



## **Influence of Human Resource Capacity on Public Health Service Delivery in the Western Kenya Region**

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**Abstract:** This study investigated about the influence of human resource capacity on public health service delivery in the Western Kenyan Region. The study employed the descriptive correlational research design. A closed ended questionnaire was used as a source of data from 264 staff and 69 patients from selected health facilities. Data was processed through regression analysis to establish the relationship between the independent and the dependent variables. The study concludes that enhancing the human resources capacity through collaborative decision making and training leads to improved public health service delivery. The study, therefore, recommends that the Ministry of Health in the County Governments should enhance the human resources capacity through collaborative decision making in that opinions of workers are taken into consideration in daily operations. Furthermore, different forms of training like in-service training, mentorship, coaching, workshops and seminars should be considered so as to effectively enhance the public health service delivery.

**Keywords:** Human resource capacity; health service delivery; Western Region.

**How to Cite:** Juma, L. M., Ali, U., and Ayub, S. E. (2023). Influence of Human Resource Capacity on Public Health Service Delivery in the Western Kenya Region. *East African Journal of Education and Social Sciences* 4(2), 119-126. DOI: <https://doi.org/10.46606/eajess2023v04i02.0283>.

### **Introduction**

Sustainable Development Goals (SDGs) recognize the universal health care as a significant and laudable objective. Universal health coverage seeks to ease the way toward more prosperous and fair societies and economies by ensuring that all people

have access to the healthcare they need. Without prioritizing the health care quality, universal health coverage cannot be realized. Health care delivery should therefore be timely, equitable, coordinated and efficient (World Bank, 2018).

The Millennium Development Goals (2015) were a set of global health objectives for low- and middle-income nations that were rapidly advanced from 2000 to 2015. Worldwide, we saw a 53% drop in infant death, a 43% decline in maternal mortality and a 38% decline in new HIV infections. In spite of this trend, development was notably unequal. Preventable mortality rates remained high in low-income, rural and inaccessible groups. The mortality rates of children under the age of five in low and middle-income countries vary greatly depending on a number of factors, including family income, maternal education level and location (urban vs. rural) (Kafuko, 2018).

Even though health care quality gaps occur everywhere, they have a disproportionately negative impact on marginalized communities. Since 2010, the United States has reported on healthcare quality in the National Healthcare Disparities Reports. In 2015, among low-income populations, half of the quality metrics indicated no change. For rural communities, almost half of the measured quality indicators showed no improvement or had worsened (National Healthcare Quality and Disparities Report, 2016). Baine et al. (2018) conducted a survey of health service delivery in Uganda and found that inadequate medical equipment, poorly trained staff and a lack of national policy that promote adherence to World Health Organization standards all had a detrimental effect on service delivery. Abay (2008) noted that Human Resource Capacity is widely understood as a notion linked to HRD initiatives like training and education.

Groot and Molen (2000) defined human resource capacity as the increase in an organization's or a community's ability to create, build, manage and maintain established functional organizations and procedures that have meaning at the local level. In this sense, human resource capacity might refer to increasing the extent to which all employees are able to fulfill important tasks in accordance with the organization's overall performance requirements.

However, Brew (1994) broadened the concept of human resource capacity to include the ability to make independent decisions. Capability, he said, is what gives agency its due weight. If freedom is the goal, then efficacy is the substance. Capacity building efforts give workers the tools they need to help the company succeed. A number of researchers, including Linnell (2003), have

hypothesized that increasing a person's or a group's capability to accomplish their goals is related to increasing their access to and use of human resources. UNDP (2008) described human resource capacity as the process of helping an individual, a group or an organization to identify and confront problems and then acquire insights, knowledge and experience to solve those problems and enact necessary reforms.

The devolution of healthcare in Kenya began with the devolution of power between the national and county governments following the adoption of a new Constitution in 2010 (Wahome, 2019). In Kenya, healthcare is one of the areas that have been given more authority to County Governments under the Transition to Devolved Government Act (2012) (Waithaka et al., 2018). It is proposed in the National Health Policy (2014-2030) that County Health Departments be reformed with one of its primary responsibilities being the establishment of an effective institutional framework to ensure the safe administration and distribution of healthcare services across the County (Gitonga & Keiyoro, 2017).

