sub County public hospitals in Bungoma County.

1.4.2 Specific Objectives of the Study

i. To establish the influence of management knowledge of a manager on the functionality to manage Sub County hospital in Bungoma County.
ii. To examine the influence of organization capacity building systems on the manager functionality to manage Sub County hospital in Bungoma County.
iii. To determine the influence of internal work environment on the manager functionality to manage Sub County hospital in Bungoma County.

iv. To find out whether hospital finance has any influence on the manager functionality to manage Sub County hospitals in Bungoma County.

1.5 Research Questions

i. What is the influence of management knowledge of a manager on the functionality to manage Sub County hospital in Bungoma County?
ii. How do organization capacity building systems influence the manager functionality to manage Sub County hospital in Bungoma County?
iii. What is the influence of internal work environment on the manager functionality to manage Sub County hospital in Bungoma County?
iv. How does hospital finance influence the manager functionality to manage Sub County hospitals in Bungoma County?

1.6 Justification of the study

The current constitution introduced a devolved system of governance which emphasized health as a basic right for every Kenyan, to the highest attainable standard of health it entails right to reproductive health further, it clearly defines health services functions of the two levels of national and county governments as well as principles which guide the provision of health services.

Health managers are mandated to provide sound leadership and management of the health facilities for the citizens to realize the health rights as enshrined in the Kenya constitution. They achieve this through the management of resources and people in the health facilities. Health managers should be equipped with management knowledge and skills, they should receive continuous support supervision, mentorship and coaching to be able to build their management skills to a superior level to effectively

execute the management functions and principles as outlined by Fayol (1949) general and industrial management.

The findings of the study are expected to shade more light on how health systems influence the functionality of a manager of sub county hospital highlighting areas that require health systems strengthening empowering health managers to better manage public hospitals.

1.7 Limitations of the study

This study experienced the following limitation: the availability of managers of hospital during data collection in line with the COVID 19 restrictions of minimal physical contacts. However, the researcher adopted drop and pick approach to administer the questionnaire.

1.8 Delimitation of the Study

The boundaries of the Study were delimited to four objectives, the study was delimited to public tier three hospitals targeting seventeen hospital managers as per the Kenya essential package of health. Private and mission tier three hospitals were excluded. The study scope was delimited to Bungoma County. The external work environment to the hospital factors i.e., competition, modern technology, population were not part of the study. The findings may be generalized to other counties with similar characteristics to Bungoma.

1.9 Significance of the Study

The study findings are expected to contribute to the body of knowledge of health systems management under leadership and governance pillar. Informing the health leadership at the national and county level, on the influence of health systems factors

to the functionality of managers in public hospitals. This will inform policy formulations to guide health facility management, development of strategies that can facilitate strengthening the management of public hospitals.

1.10 Assumptions of the study

The assumption on the management of public hospitals in Kenya is managers in public hospitals operate under similar guidelines of management and are exposed to similar management trainings at Kenya School of Government despite the tier of healthcare they are deployed to provide management.

1.11 Operation Definition of Terms

Health systems influence: WHO outlines health systems as all health activities whose primary aim is to promote, restore and maintain health of the people. These entails communities, organizations, and health resources organized together in accordance with stipulated Government policies, to improve the health of the catchment populations, addressing community's legitimate health expectations. In this Study health systems influence will focus on the four independent variables of professional characteristics of hospital managers, organization capacity building systems, hospital managers internal work environment and hospital finance.

Hospital finance: The raising and allocation of revenue to various Sub County hospital departments.

Hospital: This entails tier 3 or level 4 Sub County hospital

Internal work environment: This will entail the elements within a Sub County public hospital

Management Knowledge: The managers possession of training in management.

Manager of hospitals: This is a person who has been tasked with the responsibility of planning and coordinating the health services of a hospital, in the context of this study this will include: Medical superintendent and managers of various hospital department.

Manager of hospital competence: The ability of a manager to execute their managerial functions successfully and efficiently.

Organizational capacity building systems: This will focus on mentorship, coaching and support supervision aspects received by hospital managers.

CHAPTER TWO

LITERATURE REVIEW

2.1 Management Knowledge of a Manager in Hospital

2.1.1 Experience of hospital Managers&Management Qualification

Pillay (2008) study on management competency of managers of hospitals in South Africa. The results indicated majority of public hospital managers had health related background. 74.7% had attended a training in management of health at a certificate, diploma, or degree level. There were high level informal trainings in health management i.e., mentorship, on job training and other short-term trainings.

The public hospital managers were found to be older than 50 years with less than five years' experience in hospital management. Lantz (2008) study on gender and leadership in healthcare administration the findings of the study was women were underrepresented in top management of health care.

Lopes et al. (2019) study on assessment of the levels of management competency of primary care hospital managers in Timor-Leste. He concludes on the need for policy makers and stakeholders prioritize on understanding the organization, ensure there is excellent work ethics in the workplace, sound finance management systems and a well-functioning organizational leadership. Managers must be competent equipped with necessary knowledge and skills to execute managerial functions effectively and efficiently.

For effective execution of management functions, a hospital manager must be equipped with critical competencies. Katz (1974) highlighted several key competencies of a hospital manager which entails conceptual skills, technical skills,

and people skills. Competency has been defined as the ability of an individual to perform certain functions. Ross et al. (2002) has defined these abilities as follows:

Conceptual skills: The ability to conduct in depth analysis and help solve tough organizational challenges i.e a hospital manager conducts an in-depth analysis of the suitable strategies to offer health service. Technical skills entail a manager of a hospital expertise or ability to conduct specific assignments.

Healthcare management involves the ability hospital of a hospital manager to comfortably conduct managerial functions i.e hospital manager should effectively manage time, health information, hospital space and materials, being responsive and following through with organizational peers, immediate supervisors, and consumers of health services. The hospital manager must maintain a cheerful outlook and motivation. The hospital manager must have an in depth understanding of management techniques and conceptual skills and competency and utilize them to achieve organizational goals.

Hospital manager should effectively manage the immediate staff they supervise to ensure completion of tasks, this is conducted by frequent monitoring and review of individual performance through performance appraisal systems and provision of resources required to carry out the functions. The technicality of providing clinical and non-clinical health services in a hospital requires managers who head various hospital departments to work as a team to ensure seamless service delivery.

2.2 Organization Capacity Building Systems

2.2.1 Inservice Management Trainings for Managers

Training of health managers on management is critical in human resource development. Health facility managers are a critical component to strengthening of health systems. None the less, development of managerial skills is rarely factored during health workers basic curriculum training, and in-service trainings and on job mentorship in health management is limited. Continuous mentorship and on job training of health managers is lacking.

In a study on evaluation of capacity building programs of hospital managers in India at the district level (Prashanth et al., 2014). He concludes building the capacity of managers in health systems are a vital human resource management intervention, poor health service delivery can be linked to weak management of health services. However, human resource management studies in the health sectors have demonstrated training of health managers does not provide a clear ticket of positive transformation of institutional as expected. They flagged out efforts to establish the circumstances under which capacity building yielded in a positive institutional change they did not meet methodological threshold, inadequate explanations of the context under which interventions were operationalized, lack of attributability of changes was observed to the intervention inputs.

Outlined by the study is a systematic process of developing a revised program theory beginning from the initial program theory to the implementation phase of the project, this was derived from the evidence of good understanding of the local environment,

and translation of the relevant knowledge into current practices. This details provides information on the origin and potential output of the program.

Rowe et al. (2010) conducted a study in Liberia on building capacity of health facility management. The participants assessed themselves in individual management skill development, it was observed a significant proportion of participants rated their management skills during end of course evaluation as “strong” or “very strong” in compared to the low rating during pre-training evaluation.

In conclusion they recommend use of short course trainings targeting critical skill areas with practical tools that are specific and replicable in there set up. Capacity building through short course trainings minimized interruption of work, this trainings had group work sessions and practical sessions that helped participants develop the expected skills.

Short course formats have proved to be effective in addressing skills sets gaps in developing countries i.e Gambia, Nicaragua, and Mozambique. The integration of classroom, didactic training and field based, mentorship programs were key to bringing together classroom-based training with practical problems and real day to day examples.

Well-developed leadership and management are critical skills required to direct large-scale sustainable change. This is real during health sector reform or devolution of functions as responsibilities and decision-making are often transferred onto managers who lack management expertise. By focusing on the critical management and leadership elements and by working to institutionalize the elements in a local hospital

environment, this program addresses the health sector development gaps of sustaining and replicating initiatives to improve healthcare delivery.

A study on training evaluation a case of capacity building Iranian hospital managers by Omar et al. (2009). The study focused on potential impact of training, the training program aimed to equipping hospital managers with management knowledge and skills to perform better in their health management tasks, participants reported an achievement in this area. The participants noted the training was important and it helped them develop skills in health planning and management functions.

One of the respondent underscored the need to transfer the knowledge and skills to other colleagues working at various levels of care to strengthen leadership and management. The Iranian health system lack in service trainings programs for health managers, although the capacity built at national public health management center through a project will help to change this situation. Short-term in-service trainings are considered impactful in transferring knowledge and skills to participants.

A study on capacity-building needs assessment of rural health managers (Goliath et al., 2015). Goliath observed a new focus on health leadership and governance within the South African health workforce as a key health systems strengthening. Several studies have highlighted that hospital managers feel ill prepared for their role and responsibilities and argue for support and development for hospital managers. The study describes a training need assessment conducted for hospital managers in a rural district which has informed Stellenbosch University Rural Medical Education Partnership Initiative (SURMEPI) continuing professional development activities.

The objective of this study was to determine the capacity building needs and appropriate approaches to be used in developing the capacity of hospital managers in a rural district. The study used a mixed method design. The study was conducted among hospital managers through structured interviews with randomly selected participants. The findings of the study were a need for training on competencies in areas of; leadership, communication, and knowledge management; infection prevention and control; community and public health and health systems research and strengthening. Hospital managers were prioritized as a target group for leadership and management trainings.

2.2.2 Mentorship, Coaching Programs for Managers

The hospital managers opted for learning methodologies that are more practical on site, supported by digital learning rather than sit in classroom-based teaching methods. Goliath concludes creative approaches to hospital managers capacity development and work on site support programs in developing critical management competencies for hospital managers were highlighted in the need's assessment study as the most preferred methods.

The ministry of health Kenya conducted a training needs assessment, the Kenya health workforce report (2015) identified fifteen counties had inadequate knowledge and skills in health planning and budgeting processes resulting to inadequate health resource allocation and mobilization, poor and delayed delivery of health service. This gaps halted the implementation of health projects in counties. The study participants highlighted lack of follow up of the strategic plans and lack of knowledge, skills and capacity in planning and budgeting processes which adversely effected the performance of County health management teams.

These challenges resulted in poor health service delivery, poor project planning and budget for health services in the counties. The report highlighted 50% of the participants lacked monitoring and evaluation plans in their departments, lack of monitoring and evaluation skills and inadequate or poor-quality supervision resulting in poor service delivery.

The findings of the report are evident that there are critical training needs at the County health management level (CHMT). The important training needs for CHMT are Leadership and Management, Senior Management training, supervisory skills training, management, and Strategic planning leadership training. Other short courses of importance are: Human resource management, basic computer literacy; finance management, planning and budgeting and Monitoring and Evaluation of health. CHMT provides direct supervision and mentorship to the managers at the hospital level, with the above inadequacy in management functions skills sets, there will be challenges at hospital level they are not able to effectively supervise and mentor their direct reports at hospital level.

The above reviewed studies highlighted various capacity building programs for health managers the gap identified is on alongside training which other capacity building strategies are available for health managers. This study intends to close this gap by further exploring other areas like mentorship programs, hospital management specific supervision programs available and how they affect overall functionality of a hospital manager.

2.3 Managers of Hospital Internal Work Environment

2.3.1 Accountability of Performance

A manager plays a critical role in ensuring the organizational goal and objectives are met, Griffith (2000) defines excellent achievement in an organization as ability to develop performance measures in the areas of organizational governance and management, customer satisfaction, organization of clinical services, good financial planning, management of information services, management of human resources. The organization should establish measures of the performance they desire to achieve, this will guide the organization. This can include calculation of medication errors, tracking the number of surgical complications, conducting patient satisfaction surveys, identify staff turnover rates, conduct employee satisfaction survey. Each department will develop an action plan to address the gaps identified.

A manager's role is to ensure that the departmental targets are achieved through execution of management functions, hospital management is challenging and demands hospital managers at all levels of health care possess the critical skills of conceptual, technical, and interpersonal for effective and efficient administration of managerial tasks: organizing, staffing, directing, controlling, and planning. Manager's position is critical to ensuring a high-level organization achievement.

Green and Collins (2003) on their paper titled health systems in developing countries, public health sector managers and the management of contradictions and change. Green and Collins highlight public hospital managers have not enjoyed majority esteem accorded to their professional coworkers who are perceived to be the 'true' providers of health services.

In many instances they are viewed, not only as a distraction, but also as a barrier to the pursuit of health service delivery. Health managers are perceived as developers of bureaucratic barriers to clinical services provision. A bad public image exists even though many hospital managers possess a medical health background and a strong medical health base with wealth of experience. Hospital managers are key drivers to efficient delivery of health care services. Health managers support the development of health systems within which health care services can be well delivered. The managers ensure deployment of non-technical workers, medicines and non-pharmaceuticals, medical equipment, and infrastructure, without which health services could be hampered.

2.3.2 Incentives for Managers

Hospital managers working in developing countries face serious difficulties in the development and management of appropriate health system that can address the major health needs of the communities. The environment within which health manager operate in rapidly changing with emerging new disease patterns. There are epidemiological and demographic changes which have triggered outbreak of new infectious diseases such as COVID 19, Ebola outbreak epidemics. There is an upsurge of non-communicable diseases burden globally which is causing pressure in the health systems, this demands a shift in health system resource allocations and service delivery responses.

The hospital managers are expected to address the new disease burden challenges in an environment with scarce unpredictable resources that are way below the Abuja declaration. The other contextual factors including development partners policies, national government health sector reforms. The world has become a global village,

there are technological advancement that pose a challenge to the health system affecting the functions of hospital managers. For proper responses to these challenges, a well-equipped hospital manager is required to provide strategic direction, develop partnership with key stakeholders to push the health agenda forward for appropriate health service delivery.

In their paper Green and Collins (2003) purposed to understand issues experienced by public health managers emphasizing three key areas: the impact of the changes in the health systems, there are some areas of conflict between the interest of the government and private gain, and changes in the forms of accountability. Against this background it then proposes strategies to address these tensions.

Consultation of stakeholders in critical in health reforms processes, many developing countries have failed to ensure this important aspect is done. (Green & Collins, 2003). He highlights the importance of consultations with communities and health professionals in the process of developing healthcare systems, Green and Collins notes less attention has been paid in the involvement of hospital managers in the design of health systems, there contribution is important for the success of health care. The policy makers need to establish a strong hospital managers consultation and dialogue processes that will transform health care system.

Policy analysis is critical in policy making process. There is need for a thorough understanding of the health needs for effective health system policy development such as devolution. This kind of health policies depended on context and as such cannot be uncritical adapted from other countries.

It is of critical significance to understand the structural pillars of these tensions. If this is not understood, then it is possible the imported health solution to the current health problems may still result in under achievement of health goals.

An operation research agenda needs to be established and implemented which is based on previous experiences and fears of hospital managers. It is also valuable to recognize the Pros and Cons of reversibility of health policy change. Taking into consideration the resource needs it is also critical to identify the need for adequate resources systems and support development of sustainable structures, processes as well as disease focused health services. It is of critical importance to recognize and develop capacity for local prioritization to allow hospital managers to manage health resources as opposed to administration role.

Health is a devolved function in the Kenya with the aim to promote access to health care and address inequities in the rural and marginalized areas. The urban areas have experienced better health services compared to the rural areas, bureaucracy is a bottleneck affecting procurement of medical supplies which affects provision of quality health care, devolution of health services aims at promoting efficiency in health services in the country Murkomen (2012). The ministry of health Kenya training needs assessment report highlighted Kenya is experiencing a critical shortage of health workforce.

In the early 1990s the Kenya ministry of health established district health management boards and hospital management board, this was followed by a circular instructing the provincial and district medical officers of health to establish primary health center and dispensary management committees in 1998. The aim was to strengthen the engagement of communities in the planning and development of health facility and

strengthen health education programs in the country, this was adapted as a best practice in other countries.

The ministry of health circular directed the medical officer of health at provincial and district to undertake the process for communities within the catchment area of the health facilities elect ten community members to form a health facility management committee to serve for a period of 3 years.

