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## **Health System Influence On Functionality of Managers in Public Hospitals: A Case of Sub County Hospitals in Bungoma County**

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# Health System Influence On Functionality of Managers in Public Hospitals: A Case of Sub County Hospitals in Bungoma County

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## Abstract

Managers tasked with leading and managing the hospitals in the developing economies often have little formal preparation and face challenges in execution of their mandates. This study therefore interrogated 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 Kenya focusing on Bungoma County. A descriptive approach was adopted and 170 managers from the 10 Public Sub County hospitals in Bungoma County were targeted. A structured questionnaire was used to collect quantitative data which was analysed through SPSS version 24 to give descriptive and inferential statistics. The results of the study 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  $< 0.05$ ); organization capacity building systems had a positive and significant influence on management of Public Hospitals ( $\beta = 0.327$ ; P-value  $< 0.05$ ); internal work environment had a positive and significant influence on management of Public Hospitals ( $\beta = 0.360$ ; P-value  $< 0.05$ ) and health finance equally had a positive and significant influence on management of Public Hospitals, this influence was not significant ( $\beta = 0.112$ ; P-value  $< 0.05$ ). This implies that a unit increase in these factors would lead to a significant increase in management of the Sub-County hospitals. Based on these, the study recommended the county government of Bungoma County to set aside a budget to recruit health workers to address HRH gaps. The county government to enhance their financial commitment towards the running of the public hospitals in the county. The County to 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.

**Keywords:** *Management Knowledge, Organization Capacity Building Systems, Internal Work Environment, Hospital Finance, Functionality of Managers, Public Sub County Hospitals, Kenya*

## **1.0 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 Henry Fayol, management entails forecasting and planning, organizing, commanding, and coordinating of service delivery (WHO, 2007). The importance of managers in hospitals has been emphasized by Pillay (2008) who argued that in the South African case, there are inadequacies in the management capacity. Kimathi (2017) also documented that in Kenya, 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.

O'Neil et al (2013) added that hospital managers tasked with the mandate of leading and managing hospitals often lack adequate preparation to execute the functions of management. It is common 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. The curricula for health professional training are 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. Nyikuri et al (2015) argued that 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 posted by the sub county and County teams, health managers make request when staffing gaps are identified. The primary health facility manager is expected 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. According to Mogere (2013), majority of hospital managers are not adequately prepared to manage hospital management functions. This demonstrates a clear need to train and mentor them with these skills to enable them better to handle 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.

### **1.1 Statement of the Problem**

In the current Kenya constitution, health is a devolved function with health as a right for every Kenyan citizen. The delivery of health services depends on the effective management of health facilities but the 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. However, these efforts are still at infancy and require the political goodwill to improve the overall management of health facilities in the country. In their study, Omondi (2016) established a gap on management of public hospitals. In addition, Tumlinson et al (2019) established that health workers absence from work was a common occurrence in public hospitals in Kenya and it was associated to hospital level issues which entailed lack of supervision, weak accountability systems and lack of professional consequences. In their training needs assessment survey, the Ministry of Health Kenya (2015) established that 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 gap halted the implementation of health projects in counties. The findings of the report are evident that there are critical training needs at the County health management level (CHMT) which leads to challenges at hospital level. This study therefore sought to generate further evidence on the relationship between health systems influence and manager's functionality to manage public hospitals taking a case of Bungoma County.

### **1.2 Research Objectives**

- 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.

## **2.0 LITERATURE REVIEW**

### **2.1 Theoretical Literature Review**

The study was premised on two models: Administrative theory of management by Henry Fayol and Systems theory of management by Ludwig Von. As discussed below. The latter was propounded by Henry Fayol. Who defined five management functions which are relevant in the management of organizations today namely planning, organizing, controlling, coordinating and commanding. Henry Fayol developed 14 principles of management which have served as a point of reference for decision making and management actions in organizations today. Division of work is

