



**Factors Influencing Delivery of Quality Health Care in  
Kasarani Sub County**

**Robert Kariuki Mbangua, Dr. Caroline Kawila & Dr.  
Muthoni Mwangi**

**ISSN: 2706-6606**

## Factors Influencing Delivery of Quality Health Care in Kasarani Sub County

<sup>1</sup>\*Robert Kariuki Mbangua, <sup>2</sup>Dr. Caroline Kawila & <sup>3</sup>Dr. Muthoni Mwangi

<sup>1</sup>\*Postgraduate student, Kenya Methodist University

<sup>2</sup>Lecturer, Kenya Methodist University

<sup>3</sup>Lecturer, Kenya Methodist University

\*Email of the Corresponding Author: [kmbangua@yahoo.com](mailto:kmbangua@yahoo.com)

*How to cite this article:* Mbangua, R., K., Kawila, C., & Mwangi, M. (2021). Factors Influencing Delivery of Quality Health Care in Kasarani Sub County. *Journal of Medicine, Nursing & Public Health*, 4(2), 46-64

### Abstract

Quality in health service delivery is key in ensuring patient satisfaction since delivering quality service has a direct influence on the customer satisfaction and management outcome. An assessment done in 2019 using Kenya Quality Model of Health (KQMH) monitoring and evaluation checklist showed that many facilities in Kasarani Sub County had stopped holding quality improvement meetings and lacked minutes for their quality improvement team. Some of the projects they were implementing in the comprehensive care centres had collapsed. Quality improvement meetings and total quality management are key indicators of KQMH activities and progress. This has necessitated this research, which sought to evaluate the factors influencing delivery of quality health care in Kasarani Sub-County. The study sought to determine factors influencing delivery of quality health care in Kasarani Sub-County. Specifically, the study analyzed how organizational factors, interpersonal factors, environmental factors and economic factors influence delivery of quality health care in Kasarani Sub County. The research was quantitative adopting a descriptive research design. The target population included 110 Health officers who are members of work improvement teams, quality improvement teams or departmental heads. The research was based on primary data acquired through a self-administered questionnaire. The data was analyzed using SPSS Version 24.0. For quantitative data, descriptive and inferential statistics were generated. Under inferential statistics both correlation and regression analysis were undertaken. The analysis' findings were given in tabulated form, along with relevant interpretations as well as discussions. In conclusion organization factors ( $r=0.516$ ;  $p<0.05$ ), interpersonal factors ( $r=0.457$ ;  $p<0.05$ ), environmental factors ( $r = 0.378$ ;  $p < 0.05$ ), and economic factors ( $r = 0.614$ ;  $p < 0.05$ ) were substantially linked to provision of quality healthcare in Kasarani Sub County. Organization, interpersonal, environmental, and economic factors explained 50.1 percent

of the variation in the delivery of quality health care in Kasarani Sub County, according to the data. Economic factors ( $\beta_4 = 0.274$ ) were found to be the most critical factors while environmental factors ( $\beta_3 = 0.179$ ) were the least important factors. All the 4 null hypotheses were rejected and a conclusion made that organization, interpersonal, environmental and economic factors have a significant influence on delivery of quality health care. The availability of cash to acquire medicine, remunerate staff, and assure the daily running of health facilities was determined to be critical to the delivery of high-quality healthcare. It was also determined that a good organizational structure could improve the delivery of high-quality health care. It was critical to have a well-paid, motivated, and sufficient quantity of employees in order to improve health-care delivery. Economic issues were found to be extremely important in the provision of high-quality healthcare. Kasarani Sub County's health facilities should look for additional funding to cover their operating expenditures. They also should make certain that responsible leadership is in place, one that promotes transparency and accountability. The labor must be fairly compensated and motivated. Additionally, medicine and drug distribution should be prioritized based on need to avoid stock outs and guarantee that the quality of health-care delivery is not jeopardized.

**Keywords:** *Organizational factors, interpersonal factors, environmental factors, economic factors, delivery, quality health care, Kasarani Sub County, Kenya*

### **1.1 Background of the study**

Delivery of quality healthcare concept is a multidimensional idea which is both complex and subjective. According to Mosadeghrad (2013) delivery of quality healthcare is continually appealing the patient through healthcare services that are efficient and effective as per the newest standards and guidelines, that are able to meet the needs of the patients and gratifies providers. Donabedian (2016) in an investigation where he examined 700 healthcare stakeholders who included patients, policy makes, providers and managers did a pluralistic evaluation aimed on establishing characteristics of quality healthcare. He identified 182 characteristics of a quality healthcare and clustered them in to five categories; efficiency, efficacy, effectiveness, empathy and environment. Delivery of quality healthcare is characterized by attributes like timeliness, availability, affordability, confidentiality, accessibility and responsiveness just to mention a few (Manaf, 2015). Numerous developed countries are using developments in technology, health education, and infrastructure to improve care delivery ensuring that it is value-driven (Adams, Mounib, Pai, Stuart, Thomas & Tomaszewicz, 2016). This has resulted in an increment in the quality of services provided in the healthcare facilities as compared to developing and least developed countries. The United States, for instance, is known to enjoy high levels of quality in health care although there are financial, insurance complaints amongst the citizens. The Quality of care in America is however thought to be concentrated on cancer care while preventive conditions are given less attention (Docteur & Berenson, 2015).

According to WHO (2016), owing to the declining resources and economic variables majority of the countries in sub-Saharan Africa are incapable of providing sufficient quality and wide coverage health services. As a result, this has seen most countries promoting for devolution as a main factor to propagate health sector reforms with a

perception of exploiting the utilization of the resources available in improving the accessibility as well as quality of the provided health care services (Hurley, Doumbia, Roter & Harvey, 2018). In south Africa for example the healthcare ranges from the most fundamental primary care provided by the government to specialized and hi-tech services provided in public and private hospitals. Though, in some places the public sector is over resourced though the government contributes around 40% of all expenses on health, the public health facilities are expected to offer their service to around 80% of the population. As a result of the unequitable distribution of resources it has translated to underfunding, poor management and worsening infrastructure resulting to declining quality of healthcare (Watts, 2017).