The mandate of the elect health facility management committees was as follows: Ensure smooth day to day running of the health facilities; health promotion activity in the community; Represent health interests of the community to the health facility; Provide feedback to the community in regard to the health facility health programs and operations ; Support implementation of health programs ; development of health projects through resource mobilization exercises, working closely with various stakeholders.

The health committees had the ability defined as follows: The health facility committee shall have the authority to mobilize resources from implementing partners, local leaders, community members to support infrastructural development of health facilities, the health facility management committee shall have authority to hire and dismiss support staff employed by to support non-technical services at the health facility; the committee shall offer oversight on projects of developing and maintaining health facilities.

The health facility manager is the designated secretary to the health facility management committee, his roles is to ensure the deliberations and action points of the health facility committee are implemented, he ensures safe custody of the minutes

of the committee and he is a signatory to the health facility bank account and also provides technical advice to the committee on health matters, alongside this roles the health facility manager executes the functions of management at the health facility.

The health Act 2015 provides a clear structure of organization of levels of health care delivery in Kenya as follows:

Community health services-Level 1

The functions of community health service are defined as follows: Through community health volunteers, they are expected to provide households with health education to have positive health behavior's choices, case management of some of the disease i.e., uncomplicated malaria by identification of signs and symptoms, referral of household members to the link health facilities. The community health volunteers are supervised by community health extension workers.

Dispensary Level 2

This is a health facility with no in-patient admission services and provides outpatient clinical services, primary health care services as defined in the Kenya essential package of health. Management of minor diseases provide preventive and promotive services thorough health education programs. A dispensary is headed by a clinical officer or community health registered nurse.

Health Centre-Level 3

The health service function provision as this level are as follows: Outpatient clinical services, uncomplicated emergency services, basic obstetrics care services, basic routine laboratory services, health promotion services, provide in patient admission for observation. A health Centre is headed by a clinical officer.

Primary hospital-Level 4

A primary hospital offers the following health services: Outpatient clinical services, inpatient admission services, provide emergency obstetric care, Surgical services, health promotion services, Specialized laboratory testing services, Imaging services, Specialized health services i.e Eye Unit, ENT unit, mentorship and on job training of lower-level health facilities.

Note: The in charge is a registered medical practitioner with a master's degree in a health-related field.

Secondary hospital-Level 5

Health service functions are as follows: To provide specialized health services, there are training centers for cadres of health workers who are deployed at the primary care level i.e., nursing staff and clinical officers, Secondary hospitals are internship placement center for health providers. The manager at this level is a registered medical practitioner with a master's degree in a health-related field.

Tertiary hospital-Level 6

Health service functions provided as level 6 hospitals: Tertiary hospitals provides highly specialized health services. The hospitals are well equipped, and specialists staffed to provide the specialized health services. These hospitals are research and training centers. They are referral centers for complicated health conditions that require specialized care. i.e., Radiology and oncology centers. Tertiary hospital is managed by a medical practitioner with a master's degree in a health-related field and with training and experience of over ten (10) years in senior management.

2.3.3 Available resources for hospital managers

For effective health service delivery, the manager of hospital requires the right health workers ratios according to the global health workforce staffing norms. Attracting and retaining health workers is critical for any manager. To build the knowledge and skills of this health workers continuous medical education sessions, on job training, mentorships and support supervision is critical. Alongside human resource for health, hospital managers require health commodities, health information management systems and health infrastructure for effective health service delivery.

The above literature review has explored how hospital managers work environment affects the managers functionality. There is limited literature on the same highlighting the other areas of interest in this study objective. This study intends to further explore the aspects of policies, overall health resources allocations, incentives for hospital managers and close the knowledge gap in this area of health systems.

2.4 Hospital Finance

2.4.1 Hospital Budget Processes

A study in Malawi on health financing by Zere et al. (2010) highlights investment in the health sector increased from US$ 12 in 1998 to US$25 for the year 2005. In the year 2005 there were health contributions from the public sector, development partners, and private sector at 21.6%, 60.7% and 18.2% respectively. Malawi health investment did not meet the Abuja declaration of allocating at least 15% of national budget to health sector. There was a marked decrease in out-of-pocket health expenditure.

In conclusion he highlights the need for the government to increase investment in health as per Abuja declaration of 15% of national budget. The government is required to develop and roll out a prepaid health finance scheme integrated with in health financing policy and strategy plan aimed at ensuring citizens access to universal health care.

Addae (2013) examined challenges of health care financing in Ghana, the case of national health insurance scheme. He states there are various sources of healthcare financing in Ghana through direct taxes, social health insurance scheme, medical savings account, out of pocket payments, grants, and donations from development partners.

Health financing in Ghana has been faced with several challenges as follows; Inadequate funding was identified as a key challenge facing national health insurance scheme, premium contribution to the scheme is insufficient to purchase health services. This is attributed to the national competing resource needs by various sectors

of the economy. The findings of this study concur with the findings of a health financing research conducted. (Nyanator et al., 1999).

A study in Tanzania on challenges of implementing decentralization of the health sector. (Gasto et al., 2013). Gasto et al. (2013) finds that respondents emphasized the roll out of decentralization of health services is bottlenecked by in adequate financial resources and delayed release of funds from the national government to the decentralized health units.

The reports from national and district levels reported finances allocated to the decentralized health units meet the health needs. The government operates with budget ceiling which the decentralized units are expected to adhere to, it was noted there were delays in release of funds from the central government, there was limited management knowledge among the decentralized units' managers.

In a paper Challenges of devolution of the health sector: Initial challenges or Systems Contradictions by Kimathi (2017). Kimathi identified challenges in resource distribution as a challenge that has been experienced by counties, there is lack of uniformity in allocation of funds to the counties. This has resulted to disruption of health service provision in the health facilities, there is health sector service fund allocation from the national government to public health facilities in counties every quarter, the funds are to be transferred to the health facilities bank accounts direct.

Health finance challenges in the counties has resulted some of the facilities not receiving quarterly disbursements in a year as expected. This disrupted the day-to-day operations of the health facilities; the funds are utilized on the day to day running of the facility and cater for urgent finance needs. Lack of strong health systems at the

county level resulted to gaps in communication and follow-up between the two levels of government to facilitate a speed up in the disbursement of funds, to address this delays in disbursement health facilities are expected to follow up with ministry of health headquarters at Afya house which is difficult based on physical distance and time.

The ministry of finance delayed release of funds to the county governments which has had a ripple effect to the delayed salary payments provoking health workers to strikes, erratic supply of medicines and medical supplies to health facilities affecting the quality of care, exposing the population to out of pocket payments.

The delays in disbursement of funds from treasury to the counties has been a major problem that county governments view as a tool used by national government to sabotage implementation of devolved health service delivery pushing the agenda of reverting health back to the national government. The literature review has explored health financing at national level. Highlighting the funding gaps as per Abuja declaration.

2.4.2 Hospital Annual Workplan Funding and Funding Challenges

In a study titled hospital as a complex adaptive system; A case study of factors influencing priority setting practices at the hospital level in Kenya. (Barasa et al., 2017). He found that managers of hospitals reported to have annual workplans and 5year strategic plan, but they are unable to achieve the plans in absence of resource to implement them, the focus is on meeting the ad hoc needs on a day-to-day basis, hospitals faced inadequate funding.

The studies have not highlighted the health finance issues at a service delivery level i.e hospital. This study intends close this gap by exploring the hospital annual workplans, the budgeting process and the finance accountability systems at a hospital level.

2.5 Management of Hospitals

According to Goldsmith (2012) healthcare management understanding. Goldsmith defines healthcare management as a profession that is responsible for leadership and direction to health organizations providing health services. Hospital managers are tasked to make sure that organizational assignment is delivered to the highest standard with efficient utilization of organizational resources i.e human, finance, information to realize organizational goals and objectives.

Hospital managers tasked with management of hospitals are expected to shape the organization by making important decisions e.g., relate to recruitment and retention, capacity building of staff, procurement of advanced new health technologies in the market, improvement of health services provided. The hospital managers decisions should be directed at ensuring the clients receive high quality health service, which is timely and meets the health needs of the population. The managers are expected to steer the organization to meet performance targets and goals.

2.6 Functions of Management

Managers are expected to execute five management functions as they conduct management processes Longest et al. (2000) this functions are as follows: Planning Function, the manager is expected to set the organization direction and sets targets of performance to be accomplished by the team.

Organizing: The manager is responsible for the overall outline of departments reporting relationships, teams' responsibilities and communication channels and teamwork towards organizational goals.

Controlling: The manager monitors staff activities and work performance by performance appraisals systems, recognition and reward of best performance motivates staff.

Directing: The manager initiates action in the organization by providing good leadership and motivating teams, strengthening communication channels between supervisors and their direct reports. Staffing: The manager attracts and retains the most talented personnel and develops them through continuous in-service training, mentorship programs and support supervision.

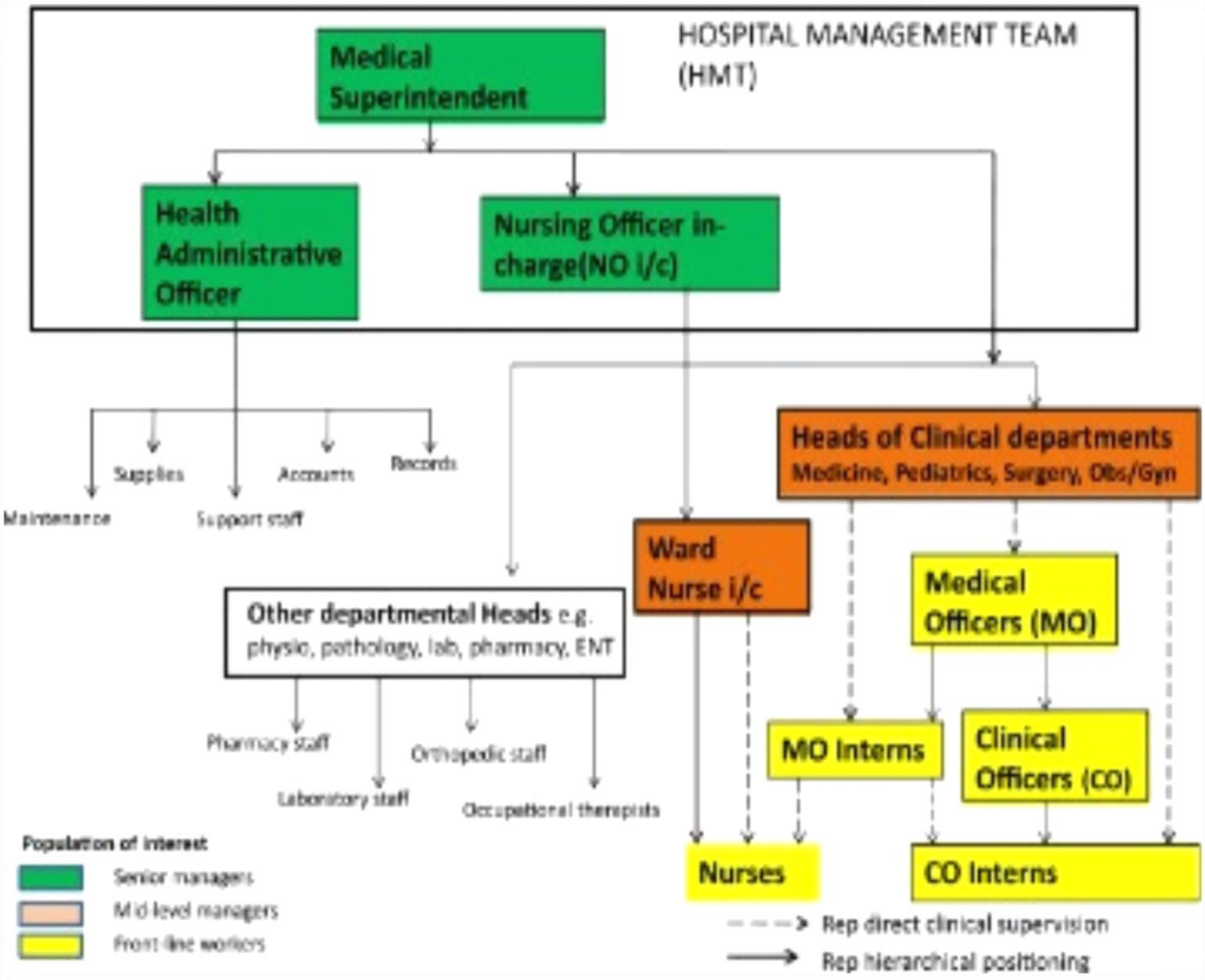
For effective execution of management functions, the manager is required to have developed several critical competencies. Katz (1974) identified the critical competencies a manager is required to have these are conceptual skills, technical skills, and people skills. A manager has the ability or qualities to confidently execute management functions. According to Ross et al. (2002), these are defined as follows: Conceptual skills: Manager's ability to deploy critical thinking and problem-solving skills to navigate organization complex challenges. The manager deploys in-depth analysis of intervention to identify the best solution to address gaps identified. Technical skills: Manager's abilities to offer professional expertise in his area of work. Interpersonal skills: Manager's ability to effectively communicate and relate with the team members through clear communication channels established.

Health care organizations have adapted a functional organization structure which is characterized by a pyramid shape hierarchy with clear functions definitions and management roles assignment. The structure is informed by the size and complexity of the organization providing health services.

The functional organization structure is characterized by a clear chain of command and line of reporting to facilitate effective communication among team members, clear outline of roles and responsibilities, well-structured performance management systems.

Figure 2.1

Generic Sub County hospital level 4 organogram in Kenya



Source: Nzinga, J. McGivern, G.& English, M. (2013)

2.6.1 Health Manager Focus on Management: Self/Team, and Organization

Healthcare management entails execution of skilled professional acumen and skills and carrying out the managerial functions outlined. A manager is expected to be a good steward of organizational resources i.e time, information, finance, and human resource. A manager is required have a positive attitude, build strong relations with peers, clients, and supervisors constantly aware of both the internal and external environment and maintain a good image of the organization. The manager needs to continuously improve his management skills and confidence for effective management of teams.

The manager should develop and monitor the performance management of teams, supervision process should be well structured and documented for effective track of team's performance. The manager should communicate the organization goals to the team and have them buy in and work toward the overall organization goal achievement. This requires teamwork and effective communication patterns.

2.6.2 Role of the Manager in Talent Management

For effective service delivery the organization is required to be well staffed with the right talents and skills to provide the services required. The manager should establish programs that develop the knowledge and skills of employees through in-service training programs, mentorship, and support supervision. Performance management is important in human resource development, the manager should evaluate the performance of employees through performance appraisal program. Recognition and award of best performance motivates the employees.

2.6.3 Role of the Managers in Ensuring High Performance

The manager is expected to ensure high organization performance, Griffith (2000) outlines organizational high performance is determined by the manager, who is expected to champion the process through strengthening clinical quality care, customer satisfaction, organized clinical workflow, finance management systems, information management system, performance management systems. Conduct surveys on client satisfaction, employee satisfaction and monitor medication errors.

The manager's key role is to ensure the departmental targets are met by executing the management functions, healthcare management is challenging and requires managers at all levels of the organization possess critical skills i.e technical skills, Conceptual skills, and interpersonal skills to effectively discharge their managerial functions of Planning, organizing, controlling, directing, and staffing. The role of managers is important to ensuring a high-level organization performance and client satisfaction.

In summary the above reviewed literature highlights various managerial challenges faced by a health manager but does not establish a relationship with the health systems the manager operates in. This study intends to gather evidence how health systems influence the functionality of a manager in a public hospital.

2.7 Theoretical Framework

The study was premised on two models: Administrative theory of management by Fayol (1949) and Systems theory of management. (Von, 1968). As discussed below.

2.7.1 Administrative theory of Management

Fayol (1949) general and industrial management propounded the theory. This study is anchored on the management administration theory: Henry Fayol's principles of management and functions of management. Henry Fayol has defined five management functions which are relevant in the management of organizations today. This are planning, organizing, controlling, coordinating, and commanding. Henry Fayol developed fourteen principles of management. The fourteen principles of management have served as a point of reference for decision making and management actions in organizations today. This principles are discussed as follows:

Division of work: Fayol highlights specialization as critical principle that enhances efficiency of the health workforce resulting in improved work outputs. The principle of authority and responsibility entails management ability to give orders to the subordinates or direct reports. The principle of Discipline envisions good conduct and respectful interactions among the team members.

The principle of unity of command means an employee should receive instructions from their immediate supervisor and the employee reports to the immediate supervisor. Assignment of roles and responsibilities by more than one supervisor may result in employee confusion.