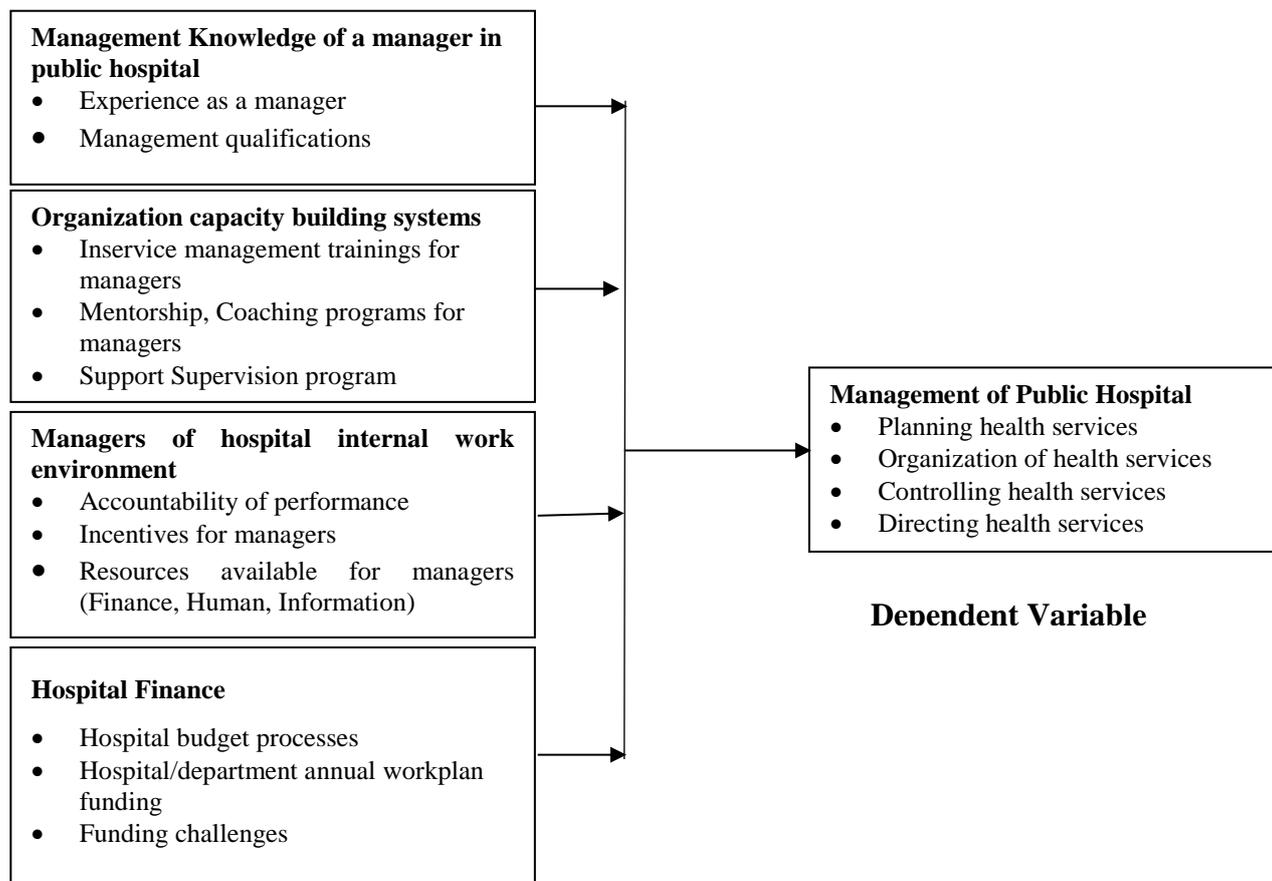
one of the principles which highlights specialization as critical principle that enhances efficiency of the health workforce resulting in improved work outputs. The principle of authority and responsibility entails management ability to give orders to the subordinates or direct reports. The principle of discipline envisions good conduct and respectful interactions among the team members. In addition, 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 objective are met by the team. On the other hand, the principle of subordination of individual interest's highlights individual interests are subordinate to the interest of the organization to ensure individuals work towards a common organizational goal. In regard to 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.

Concerning the principle of centralization, Fayol states an institution should ensure delegation of roles is carried out 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. In addition, the principle of order documents that 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 handled 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, highlights the need to allow employees share innovative ideas that will create new products and services. The principle of esprit de corps on the other hand states a 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 these functions of management and health systems.

The System theory proposed by Ludwing Von looks at the organization as a dynamic and inter-related component. 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.

## 2.2 Conceptual Framework



**Independent Variables**  
**Figure 1: Conceptual Framework**

## 2.3 Empirical Literature Review

Pillay (2008) conducted a study on management competency of managers of hospitals in South Africa. The results indicated that 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 levels of 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. A study by Lantz (2008) on gender and leadership in healthcare administration established that women were underrepresented in top management of health care. In addition, a study by Lopes et al (2019) on assessment of the levels of management competency of primary care hospital managers in Timor-Leste concluded on the need for policy makers and stakeholders prioritize on understanding the organization, ensure there is good 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.