With over 4,700 health facilities in Kenya, the delivery of quality health care services has become an important aspect of healthcare organizations. This could be attributed to government regulations especially on public health care institutions, competition, and pressure from customers or hospital management programs. Some of the health institutions in Kenya have implemented TQM Practices in an attempt of improving the quality of services rendered. They have also embraced quality out of their customers' will or through management initiatives have succeeded and benefitted from the implementation of TQM practices. The national government of Kenya has made attempts to improve health care through devolution of health services to the county governments. Devolution, however, was viewed as a simple transfer of power from the central government to the lower levels of government. This assumption has ignored the fact that devolution is a dynamic and continuous event and is probably the path leading to deterioration of healthcare devolution in Kenya (World Bank Group, 2018). In Kasarani Sub County, there is no health facility that scored more than 60% on quality of health care delivery (Nairobi County Health Delivery Report, 2018). The report revealed that the facilities had even stopped holding quality improvement meetings. This study attempted to establish the factors which affect the provision of quality health care services in Kasarani Sub County and specifically to establish how organizational factors, interpersonal factors, environmental factors and economic factors influence delivery of quality health care in Kasarani Sub County.

## **1.2 Statement of the Problem**

Accessibility of health care services is a universal right for every person. It is vital that the health care services provided are of high quality and that services are right during the first time. Due to the quality of services rendered in most of the healthcare centers, numerous challenges have emerged as a result of inadequate resources, incompetent personnel, poor leadership and recently devolution of health services in Kenya has attributed to poor quality of health services. A number of the challenges have affected trust on the health sector, and especially public and some private facilities. The number of deaths reported due to negligence and poor state of health facilities has increased over the years (Andel, Davidow, Hollander & Moreno, 2012). Kasarani Sub County health facilities has experienced issues ranging from increased number of patients, increased waiting time, issues to do with accessibility, acceptability, affordability and availability of drugs and other services in the health care facilities. There have also been cases of patient complaints and collapse of projects under implementation. According to Nairobi County Health Delivery Report (2018), there is no health facility that scored more than

60% on quality of health care delivery in Kasarani Sub-County. The various local studies pertinent to quality healthcare delivery (Kimanzi, 2014; Akacho, 2014; Mwanicha, 2018; Muthui, 2018) have not adequately articulated factors influencing delivery of quality health care in Kenya mainly in reference to Kasarani Sub County. This research was created in this context, with the goal of filling knowledge and research gaps by analyzing the factors impacting the delivery of quality health care in Kasarani Sub County.

### **1.3 Research Objectives**

- i. To examine the influence of organizational factors on delivery of quality health care in Kasarani Sub County
- ii. To establish the influence of health workers interpersonal factors on delivery of quality health care in Kasarani Sub County
- iii. To assess the influence of environmental factors on delivery of quality health care in Kasarani Sub County
- iv. To establish the influence of economic factors on delivery of quality health care in Kasarani Sub County

## **2.0 Literature Review**

### **2.1 Empirical Review**

Panda and Thakur (2016) performed research in India on the performance of healthcare systems after decentralization. Decentralization objects had a significant impact on management processes and health outcomes, and has administrative, political, and financial implications, according to the study, which looked at the problems, dimensions, as well as derivatives in India. The research included an assessment of existing literature using Google Scholar and PubMed's web-based search methods. A total of 180 relevant articles were examined. According to the conclusions of the study, decentralization in the public health sector has numerous features. In this regard, it was observed that at the facility level, the effectiveness of health unit governance would be determined by elements such as leadership competencies, community involvement, or true decision-makers' interests.

Muithya (2016) sought to find factors affecting free maternal health care implementation in government health care facilities in Kisima Location, Samburu County, Kenya. This cross-sectional study used a descriptive survey approach. Lorroki Division residents were the target population, and Kisima Location people were the accessible population, from which a sample of 202 residents was chosen using stratified sampling: 80 adult women, 75 males, as well as 47 youth. The selection of ten health care providers was done through purposive sampling. Questionnaires, document reviews, and interviews were used to collect data, and descriptive statistics were used to analyze the data using SPSS version 20. The qualitative data was subjected to content analysis. According to the research, 76.2 percent of participants were unemployed, while 50% were uneducated. Although the quality of health-care services was deemed satisfactory, attendance at prenatal and postnatal clinics was found to be inadequate. Kisima and Mparigon were the two health facilities in the Kisima area. There was only one ambulance accessible for the entire area.

Rajendra (2017) goal was to estimate the effect of practicing human resources management on healthcare organizations in terms of service quality and client satisfaction, to the employees' job satisfaction. The research was conducted in a private hospital in the city of Jodhpur, with the goal of achieving the maximum possible number of participants. The knowledge was obtained with the aid of self-governing surveys. Primary information obtained from the hospital employees was used in the analysis. Perceived organizational metrics on performance on the basis of the respondents' opinion. The study demonstrates that effective human resource management has a positive impact on the quality of healthcare organizations and enhances the efficiency of hospital personnel. Kinyajui and Awour (2019) examined the effect of the organization environment on health care service delivery under the devolved system. It was conducted in Kiambu County in Kenya. The analysis employed cross-sectional study design, which is a descriptive research that involved collection of data once from 100 respondents at management level both at the county and the three level 5 hospitals in Kiambu County. Primary quantitative data was collected and analyzed. Results indicate that political influence, conflict interest, inadequate human resource capacity and weak monitoring and evaluation negatively affected health care service delivery under the devolved system. National government policies had a positive impact on service delivery by increasing revenue and availability of diagnostic and treatment machines.