The principle of unity of direction, workers performing similar activities linked to similar departmental objectives must be organized in teams to deliver on this with a clear work plan. The immediate supervisor is solely responsible for the action plan and ensures this objectives are met by the team.

The principle of Subordination of individual interests highlights individual interests are subordinate to the interest of the organization to ensure individuals work towards a common organizational goal. The principle of remuneration, Fayol indicated the need to remunerate workers sufficiently as this motivates them and improves performance. Remuneration can be monetary or through other non-monetary means.

The principle of centralization, Fayol states an institution should ensure delegation of roles is conducted in an organized manner. The principle of scalar chain involves clear reporting lines of management through well-structured organizational organogram to minimize conflicts among workers.

The principle of order: Workers in institutions should have the right resources at their reach to perform the assigned function properly. The principle of equity entails all employees should be treated equally and fairly, immediate supervisors should ensure workers are managed fairly and impartially. The principle of stability of tenure of workers entails deployment of workers based on the service area needs and skill sets of employees.

The principle of initiative, Fayol highlights the need to allow employees share innovative ideas that will create new products and services. The principle of esprit de corps, There is need to strengthen unity and teamwork among workers and their immediate supervisors. This will enhance the team morale and improve productivity.

This study will explore the relationship between this functions of management and health systems.

2.7.2 Systems theory of Management

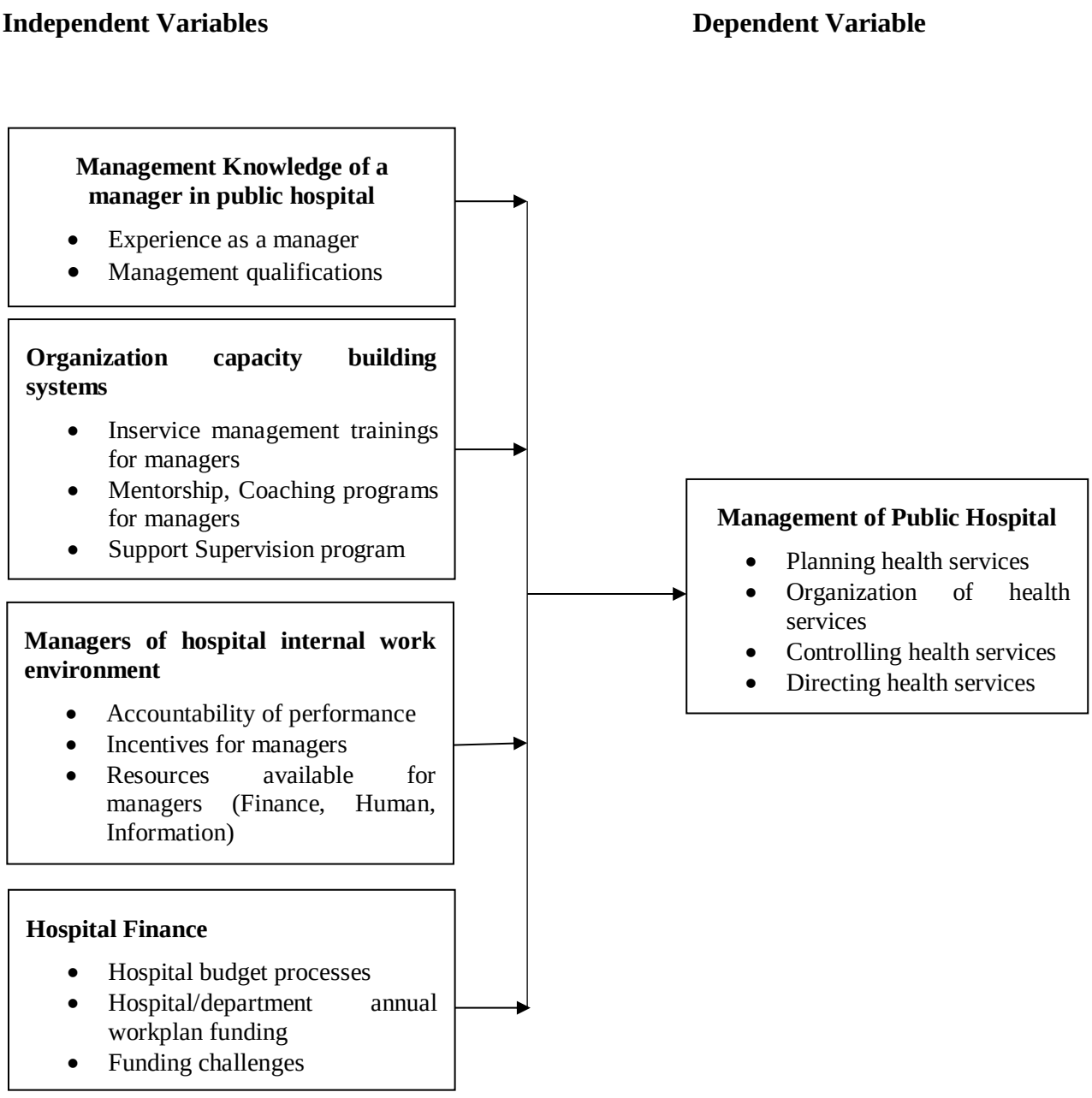
General system theory proposed by Von (1968) looks at the organization as a dynamic and inter-related components. Each component represents a department. Each Component has its sub-components. The components and subcomponents continuously interact for effective delivery of organizational goals and are mutually dependent. The systems theory is relevant to this study as it intends to understand the relationship between health systems and functions of a manager in a public hospital.

2.8 Conceptual Framework

The study was premised on four independent variables; professional characteristics of hospital managers, organization capacity building systems, hospital managers work environment and hospital finance. these influences dependent variable: management of public hospital through management functions which is measured on planning health services, organization of health services, controlling health services and directing health services. The relationship between the variables is presented in Figure 2.2

Figure 2.2

Conceptual Framework



Source: Researcher 2021

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This Chapter entails the study research design, target and population, sampling, preparation of data collection instruments, data collection procedures and methods of data analysis adopted in the study.

3.1 Research Design

A descriptive research design was employed. According to Sekaran and Bougie (2016), descriptive studies are designed to collect data that describe attributes of an individual, an institution, events, or situations. Descriptive statistics enables data to be presented in a meaningful way, which allow simple interpretation of the data. It also highlights potential relationship between variables and answer research questions. Data on all variables was collected once using the tool in appendix II.

3.2 Target Population

The Study was conducted in the Western region of Kenya, Bungoma County. No known similar study has been conducted in Bungoma County. The findings of this study are expected to generate further evidence on management of public hospitals.

The target population was 10 Public Sub County hospitals , targeting 17 departmental managers in each hospital distributed as follows: The Medical Superintendent, Head of Clinical services, Head of nursing services, Head of pharmacy services, Head of laboratory service, Head of radiological services, Head of public health services , Head of nutrition services, Head of health records and information service, Hospital administrator, dental Unit, Physiotherapy, Social services, Occupational therapy unit,

Biomedical engineering unit and any other department available were targeted. In total, 170 respondents were targeted.

Table 3.1

Target Population

	Hospital	Participant (Managers)
1	Bumula sub county hospital	17
2	Chwele sub county hospital	17
3	Kimilili sub county hospital	17
4	Tongaren sub county hospital	17
5	Cheptais sub county hospital	17
6	Mt Elgon sub county hospital	17
7	Sinoko sub county hospital	17
8	Webuye sub county hospital	17
9	Sirisia sub county hospital	17
10	Bokoli sub county hospital	17
Total		**170**

Source: CIDP, Bungoma County (2018-2022)

Table 3.1 indicated the units of observation, that is the Medical Superintendent, Head of Clinical services, Head of nursing services, Head of pharmacy services, Head of laboratory service, Head of radiological services, Head of public health services , Head of nutrition services, Head of health records and information service, Hospital administrator, dental Unit, Physiotherapy, Social services, Occupational therapy unit, Biomedical engineering unit and any other department available from each hospital.

Table 3.2

Study Participants

Sub County Hospital Department	Participant (manager)
Medical Superintendent	1
Nursing Services	1
Clinical Services	1
Laboratory Services	1
Radiology Services	1
Pharmacy	1
Nutrition	1
Public health	1
Health records and information	1
Hospital administration	1
Dental Unit	1
Physiotherapy Unit	1
Occupational therapy unit	1
Social services unit	1
Biomedical engineering Unit	1
Other cadre available in the hospital	1
Total	**17**

3.3 Sampling Procedure

Purposive sampling method was deployed targeting the managers at various hospital departments. They are responsible for specific management responsibilities in the respective departments, they are knowledgeable and skilled to respond to the research questions effectively. Biasness was controlled in the study by specifically targeting heads of departments outlined in Table 3.2, those who did not meet the criteria were excluded from the study.

3.4 Instrumentation

Questionnaire was used in this study as data collection instrument. Questionnaire was preferred as its reliable, convenient and it reduces interviewer bias significantly. A self-administered questionnaire (appendix II) with closed questions was used to collect data. The questionnaire had eight sections, Section A-Section H. Section A to Section D comprised the indicators of independent variables as follows: Section A-Management Knowledge, Section B-Organization capacity building systems, Section C- Internal work environment, Section D-Hospital finance. Section E to Section H sought to establish the components of management of public hospitals which was the dependent variable. Cumulatively the questionnaire had thirty-two items.

3.4.1 Pretest Study

To ensure validity and reliability of the research instrument, a pretest of the questionnaire was conducted at Iguhu Sub County Hospital Kakamega County prior to conducting the study. The researcher chose Kakamega County due to proximity and homogeneity of hospital managers. According to Mugenda and Mugenda (2013), if the study population is less than 10,000 then a sample size of 10 and 30% will be a representation of the target population, hence pretesting targeted 17 hospital managers at Iguhu Sub County Hospital in Kakamega County. The theoretical relationships between the independent and dependent variables and comparing with the outcome of the relationships in the pre testing determined the construct validity.

3.4.2 Validity and Reliability of the Research Instrument

Ranjit (2005), defined validity of a research instruments as the degree to which a measuring device or a test accurately measures what it is intended to measure or measure what is meant to measure. Cooper and Schindler (2006) define validity of the research instruments as the relationship between the data and the variable being measured in the study. Study reliability was used to determine whether the study accurately measured that which it was meant to measure or the accuracy of the research results. Cronbach's alpha reliability test was used to determine the internal consistency of the question items that measure the variables of interest for this study.

The study collected evidence for demonstrating external validity. External validity is the extent to which the results of a study sample can be generalized to a population, by ensuring that respondents sampled are an accurate representation of a population.

Content validity was the appropriateness of the content of a research instrument, in that the data that was collected, represents accurately what the researcher would like to know.

The pre testing results in Table 3.3 indicates that all the variables had a Cronbach Alpha value above the recommended threshold of 0.7. (Kiptalam et al., 2019). Therefore, the questionnaire was deemed reliable.

Table 3.3

Reliability Test Results

Variable	Cronbach Alpha	Number of Questions	Conclusions
Management Knowledge of the Manager in Hospital Management	0.784	4	Reliable
Organization Capacity Building Systems	0.816	4	Reliable
Internal Work Environment	0.817	7	Reliable
Hospital Finance	0.794	4	Reliable
Management of Hospitals	0.884	13	Reliable

Source: Pre testing Data (2021)

3.5 Methods of Data Collection

The researcher obtained an introductory letter to the hospital's management from the Bungoma County Director of Health. On arrival at the hospital the researcher paid a courtesy call to the medical superintendent for introduction, permission, and mobilization of the target respondents. To achieve a high response rate prior phone call with the medical superintendent for introduction and appointment schedule with various departmental heads was done.

Data collection was conducted by the researcher using a self-administered closed ended questionnaire to the respondents. The researcher employed a "drop and pick" approach as many respondents were busy to fill the questionnaire there and then and this was also preferred in line with COVID 19 restrictions of social distance. Voluntary informed documented consent was sought from each respondent as per the appendix I form after explanation to the participants on the objectives of the study. Once the questionnaire was filled the researcher collected the questionnaire's and locked them in a cabinet to ensure data safety and confidentiality.

3.6 Operational definition of variables

The researcher operationally defined the variables before embarking on the development of the self-administered questionnaire. Each of the indicators in both independent and dependent variables were assigned two opinion statements in terms of subjective measurement. The scale used was the ordinal 5-point Likert scale. All the indicators in the subsequent variables were analyzed by use of both descriptive and inferential statistics. Table 3.4 indicates the operationalization Table.

Table 3.4

Operationalization Table

Objective	Type of Variable	Measurement Constructs	Measurement Scale
Management Knowledge	Independent Variable	• Experience as a manager • Management qualifications	5-Point Likert Scale
Organization Capacity Building Systems	Independent Variable	• Inservice management trainings for managers • Mentorship, Coaching programs for managers • Support Supervision program	5-Point Likert Scale
Internal Work Environment	Independent Variable	• Accountability of performance • Incentives for managers • Resources available for managers (Finance, Human, Information)	5-Point Likert Scale
Hospital Finance	Independent Variable	• Hospital budget processes • Hospital/department annual workplan funding • Funding challenges	5-Point Likert Scale
Management of Sub County hospitals	Dependent Variable	• Planning health services • Organization of health services • Controlling health services • Directing health services	5-Point Likert Scale

3.7 Data analysis

Data analysis entailed inspecting, cleaning, transforming, and modeling the collected data using a computer software SPSS version 24. The aim was to highlight useful information, suggesting conclusions that can support decision-making. The relationship between the independent variables and dependent variables was determined through regression analysis as well as correlation analysis. Both univariate and multiple regression analysis were adopted. Univariate regression models were used to show the effect of individual factors on the dependent variable while the multiple regression analysis was applied to determine how the combined independent variables influenced on the functionality of a manager in public Sub County hospitals in Bungoma County. The overall format of the multiple regression model was:

$Y = \alpha + \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$

Where: Y= Dependable variable, Management of Public Hospital

α = Constant

β 1 to 4 = Coefficient of the predictor variables

X_1= Professional Characteristics of hospital managers

X_2= Organization capacity building systems

X_3= Hospital managers work environment

X_4= Hospital finance

ε= Error Term

3.8 Ethical Consideration

As a requirement for research studies the researcher obtained ethical clearance from the Kenya Methodist University Scientific Ethics Research Committee Approval No: KeMU/SERC/HSM/33/2020 in Appendix III and National Commission for Science, Technology, and Innovation License No: NACOSTI/P/21/8727 in Appendix IV. To ensure high ethical standards, the respondents were requested to voluntarily participate in the study after being briefed about the research objective. Relevant information about the study was shared to the respondent and that participation in the study was voluntary.

Each respondent was required to sign consent form before participating in the study. The rights in participation in the study was explained and the respondent was also informed that they could opt out of the study at any time. Further the respondent was informed that they will not receive any compensation; however, they could access the researcher during and after the study for clarification and to get to know the outcome of the study if they were interested.

They were also assured of their confidentiality in that as much as they signed the consent forms, their responses will in no way be traced back to them individually. Data collection and reporting was done in a manner that did not breach the confidentiality agreement with the respondents and as such, the respondents were not allowed to identify themselves in any way in the instrument of the study.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

The results from the data collected and analysed were presented in this section. Descriptive statistics including percentages and frequencies as well as correlation and regression analysis were conducted and presented in this chapter.

4.2 Response Rate

This research was conducted among 10 Sub County hospitals in western part of Kenya, Bungoma County where a total of 170 departmental heads were targeted. Therefore, a total of 170 questionnaires were issued. From this number, 116 questionnaires were well responded to which gave a response rate of 68%.

According to Mugenda and Mugenda (2009), a response rate above 50% is satisfactory for a survey study. In this case, a response rate of 68% was considered to be satisfactory. A higher response rate was not attainable as some of the hospitals managers were not available due to COVID 19 guidelines, competing tasks in relation to COVID 19 assignments. Additionally, due to bureaucratic procedures, some of the respondents did not respond.

Table 4.1

Response Rate

	Frequency	**Percentage**
Response	116	68%
Non-Response	54	32%
Total	**170**	**100%**

4.3 Respondent's Demographic Factors

The demographic factors of the respondents, which is gender, highest level of education and work experience were established as shown in Table 4.1 It was established that majority of the respondents, 73 (63%) were male while 43 (37%) were female. This implies that the top management team of the public health facilities in Bungoma county is male dominated. This concurs with findings in a study by Lantz (2008) on gender and leadership in Australia, women remain underrepresented in top health leadership. However, the constitutional requirement on gender rule has been obeyed. (Constitution of Kenya, 2010).