UHC ensures that everyone has access to the primary, secondary, tertiary and quaternary care they need to live a healthy and productive life, including the services necessary to maintain and improve health without causing the undue financial hardship (World Health Organization, 2016). Despite significant health investments, health outcomes remain unsatisfactorily low, especially in large parts of the developing globe. It is completely unacceptable that half of the world's population lacks access to basic healthcare (Achia & Mageo, 2015). Generally speaking, the best healthcare service delivery models can be found in more developed countries like the United Kingdom, Canada, Norway and Sweden. These models are supported by the implementation of universal health coverage, the nationalization of health services and a robust health system (Papanicolas & Jha, 2018).

Uzochukwu et al. (2015) concluded that low funding, inconsistent donor support and insufficient human resource significantly impacted the UHC policy's ability to provide healthcare. According to Nyongesa et al. (2014), a country's health services can be enhanced by investing in a robust health infrastructure consisting of appropriate physical facilities, medical equipment, medical supplies,

communication and information and communication technology. Due to financial constraints and corruption-related theft, low-income countries are unable to properly equip their health facilities or provide adequate health care to their citizens. Hence, many nations have decentralized their health care systems in order to make better use of their funds while also increasing the availability, depth, and quality of their primary care offerings (World Health Organization, 2016).

Maina (2018) avers that having access to sufficient resources like money, facilities and people may be what really pushes forward the delivery of health care in hospitals. As one of the resources necessary for effective service delivery, this study aimed to determine if human resource capability impacted healthcare delivery in Western Kenya County Hospitals.

The Constitution of Kenya, adopted in 2010, ensures that all Kenyans have access to quality healthcare that is based on their individual rights. It means Kenyans have a right to the best possible health, which includes access to medical care and reproductive services (Article 43). Local governments are responsible for providing basic healthcare services, but the federal government continues to set the health policy, provide technical help to counties and manage national referral health centers. In order to better meet the specific health needs of their constituents, foster greater citizen engagement and expedite the allocation of scarce resources, County Governments were given authority over this sector. Yet, the industry is currently plagued with enormous difficulties in virtually all Counties, such as capacity gaps, human resource shortages, a lack of crucial legal and institutional infrastructure, widespread corruption and a contentious relationship with the central government (Kimathi, 2017).

According to research on nurses' opinions of healthcare in Kiambu County, problems with accessibility, patient care, diagnostic testing and collaboration with other health facilities all contribute to a subpar level of service (Kenneth et al., 2019). Kamau et al. (2017) conducted further research on healthcare in Kiambu County and found that the county's poor implementation of a health referral system was caused by lack of adequate infrastructure, poor health information systems, the capacity of health care workers and limited financial resources. As a result, the County's health care

facilities have been unable to expand their service offerings to residents.

Although Kariuki's (2021) conclusion that organization factors, including organizational cultures and styles, organizational communication, organizational structures and the competency of the health facilities accounted for 51.6% of the factors effecting delivery of outstanding health care in Kasarani Sub County in Kenya, the study did not analyze how much did organizational cultures and leadership styles actually accounted for.

Mwangi (2020) conducted a research on implications of devolved governance on health service delivery at Thika Level Five Hospital in Kiambu County and found that the devolved governments have faced obstacles, including lack of competent personnel and funds for the hospitals. Strikes were just one of the many obstacles that led to a halt in health care services and the loss of knowledgeable staff was the other. On the other hand, despite the adoption of the Constitution's fourth schedule, counties nevertheless faced ongoing issues that have a negative effect on health service delivery (Achia & Mageto, 2015). Poor health services, lack of contemporary equipment and facilities and a lack of accessible health facilities are just a few of the many obstacles that made it difficult to gain access to healthcare in the Public Sector (Ministry of Health, 2014).

Reluctance to recognize existing problems is one of the greatest barriers to health care progress. Another challenge is identifying and implementing effective interventions competently. The legal framework established by the Constitution of 2010 ensures a comprehensive and rights-based approach to the provision of healthcare services to Kenyans. It indicates that Kenyans are entitled to the greatest achievable health standards, which includes the right to healthcare services and reproductive health care (Article 43). The principal human resource concerns are shortages, failure to develop enough numbers of healthcare professionals, maldistribution of current employees and inadequate skills of many healthcare personnel (Holtz & Elsayw, 2013). These issues have hindered the government's capacity to deliver important healthcare projects, such as access to healthcare for all, at the levels it wishes to maintain (Ataguba & Goudge, 2012). It is believed that the decentralized government will provide better public health services than the central government. With the

devolution of the health services sector, incidences of health workers resigning due to bad working conditions and a lack of equipment, among other issues, have been observed, resulting in inadequate health service delivery.