In a study on evaluation of capacity building programs of hospital managers in India at the district level by Prashanth et al (2014), it was established that building the capacity of managers in health systems are a vital human resource management intervention. In Liberia, a study by Rowe et al (2010) on building capacity of health facility management established that the respondents recommended the 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, these trainings had group work sessions and practical sessions that helped participants develop the expected skills. A study on training evaluation in Iranian hospital managers by Omar et al (2009) revealed that the participants noted the training was important and it helped them develop skills in health planning and management functions. It was also established that 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.

Another study by Green et al (2003) interrogating health systems in developing countries established that 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 another study, Addae (2013) examined challenges of health care financing in Ghana and established that 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. A study in Tanzania on challenges of implementing decentralization of the health sector by Gasto et al (2013) reported that 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, and there was limited management knowledge among the decentralized units’ managers.

### **3.0 RESEARH METHODOLOGY**

This study adopted a descriptive research design. 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. Purposive sampling method was deployed targeting the managers at various departments. A self-administered questionnaire with closed questions was used to collect data. Both descriptive and inferential statistics were used to analyze the data.

### **4.0 RESEARCH FINDINGS**

#### **4.1 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 and competing tasks in relation to COVID 19 assignments. Additionally, due to bureaucratic procedures, some of the respondents did not respond.

#### 4.2 Respondent’s Demographic Factors

The demographic factors of the respondents, that is gender, highest level of education and work experience were established as shown in Table 1

**Table 1: 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%

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.

### 4.3 Descriptive Statistics

#### 4.3.1 Descriptive Statistics of Management of Public Hospitals

The descriptive statistics of management of public hospitals is depicted in Table 2

**Table 2: Descriptive Statistics of Management of Public Hospitals**

Statement	Mean	Standard Deviation
<b>Planning Health Services</b>		
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
<b>Organization of Health Services</b>		
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
<b>Directing Function of Health Services</b>		
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
<b>Controlling Function of Health Services</b>		
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
<b>Average</b>	<b>3.79</b>	<b>0.69</b>

The results in Table 2 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

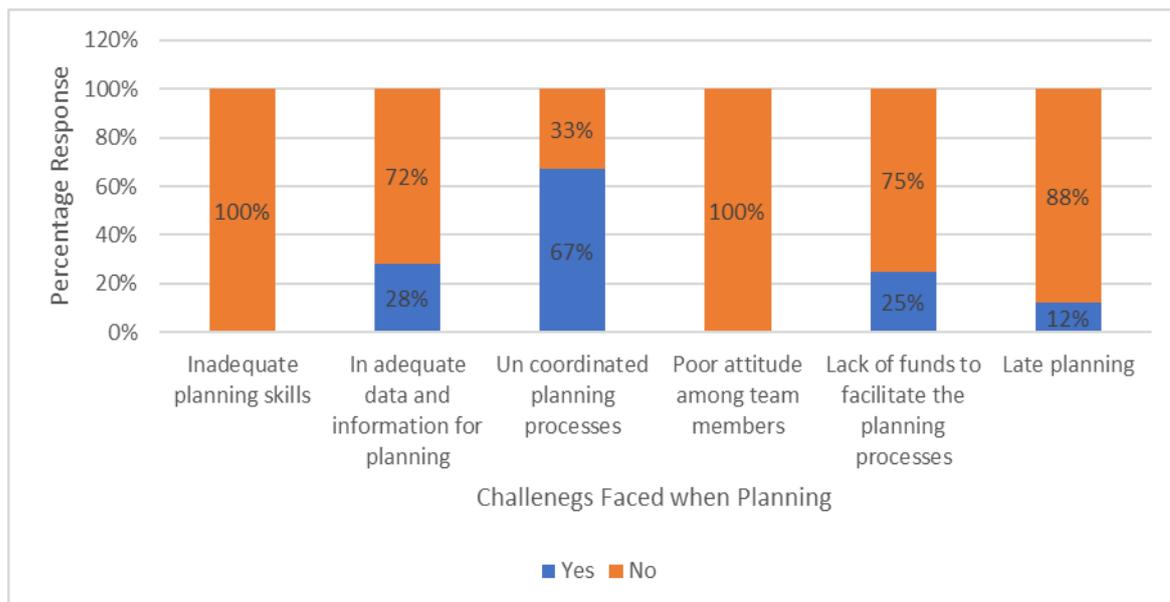
a study by Barasa et al (2017) he found that hospital managers had a weak technical capacity in the planning and budgeting for health services attributed to lack of training in management. This contradiction of findings could be due to management training programs for hospital managers supported by various 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).