It was also established that majority of the respondents, 60 (52%), had a bachelor's degree, 30 (26%) had a master's degree, 14 (12%) had a higher diploma while only 3 (3%) and 8 (7%) had a diploma and PhD respectively as their highest level of education. This implies that majority of the top management team in the public health facilities in Bungoma County, Kenya, have a bachelor's degree. They have a high intellectual capacity.

Regarding work experience, it was indicated that majority of the respondents, 30 (26%) had a work experience between 15 and 19 years, 28 (24%) had a work experience between 10 and 14 years and 24 (21%) had a work experience between 20 and 24 years. Only 13 (11%) had a work experience more than 25 years. The finding contradicts the findings by Pillay (2008) in South Africa, the public hospital managers were found to be older than 50 years of age with less than five years' experience in hospital management. This could be attributed to effects of apartheid in South Africa whereby African's were not entrusted with management roles and promotion to management roles could be based on the length of service in the hospital and not one

leadership and management skills which is not the case in Kenya health systems. These results showed a high institutional know how among the study respondents where majority had a work experience more than 10 years. It implies that given their high work experience, they were in a better position to understand the management issues in their hospitals.

Table 4.2

Respondent's Demographic Profile

Variable	Classification	Frequency	Percentage
Gender	Male	73	63%
	Female	43	37%
Highest Level of Education	PhD	8	7%
	Master's Degree	30	26%
	Bachelor's Degree	60	52%
	Higher Diploma	14	12%
	Diploma	3	3%
Work Experience	5 to 9	21	18%
	10 to 14	28	24%
	15 to 19	30	26%
	20 to 24	24	21%
	25 to 34	13	11%

Table 4.3

Likert Scale Interpretation

	Value	Range
Poor	1	1:00-1.80
Low	2	1:81-2.60
Average	3	2.61-3.40
Good	4	3.41-4.20
Very Good	5	4.21-5.00

4.4 Management of Sub County Hospitals in Bungoma County, Kenya

The dependent variable of the study was to establish the management of Sub County hospitals. The study rated statements to gauge the extent to which various management functions had been implemented across the public hospitals in Bungoma, County, Kenya. The results in Table 4.4 indicated that regarding planning, the planning skills of the managers in relation to hospital/department annual workplan development process were good (M = 3.91; SD = 0.70).

It was also indicated that the managers overall planning skills were also good (M = 3.90; SD = 0.69) This contradicts the findings of a study by Barasa et al (2017) he found that hospital managers had a weak technical capacity in the planning and budgeting for health services attributed to lack of training in management. This contradiction of findings could be due to management training programs for hospital managers supported by various partners in Western Kenya region, specifically for Bungoma County through a USAID Afya Ugavi project which has supported training hospital managers on health planning. But teams/department participation in annual work plan development process was not common (M = 2.91; SD = 1.08).

Regarding organization of health services, the results indicated that the overall organizational skills of the managers in the hospitals were good (M = 4.53; SD = 0.50). However, human resource, health information and health commodities, vaccines and supplies were inadequate (M = 3.10; SD = 0.84; M = 3.06; SD = 0.82; M = 2.97; SD = 0.80) respectively. In addition, the overall support received in organizing health services from supervisor was not adequate (M = 2.89; SD = 0.79).

Directing health services; The results also showed that the supervision, mentorship activities to direct staff report was very good among the hospitals (M = 4.54; SD = 0.50). Additionally, the directing skills (A process in which the managers instruct and oversee the performance of the workers to achieve predetermined goals) were very good (M = 4.53; SD = 0.50).

This finding contradicts the findings of a study by Tumlinson et al (2019) on understanding health workers absenteeism in Kenya, he highlights health workers absence from work was a common occurrence in public hospital which is associated to lack of support supervision and weak accountability systems. The contradiction could be a result of varied staff management and supervision strategies across counties this depends on the county department of health leadership and emphasis put forth to managers at various levels to carry out quarterly support supervision.

Concerning the controlling functions, the results indicated that staff understanding and use of MOH daily activity registers among the public health facilities was good (M = 3.99; SD = 0.81), availability of MOH daily activities and reporting registers in the department (s) as required is good (M = 4.46; SD = 0.50) as well as controlling skills (is measuring the progress towards organizational goals and correcting deviations) among the hospital managers is very good (M = 4.53; SD = 0.50).

Overall, the findings indicated that management of public health facilities in Bungoma County is good. Generally, staff understanding and use of MOH daily activity registers among the public health facilities, availability of MOH daily activities and reporting registers in the department (s) as required as well as controlling skills are good.

Moreover, supervision, mentorship activities to direct staff report and the directing skills of the managers were good. On the contrary, teams/department participation in annual work plan development process, availability of human resource, health information and health commodities, vaccines and supplies was inadequate.

Table 4.4

Descriptive Statistics of Management of Public Hospitals

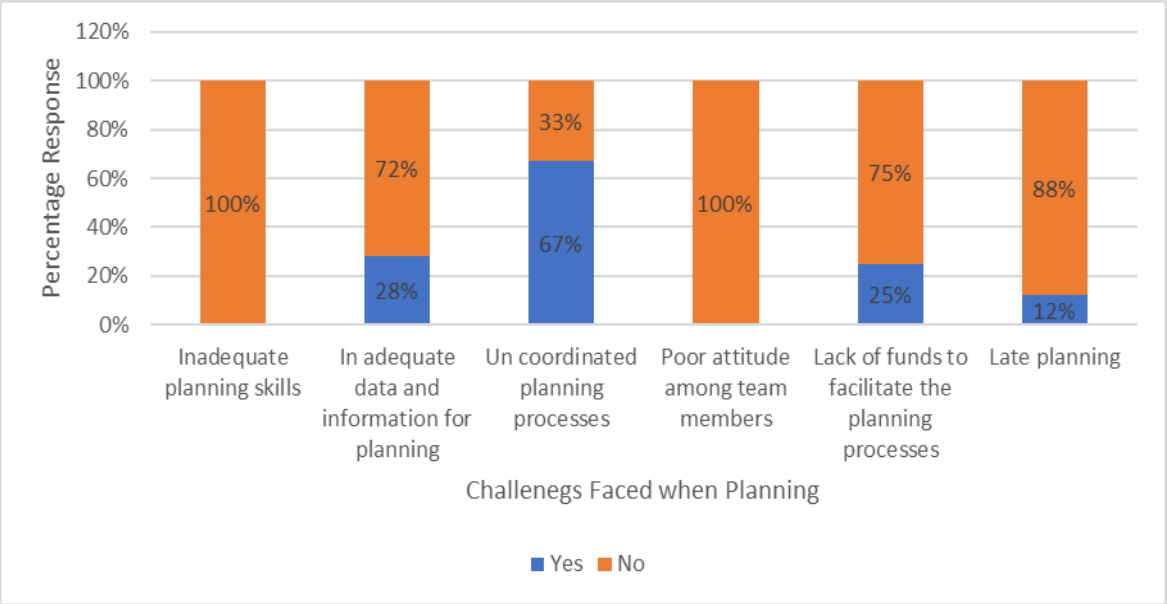
Statement	Mean	Standard Deviation
Planning Health Services		
Teams/department participation in annual work plan development process	2.91	1.08
Planning skills in relation to hospital/department annual workplan development process	3.91	0.70
Planning skills	3.90	0.69
Organization of Health Services		
Organizational skills	4.53	0.50
Availability of human resource	3.10	0.84
Availability of health information	3.06	0.82
Availability of health commodities, vaccines, and supplies	2.97	0.80
Overall support received in organizing health services from supervisor	2.89	0.79
Directing Function of Health Services		
Supervision, mentorship activities to direct staff report	4.54	0.50
Directing skills (A process in which the managers instruct, and oversee the performance of the workers to achieve predetermined goals	4.53	0.50
Controlling Function of Health Services		
Staff understanding and use of MOH daily activity registers	3.99	0.81
Availability of MOH daily activities and reporting registers in the department (s) as required	4.46	0.50
Controlling skills (Is measuring the progress towards organizational goals and correcting deviations)	4.53	0.50
Average	**3.79**	**0.69**

In addition to the Likert scale, the study sought to establish the challenges experienced by managers when planning for health services at the hospital/department. The results in Figure 4.1 indicated that none of the hospitals faced a challenge regarding inadequate planning skills and poor attitude among team members. However, majority of the public hospitals, 78 (67%), faced a challenge of uncoordinated planning processes. Quite the reverse, the least experienced challenges were in adequate data and information for planning 84 (72%), lack of funds to facilitate the planning processes 87 (75%) and late planning 102 (88%).

These findings imply that none of the hospitals faced a challenge regarding inadequate planning skills and poor attitude among team members. The least common problems experienced during planning process were related to in adequate data and information for planning, lack of funds to facilitate the planning processes and late planning. However, uncoordinated planning processes was widely experienced among the hospitals.

Figure 4.1

Challenges experienced when planning for Health Services

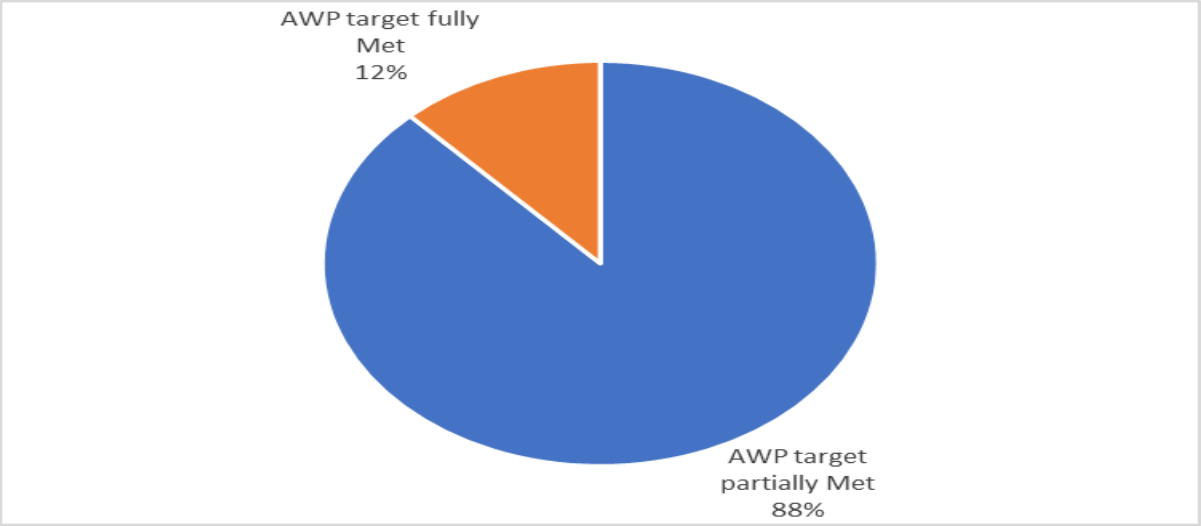


The respondents further rated their achievement of their annual work plan targets. As shown in Figure 4.2 it was indicated that majority of the hospitals, 102 (88%), partially met their annual work plan while only 14 (12%) met it fully. None of the hospitals failed to meet their targets at all. This implies that the hospitals faced a challenge in implementation of their annual work plan and hence they only partially met them.

These findings concur to a study by Barasa et al (2017) he found that managers of hospitals reported to have annual workplan and 5-year strategic plan, but they are unable to achieve the plans in absence of resource to implement them, the focus is on meeting the ad hoc needs on a day-to-day basis.

Figure 4:2

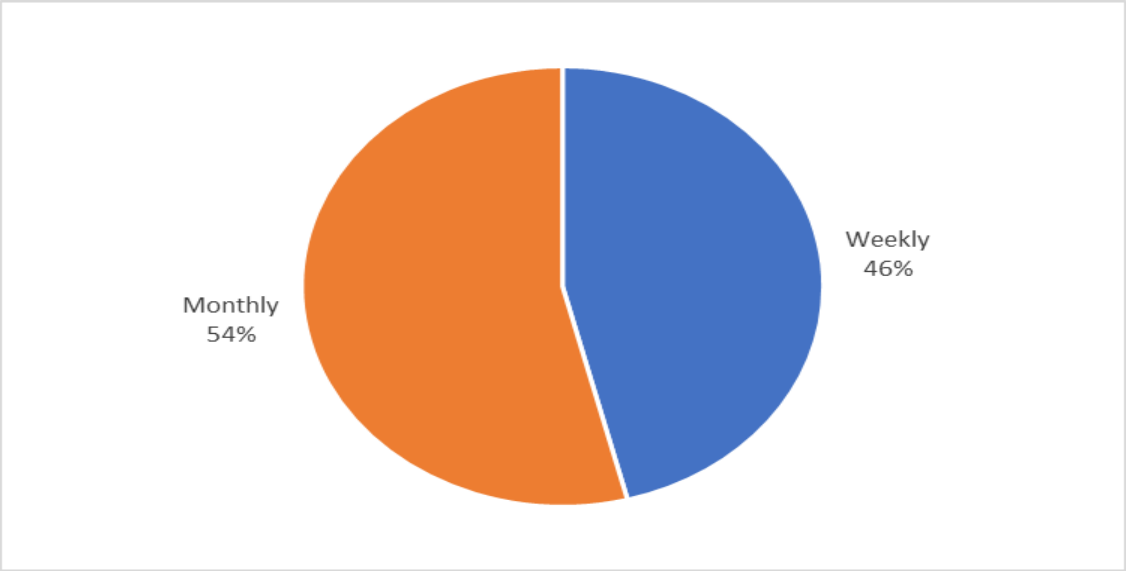
Meeting Annual Work Plan



The respondents also indicated the frequency of departmental meetings in their hospitals. It was shown that none of the hospitals held departmental meetings once a year nor quarterly. As shown in Figure 4.3, it was indicated that majority of the hospitals, 63 (54%), held departmental meetings monthly while 53 (46%) of them did it weekly. Generally, it implies that in each hospital, at least one departmental meeting was held inside a month.

Figure 4.3

Frequency of Departmental Meetings



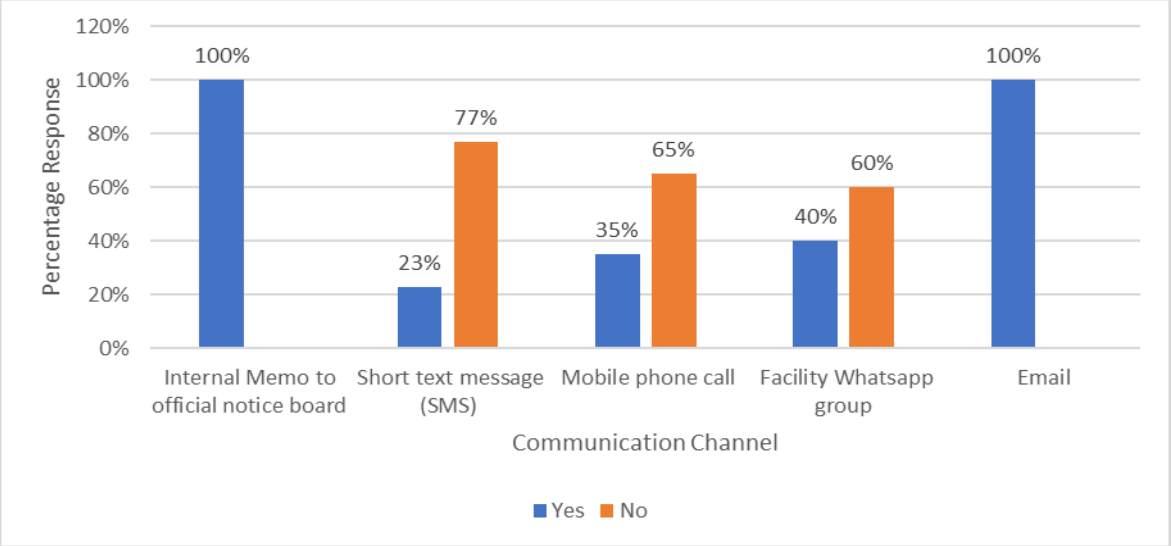
The study also sought to find out whether the hospitals strived to receive feedback from customers and if they did, the channels used to do so. The results in Figure 4.4 established that all the hospitals used suggestion box and health facility phone numbers to get feedback from the customers. However, the use of community score card was not common in the public hospitals.

Additionally, the communication channels adopted by the managers in relaying information to their teams were interrogated. It was shown that all the hospitals used internal memos on official notice boards as well as emails. Quite the reverse, the least adopted channels were SMS 27 (23%), mobile phone calls 41 (35%) and facilities WhatsApp groups 46 (40%). This finding could be attributed to the official nature of communication in government institutions, deployment of latest technological team's communication platforms is yet to be fully embraced and adapted.