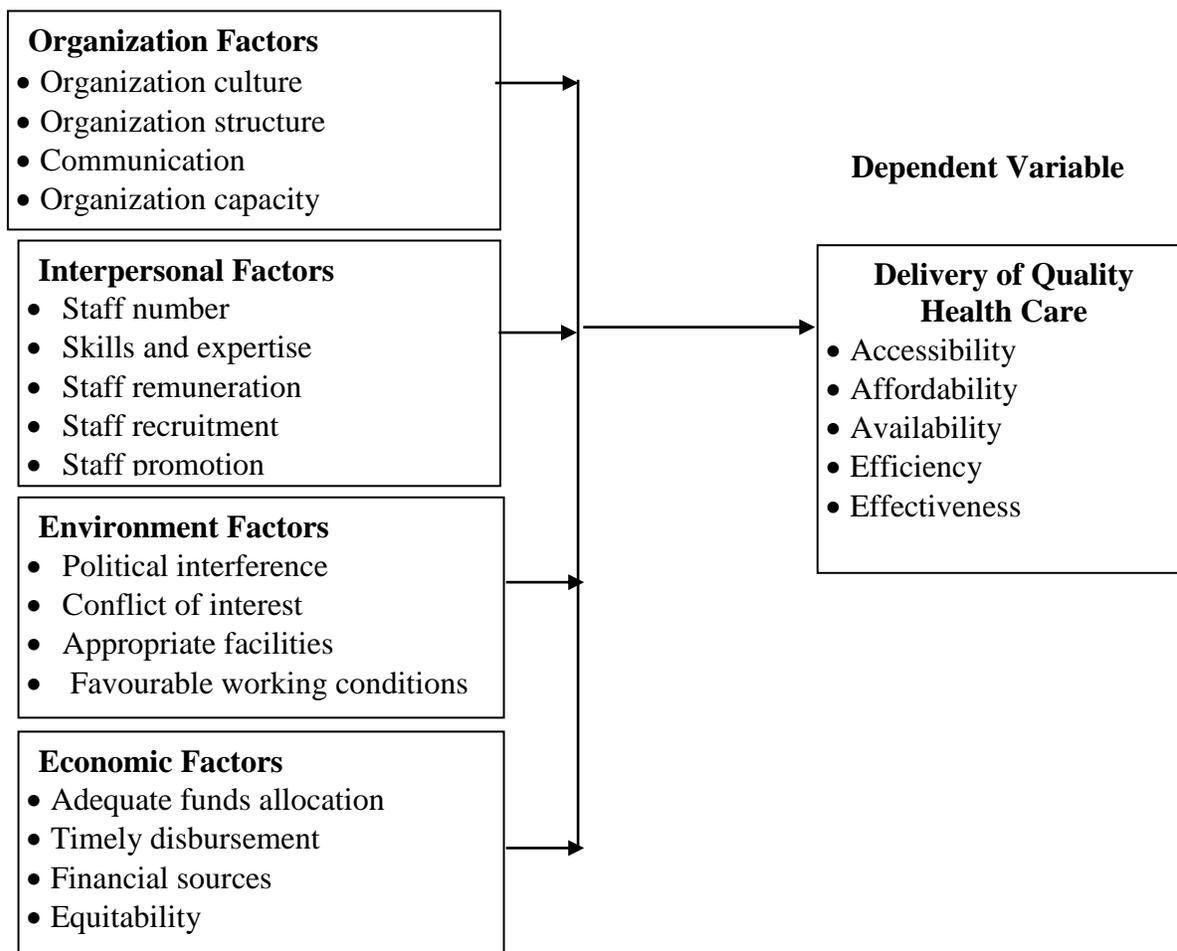
Tsofa et al. (2017) looked at the benefits of devolution in terms of hospital management and healthcare personnel. The research focused on the early implementation experiences in Kenya's Kilifi County. The research looked at the impact of early deployment of the system at the county level on one of the main parts of the health system, that is the management of medical supplies as well as vital drugs. The research found that, like other county activities, EMMS management functions were quickly shifted to the counties before the necessary county-level structures and capacities were in place. In the case of EMMS, the research found that devolution was marked by significant procurement delays, resulting in an unserviced stock of vital medications in decentralized public health facilities. Nonetheless, the research concluded that when counties were given the ability to procure pharmaceuticals, order fill rates were substantially higher, especially when compared to the period before the health function was devolved.

Akacho (2014) sought to identify the variables affecting health services provision in Kenya primarily focusing on the Kenyan public health sector, an Uasin Gishu District Hospital case. The analysis was based on the census research concept, which centered on all workers in the hospital in Uasin Gishu District only. A group of 96 employees from the same hospital were pooled and all employees from different hospital divisions were considered. Questionnaires were used in gathering of the data, analytical tools like the median, average, correlation analyses were employed. A research has shown that there is a shortage of adequate financial resources to sustain the daily operations of the hospital, as there are insufficient funds to supply the pharmaceuticals.

## **2.2 Conceptual Framework**

A conceptual framework is a diagrammatical representation that shows the relationship between dependent and independent variables. Figure 1 presents the conceptual framework

### Independent Variables



**Figure 1: Conceptual Framework**

### 3.1 Research Methodology

Research methodology elucidates the systematic protocols that are followed to arrive at results that are able to effectively address the study objectives. For data analysis, a descriptive design was used. The health care managers of public health facilities in Kasarani Sub County who are either members of work improvement teams, quality improvement teams or departmental heads in their respective positions for not less than a year totaling 110 from level 2, 3 and 4 comprised the study population. The census method was used in this research, with all members of the study population serving as the unit of analysis. As a result, all of the specified health managers, a total of 110 respondents were expected to participate in the study. Questionnaires were the research instruments used. The data was analyzed using the SPSS Version 24 software. Exploration of descriptive and inferential statistics was part of data analysis.