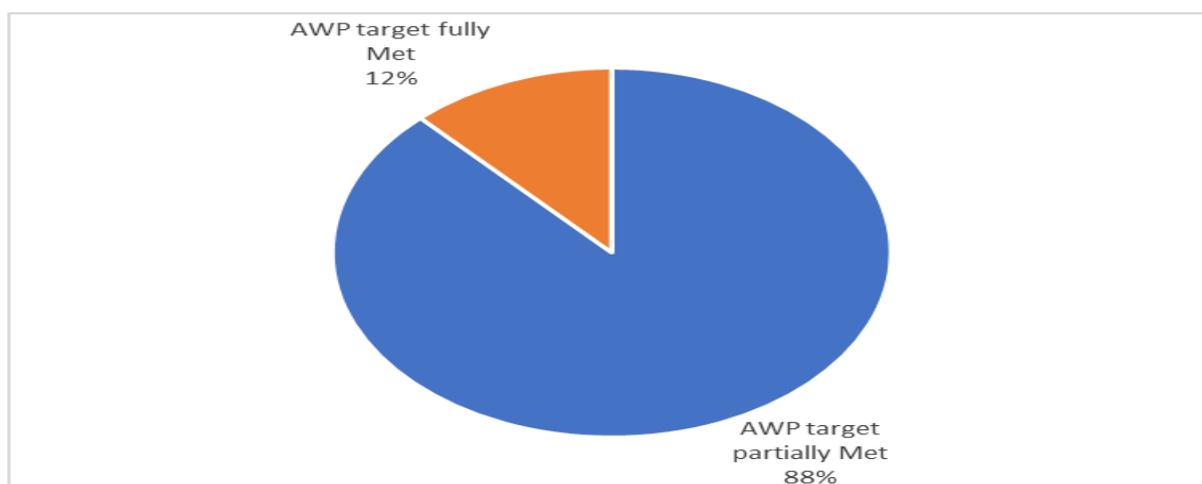
Overall, the findings indicated that management of public health facilities in Bungoma County is good. Generally, staff understanding and use of MOH daily activity registers among the public health facilities, availability of MOH daily activities and reporting registers in the department (s) as required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

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 and the results are summarized in Figure 2



**Figure 2: Challenges experienced when planning for Health Services**

The results in Figure 2 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. The respondents further rated their achievement of their annual work plan targets and the findings is presented in Figure 3

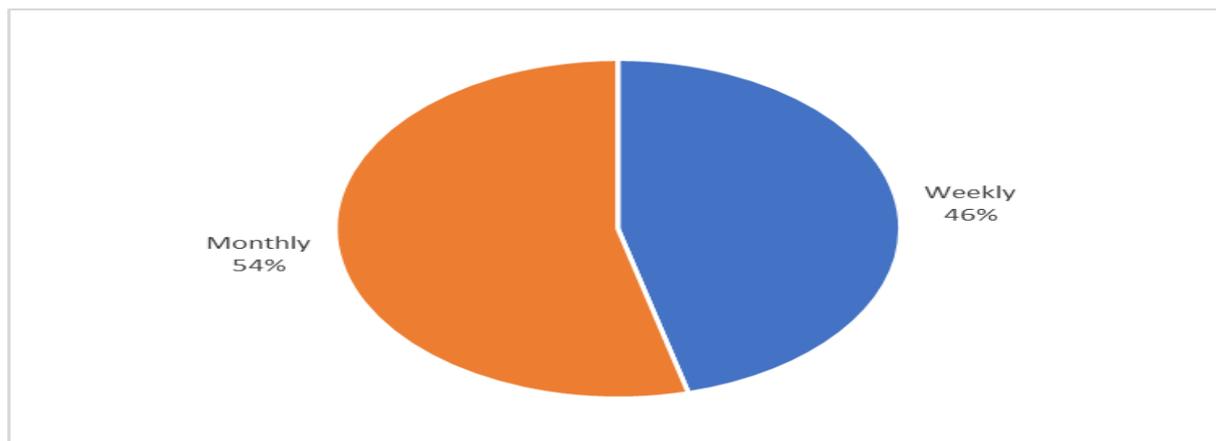


**Figure 3: Meeting Annual Work Plan**

As shown in Figure 3 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.