According to Kimathi (2017), Counties around the country are struggling with serious problems such as capacity gaps, human resource deficits, inadequate legal and institutional infrastructure, endemic corruption and a lack of parallel relationship with the National Government. According to a research by Kiambati (2020), the degree of transparency and service delivery in the county governments were found with low service delivery. These have been blamed on inadequate fund allocation from National Government.

Further, a related study by Zeng et al. (2022) established that shortage of funding was one of the most common complaints from counties, leading to inefficiency in the health system. Another major reason for inefficiencies was the delay in disbursing funding to health facilities, which affected the procurement of medical supplies and commodities essential for delivering healthcare to the population. In addition, lack of autonomy in procuring commodities and equipment was repeatedly mentioned as a barrier to delivering quality health services. Other reported common concerns contributing to the inadequate performance of county health systems were the lack of laboratory tests and equipment, low willingness to join health insurance, rigid procurement policies and lengthy procurement processes, lack of motivation and poor economic status. Service delivery in the four Western counties of Kenya, namely, Vihiga, Busia, Bungoma and Kakamega have been found low based on the outcries from the public complaints. Thus, it is apparent that Western Kenyan counties confront service delivery challenges. This study, therefore, attempted to establish the Influence of Human Resource Capacity on Public Health Service Delivery in the Western Kenya Region.

### **Theoretical Review**

The study was based on the Human Capital Theory (HCT) (Schultz, 1961) which proposes the idea that the value created by an organization's employees is a key factor in the success of that business. In this framework, employees are considered as assets rather than overhead expenses. According to Bontis (2013), a company's human capital consists of its employees' talents, intelligence and expertise,

which allow it to stand out from the competition. Human capital is an intangible asset that contributes to the success of a company even if it does not physically exist. The notion argues that companies can benefit from their employees' remarkable levels of expertise and knowledge using methods like building learning corporate cultures or linguistic roles to form cohesive teams (Almendarez, 2011). This theory elaborates why it is vital to notice the influence of human capital on the service delivery of Public Health Facilities. As stated by Bontis (2013), a firm's human capital possesses a variety of skills and competences that can be used to provide answers to problems and to make the most of performance and service delivery.

Considering the importance of human capital to the success of any business, the quality of service provided by Public Health Facilities is directly related to the people who are hired to work there. Since an organization's success depends on its people and their ability to provide excellent service, Human Capital Theory was considered appropriate for this study. It is therefore, the responsibility of the County Governments in the Western Kenya Region to ensure that their human capital and other resources are properly aligned so as to improve service delivery by the Public health institutions.

### **Empirical Literature**

This section presents the empirical literature review about the topic. Musyoka et al. (2021) evaluated the human resource capability to determine its impact on the quality of care delivered by public hospitals in Nairobi City County in Kenya. The study established that training and development were predominantly individualistic in nature and they focused on making sure individuals grow throughout their careers to seize greater opportunities. While looking at the impact of human resource capacity on service delivery at public health institutions, inferential analysis turned up no clear results.

Mohamed and Hameed (2015) looked into how HR capacity in practice affected healthcare quality and patient satisfaction. Findings from this study highlighted the importance of strong human resource capability in enhancing the quality of healthcare and the efficiency of hospital employees. In order to improve the hospital staff performance, the study recommended measuring how well hospital human resources managers are doing in their jobs before beginning the performance development process and providing ongoing

training and development opportunities. Ikenye's (2021) study in Kiambu County aimed to determine how various elements of human resources influenced the quality of the medical treatment provided to residents. Human resource capacity was found to positively correlate with the provision of healthcare services. Human resource capacity was defined in this study as including both training and development and incentives and recognition. However, the researchers found that rewards and recognition had no discernible impact on the quality of healthcare provided to residents.

## Methodology

### Research Design

This study employed the descriptive correlational research design. A closed ended questionnaire was used as a source of data from the field and data was analyzed to establish the relationship between the independent and the dependent variable.

### Population and Sampling

The target population for this study consisted of 966 from the four County Referral Hospitals and 29 Sub-County Hospitals in Bungoma, Kakamega, Vihiga and Busia. These included 264 health practitioners and 686 patients who were admitted, treated and discharged between July and September, 2022. The number of patients was determined through the Health Records in the health facilities. The researchers employed stratified random sampling to determine the sample because it allowed the collection of data from a subset of the population that is representative of the whole. The study adopted census method for the 264{32 + (29x8)} staff since the number was small and accessible. Furthermore, 10% of 686 (69) patients were

selected through simple random sampling technique, thus giving a total sample size of 333 people who responded to the questionnaires.