The findings imply that various channels have been put in place to relay information among team members in the public hospitals under the survey. Additionally, all the hospitals indicated that they have a staff rewards systems which were certificate or trophy award, recognition of best performing staff and promotion/recommendation for promotion.

Figure 4.4

Channels for relaying Information



4.5 Management Knowledge of a manager and Manager's Functionality to Manage Sub County Hospital in Bungoma County

The first objective of the study was to establish the influence of management knowledge of a manager on the functionality to manage Sub County hospital in Bungoma County. This section presents the findings on this objective ranging from the descriptive statistics, regression, and correlation results.

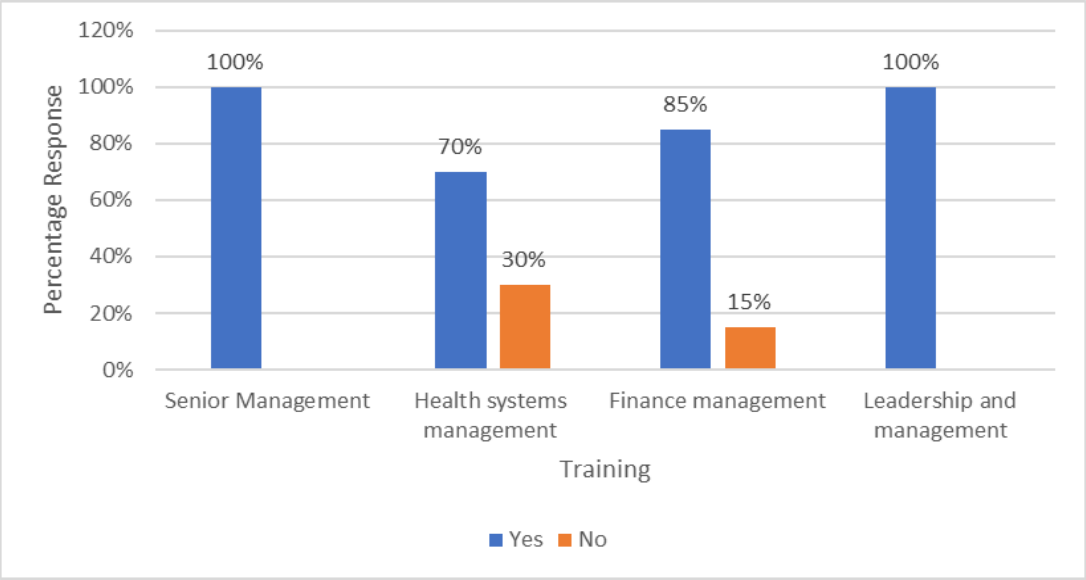
4.5.1 Descriptive Statistics on Management Knowledge of a Manager

The study established some of the management trainings the respondents had undergone before. Among the trainings focused on is Senior Management, Health systems management, Finance management and Leadership and management. The results (Figure 4.5) indicated that all the respondents had attended a senior management as well as a leadership and management training.

However, 81 (70%) of them had attended a health systems management training while 99 (85%) had attended a finance management training. Generally, these findings imply that majority of the top management team members in the public health facilities in Bungoma County had undergone various trainings to develop their leadership and management capacity. Pillay (2008) similarly established that in South Africa, majority of public hospital managers had health related background and 74.7% of them had attended a training in management of health at a certificate, diploma, or degree level. This finding could be attributed to the prerequisite mandatory requirement by the Kenya public service commission to have a certificate senior management course or leadership and management course to be promoted to certain Job groups in career progression. The courses are available at Kenya government schools, the county department of health has been providing sponsorship to hospital managers to undertake the course.

Figure 4.5

Type of Trainings Attended

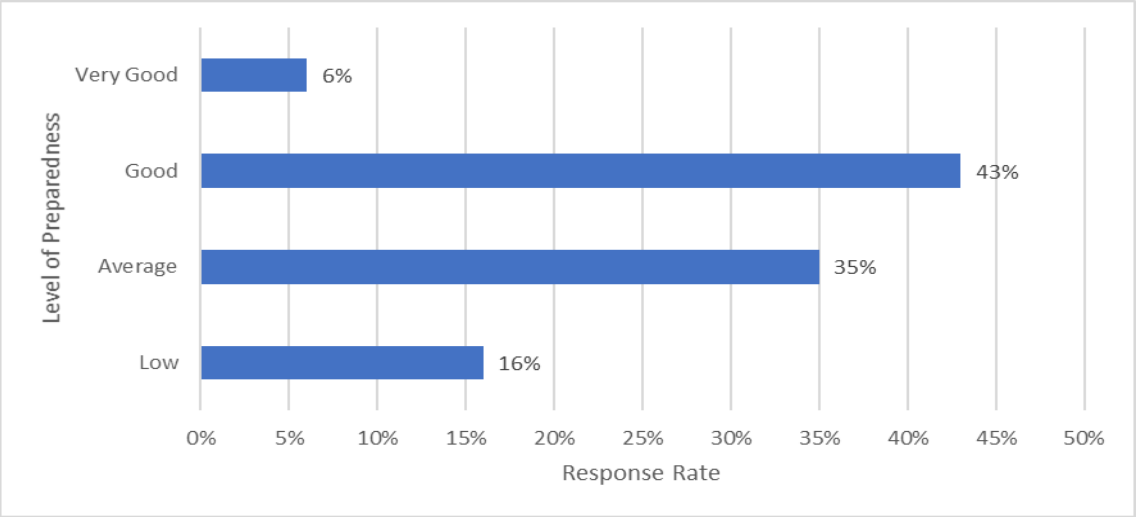


The study also sought to establish whether the managers were adequately prepared to execute their managerial responsibilities at hand when being appointed. The results in Figure 8 indicates that majority of the managers, 50 (43%), upon appointment had a good preparedness level, 35% of them were averagely prepared while only 7(6%) had very good level of preparedness.

Those with a low level of preparedness were 19 (16%). This implies that less than half of the managers were well prepared during appointments into management positions. It implies that there is low rate of succession planning among the public health facilities in Bungoma County, Kenya. The finding concurs with those in a study by Mogere (2013) on management and leadership skills among hospital managers in Nyanza region, he found majority of hospital managers are not adequately prepared to manage hospital management functions.

Figure 4.6

Level of Preparedness for Managerial Position



The respondents further rated Likert scale questions regarding management knowledge on a scale of 1 to 5 from 1 = Poor, 2 = Low, 3 = Average, 4 = Good and 5 = Very Good. Table 4.5 indicates the results obtained from the responses. It was established that majority of the respondents had a good work experience (M = 3.62; SD = 1.14), leadership knowledge (M = 3.62; SD = 1.14), knowledge on overall health systems structure (M = 3.62; SD = 1.14) as well as management qualifications (m = 3.62; SD = 1.14).

On average, it was established that the top management team had a good management knowledge. Similarly, Lopes et al. (2019) established that in Timor-Leste, hospital managers were well equipped with management skills necessary for running the hospitals.

Table 4:5

Descriptive Statistics of Management Knowledge of a manager

Knowledge	Mean	Standard Deviation
Work Experience	3.62	1.14
Leadership knowledge	4.07	0.72
Knowledge on overall health systems structure	3.55	1.10
Management qualifications	4.05	0.68
Average	**3.57**	**0.91**

4.5.2 Correlation Analysis of Management Knowledge of a manager and Manager's Functionality to Manage Sub County Hospital in Bungoma County

To establish the relationship between management knowledge of a manager and the manager's functionality to manage Sub County hospitals in Bungoma County, a bivariate Pearson correlation analysis was conducted. To do so, the Likert scale questions in each variable were combined through harmonic mean then used to run the Pearson correlation. Field (2009) supports this method of using harmonic mean of Likert scale questions in inferential analysis.

The results presented in Table 4.6, indicated that Manager's Management knowledge was positively and significantly associated with effective management of public hospitals ($r = 0.674$; P-value < 0.05). This implies that managers with higher levels of work experience, qualifications, leadership knowledge and knowledge on overall health systems structure managed public hospitals more effectively.

This is consistent with the identified critical management skills by Katz (1974) who demonstrated that for effective execution of management functions, a hospital manager must be equipped with critical management competencies.

Table 4.6

Correlation Analysis of Management Knowledge of a manager and Manager's Functionality to Manage Sub County Hospital in Bungoma County

		Management Knowledge	Management of Sub County Hospital
Management Knowledge	Pearson Correlation	1	
	Sig. (2-tailed)		
Management of Sub County Hospital	Pearson Correlation	.674**	1
	Sig. (2-tailed)	0.000	
	N	116	116

** Correlation is significant at the 0.01 level (2-tailed).

4.5.3 Regression Analysis of Management Knowledge of a manager and Manager's Functionality to Manage Sub County Hospital in Bungoma County

To establish the influence of management knowledge of a manager on manager's functionality to manage Sub County hospitals in Bungoma County, a univariate regression model was used. The regression results are presented in Table 4.7

Table 4.7

Regression Analysis of Management Knowledge of a manager and Manager's Functionality to Manage Sub County Hospital in Bungoma County

Model Summary					
R	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**		
.674	0.454	0.449	0.1747		
ANOVA					
	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Regression	2.892	1	2.892	94.772	.000
Residual	3.479	114	0.031		
Total	6.372	115			
Coefficients					
	Unstandardized Coefficients		**Standardized Coefficients**		
	B	**Std. Error**	**Beta**	**t**	**Sig.**
(Constant)	2.853	0.098		29.119	0.000
Manager's Management knowledge	0.263	0.027	0.674	9.735	0.000
Dependent Variable: Manager's Functionality to manage Sub County Hospital					
Predictors: (Constant), Manager's Management knowledge					

The model summary results in Table 4.7 imply that manager's management knowledge of a manager account for up to 45.4% of the variation in manager's functionality to manage Sub-County hospitals in Bungoma County, Kenya ($R^2 = 0.454$). This factor is thus very critical. The remaining percentage, 54.6%, can be accounted for by other variables other than manager's knowledge to manage hospitals.

The regression model fitness was also tested through ANOVA results. The results indicated that the regression model linking manager's management knowledge to their functionality to manage Sub-County hospitals was a good fit and significant (P-value < 0.05).

This means that the model matched the data too closely to the real observations and thus, it was suitable to make meaningful generalizations of the sample size on the entire study population. The outcomes of this model were termed as more accurate hence reliable.

Lastly, the regression model coefficients were established and used to answer the research question:

What is the influence of management knowledge of a manager on the functionality to manage Sub County hospital in Bungoma County?

The results indicated that management knowledge of a manager had a positive and significant influence on manager's functionality to manage Sub-County Hospitals ($\beta = 0.263$; P-value < 0.05). This implies that a unit increase in manager's management knowledge leads to a significant improvement in management of Sub-County Hospitals by 0.263 units. In that regard, it implies that manager's management knowledge is an important factor in management of Sub-County Hospitals. In a related interrogation, Griffith (2000) established that managers who had various skills such as organizational governance and management, customer satisfaction, organization of clinical services, good financial planning, management of information services and management of human resources managed hospitals better.

4.6 Organization Capacity Building Systems and Manager's Functionality to Manage Sub County Hospital in Bungoma County

The second objective of the study was to examine the influence of organization capacity building systems on the manager functionality to manage Sub County hospital

in Bungoma County. This section presents the findings on this objective ranging from the descriptive statistics, regression, and correlation results.

4.6.1 Descriptive Statistics on Organization Capacity Building Systems

The respondents rated Likert scale questions regarding organization capacity building systems on a scale of 1 to 5 from 1 = Poor, 2 = Low, 3 = Average, 4 = Good and 5 = Very Good. Table 12 indicates the results obtained from the responses. The study findings indicated that access to health management courses or trainings available through the county department of health was easy (M = 4.09; SD = 0.69) and the access to in-service public finance management courses or trainings through the county department of health was equally easy (M = 4.02; SD = 0.76).

It was also established that mentorship or support supervision on management from County supervisors or national level was good (M = 3.89; SD = 0.74) and the quality of mentorship or support supervision on public finance management received was also good (M = 4.39; SD = 0.63). On average, it was established that the organization capacity building systems were good. This is consistent with the findings of a study by Rowe et al (2010) conducted in Liberia on building capacity of health facility management to establish that a significant proportion of participants rated their management skills during end of course evaluation as “strong” or “very strong”.

Table 4.8

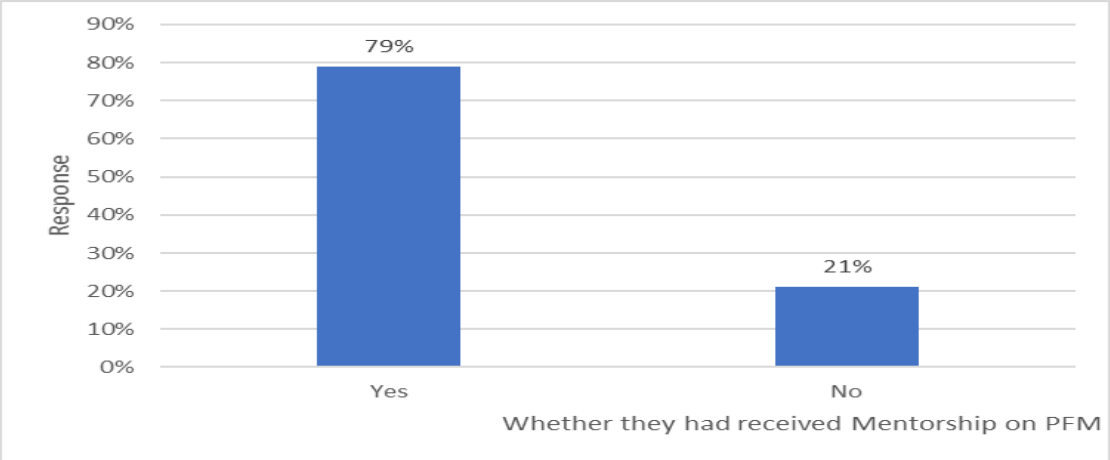
Descriptive Statistics of Organization Capacity Building Systems

Statement	Mean	Standard Deviation
Easiness in access to health management courses or trainings available through the county department of health	4.09	0.69
Easiness in access to in-service public finance management courses or trainings through the county department of health	4.02	0.76
Mentorship or support supervision on management from County supervisors or national level	3.89	0.74
The quality of mentorship or support supervision on public finance management received	4.39	0.63
Average	**4.09**	**0.71**

The respondents were also asked whether they had received mentorship or support supervision on public finance management from your county supervisors or national team. The results in Figure 4.7 indicated that majority of the hospital managers in the public health facilities, 92 (79%), had received mentorship or support supervision on public finance management from the county supervisors or national team. This implies that the county and national government had extended programmes to mentor and support top management team of public health facilities in management of public finance.

Figure 4.7

Whether the managers had received mentorship on PFM



4.6.2 Correlation Analysis of Organization Capacity Building Systems and Manager's Functionality to Manage Sub County Hospital in Bungoma County

The study adopted a bivariate Pearson correlation to establish the relationship between organization capacity building systems and the manager's functionality to manage Sub County hospitals in Bungoma County. The results are presented in Table 4.9

Table 4.9

Correlation Analysis of Organization Capacity Building Systems and Manager's Functionality to Manage Sub County Hospital in Bungoma County

		Management of Sub County Hospital	Organization Capacity Building Systems
Management of Sub County Hospital	Pearson Correlation	1	
	Sig. (2-tailed)		
Organization Capacity Building Systems	Pearson Correlation	.588**	1
	Sig. (2-tailed)	0.000	
	N	116	116

** Correlation is significant at the 0.01 level (2-tailed).

The results in Table 4.9 indicated that availability of capacity building systems in the facility was positively and significantly associated with effective management of public hospitals ($r = 0.588$; P-value < 0.05). This implies that the public health facilities with capacity building systems such as in service management trainings for managers, mentorship, coaching programs for managers as well as support supervision programs were well managed. The findings agree with that of a study by Omar et al. (2009) conducted in India and established that training was important, and it helped hospital managers develop skills in health planning and management functions.

4.6.3 Regression Analysis of Organization Capacity Building System and Manager's Functionality to Manage Sub County Hospital in Bungoma County

The study adopted a univariate regression analysis to find out the influence of organization capacity building system on manager's functionality to manage Sub County hospitals in Bungoma County. The regression results are presented in Table 4.10.