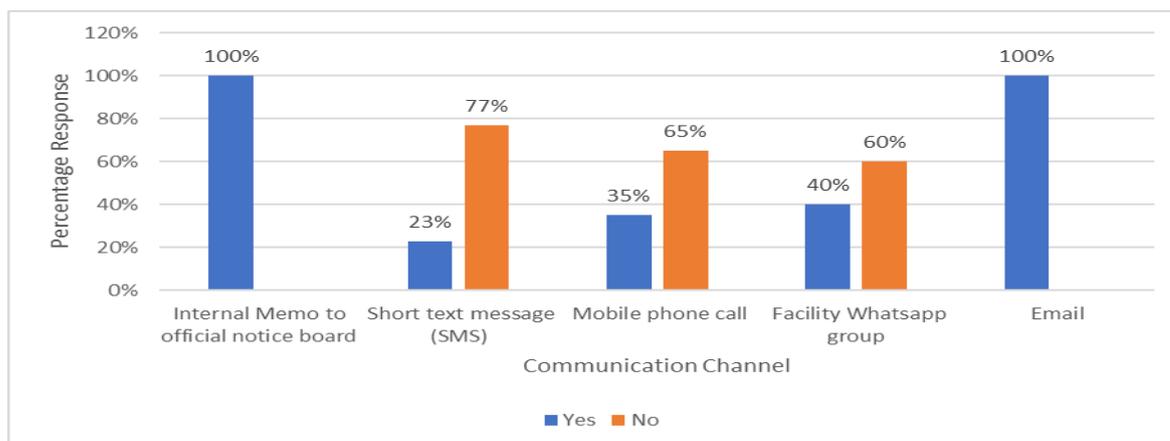
The respondents also indicated the frequency of departmental meetings in their hospitals and the outcome is depicted in Figure 4



**Figure 4: Frequency of Departmental Meetings**

It was shown that none of the hospitals held departmental meetings once a year nor quarterly. As shown in Figure 4, 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.

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 and the results are summarized in Figure 5



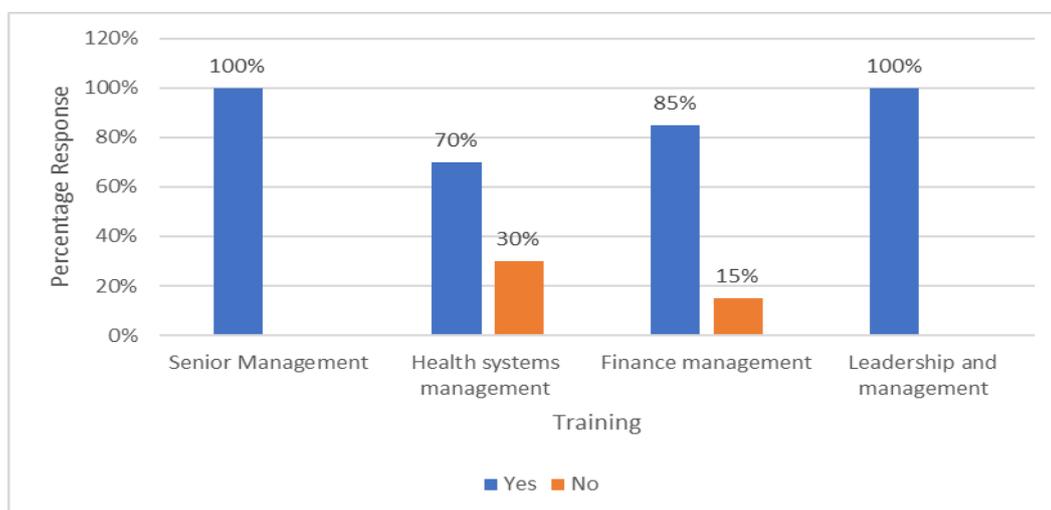
**Figure 5: Channels for relaying Information**

The results in Figure 5 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.