### Validity and Reliability

Validity of the instruments was established after being reviewed by a panel of experts who offered their thoughts on each question and indicated whether they found it to be pertinent or not. Construct validity was achieved by investigating multiple facets of the construct of interest through a sequence of interconnected questions. The questionnaire was found to have high face validity because it only asked about topics that were actually of interest to the respondents. Internal consistency reliability was calculated using the Cronbach alpha formula (Kim & Cha, 2002). This study followed the Gupta et al.'s (2004) recommendation that a minimum alpha value of 0.7 be used for item loadings. As seen in table 1, the reliability test yielded the Cronbach's alpha of above 0.7. Therefore, the questionnaire was reliable.

### Statistical Treatment of Data

Data was analyzed using the multiple linear regression analysis to determine the relationship between the variables under study.

### Ethical Considerations

Due to involvement of human subjects, the researchers acquired an approval from the Masinde Muliro University of Science and Technology Graduate School. A research permit was also sought government authorities. The researchers ensured that names, identity and information provided by respondents remained confidential. No name of respondent was revealed in the final report.

**Table 1: Reliability Analysis Results**

Reliability Statistics		
Variables	Cronbach's Alpha	No. of Items
Human Resource Capacity	0.740	04
Public Health Service Delivery	0.853	10

## Results and Discussion

The study was guided by the following research question: Does human resource capacity have influence on the public health service delivery in County Governments in the Western Kenya Region?

It was hypothesized that: H<sub>01</sub> There is no significant relationship between human resource capacity and public health service delivery in County Governments in Western Kenya Region. To test the Hypothesis, the model  $Y = \beta_0 + \beta_2 X_2 + \epsilon$  was fitted. Table 2 shows the model summary for Human

resource capacity and Public health Service Delivery. The table indicates the model summary for the regression between human resource capacity and

public health service delivery. An R-squared of 0.476 indicates that 47.6% of public health service delivery is explained by human resource capacity.

**Table 2: Model Summary for Human resource capacity and Public health Service Delivery**

Model	R	R Square	Adjusted R Square	Model Summary		Change Statistics			
				Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.690	.476	.474	.40702	.476	265.467	1	292	.000

a. Predictors: (Constant), human resource capacity  
b. Dependent Variable: public health service delivery

**Table 3: ANOVA for Human Resource Capacity and Public Health Service Delivery**

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	43.978	1	43.978	265.467	.000 <sup>b</sup>
	Residual	48.373	292	.166		
	Total	92.351	293			

a. Dependent Variable: service delivery of public health  
b. Predictors: (Constant), human resource capacity

**Table 4: Regression Coefficients between Human Resource Capacity and Public Health Service Delivery**

Model	Coefficients <sup>a</sup>				t	Sig.
	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. Error	Beta			
1	(Constant)	1.622	.131		12.394	.000
	human resource capacity	.531	.033	.690	16.293	.000

a. Dependent Variable: public health service delivery

As indicated in Table 3, when the independent variable was regressed with the dependent variable, the results were positive and statistically significant as the F test yielded the value of  $F(1,292) = 265.467$ ,  $p < 0.05$ , indicating that the model adequately explains the variation in the dependent variable. Furthermore, human resource capacity is a significant factor in the provision of public health services.

Table 4 shows the regression coefficients between human resource capacity and public health service delivery. Results were statically significant ( $\beta = 0.531$ ;  $\beta = 0.690$  and  $t = 16.293$ ,  $p < 0.05$ ), hence human resource capacity significantly influences public health service delivery.

The results show that the model could be used to predict the level at which human resource capacity

affects the public health service delivery. The regression model between human resource capacity and public health service delivery is  $Y = \beta_0 + \beta_2 X_2 + \epsilon$ . Similarly, the study of Tomar and Dhiman (2013) revealed that the quality of care delivered in hospitals is affected by human resources-related factors such as standardization of nursing tasks, performance evaluation procedures, clear lines of communication and competitive salaries. Ikyanyon et al. (2020) examined how human resource management affects the delivery of high-quality medical care. Findings revealed that well-managed human resources can have a substantial positive effect on healthcare productivity.

### Conclusions and Recommendations

The study concludes that enhancing the human resources capacity through collaborative decision

making and training leads to improved public health service delivery. The Ministry of Health in the County Governments should therefore enhance the human resources capacity through collaborative decision making by taking into consideration the opinions of workers. Different forms of training like in-service training, coaching, workshops and seminars should be considered so as to effectively enhance the public health service delivery.

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