## 4.0 Research Findings and Discussions

### 4.1 Descriptive Findings

#### 4.1.1 Descriptive Statistics for Delivery of Quality Health Care

The mean as well as standard deviation of the specific attributes of delivery of quality health services are shown in Table 1.

**Table 1: Descriptive Statistics for Delivery of Quality Health Care**

Statement	N	Mean	Std. Dev.
Health services provided in this facility are always available.	84	3.583	1.126
There are accessible roads to this health facility	84	4.238	0.701
There are signage at this health facility	84	3.833	0.801
Health services provided in this facility are acceptable.	84	4.393	0.618
Health services provided in this facility are affordable.	84	4.369	0.870
There are rarely complaints lodged by patients in this facility.	84	3.583	1.014
The healthcare workers are available to offer requisite health services.	84	4.226	0.605
The delivery of health care in this hospital is frequently supervised by the county government	84	4.060	0.679
In this institution, the Ministry of Health is associated with the quality of all health services	84	3.571	1.003
Payers (such as NHIF as well as other insurance companies) have little impact on health-care delivery	84	2.952	1.234
Since healthcare was decentralized, the amount of time it takes to serve a patient has decreased dramatically	84	3.226	1.155
Since healthcare was devolved, the number of patients seeking assistance at this hospital has risen dramatically	84	3.321	1.197
<b>Overall mean</b>		<b>3.780</b>	

#### 4.1.2 Factors Influencing Delivery of Quality Health Care

The mean and standard deviation of the specific attributes of organizational factors are shown in Table 2. From the table Kasarani Sub County has adopted organizational factors to great extent. It is supported by the fact that on a five-point likert scale, the mean score for attributes related to organizational factors was 3.812 which is above the midpoint of 3.4. The mean score for existence of organizational structure was 4.060 and standard deviation of 0.713 implying that most respondents agreed that the hospital had organizational structure in place. A mean score of 4.107 and standard deviation of 0.690 for respondents being aware of components of organizational structure is an indication that majority of selected members agreed. The mean score for lack of conflict of 3.369 and standard deviation of 0.99 indicate that the selected members agreed that there are no conflicts arising from organizational structure in this facility.

The mean score of 4.000 for organizational internal values and standard deviation of 0.617 implicated that selected member agreed organizational internal values influenced decision making in this facility. A mean score of 3.071 for managing finances disbursed and standard deviation of 1.173 has an implication that surveyed members agreed the

administration of this health facility does not face hitches in disbursed finance management. A mean for administration transparency of 4.083 and 0.820 standard deviation indicated most of the surveyed members agreed that the health facility's administration was transparent. Further, a 4.155 mean score as well as 0.587 standard deviation is an implication that surveyed members agreed managers of this facility are held accountable for the operation of the entity. 4.226 mean score as well as 0.605 standard deviation is an indication that the surveyed members agreed that the management of the facility is up to task .A mean score of 3.238 for lack of communication breakdown and standard deviation of 1.119 implies that members agreed moderately that there are no communication breakdown In this health facility.

The results of this research are similar to those of Muithya (2016), who investigated the factors that influence the implementation of free maternal health care in government health care facilities in Kisima, Samburu County, Kenya. According to the research, 76.2 percent of participants were unemployed, and 50% were uneducated. Although the quality of health-care services was deemed satisfactory, attendance at prenatal and postnatal clinics was found to be inadequate. Kisima and Mparigon were the two health facilities in the Kisima area. There was only one ambulance accessible for the entire area.

The findings of this study also corroborated results of an earlier study by Mosadeghrad (2014) that conducted a literature review pertaining the association amongst organizational processes and structural features of hospitals and care quality. In organizing the literature, he used level of analysis frameworks and Donabedian's structure–process–outcome. The conclusions of this research designated that most of the studies are done on hospital level of analysis and mostly concentrates on the relationship of organizational structure and quality of outcome. The study recommended that health services researchers ought to enlarge their research so as to improve their knowledge and insights on the connection amongst quality of care and organizational structure.

**Table 2: Descriptive Statistics for Organization Factors**

Statement	N	Mean	Std. Dev
This facility has in place an organization structure	84	4.060	0.713
I am aware of the components of the organization structure	84	4.107	0.690
There are no conflicts arising from organization structure in this facility.	84	3.369	0.997
The organization internal values influence decision making in this facility.	84	4.000	0.617
The administration of this health facility does not face difficulties in managing finances disbursed to them.	84	3.071	1.173
The administration of this health facility is done in a transparent manner.	84	4.083	0.820
The managers of this health facility are held to account for the operations of the entities.	84	4.155	0.587
The management of this facility is up to the task.	84	4.226	0.605
There are no communication breakdowns in this health facility	84	3.238	1.119
<b>Overall mean</b>		<b>3.812</b>	

### **4.1.3 Interpersonal Factors**

The mean and standard deviation of the specific attributes of interpersonal factors are shown in Table 3. From the table Kasarani Sub County has not adequately adopted interpersonal factors. It is supported by the fact that on a five-point likert scale, the mean score for attributes related to interpersonal factors was 2.197 which is below the midpoint of 3.4. The mean score for adequate staffing in all departments was 2.083 and standard deviation of 0.954 implying that very few respondents agreed that the hospital had adequate staff in all departments. However, a mean score of 4.012 for possession of relevant skills and expertise by staff and 0.932 standard deviation indicates that the majority of those polled agreed that health-care employees have the necessary skills and expertise to carry out their duties. A mean of 2.262 for the health care adequate staff remuneration and standard deviation of 1.264 is an indicator that majority participating members did not agree the health care staffs are adequately remunerated as per job group placements.