#### 4.3.2 Descriptive Statistics on Management Knowledge of a Manager

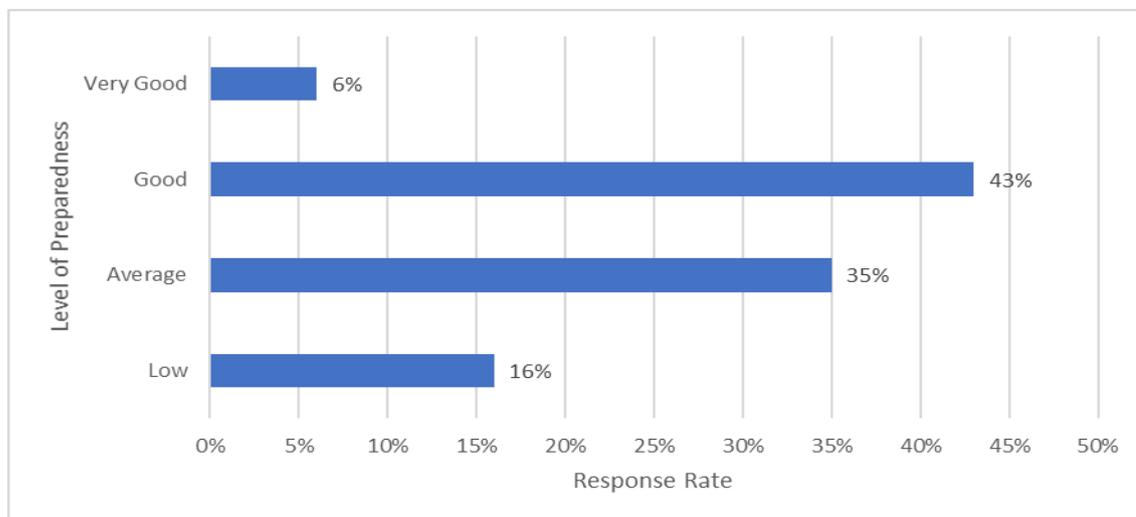
The study established some of the management trainings the respondents had undergone before and the findings is depicted in Figure 6



**Figure 6: Type of Trainings Attended**

Among the trainings focused on is Senior Management, Health systems management, Finance management and Leadership and management. The results (Figure 6) 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.

The study also sought to establish whether the managers were adequately prepared to execute their managerial responsibilities at hand when being appointed and the outcome is presented in Figure 7



**Figure 7: Level of Preparedness for Managerial Position**

The results in Figure 7 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.

#### 4.3.3 Descriptive Statistics of Management Knowledge of a manager

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 3 indicates the results obtained from the responses.

**Table 3: 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
<b>Average</b>	<b>3.57</b>	<b>0.91</b>

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) as shown in Table 3. 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.

#### 4.3.4 Descriptive Statistics on Organization Capacity Building Systems

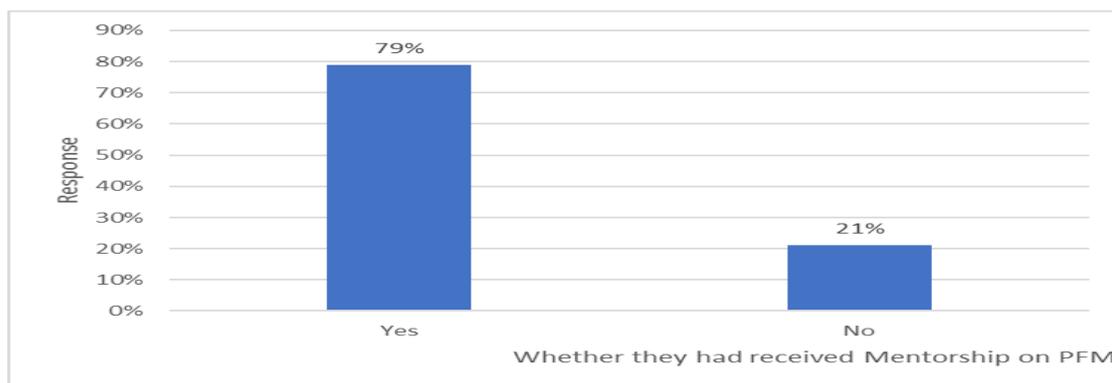
The respondents rated likert scale questions regarding organization capacity building systems on a scale of 1 to 5 from 1 = Poor, 2 = Low, 3 = Average, 4 = Good and 5 = Very Good. Table 4 indicates the results obtained from the responses.

**Table 4: 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
<b>Average</b>	<b>4.09</b>	<b>0.71</b>

The study findings in Table 4 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”.

The respondents were also asked whether they had received mentorship or support supervision on public finance management from your county supervisors or national team and the results are presented in Figure 8



**Figure 8: Whether the managers had received mentorship on PFM**

The results in Figure 8 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.