Table 4:10

Regression Analysis of Organization Capacity Building System and Manager's Functionality to Manage Sub County Hospital in Bungoma County

Model Summary					
R	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**		
.588	0.346	0.34	0.1912		
ANOVA					
	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Regression	2.205	1	2.205	60.347	.000
Residual	4.166	114	0.037		
Total	6.372	115			
Coefficients					
	Unstandardized Coefficients		**Standardized Coefficients**		
	B	**Std. Error**	**Beta**	**t**	**Sig.**
(Constant)	2.453	0.173		14.14	0.000
Organization Capacity Building System	0.327	0.042	0.588	7.768	0.000
Dependent Variable: Manager's Functionality to Manage Sub-County Hospitals in Bungoma					
Predictors: (Constant), Organization Capacity Building System					

The results (Table 4.10) indicated that organization capacity building systems can explain up to 34.6% of the variation in manager's functionality to manage Sub-County hospitals in Bungoma County, Kenya ($R^2 = 0.346$). This factor is thus equally very critical. The remaining percentage, 65.4%, can be accounted for by other variables other than organization capacity building systems.

The regression model fitness was also tested through ANOVA results. The results indicated that the regression model linking organization capacity building systems to manager's functionality to manage Sub-County hospitals was a good fit and significant (P-value < 0.05).

This means that the model matched the data too closely to the real observations and thus, it was suitable to make meaningful generalizations of the sample size on the entire study population. The outcomes of this model were termed as more accurate hence reliable.

Lastly, the regression model coefficients were established and used to answer the research question:

How do Organization Capacity Building Systems influence the manager functionality to manage Sub County hospital in Bungoma County?

The coefficients results showed that organization capacity building systems had a positive and significant influence on management of Public Hospitals ($\beta = 0.327$; P-value < 0.05). This implies that a unit increase in development of organization's capacity building systems leads to a significant improvement in management of Sub-County Hospitals by 0.327 units.

The findings are consistent with that of a study conducted by Prashanth et al. (2014) in India and established that building the capacity of managers in health systems are a vital human resource management intervention, poor health service delivery can be linked to weak management of health services.

4.7 Internal Work Environment and Manager's Functionality to Manage Sub County Hospital in Bungoma County

The third objective of the study was to determine the influence of internal work environment on the manager functionality to manage Sub County hospital in Bungoma County. This section presents the findings on this objective ranging from the descriptive statistics, regression, and correlation results.

4.7.1 Descriptive Statistics on Internal Work Environment

The respondents rated Likert scale questions regarding internal work environment on a scale of 1 to 5 from 1 = Poor, 2 = Low, 3 = Average, 4 = Good and 5 = Very Good. Table 15 indicates the results obtained from the responses. The results showed that managers in public health facilities in Bungoma County get support from the immediate supervisor at work (M = 4.03; SD = 0.67), get resources availed to them to enable them discharge of roles (M = 4.03; SD = 0.75), averagely achieved their goals/targets in latest staff performance appraisal (M = 3.217; SD = 0.69) are motivated as managers in the hospital/departmental (M = 4.10; SD = 0.74).

It was also established that among the public health facilities in Bungoma, there is availability of health information (M = 3.97; SD = 0.76) but human resources for health as well as health commodities and vaccines are inadequate (M = 2.83; SD = 0.83) and (M = 3.09; SD = 0.80) respectively. On average, it was established that the internal working environment of the public hospitals in Bungoma County, Kenya was good.

This was contrary to the findings of a study by Green and Collins (2003) established that the environment within which health manager operate in developing economies was not favorable. Additionally, Green and Collins (2003) indicated that less attention has been paid in the involvement of hospital managers in the design of health systems, there contribution is important for the success of health care.

The findings of this study could be contrary to the findings of Green and Collins (2003) since then there has been increased commitments towards healthcare due to regional commitment during the Abuja Declaration and global commitment during the millennium development goals summit, Goals 4, 5 and 6 geared towards improving

health outcomes. In Kenya the political goodwill has improved due to advocacy activities by various civil societies resulting into increased domestic funding towards health care and overall improvement in the hospitals work environment through the recently launched Universal health care program.

Table 4.11

Descriptive Statistics of Internal Work Environment

Statement	Mean	Standard Deviation
Support from the immediate supervisor at work	4.03	0.67
Resources availed to enable discharge of roles	4.03	0.75
Achievement of goals/targets in latest staff performance appraisal	3.27	0.69
Motivation as a manager in the hospital/departmental	4.10	0.74
Availability of health information	3.97	0.76
Availability of human resources for health	2.83	0.83
Availability of health commodities and vaccines	3.09	0.80
Average	**3.62**	**0.75**

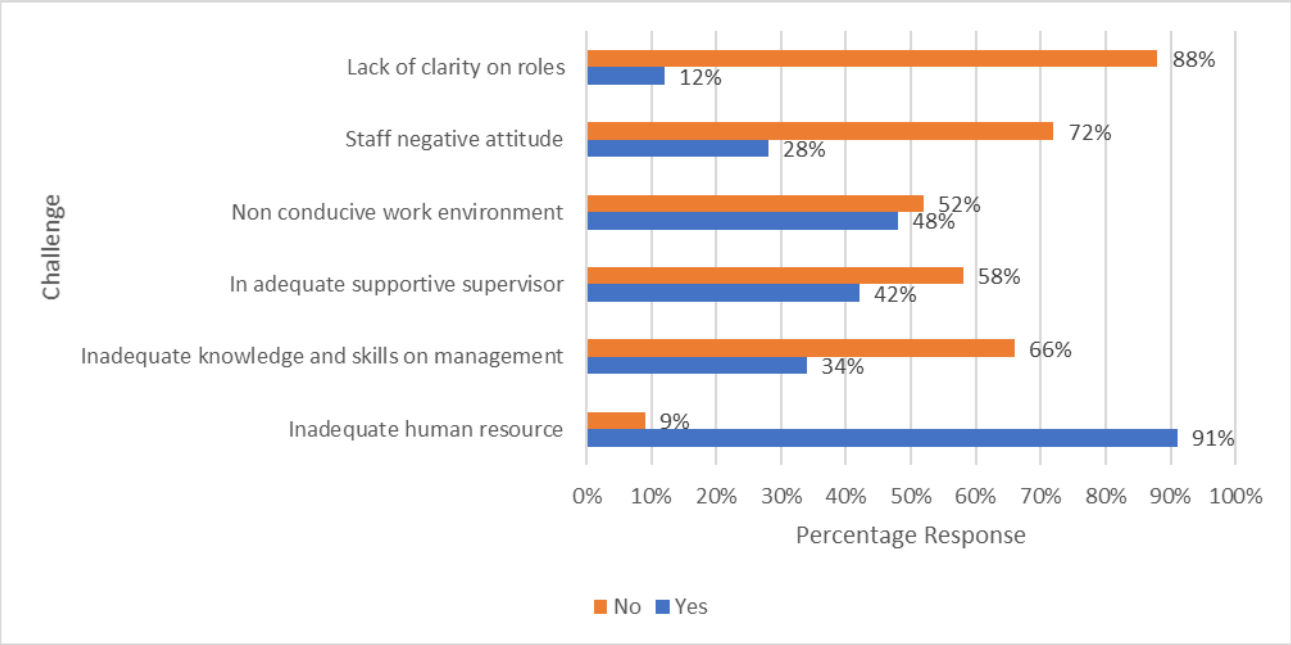
The respondents were also asked to state some of the challenges they experienced as managers in public hospitals. The results in Figure 4.11 indicated that majority of the managers, 106 (91%), faced the problem of inadequate human resource. This finding is similar to what was highlighted in the Ministry of health Kenya Report (2015) Training needs assessment, Kenya is experiencing health workforce shortage.

The findings of this studies indicate public hospitals are still grappling with human resource for health ratios, with a rapid population increase and inadequate budgetary allocation to health department this will still be a thorn in the flesh in the journey towards universal health coverage.

However, only 14 (12%) had issues to do with clarity of roles, 32 (28%) had a challenge of negative attitude among the staff, 56 (48%) had a challenge with non-conducive work environment, 49 (42%) did not receive adequate support from their supervisors while only 39 (34%) of them indicated they did not have adequate knowledge and skills on management. Overall, it can be argued that while all the public hospitals had a challenge with the adequacy of human resource, the other challenges varied from hospital to another.

Figure 4.8

Challenges Experienced as Managers



4.7.2 Correlation Analysis of Internal Work Environment and Manager's Functionality to Manage Sub County Hospital in Bungoma County

To establish the relationship between internal work environment and the manager's functionality to manage Sub County hospitals in Bungoma County, the study adopted a bivariate Pearson correlation. The results are presented in Table 4.12

Table 4.12

Correlation Analysis of Internal Work Environment and Manager's Functionality to Manage Sub County Hospital in Bungoma County

		Internal Work Environment	Management of Sub County Hospital
Internal Work Environment	Pearson Correlation	1	
	Sig. (2-tailed)		
Management of Sub County Hospital	Pearson Correlation	.508**	1
	Sig. (2-tailed)	0.000	
	N	116	116

** Correlation is significant at the 0.01 level (2-tailed).

The study results (Table 4.12) showed that Internal work environment in public health facility was positively and significantly associated with effective management of public hospitals ($r = 0.508$; P-value < 0.05). This demonstrated that availability of conducive internal work environments with adequacy of resources for managers such as finance, human resources and information, environments where accountability of performance was appreciated, and managers received incentives led to effective management of public health facilities.

Green and Collins (2003) also established that when the work environment is conducive, with deployment of health workers, medicines and non-pharmaceuticals, medical equipment, and infrastructure, then health services cannot be hampered, and service delivery would significantly improve.

4.7.3 Regression Analysis of Internal Work Environment and Manager's Functionality to Manage Sub County Hospital in Bungoma County

The influence of internal work environment on manager's functionality to manage Sub County hospitals in Bungoma County was also established. To achieve that, a univariate regression model was used. The regression results are presented in Table 4.13.

Table 4.13

Regression Analysis of Internal Work Environment and Manager's Functionality to Manage Sub County Hospital in Bungoma County

Model Summary					
R	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**		
.508a	0.258	0.252	0.2036		
ANOVA					
	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Regression	1.645	1	1.645	39.661	.000
Residual	4.727	114	0.041		
Total	6.372	115			
Coefficients					
	Unstandardized Coefficients		**Standardized Coefficients**	**t**	**Sig.**
	B	**Std. Error**	**Beta**		
(Constant)	2.49	0.208		11.989	0.000
Internal Work Environment	0.36	0.057	0.508	6.298	0.000
Dependent Variable: Manager's Functionality to Manage Sub-County Hospitals in Bungoma					
Predictors: (Constant), Internal Work Environment					

It was indicated as shown in Table 4.13 that internal work environment can account for up to 25.8% of the variation in manager's functionality to manage Sub-County hospitals in Bungoma County, Kenya ($R^2 = 0.258$).

This factor is thus equally very critical in management of hospitals. The remaining percentage, 74.2%, can be accounted for by other variables other than this.

The regression model fitness was also tested through ANOVA results. The results indicated that the regression model linking internal work environment to manager's functionality to manage Sub-County hospitals was a good fit and significant (P-value < 0.05). This means that the model matched the data too closely to the real observations and thus, it was suitable to make meaningful generalizations of the sample size on the entire study population. The outcomes of this model were termed as more accurate hence reliable.

Lastly, the regression model coefficients were established and used to answer the research question:

What is the influence of internal work environment on the manager functionality to manage Sub County hospital in Bungoma County?

The results further indicated that internal work environment had a positive and significant influence on management of Public Hospitals ($\beta = 0.360$; P-value < 0.05). This implies that a unit improvement in the hospital's internal work environment leads to a significant improvement in management of Public Hospitals by 0.360 units. The findings are consistent with that of a study by Green and Collins (2003) which established when the work environment is conducive, with deployment of non-technical workers, medicines and non-pharmaceuticals, medical equipment, and infrastructure, then health services cannot be hampered, and service delivery would significantly improve.

4.8 Hospital Finance and Manager's Functionality to Manage Sub County Hospital in Bungoma County

The fourth objective of the study is to find out whether hospital finance has any influence on the manager functionality to manage Sub County hospitals in Bungoma County. This section presents the findings on this objective ranging from the descriptive statistics, regression, and correlation results.

4.8.1 Descriptive Statistics on Hospital Finance

The study established the sources of funding for the Sub County hospitals in Bungoma. All the sampled managers indicated that their hospitals were financed through multiple sources ranging from NHIF, County department fund, DANIDA, user fees and revenue. Similarly, a study by Addae (2013) established that in Ghana, various sources of healthcare financing such as direct taxes, social health insurance scheme, medical savings account, out of pocket payments, grants, and donations from development partners exist.

The respondents also rated Likert scale questions regarding hospital finance on a scale of 1 to 5 from 1 = Poor, 2 = Low, 3 = Average, 4 = Good and 5 = Very Good.

Table 18 indicates the results obtained from the responses. It was established that Sub County Hospitals in Bungoma County avails funds to meet department annual work plans (M = 4.15; SD = 0.69) and managers participate in the budget making process for the hospital/department (M = 4.08; SD = 0.65).

The hospitals have also shown average progress towards achieving the hospital/department goals as per the annual workplan (M = 2.13; SD = 1.02) and have average finance accountability systems in place (M = 3.13; SD = 1.43).

Overall, the financial commitment in the public health facilities under the study was average. The findings are consistent with that of a study by Zere et al., (2010) in Malawi, he established that Malawi health investment was below average not meeting the Abuja declaration of national governments allocating at least 15% of national budget to health sector.

Table 4.14

Descriptive Statistics of Hospital Finance

Statement	Mean	Standard Deviation
Availability of funds to meet hospital/department annual work plan	4.15	0.69
Participation in the budget making process for the hospital/department for the current financial 2020/2021	4.08	0.65
Progress towards achieving the hospital/department goals as per the annual workplan	2.13	1.02
Finance accountability systems in place	3.13	1.43
Average	**3.37**	**0.95**

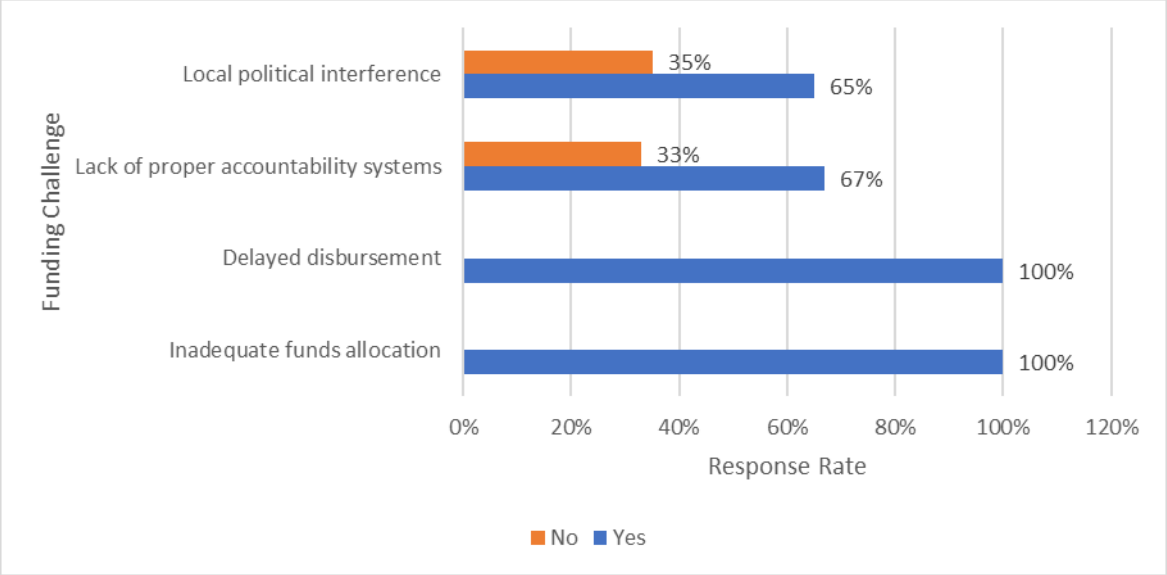
The respondents rated some of the funding challenges they experienced. The results in Figure 4.9 showed that all the managers agreed that inadequate funds allocation and delayed disbursement were major issues in the public hospitals in Bungoma. Additionally, lack of proper accountability systems and local political interference was termed as an issue among 78 (67%) and 75 (65%) of the respondents respectively.

This implies that the major financing challenges experienced by all the Sub County public hospitals sampled were inadequate funds allocation and delayed disbursement.

However, lack of proper accountability systems and local political interference were faced selectively. The findings are consistent with that of a study by Gasto et al, (2013) who established that in Tanzania, the roll out of decentralization of health services is bottlenecked by in adequate financial resources and delayed release of funds from the national government to the decentralized health units.