A mean score of 1.952 for facility's management involvement in recruiting devolved health care staff and standard deviation of 1.204 indicated majority of participating members disagreed. A mean score of 1.702 for regular staff recruitment and standard deviation of 1.055 implies that majority of surveyed members disagreed with the fact that the health care staff recruitment is done regularly. Moreover, a mean score of 1.786 for merit-based staff promotion and standard deviation of 1.103 implies that the surveyed members disagreed with statement that staff promotion is affected on merit in the facility. Finally, a mean score of 1.583 for regular staff promotion and standard deviation of 0.978 implies that participating members disagreed that staff promotion is done regularly in the facility. A 2017 study at Meru Level 5 hospital by Miriti and Keiyoro reported similar results. In the study, staffing low and had a negative influence on the delivery health services in the County. The situation is the same all over Kenya with the ratio of doctors to nurses reported to be 1:10,000, which is significantly lower than the 1:1000 ratio proposed by the WHO. The ratio of nurses to patients is around 6:50,000, which also over shadows the 1:280 ratio recommended by the WHO. These significant staff shortages have led to poor service delivery in County hospitals and are projected to worsen as doctors and nurses leave public hospitals for private practice because of poor working conditions and ongoing conflicts around personnel transfers, terms of service, and support for continuous education (Okech, 2016). To realize universal health delivery, county hospitals should recruit well-trained personal and create a conducive environment for work.

The results are also in agreement with the results of Rajendra (2017) whose goal was to estimate the effect of practicing human resources management on healthcare organizations in terms of service quality and client satisfaction, to the employees' job satisfaction. The research was conducted in a private hospital in the city of Jodhpur, with the goal of achieving the maximum possible number of participants. The knowledge was obtained with the aid of self-governing surveys. Primary information obtained from the hospital employees was used in the analysis. Perceived organizational metrics on performance on the basis of the respondents' opinion. The study demonstrates that effective human resource management has a positive impact on the quality of healthcare organizations and enhances the efficiency of hospital personnel.

**Table 3: Descriptive Statistics for Interpersonal Factors**

Statement	N	Mean	Std. Dev
This facility is adequately staffed in all departments.	84	2.083	0.954
Healthcare employees have the necessary skills and knowledge to carry out their duties	84	4.012	0.932
The healthcare staffs are adequately remunerated as per their job group placements.	84	2.262	1.264
The management of the facility is involved in the recruitment of the devolved healthcare professionals	84	1.952	1.204
The healthcare staff recruitment is done regularly (at least every year).	84	1.702	1.055
The staff promotion is effected on merit.	84	1.786	1.103
The staff promotion is done regularly (at most in every 3 years).	84	1.583	0.978
<b>Overall mean</b>		<b>2.197</b>	

#### 4.1.4 Descriptive Statistics for Environmental Factors

The mean and standard deviation of the specific attributes of environmental factors are shown in Table 4. From the table Kasarani Sub County has adopted environmental factors to a small extent. It is supported by the fact that on a five-point likert scale, the mean score for attributes related to environmental factors was 3.008 which is below the midpoint of 3.4. The mean score for cases of medicine and supplies stock-out was 1.905 and standard deviation of 0.934 implying that very few respondents agreed that cases of medicine and supplies stock-out in this facility are rare. However, a mean score of 3.262 for no cases of political interference in decision making process in this facility and standard deviation of 1.114 implies that most of surveyed members agreed that are no cases of political interference in decision making process in this facility. A mean of 3.298 for expired drugs and supplies cases and standard deviation of 1.008 is an indicator that majority participating members agreed the facility rarely experienced cases of expired drugs and supplies.

A mean score of 2.167 for availability of adequate infrastructure to address all health needs of patients and standard deviation of 0.974 indicated respondents disagreed. A mean score of 3.595 for cases of conflict of interest in management and standard deviation of 0.914 implying most surveyed members disagreed with the fact cases of conflict of interest in managing this facility are rare. Moreover, a mean score of 3.821 conducive working environment and standard deviation of 0.861 implies that the surveyed members agreed with statement that this facility offers a conducive working environment. Observation that Kasarani Sub-County health care experienced medicine and supplies stock-out mirrored the results of a previous study by Oketch (2017) evaluated devolution of Kenya's primary health care services and their effects on universal health care. The research looked at how devolution has affected universal health care in terms of quality of treatment, fairness concerns, and the distribution of health resources including medical supplies and vital drugs. Running out of stock of medical supplies and pharmaceuticals were identified as one of the most significant

difficulties, according to the study's findings. As per the report, other equity concerns included deteriorated health infrastructure and a disproportionate allocation of health resources. The study came to the conclusion that the pharmaceutical management information system needed to be improved in order to have both reliable as well as accurate evidence based on medical supply requirements as well as essential medicine estimation.

A similar trend was reported in Sudan in which devolution of health services influence negatively the allotment of medicine to hospitals (Mohamed et al. 2016). Similarly, Tsofa et al, (2017) in their study in Kilifi County, essential medications were running out in devolved public health facilities. This could have been attributed to delays in procurement brought about by unnecessary bureaucracies between the county government and KEMSA. By retaining to Kenya Medical Supply Agency (KEMSA) as the sole supplier for drugs, Williamson and Mulaki (2016) argue that the government and county governments, via their memorandum with the MoH to source solely from KEMSA, created the bureaucracy. Many cases of stock outs of pharmaceutical supplies and drugs have been in County hospitals with the supplier citing delays in payments for its supplies.