#### 4.3.5 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 5 indicates the results obtained from the responses.

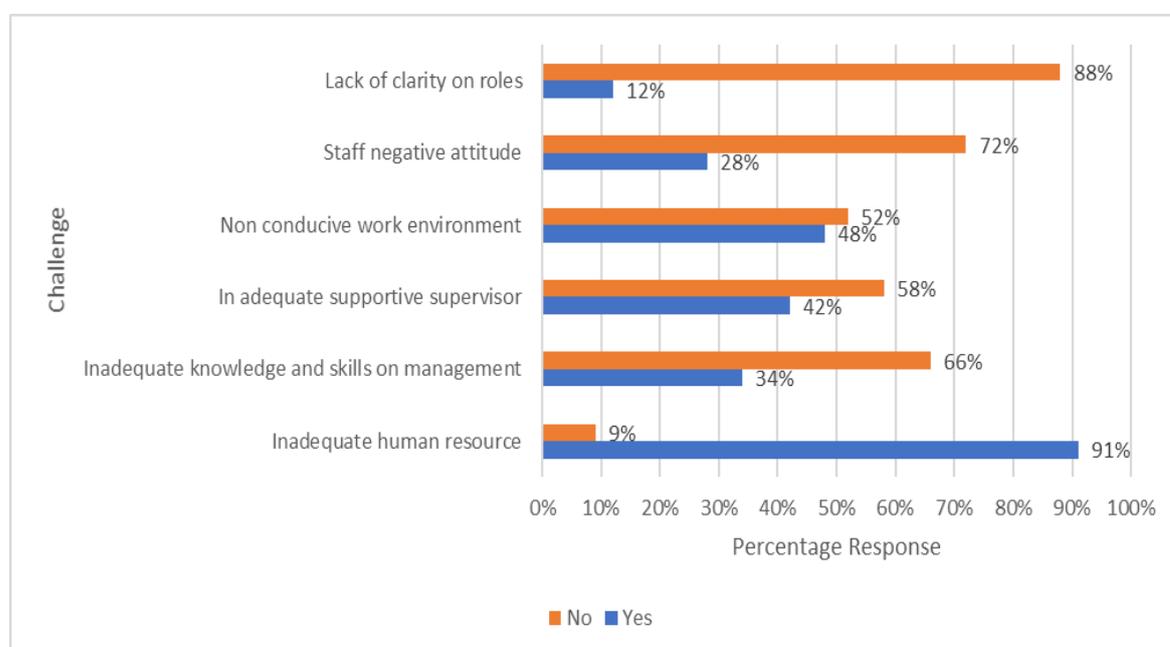
**Table 5: Descriptive Statistics of Internal Work Environment**

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
<b>Average</b>	<b>3.62</b>	<b>0.75</b>

The results depicted in Table 5 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 et al (2003) who established that the environment within which health manager operate in developing economies was not favorable. Additionally, Green et al (2002) 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 at al (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 there has been increased political goodwill due to advocacy activities by various civil societies and increased domestic investment towards health care and overall improvement in the hospitals work environment through the recently launched Universal health care program.

The respondents were also asked to state some of the challenges they experienced as managers in public hospitals and the outcome is depicted in Figure 9



**Figure 9: Challenges Experienced as Managers**

The results in Figure 9 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.

#### 4.3.6 Descriptive Statistics on Hospital Finance

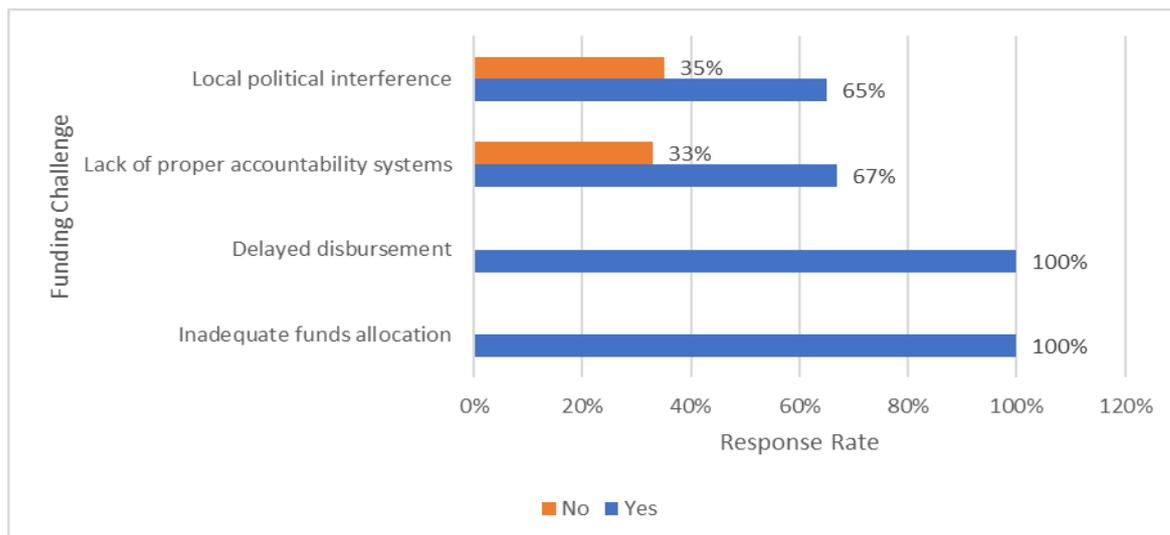
The study established the sources of funding for the Sub County hospitals in Bungoma. All the sampled managers indicated that their hospitals were financed through multiple sources ranging from NHIF, County department fund, DANIDA, user fees and revenue. Similarly, a study by Addae (2013) established 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 6 indicates the results obtained from the responses.