Figure 4.9

Funding Challenges among Public Hospitals



Furthermore, there was a need to find out some of the reasons for the challenges faced. Therefore, the respondents rated some of the reasons for funding challenges in their facilities as presented in Figure 4.10 It was demonstrated that all the managers agreed that inadequate funds received from the county department of health was one of the reasons for funding challenges.

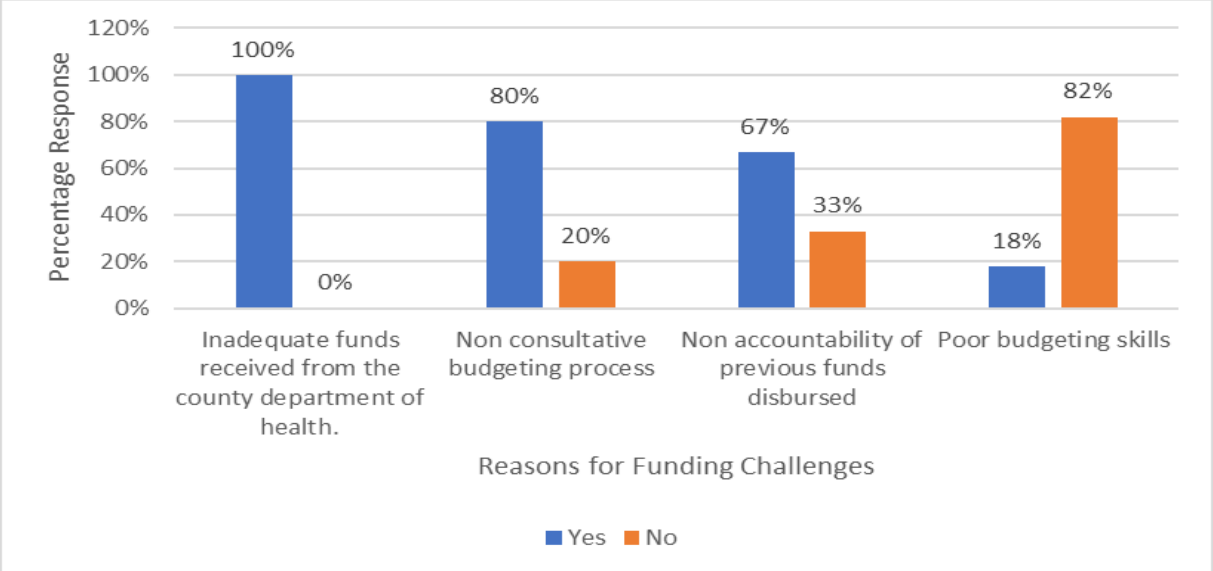
This concurs to the findings in a paper by Kimathi (2017) Challenges of devolution of health services, he highlights health financing at county level was a challenge that disrupted day to day operation of hospitals in the Counties.

The findings are like that of a study by Barasa et al. (2017) he highlights chronic underfunding was a common feature in Kenya public health sector due to resource scarcity.

Additionally, 91 (80%) of them indicated that non-consultative budgeting process was the reason while non-accountability of previous funds disbursed was a reason for funding challenge as stated by 78 (67%) of the managers. However, poor budgeting skills was not a major reason since only 21(18%) stated that it is. Generally, the results imply that the major reasons for funding challenges among the public hospitals was inadequate funds received from the county department of health, non-consultative budgeting process and non-accountability of previous funds disbursed. However, poor budgeting skills was not a reason.

Figure 4.10

Reasons for Funding Challenges



4.8.2 Correlation Analysis of Hospital Finance and Manager's Functionality to Manage Sub County Hospital in Bungoma County

To establish the relationship between hospital finance and the manager's functionality to manage Sub County hospitals in Bungoma County, the study adopted a bivariate Pearson correlation. The results are presented in Table 4.15

Table 4.15

Correlation Analysis of Hospital Finance and Manager's Functionality to Manage Sub County Hospital in Bungoma County

		Hospital Finance	Management of Sub County Hospital
Hospital Finance	Pearson Correlation	1	
	Sig. (2-tailed)		
Management of Sub County Hospital	Pearson Correlation	.284**	1
	Sig. (2-tailed)	0.002	
	N	116	116

** Correlation is significant at the 0.01 level (2-tailed).

It was established that hospital finance was positively and significantly associated with effective management of public hospitals ($r = 0.284$; P-value < 0.05) (Table 4.15). This implies that availability of finance, timely disbursement of finance, transparent budgeting processes, participatory development of annual work plans, and minimal financial challenges was significantly associated with effective management of public hospitals. Kimathi (2017) established that availability of finance enabled proper planning and delivery of healthcare in a timely and efficient manner.

4.8.3 Regression Analysis of Hospital Finance and Manager's Functionality to Manage Sub County Hospital in Bungoma County

The influence of hospital finance on manager's functionality to manage Sub County hospitals in Bungoma County was also established. To achieve that, a univariate regression model was used. The regression results are presented in Table 4.16.

Table 4.16

Regression Analysis of Hospital Finance and Manager's Functionality to Manage Sub County Hospital in Bungoma County

Model Summary					
R	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**		
.284	0.081	0.072	0.2267		
ANOVA					
	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Regression	0.513	1	0.513	9.987	.002
Residual	5.859	114	0.051		
Total	6.372	115			
Coefficients					
	Unstandardized Coefficients		**Standardized Coefficients**		
	B	**Std. Error**	**Beta**	**t**	**Sig.**
(Constant)	3.415	0.122		28.073	0.000
Hospital Finance	0.112	0.036	0.284	3.16	0.002
Dependent Variable: Manager's Functionality to Manage Sub-County Hospitals in Bungoma					
Predictors: (Constant), Hospital Finance					

It was indicated as shown in Table 4.16 that hospital finance can explain up to 8.1% of the variation in manager's functionality to manage Sub-County hospitals in Bungoma County, Kenya (R^2 = 0.081). This factor is thus equally very critical in management of hospitals. The remaining percentage, 91.9%, can be accounted for by other variables other than this.

The regression model fitness was also tested through ANOVA results. The results indicated that the regression model linking hospital finance to manager's functionality to manage Sub-County hospitals was a good fit and significant (P-value < 0.05). This means that the model matched the data too closely to the real observations and thus, it was suitable to make meaningful generalizations of the sample size on the entire study population. The outcomes of this model were termed as more accurate hence reliable.

Lastly, the regression model coefficients were established and used to answer the research question:

How does hospital finance influence the manager functionality to manage Sub County hospitals in Bungoma County?

The results from the regression model demonstrated that health finance had a positive and significant influence on management of Public Hospitals ($\beta = 0.112$; P-value < 0.05). This implies that a unit increase in allocation of hospital finance leads to a significant increase in management of the Sub-County hospitals by 0.112 units. Hospital finance had the least impact probably because of the inadequate allocation as well as the challenges faced in finance management this underscores the finding by Kimathi (2017) he established that availability of finance enabled proper planning and delivery of healthcare in a timely and efficient manner.

4.9 Multiple Regression Model

After establishing the univariate regression models to establish the effect of each independent variable separately, a multiple regression model was adopted to determine the effect of the joint variables on the dependent variable. This was conducted since the variables were more than one. The results are presented in Table 4.17.

Table 4.17

Multiple Regression Model Results

R	R Square	Adjusted R Square	Std. Error of the Estimate
.797	0.635	0.622	0.1448

	Sum of Squares	df	Mean Square	F	Sig.
Regression	4.045	4	1.011	48.239	.000
Residual	2.327	111	0.021		
Total	6.372	115			

	B	Std. Error	Beta	t	Sig.
(Constant)	1.778	0.172		10.356	0.000
Management Knowledge of a Manager	0.184	0.025	0.472	7.351	0.000
Organization Capacity Building Systems	0.195	0.038	0.350	5.133	0.000
Internal Work Environment	0.148	0.046	0.209	3.245	0.002
Hospital Finance	0.007	0.025	0.018	0.279	0.781

Dependent Variable: Management of Public Hospitals
Predictors: (Constant), Management Knowledge of a Manager, Organization Capacity Building Systems, Internal Work Environment, Hospital Finance

Solved Regression Equation

Management of Public Hospitals = 1.778 + 0.184 (Management Knowledge of a Manager) + 0.195 (Organization Capacity Building Systems) + 0.148 (Internal Work Environment)

Health finance has been left out because its influence is not significant. However, management knowledge of a manager, organization capacity building systems and internal work environment had a significant influence. The most significant variable was management knowledge of a manager followed by organization capacity building systems and lastly internal work environment.

The model summary results imply that manager's management knowledge of a manager, organization capacity building systems, internal work environment as well as hospital finance account for up to 63.5% of the variation in management of public health facilities in Bungoma County, Kenya. Basically, these four variables are very important. The remaining percentage can be accounted for by other variables other than the four.

The regression model fitness was also tested through ANOVA and the results indicated that the regression model linking manager's management knowledge of a manager, organization capacity building systems, internal work environment as well as hospital finance to management of public hospitals was a good fit (P-value < 0.05). This means that the model matched the data too closely to the real observations and thus, it was suitable to make meaningful generalizations of the sample size on the entire study population. The outcomes of this model were termed as more accurate hence reliable.

The model coefficients result also indicated that holding other factors constant, management knowledge of a manager had a positive and significant influence on management of Public Hospitals ($\beta = 0.184$; P-value < 0.05). This implies that a unit increase in manager's management knowledge leads to a significant improvement in management of Public Hospitals. A study by Griffith (2000) similarly established that managers who had various skills such as organizational governance and management, customer satisfaction, organization of clinical services, good financial planning, management of information services and management of human resources managed hospitals better.

It was also established that holding other factors constant, organization capacity building systems had a positive and significant influence on management of Public Hospitals ($\beta = 0.195$; P-value < 0.05). This implies that a unit increase in development of organization's capacity building systems leads to a significant improvement in management of Public Hospitals. The findings are consistent with that of a study conducted by Prashanth et al 2014 in India and established that building the capacity of managers in health systems are a vital human resource management intervention, poor health service delivery can be linked to weak management of health services.

The results further indicated that holding other factors constant, internal work environment had a positive and significant influence on management of Public Hospitals ($\beta = 0.148$; P-value < 0.05). This implies that a unit improvement in the hospital's internal work environment leads to a significant improvement in management of Public Hospitals. The findings are consistent with that of a study by Green & Collins (2003). which established that when the work environment is conducive, with deployment of non-technical workers, medicines and non-pharmaceuticals, medical equipment, and infrastructure, then health services cannot be hampered, and service delivery would significantly improve.

Lastly, it was established that even though health finance had a positive influence on management of Public Hospitals, this influence was not significant ($\beta = 0.007$; P-value > 0.05). This implies despite its positive influence; health finance was not a significant determinant of public hospitals management. This is probably because of the inadequate allocation as well as the challenges faced in finance management. Kariuki (2014) established that availability of finance enabled proper planning and delivery of healthcare in a timely and efficient manner.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter covers the summary, conclusion and recommendations made by the study. The summary of the findings was presented based on the specific objectives of the study, though in a prose form. The conclusion and recommendation made by the study were derived from the study findings.

5.2 Summary of Findings

The first objective of the study was to establish the influence of management knowledge of a manager to the functionality to manage Sub County hospital in Bungoma County. The findings showed that majority of the top management team members in Sub County hospitals in Bungoma County had undergone various trainings to develop their leadership capacity.

Additionally, majority of the managers in these hospitals were well prepared during appointments into management positions. The study findings further indicated that management knowledge of a manager had a positive and significant influence on management of Public Hospitals meaning that an increase in manager's management knowledge leads to a significant improvement in management of Public Hospitals.

The second objective of the study was to establish influence of organization capacity building systems to a manager functionality to manage Sub County hospital in Bungoma County. It was established that on average, organization's capacity building systems were good.

Additionally, it was established that the county and national government had extended programmes to mentor and support top management team of public health facilities in management of public finance. The study findings also established that organization capacity building systems had a positive and significant influence on management of Public Hospitals (implying that an increase in development of organization's capacity building systems leads to a significant improvement in management of Public Hospitals.

The third objective of the study was to determine the influence of internal work environment to a manager functionality to manage Sub County hospital in Bungoma County. The study findings showed that the internal working environment of the public hospitals in Bungoma County, Kenya was good.

In addition, it was established that the most underlying challenge faced by the public hospitals was inadequacy of human resource. It was also established that internal work environment had a positive and significant influence on management of Public Hospitals to mean that an improvement in the hospital's internal work environment leads to a significant improvement in management of Public Hospitals.

The fourth objective of the study was to determine whether hospital finance has any influence on a manager functionality to manage Sub County hospitals in Bungoma County. It was established that financial commitment in the public hospitals under the study was average. Additionally, it was established that the financing challenges experienced by all the public hospitals sampled were inadequate funds allocation and delayed disbursement. However, lack of proper accountability systems and local political interference were faced selectively.

Further findings showed that the major reasons for funding challenges among the public hospitals was inadequate funds received from the county department of health, non-consultative budgeting process and non-accountability of previous funds disbursed. However, poor budgeting skills was not a reason. In addition, it was indicated that health finance had a positive and significant influence on management of Public Hospitals. The influence was the least compared to the other factors to imply that funds inadequacy in the hospitals as well as the challenges faced in finance management affected management of the hospitals.

5.3 Conclusion

The study concludes that manager's knowledge of management was an important contributor to management of public hospitals. Managers with higher levels of work experience, qualifications, leadership knowledge and knowledge on overall health systems structure managed public hospitals more effectively. Another conclusion is that availability of capacity building systems such as in service management trainings for managers, mentorship, coaching programs for managers as well as support supervision programs were professionally managed contributed to effective management of public hospitals.

It was also concluded that internal work environment was an important contributor to the management of public hospitals. Availability of conducive internal work environments with adequacy of resources for managers such as finance, human resources and information, environments where accountability of performance was appreciated, and managers received incentives led to effective management of public health facilities.

Another conclusion was health finance had a positive and significant influence on management of Public Hospitals. The influence was the least compared to the other factors to imply that funds inadequacy in the hospitals as well as the challenges faced in finance management affected management of the hospitals.

5.4 Recommendations

Based on the findings and conclusions, the following recommendations are made:

i. Since it was established that the most underlying challenge faced by the public hospitals was inadequacy of human resource, the study recommends the county government of Bungoma County, to set aside a budget to increase the number of medical and non-medical staffs in the public hospitals. This would enhance healthcare service delivery beyond the current level.

ii. Based on the findings that financial commitment in the public hospitals under the study was average, the study recommends the county government to enhance their financial commitment towards the running of the public hospitals in the county.

iii. Given that all the public hospitals interrogated experienced challenges related to inadequate funds allocation and delayed disbursement, the study recommends the county government of Bungoma to speed up allocation of funds to the hospitals to enhance health care service delivery. Lack of and untimely disbursement significantly impacted on the procurement of essential medicines and equipment as well as supplies and unmet annual work plan targets which deteriorated delivery of quality healthcare as required.

iv. Additionally, there is a need for the county governments to increase the proportion of their exchequer to the public hospital since the current proportion is not adequate

v. To management of some hospitals in the county, the study recommends that since there is lack of proper accountability systems, there is a need for the top leaders to revise their current accountability frameworks to enhance efficient funds utilization which can go a long way in saving resources and re-allocated for improvement of health care service provision

vi. Given that there is local political interference in the operation of some hospitals, the study recommends the local political leaders to collectively rework their conflict resolution mechanisms with the management of the hospitals and look for alternative's problems solving mechanisms to reduce interference with the normal operation of the hospitals.

vii. Since it was established that the budget making process as well as annual work plan development processes were not participatory / consultative, there is a need for the management of the public hospitals to revise their decision-making structure, stakeholder involvement plan and their budget making process to ensure its participatory. This will help reduce grievances as well as welcoming broader views and recommendations from the staff if the process is bottom up and not otherwise. This is one of the human resource strategies of ensuring that the employees are satisfied bearing in mind that their opinions are respected and considered.

5.5 Areas for Further Research

The study has shed more light on the management of public hospitals given the functional characteristics of hospital managers. However, it narrowed down to Bungoma County, Kenya and hence the findings may not necessarily be generalized to the wider Kenyan setting since the political and economic challenges vary from county to county. Therefore, the study recommends future research in this regard.

The study was also purely quantitative, and it is a well-known fact that the use of quantitative methods hinders the respondents from giving their own feelings freely. Even though this method has its own inherent advantages and was well suited for this study, it opens an avenue for other future research to exploit this methodological gap by adopting a mixed methodology where KII can be used to get insightful and rigorous analysis of the problem at hand.