**Table 4: Descriptive Statistics for Environmental Factors**

Statement	N	Mean	Std. Dev
Cases of medicine and supplies stock-out in this facility are rare.	84	1.905	0.934
There are no cases of political interference in decision making process in this facility.	84	3.262	1.114
This facility rarely experiences cases of expired drugs and supplies.	84	3.298	1.008
This health facility has adequate infrastructure to address all health needs of patients.	84	2.167	0.974
Cases of conflict of interest in managing this facility are rare.	84	3.595	0.914
This facility offers a conducive work environment.	84	3.821	0.861
<b>Overall mean</b>		<b>3.008</b>	

#### 4.1.5 Descriptive Statistics for Economic Factors

The mean and standard deviation of the specific attributes of economic factors are shown in Table 5. From the table Kasarani Sub County is performing poorly in regards to economic factors. It is supported by the fact that on a five-point likert scale, the mean score for attributes related to economic factors was 2.027 which is below the midpoint of 3.4. The mean score for funds disbursed being sufficient was 1.881 and standard deviation of 1.040 implying that respondents disagreed that funds disbursed to this health facility are sufficient to cater for the hospital budget. Meanwhile, a mean score of 1.893 for timely fund disbursement and standard deviation of 0.802 implies that most of surveyed members disagreed that fund disbursement to this health facility is executed timely. A mean of 2.345 for equity in finance disbursement to county health facilities and standard deviation of 1.029 is an indicator that few participating members agreed that the distribution of cash to county health facilities is fair.

A mean score of 1.595 for significance user fee charged to patients and standard deviation of 0.847 indicated participating members disagreed with the statement that this health facility gets significant finances from user fees charged on patients. A mean score of 2.155 for significant donor funding and standard deviation of 1.052 implies that majority of surveyed members disagreed with the fact this health facility receives significant funding from donors. Moreover, a mean score of 2.726 for receiving minimal funding from private corporate bodies and standard deviation of 1.483 implies that the surveyed members agreed with statement that the health facility receives minimal funding from private corporate bodies. A mean score of 1.595 for the facility income generating activities and standard deviation of 1.092 implies that survey members disagreed that this health facility has income generating activities that bring in significant revenue.

The economic status of health care facilities in Kasarani Sub-County was deplorable, going by the reports of the respondents. This is in agreement with a study by Akacho (2014) who sought to identify the variables affecting health services provision in Kenya primarily focusing on the Kenyan public health sector, a case of Uasin Gishu District Hospital. The research has shown that there is a shortage of adequate financial resources to sustain the daily operations of the hospital, as there are insufficient funds to supply the pharmaceuticals. The study findings are also in tandem with Muthui (2018) who sought to establish the influencers of the quality service delivery in health care facilities at Kitui County Referral Hospital. The findings of the study concluded that the capacity of healthcare personnel, financial resource availability and utilization, management commitment and monitoring and evaluation had a negative influence on the quality of services provided at Kitui County Referral Hospital.

**Table 5: Descriptive Statistics for Economic Factors**

Statement	N	Mean	Std. Dev
The funds disbursed to this health facility are sufficient to cater for the hospital budget.	84	1.881	1.040
Funds disbursement to this health facility is executed timely.	84	1.893	0.802
The distribution of cash to county health facilities is equitable	84	2.345	1.029
This health facility gets significant finances from user fees charged on patients	84	1.595	0.847
This health facility receives significant funding from donors.	84	2.155	1.052
This health facility receives minimal funds from private corporate bodies.	84	2.726	1.483
This health facility has income generating activities that bring in significant revenue.	84	1.595	1.092
<b>Overall mean</b>		<b>2.027</b>	

## 4.2 Inferential Results

To show the relationship between each of the specified independent factors and the outcome/dependent variable, the Pearson Correlation was utilized. In addition, multiple regression was utilized to determine the extent to which our independent variables influenced the delivery of high-quality health care.

### 4.2.1 Correlation Analysis

The research looked at the link between organizational variables and the delivery of health-care services. Table 6 shows the findings of the correlation analysis.

**Table 6: Correlation Analysis**

	Delivery of Quality Health Care	
	Pearson 's correlation	P
Organization factors	0.516	0.000
Interpersonal factors	0.457	0.002
Environmental factors	0.378	0.010
Economic factors	0.614	0.000

Table 6 shows that there was a positive, substantial, and statistically significant association between organizational characteristics and the delivery of high-quality health care ( $r = 0.516$ ;  $p < 0.05$ ). There was a strong and substantial probability that organization factors would improve delivery of quality health care in Kasarani Sub County. These findings back the observations obtained by Hartwig et al. (2015) in a previous empirical research study. Organizational characteristics enhanced access to healthcare services, including antenatal services and other vital services, according to the latter research. Furthermore, the current study's findings paralleled those of a previous study that found that organizational characteristics predisposed Chad health outcomes (Douzounet & Yogo, 2015).

The results showed there is a positive, relatively robust, and statistically significant association between interpersonal characteristics and the provision of high-quality health care ( $r = 0.457$ ;  $p < 0.05$ ). According to the findings, improving interpersonal factors was probable to advance the delivery of excellent healthcare services in Kasarani Sub County in a moderate to significant way. The findings highlight the significance of addressing the wellbeing of the aforementioned employees in attempts to guarantee that the County's health facilities provide vital services in a more effective and efficient manner. Aspects affecting the healthcare personnel, like proper remuneration and a healthy working environment, are likely to have an impact on the quality of care provided. These findings corroborated those of a previous local research, which found that interpersonal factors influenced hospital development plans (Muchomba & Karanja, 2015). Interpersonal factors, in turn, have an impact on service delivery in decentralized health institutions.

Environmental factors and the provision of high-quality health care had a positive, fairly strong, and statistically significant link, as shown in Table 6 ( $r = 0.378$ ;  $p < 0.05$ ). This indicated the well environmental matters were handled, the more likely Kasarani Sub-

delivery County's of quality health care would improve. Enhancing or strengthening the mechanism that regulates medical supply was bound to improve health care delivery in Kasarani Sub County. A good system will reduce bureaucracies and guarantee that KEMSA procures, provides, and delivers necessary medical supplies to devolved health facilities in a timely and efficient manner, reducing or eliminating stock outs. As a result, the aforementioned institutions would be able to provide better service. The findings supported previous studies that demonstrated that how patients were treated in government-funded health facilities had an impact on how they sought treatment from those facilities (Ansari et al., 2011). Similarly, Miranda (2017) led a local study that found that environmental variables within health facilities influenced the level of satisfaction of patients who require hospital treatments.