**Table 6: 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
<b>Average</b>	<b>3.37</b>	<b>0.95</b>

It was established as indicated in Table 6 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.

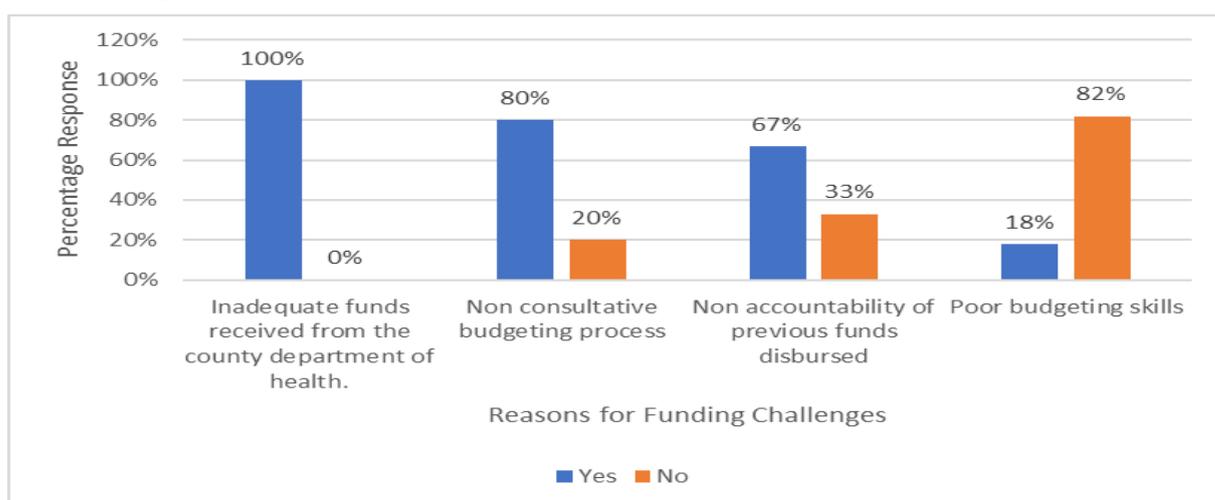
The respondents rated some of the funding challenges they experienced and the results are summarized in Figure 10



**Figure 10: Funding Challenges among Public Hospitals**

The results in Figure 10 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.

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 11.



**Figure 11: Reasons for Funding Challenges**

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 as

shown in Figure 11. 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.

#### 4.4 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 is conducted since the variables were more than one. The results are presented in Table 7.

**Table 7: Multiple Regression Model Results**

<b>R</b>	<b>R Square</b>		<b>Adjusted R Square</b>		<b>Std. Error of the Estimate</b>	
.797	0.635		0.622		0.1448	
	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>		<b>F</b>	<b>Sig.</b>
Regression	4.045	4	1.011		48.239	.000
Residual	2.327	111	0.021			
Total	6.372	115				
	<b>B</b>	<b>Std. Error</b>	<b>Beta</b>	<b>t</b>	<b>Sig.</b>	
(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 et al. 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.

## **5.0 CONCLUSION**

The study concluded 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 was 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.

## **6.0 RECOMMENDATIONS**

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

- i. Since it was established that the most underlying challenge faced by the public hospitals was inadequacy of human resource, the study recommended 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 recommended 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 recommended 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. 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

- iv. To management of some hospitals in the county, the study recommended 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
- v. Given that there is local political interference in the operation of some hospitals, the study recommended 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.
- vi. 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.

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