Additionally, there is a need to find out other determinants of effective management of public health facilities other than the four under the study since it was well established that cumulatively, none of the factors accounted for more than 50% of the variation in management of public health facilities in Bungoma County, Kenya to mean that there also exist other critical antecedents which are also significant in explaining the remaining percentage. Therefore, future research can widen this scope by finding out the other factors.

In future, there may also be a need to go a notch higher and use secondary data in findings out whether the hospitals are delivering as required to signify effective management. Secondary data can be collected on key indicators of quality service based on SERQUAL model such as the number of customers complaints, compliments, number of patients served against the staff ratio and the budget deficits, among others. This will go a long way in interrogating the problem deeply as well as providing thoroughness.

Furthermore, this study was conducted under unprecedented challenge of COVID-19, which in one way or another, had an influence on the normal operations of the public health facilities, with most reporting to have been overwhelmed, both financially and in human resource, considering the surging numbers. Therefore, an assumption was that that did not influence nor shape the opinion of the respondents.

However, there is a need for future research to moderate such external factors on the relationships to produce more accurate findings. Otherwise, given the scope and the environment under which it was conducted, with COVID-19 as a challenge, the researcher tried as much as possible to minimize bias as well as limitations and produce reliable results, to evoke meaningful and impactful policy implications.

The study focused on leadership and governance at Sub County level hospitals. It is important to do a further study to find out health systems influence on functionality of managers at both primary care level i.e dispensaries and health centers. Also, further studies can be done in private managed hospitals to find if there could be a difference on functionality.

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APPENDICES

Appendix I: Informed Consent Form

Kenya Methodist University

P. 0 Box 267-60200

MERU, Kenya

SUBJECT: INFORMED CONSENT

Dear Respondent,

My names are Tony Chahale Mugasia I am master's health systems management student from Kenya Methodist University. I am conducting a study titled: Health System influence on functionality of managers in public hospitals, A case of Sub County hospitals in Bungoma County.

The findings will be utilized to strengthen the health systems in Kenya and other Low-in- come countries in Africa. As a result, countries, communities, and individuals will benefit from improved quality of healthcare services. This research proposal is critical to strengthening health systems as it will generate new knowledge in this area that will inform decision makers to make decisions that are research based.

Procedure to be followed

Participation in this study will require that you respond to the questions in the attached questionnaire to address the six pillars of the health system. Record the answers in the questionnaire check list attached.

You have the right to refuse participation in this study. You will not be penalized nor victimized for not joining the study and your decision will not be used against you nor affect you at your place of employment.

Please remember that participation in the study is voluntary. You may ask questions related to the study at any time. You may refuse to respond to any questions, and you may stop an interview at any time. You may also stop being in the study at any time without any consequences to the services you are rendering.

Discomforts and risks.

Some of the questions you will be asked are on intimate subject and may be embarrassing or make you uncomfortable. If this happens; you may refuse to answer if you choose. You may also stop the interview at any time. The interview may take about 40 minutes to complete.

Benefits

If you participate in this study, you will help us to strengthen the health systems in Kenya and other Low-in- come countries in Africa. As a result, countries, communities, and individuals will benefit from improved quality of healthcare services. This field attachment is critical to strengthening the health systems as it will generate new knowledge in this area that will inform decision makers to make decisions that are research based.

Rewards

There is no reward for anyone who chooses to participate in the study.

Confidentiality

The interviews will be conducted in a private setting within the hospital. Your name will not be recorded on the questionnaire and the questionnaires will be kept in a safe place at the University.

Contact Information

If you have any questions, you may contact the following supervisors

Mrs. Lillian Wambui, Department of Health Systems Management of Kenya Methodist University, Nairobi campus. Email: wambuikaburi@gmail.com Phone:

+254724956049 and Mr. Musa Oluoch, Department of Health Systems Management of Kenya Methodist university Nairobi Campus Email: musadot123@gmail.com Phone: +254722483909.

Participant's Statement

The above statement regarding my participation in the study is clear to me. I have been given a chance to ask questions and my questions have been answered to my satisfaction. My participation in this study is entirely voluntary. I understand that my records will be kept private and that I can leave the study at any time. I understand that I will not be victimized at my place of work whether I decide to leave the study or not and my decision will not affect the way I am treated at my workplace.

Name of Participant……. Date……...

Signature…….

Investigator's Statement

I, the undersigned, have explained to the volunteer in a language s/he understands the procedures to be followed in the study and the risks and the benefits involved.

Name of Interviewer……Date……

Interviewer Signature…….

Appendix II: Questionnaire

Instructions

The researcher is Tony Chahale a postgraduate student at the Department of health Systems Management at Kenya Methodist University

DO NOT indicate your name of the questionnaire

Complete all sections (A, B, C, D, E)

Tick the appropriate response

Health

Facility…….

SECTION A: Management Knowledge

1. Gender

☐Male

☐Female

2. Designation

Designation	Tick appropriately
Medical Officer	
Clinical Officer	
Nursing Officer	
Laboratory technologist/Scientist	
Pharmacist/Pharmaceutical technologist	
Radiologist	
Physiotherapist	
Occupational health	
Nutritionist	
Social worker	
Public health Officer	
Biomedical Engineer	
Dentist/Dental technologist	
Hospital administrative Officer	
Health records and information	
Community health assistant	

3.Highest academic achievement?

☐Phd

☐Master's degree

☐Bachelor's degree

☐Higher Diploma

☐Diploma

☐Certificate

4.How many years of experience do you have as a manager?

☐5-9

☐10-14

☐15-19

☐20-24

☐25-34

☐35-39

☐40-49

5. Management courses you have attended?

Course	Tick if participated in the training
Senior Management	
Health systems management	
Finance management	
Leadership and management	
Other (indicate here)	
Have never attended any management course	

6. Were you adequately prepared to execute the managerial responsibilities at hand?

Poor	Low	Average	Good	Very Good

1	2	3	4	5

SECTION B: Organization Capacity Building Systems

Rate how easy it is for you to access health management courses or trainings available through the county department of health?

Poor	Low	Average	Good	Very Good
1	2	3	4	5

Rate how easy it is for your access in-service public finance management courses or trainings through the county department of health?

Poor	Low	Average	Good	Very Good
1	2	3	4	5

How would rate the mentorship or support supervision you have received on management from your County supervisors or national level? In a scale of 1-5 give a score (1 poor, 2 low, 3 average, 4 good, 5 Very good) *Tick appropriately on the table below.*

Poor	Low	Average	Good	Very Good
1	2	3	4	5

Have you received mentorship or support supervision on public finance management from your County supervisors or national team?

☐Yes

☐No

How would rate the quality of mentorship or support supervision on public finance management received? In a scale of 1-5 give a score (1 poor, 2 low, 3 average, 4 good, 5 Very good) *Tick appropriately on the table below*

Poor	Low	Average	Good	Very Good
1	2	3	4	5

SECTION C: Internal work environment

1.Rate the support you have received from your immediate supervisor on your work

Poor	Low	Average	Good	Very Good
1	2	3	4	5

2.How would you rate the resources availed to enable you discharge your roles?

Poor	Low	Average	Good	Very Good
1	2	3	4	5

3.What are some of the challenges you experience as a manager in the hospital?

- ☐ Inadequate human resource
- ☐ Inadequate knowledge and skills on management
- ☐ In adequate supportive supervisor
- ☐ Non conducive work environment
- ☐ Staff negative attitude
- ☐ Lack of clarity on roles

4.Rate your achievement of goals/targets in your latest staff performance appraisal?

Poor	Low	Average	Good	Very Good
1	2	3	4	5

5.Rate your motivation as a manager in the hospital/departmental?

Poor	Low	Average	Good	Very Good
1	2	3	4	5

6.Resources is key to a manager's ability to execute management functions, In a scale of 1-5 (1-poor, 2-low, 3 average, 4-Good, 5-Very good) Rate the availability of various resources at the department or hospital **(Tick appropriately on the table below)**?

Resource	Rate				
	Poor	Low	Average	Good	Very Good
Health Information	1	2	3	4	5
Human resource for health	1	2	3	4	5
Health Commodities, Vaccines	1	2	3	4	5

SECTION D: Hospital Finance

1.What are the sources of funds for your hospital/department?

☐NHIF

☐County department fund

☐DANIDA

☐User fee

☐Revenue

2.Rate the funds available to meet your hospital/department annual work plan?

In a scale of 1-5 give a score (1 poor, 2 low, 3 average, 4 good, 5 Very good) Tick appropriately on the table below

Poor	Low	Average	Good	Very Good
1	2	3	4	5

3.What could be reasons for funding challenges?

☐Inadequate funds received from the county department of health.

☐Non consultative budgeting process

☐ Non accountability of previous funds disbursed

☐Poor budgeting skills

4.Rate your participation in the budget making process for the hospital/department for the current financial 2020/2021?

Poor	Low	Average	Good	Very Good
1	2	3	4	5

5.Rate progress towards achieving the hospital/department goals as per the annual workplan?

Poor	Low	Average	Good	Very Good

1	2	3	4	5

6.What funding challenges do you experience in the hospital/department?

☐Inadequate funds allocation

☐Delayed disbursement

☐Lack of proper accountability systems

☐Local political interference

7.Rate the finance accountability systems in place?

Poor	Low	Average	Good	Very Good
1	2	3	4	5

SECTION E: Planning Health Services

1.How would you rate your teams/department participation in annual work plan development process?

Poor	Low	Average	Good	Very Good
1	2	3	4	5

2.Rate your planning skills in relation to hospital/department annual workplan development process?

Poor	Low	Average	Good	Very Good
1	2	3	4	5

3.What challenges do you experience when planning for health services at the hospital/department?

Challenge	Tick appropriately
Inadequate planning skills	
In adequate data and information for planning	
Un coordinated planning processes	
Poor attitude among team members	
Lack of funds to facilitate the planning processes	
Late planning	
Others	
No Challenge is experienced	

4. How would rate your achievement of annual work plan targets?

AWP target Not Met	AWP target partially met	AWP target Fully met
1	2	3

5. How would you rate your planning skills? *In a scale of 1-5 give a score (1 poor, 2 low, 3 average, 4 good, 5 Very good) Tick appropriately on the table below*

Poor	Low	Average	Good	Very Good
1	2	3	4	5

SECTION F: Organization of health services

1. How would you rate your organizational skills? *In a scale of 1-5 give a score (1 poor, 2 low, 3 average, 4 good, 5 Very good) Tick appropriately on the table below.*

Poor	Low	Average	Good	Very Good
1	2	3	4	5

2. Rate availability of the following resources that support organization of health services.

In a scale of 1-5 give a score (1 poor, 2 low, 3 average, 4 good, 5 Very good) Tick appropriately on the table below

Human resource

Poor	Low	Average	Good	Very Good
1	2	3	4	5

Health Information

Poor	Low	Average	Good	Very Good

1	2	3	4	5

Health Commodities, Vaccines, and supplies

Poor	Low	Average	Good	Very Good
1	2	3	4	5

3. How would rate the overall support you have received in organizing health services in your department/hospital from your supervisor?

Poor	Low	Average	Good	Very Good
1	2	3	4	5

SECTION G: Directing function of health services

1.When was the last time you held hospital/departmental staff meeting?

>1 year ago,	Last Quarter	Last month	Last Week
1	3	4	5

2.Rate your supervision, mentorship activities to your direct staff report?

Poor	Low	Average	Good	Very Good
1	2	3	4	5

3.What communication channels do you use as a manager to rely on communication to your team?

☐ Internal Memo to official notice board

☐ Short text message (SMS)

☐ Mobile phone call

☐Facility Watts's app group

☐Email

4. Check if you have a reward management system for best performing team members?

Reward System	***Tick appropriately***
Certificate or Trophy award	
Recognition of best performing staff	
Promotion/recommendation for promotion	
No staff reward management system is in place	

5. How would you rate your Directing skills (A process in which the managers instruct, and oversee the performance of the workers to achieve predetermined goals? ***In a scale of 1-5 give a score (1 poor, 2 low, 3 average, 4 good, 5 Very good)***

Tick appropriately below

Poor	Low	Average	Good	Very Good
1	2	3	4	5

SECTION H: Controlling function of health services

1. How would you rate your staff understanding and use of MOH daily activity registers?

Poor	Low	Average	Good	Very Good
1	2	3	4	5

2.Rate the availability of MOH daily activities and reporting registers in the department (s) as required?

Poor	Low	Average	Good	Very Good
1	2	3	4	5

3 How often do you hold hospital/departmental performance review meetings?

Tick appropriately

Monthly	Quarterly	Annually	On need basis	Never done
5	4	3	2	1

4 What channels do you use to receive feedback from the consumers of hospital services?

Channel	**Tick appropriately**
Suggestion box	
Health facility phone number	

Community score card	
None/ No means available to receiving feedback	

5. How would you rate your controlling skills (Is measuring the progress towards organizational goals and correcting deviations)? ***In a scale of 1-5 give a score (1 poor, 2 low, 3 average, 4 good, 5 Very good) Tick appropriately below***

Poor	Low	Average	Good	Very Good
1	2	3	4	5

End

Appendix III: KeMU SERC Approval

KENYA METHODIST UNIVERSITY
P. O. BOX 267 MERU - 60200, KENYA
TEL: 254-064-30301/31229/30367/31171
FAX: 254-64-30162
EMAIL: serc@kemu.ac.ke

November 26, 2020

KeMU/SERC/HSM/33/2020

Tony Chahale Mugasia
Kenya Methodist University

Dear Tony,

SUBJECT: HEALTH SYSTEM INFLUENCE OF FUNCTIONALITY OF MANAGERS IN PUBLIC HOSPITALS: A CASE OF SUBCOUNTY HOSPITALS IN BUNGOMA COUNTY.

This is to inform you that Kenya Methodist University Scientific Ethics and Review Committee has reviewed and approved your above research proposal. Your application approval number is KeMU/SERC/HSM/33/2020. The approval period is 24th November 2020 – 24th November 2021.

This approval is subject to compliance with the following requirements

I. Only approved documents including (informed consents, study instruments, MTA) will be used.

II. All changes including (amendments, deviations, and violations) are submitted for review and approval by Kenya Methodist University Scientific Ethics and Review committee.

III. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to KeMU SERC within 72 hours of notification.

IV. Any changes, anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to KeMU SERC within 72 hours.

V. Clearance for export of biological specimens must be obtained from relevant institutions.

VI. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal

VII. Submission of an executive summary report within 90 days upon completion of the study to KeMU SERC.

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

Yours sincerely,

KENYA METHODIST UNIVERSITY
KEMU SERC
26 [illegible] 2020
P.O. Box 267 - 60200, MERU

Dr. A. WAMACHI
Chair, SERC

Appendix IV: NACOSTI Research Permit

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **331346**

Date of Issue: **28/January/2021**

RESEARCH LICENSE

This is to Certify that Mr.. Tony Chahale Mugasia of Kenya Methodist University, has been licensed to conduct research in Bungoma on the topic: HEALTH SYSTEM INFLUENCE ON FUNCTIONALITY OF MANAGERS IN PUBLIC HOSPITALS: A CASE OF SUB COUNTY HOSPITALS IN BUNGOMA COUNTY for the period ending : 28/January/2022.

License No: **NACOSTI/P/21/8727**

331346

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

Appendix V: Bungoma County Department of Health Approval

REPUBLIC OF KENYA

COUNTY GOVERNMENT OF BUNGOMA
MINISTRY OF HEALTH
OFFICE OF THE COUNTY DIRECTOR HEALTH

Telegrams: "MEDICAL", BUNGOMA
Telephone: (055) 30230 Fax: (055) 30650
E-mail: docakatu@yahoo.com
When replaying please quote

COUNTY DIRECTOR OF HEALTH
BUNGOMA COUNTY
P. O. BOX 18 – 50200
BUNGOMA

OUR REF: CG/BGM/CDH/RESRC/VOL.1 **DATE:** 9TH FEBRUARY, 2021

Mr. Tony Chahale Mugasia
Kenya Methodist University

RE: PERMISSION TO CARRY OUT RESEARCH IN BUNGOMA COUNTY

Following your application for authority to carry out research in **"Health System Influence of Functionality of Managers in Public Hospitals: A case of Sub County Hospitals in Bungoma County",** I am pleased to inform you that you have been authorized to undertake the research for the period ending 28th January, 2022.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit **a copy** of the final research report to the County Director of Health. The soft copy of the same should be submitted through the online Research Information system.

Thank you.

COUNTY DIRECTOR OF HEALTH
BUNGOMA COUNTY
P. O. Box 18-50200
BUNGOMA

DR. JOHNSTON AKATU
COUNTY DIRECTOR OF HEALTH
BUNGOMA COUNTY

Appendix VI: Map of Study Sites