A favorable, substantial, and statistically significant association existed between economic considerations and the provision of quality health care, as Table 6 depicts ( $r = 0.614$ ;  $p < 0.05$ ). Meaning economic factors had a chance of influencing the delivery of high-quality health care. As a result, county governments and entities in charge of administering health facilities should place a premium on variables critical to health care funding, like the cost of financing, easy accessibility to financing, and prioritizing financially strapped divisions. As a result, it's possible that health-care delivery will improve. These findings support previous results arguing county governments with the ability to acquire pharmaceuticals when compared to when Kenya's public health services were devolved, the fill-rate for orders has increased dramatically (Tsofa at al., 2017).

#### 4.2.2 Regression Analysis, Results, Interpretations, and Discussions

More research was done to see if there was a link between certain independent factors and the provision of high-quality healthcare in Kasarani Sub-County. Table 7, Table 8, and Table 9 give the results and related discussions. The outcomes of the general relationship between independent variables and quality healthcare delivery, as well as the coefficient of determination ( $R^2$ ), are presented in the first table (Table 7).

**Table 7: Model Summary**

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Std. Error of the Estimate
1	.708 <sup>a</sup>	.501	.496	.4053917

There was a positive and moderately substantial connection between the independent factors and the delivery of quality health care ( $R = 0.708$ ), as indicated in Table 7. As shown in Table 7, this link was found to be statistically significant ( $p < 0.05$ ). Furthermore, the data in Table 8 ( $R^2 = 0.501$ ) indicated that 50.1% variance in delivery of quality health care in Kasarani Sub County could be explained by organization factors, interpersonal factors, environmental factors and economic factors. Other aspects that are not included in the aforesaid, could account for the remaining amount (49.9%).

Table 8 shows the outcomes of the analysis of variance (ANOVA) that were made use of in determining the significance and adequacy of the chosen multiple regression model.

**Table 8: Analysis of Variance**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.814	4	1.203	7.414	.000 <sup>a</sup>
	Residual	2.823	79	.162		
	Total	17.637	83			

The resulted presented in Table 8 indicate that calculated p value was  $0.000 < 0.05$ . This means that the sample data collected as well as analyzed was adequate for testing the regression model at a 95% confidence level (p value = 0.05). As a result, more research might be conducted to determine the factors influencing the delivery of high-quality health care in Kasarani Sub County. The outcomes in Table 9 were utilized to analyze the regression model in question.

**Table 9: Model Coefficients**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.266	.382		3.357	.000
Organization factors	.252	.116	.178	3.181	.001
Interpersonal factors	.199	.085	.192	2.376	.011
Environmental factors	.179	.075	.204	2.346	.019
Economic factors	.274	.075	.330	3.646	.000

*a. Dependent Variable: Delivery of quality health care*

In terms of interpretation, a unit change in the delivery of quality healthcare necessitated a 0.252 unit change change in organizational factors, 0.199 unit change in interpersonal factors, 0.179 unit change in environmental factors, and 0.274 unit change in economic factors, whilst also non-study factors were kept constant. The four factors examined in this study were critical in improving healthcare delivery in Kasarani Sub-County. It is obvious that economic factors ( $\beta_4 = 0.274$ ) were the most critical component while environmental factors ( $\beta_2 = 0.179$ ) were the least crucial factor. It was also mentioned that if the four components chosen for this study were to be held constant, there would still be some significant aspect of quality health care delivery ( $\beta = 0.266$ ,  $p < 0.05$ ). Further, each of the four selected independent variables were found to have a significant positive effect on delivery of quality health care, that is, organization factors ( $\beta = 0.252$ ;  $p < 0.05$ ), interpersonal factors ( $\beta = 0.199$ ,  $p < 0.05$ ), environmental factors ( $\beta = 0.179$ ,  $p < 0.05$ ), and economic factors ( $\beta = 0.274$ ,  $p < 0.05$ ). This implies that management and policy makers should ensure they enhance organization factors, interpersonal factors, environmental factors and economic factors as this will enhance the provision of high-quality health care.

The findings of this study are in line with Oringo (2018) who found out that interpersonal factors have a meaningful correlation with the quality of healthcare. The delays in serving the patient were attributed to the shortage of clinicians. In conclusion, the study postulated that resolving the compensation challenges will enrich the quality of health care in teaching and referral hospitals. The study findings also concur with Bibi (2018) whose aim was to recognize the effect on employee performance of talent management activities among employees in Pakistan's health care organizations. The study concluded that interpersonal factors such as staffing and remuneration have a positive effect on health care quality. Muchomba and Karanja (2015) noted that organizational factors and economic factors do not significantly affect performance of the devolved health facilities.

### **5.1 Conclusions**

The research concluded that organization factors have a significant and positive effect on delivery of quality health care in Kasarani Sub-County. The health facilities in Kasarani Sub- County have in place an organization structure, organization internal values influence decision making in this facility, administration is done in a transparent manner and managers of the health facility are held to account for the operations of the entities. Organization factors could enhance quality delivery of health care at the surveyed health facilities. The research concluded that interpersonal factors have a significant positive effect on delivery of quality health care in Kasarani Sub-County. The research also discovered that health-care workers had the essential skills as well as expertise to perform their jobs. The health-care workers, on the other hand, did not receive pay commensurate with their job group placement. The health facility administration was scarcely involved in the recruitment of the devolved healthcare employees. A catalyst in offering great health care services was found to be competent, well-paid, motivated, and having an acceptable quantity of employees.

This study concluded that environmental factors have a positive and significant influence on delivery of quality health care in Kasarani Sub-County. It was also discovered that there were instances of drug stockouts in health facilities. The health institutions evaluated totally lacks the potential to address all of their patients' health needs. The facilities were also found to be lacking in basic and adequate medical infrastructure. Allotment of drugs after ordering from KEMSA, as well as infrastructure size were all issues that the county's medical supply system had to deal with. Environmental factors were fundamental in delivery of quality health care. The research concluded that economic factors have a positive as well as significant influence on delivery of quality health care in Kasarani Sub County. According to the findings, there was no equality in the distribution of funding to sub-county health facilities. The monies were not disbursed on time, and the funds were insufficient to cover the hospital's budget. It was also discovered that the healthcare facilities examined failed to get adequate funding from donors. The importance of health-care financing in ensuring that operations run smoothly was critical. Enhancement in economic factors would result in improved delivery of quality health care.

## **6.1 Recommendations**

A number of recommendations were made as a result of the research. In terms of organizational considerations, it is critical for health facility management to be transparent in their administrative duties. The overall healthcare community in the survey ought to be open and honest, both financially and in terms of dealing with patient complaints. In the event of financial difficulties, it would be smart for the facilities to hire highly trained professionals to fill roles in finance management as well as administration. Mishandling as well as misappropriation would be avoided, and resources would be better allocated to crucial aspects. It is also recommended that health institutions in Kasarani Sub-County review their human resources to identify any areas of concern. To eliminate service delivery gaps, management should continue to hire competent individuals such as nurses as well as support staff. The labor must be fairly compensated and motivated. In terms of promotion and salary increases in the facilities, the management should continue to follow the policy requirements. In respect to environmental factors, it is recommended that Nairobi County government and the Nairobi Metropolitan service ought to, set up medical infrastructure for the decentralized health facilities in order to improve their service delivery. Well-equipped laboratories and other support facilities are among these infrastructures. It's also a good idea for the institutions to maintain a consistent supply of high-quality drugs as well as medical equipment. In order to avoid running out of stock and assure regular supply, medicine and drug distribution ought to be prioritized depending on necessity. In relation to economic factors, suggestion was studied health-care facilities allocate funds fairly. In attempts to keep operating expenses down and acquire cutting-edge equipment, the facilities should also seek additional finance to augment regular income. Obtaining extra capital may be combined with the development of income-generating activities.

## REFERENCES

- Adams, J., Mounib, E., Pai, A., Stuart, N., Thomas, R., & Tomaszewicz, P. (2016). *Healthcare 2015: Win-win or lose-lose? A portrait and a path to successful transformation*. IBM Corporation, United States of America.
- Akacho, E. (2014). *Factors influencing provision of health care service delivery in Kenya. A case of Uasin Gishu district hospital in Eldoret*, Unpublished MA research project, University of Nairobi
- Andel, C., Davidow, S., Hollander, M., & Moreno, D. (2012). The economics of health care quality and medical errors. *Journal of Health Care Finance*, 39(1), 112-123
- Docteur, E., & Berenson, R. (2015). *How does the quality of U.S. health care compare internationally? Timely analysis of immediate health policy issues*. Urban Institute.
- Donabedian A (2016). *The definition of quality and approaches to its assessment*. Ann Arbor: Michigan Health Administration Press.
- Hurley, S., Doumbia, K., Roter, C., & Harbey A. (2018). Room for improvement: Patients report on the quality of their health care, *The Commonwealth Fund*. 45(1), 300-340.
- Kimanzi, C. (2014). *Factors influencing provision of quality services in the public sector in Mwingi Sub County*, Unpublished MA research project, University of Nairobi
- King, A., & Hoppe, R. B. (2013). "Best practice" for patient-centered communication: A narrative review. *Journal of Graduate Medical Education*, 5(3), 385–393.
- Manaf, N.H. (2015). Quality management in Malaysian public health care. *International Journal of Health Care Quality Assurance*, 18(3): 204–216.
- Mosadeghrad AM (2013). Healthcare service quality: Towards a broad definition. *International Journal of Health Care Quality Assurance*, 26(3): 203–219.
- Muithya, V. (2016). *Factors influencing implementation of free maternal health care in government health facilities: A case of Kisima Location; Samburu County, Kenya*, Unpublished MA research project, University of Nairobi
- Muthui, R. (2018). *Factors influencing the provision of quality services in health care facilities: A case of Kitui county referral hospital*, Unpublished MA project, University of Nairobi
- Mwancha, J. (2018). *Determinants of healthcare service delivery in Kenya: A case study of health centers in Nyamira county*, Unpublished MA research project, University of Nairobi
- Nairobi County Health Delivery Report (2018). Accessed on April 7<sup>th</sup> 2019 <http://www.healthpolicyproject.com/pubs/291/nairobi%20county-final.pdf>

- Oketch, T.C. (2017). Devolution of public health care services in Kenya and its implication on universal health coverage. *IOSR Journal of Pharmacy*, 7(5/1), 9-23.
- Panda, B., & Thakur, H.P. (2016). Decentralization and health system performance – a focused review of dimensions, difficulties, and derivatives in India. *BMC Health Services Research*, 16(Suppl 6), 1–14. Accessed on April 15, 2018 from <http://doi.org/10.1186/s12913-016-1784-9>
- Watts, R.L. (2017). *Comparing Federal Systems*. (12<sup>th</sup> Ed.). Kingston, Ontario: McGill-Queen’s University Press for the Institute of Intergovernmental Relations.
- World Health Organization (2016). *Healthcare workforce 2030: Towards a Global Strategy on Human Resources for Health*. Geneva: World Health Organization.
- World Health Organization (2018). *Regional Office for Africa. The Health of the People: The African Regional Health Report*. Brazzaville: World Health Organization.