

# Impact of Devolving Healthcare Services in Kenya: A Case of Kitale County Referral Hospital; Trans-Nzoia County, Kenya

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**Abstract:** The 2010 Kenyan Constitution established devolution, which in Kenya entails the distribution of authority, funds, and representation to the counties. Among the functions of Counties according to Schedule Four, is the provision of primary healthcare services. This study sought to determine how devolution influenced healthcare service delivery at Kitale County Referral Hospital. The study finds that there are direct impacts for the first objective simply pointing out that government, staffing and infrastructure negatively relate to HCSD. Finance positive (but weak) impacts are asserted via the regulation effect of government (and concern by the second objective), We notice that infrastructure and staffing negatively impact HCSD except for the direct impact of financing that is positive on HCSD. With the third objective, we notice that there is a significant correlation. Although the government relates negatively with HCSD, it positively influences the financing done on the growth and development of health care and so does staffing and infrastructure. Additionally, this study notes a huge gap in policymaking against the reality in healthcare facilities. Further, the study shows that there are improvements in healthcare in terms of efficiency, accessibility, affordability as well as effectiveness. Conclusively, the study recommends a holistic mechanism in policy-making to meet the challenges in healthcare and address the existing gaps.

**Keywords:** Devolution, Infrastructure, Finance, Staffing, Healthcare Service Delivery.

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## 1. INTRODUCTION

Devolution encompasses the transfer of service, and responsibilities to lower tiers that elect their political leaders, generate their revenues and have independent authority to make investment decisions. Local governments have clear and legally recognized geographical boundaries over which they exercise authority and perform public functions in a devolved system (Dacks, 1990; WHO., 2011, 2012). On the other hand, Muriisa (2008) defines devolution as the substantial transfer of powers, authority and functions from the central government to sub-national units. These sub-national units acquire significant autonomous financial and legal powers to function.

Devolving healthcare has been embraced worldwide as a mechanism to elevate the efficiency and responsiveness of the health system. Every country has a unique way of implementing this policy. However, it is not a smooth process, as it requires support from the central government. For instance, in Thailand, local government staff needed to strengthen their capacity to handle new responsibilities (Jongudomsuk, 2012). In the Philippines, however, devolution has made local governments make extensive and quicker decisions on healthcare issues. Allocation of resources has relatively increased

because of more national transfers through the IRA. Consequently, various sectors including civil societies have institutionalized avenues to participate in health service delivery (Atienza, 2004). Ethiopia, on the other hand, transitioned from centrally organized authority to redistribution of block grants from regional governments to districts. These districts set their priorities, allocate a budget to health facilities, and are free to spend their budget on whatever health facility they want. In Ghana, however, the situation is different as on one side there is the GHS managing health facilities while on the other side, there is the District Assembly with departments of health that act as devolved entities (Bank, 2012; KPMG, 2014; WHO., 2012). When governments devolve functions, they transfer authority for decision-making, finance, and management to quasi-autonomous units with corporate status (Bank, 2015). While the world has embraced the devolution of healthcare services, proper induction needs to be done by the central government for a smooth transition from national to county or sub-national local authorities.

Kenya, since the promulgation of the new constitution in 2010, established a devolved system of governance with two levels namely the National and County government was created (T. C. Okech, & Lelegwe, S. L., 2016). This new system has absorbed the old central and provincial administration systems. The county governments have replaced the provincial administration. Healthcare services have been devolved to counties. The Ministry of Health at the national level just provides health leadership. Its mandate includes developing national policy; providing technical support at all levels; monitoring quality and standards in health services provision; providing guidelines on tariffs for health services and conducting studies required for administrative or management purposes. For Counties, the county governments are responsible for county legislation; establishment and staffing of public service; providing infrastructure expansion and establishment of new health centres, equipping health facilities such as new wards; providing ambulances, and recruitment of additional health workers. The two levels of government through distinct are interdependent and conduct business based on consultation and cooperation (Bank, 2015; Kenya, 2010). The government provided the necessary legal framework in the Constitution to ensure comprehensive and people-driven healthcare delivery to improve access to quality healthcare. The county and national governments worked to improve geographical access for the public, including the poor and other vulnerable groups. The constitution also guarantees everyone, including children and people with disabilities, the right to emergency health care. The national government announced the elimination of user fees at primary healthcare facilities in 2013 and the implementation of free maternal healthcare services in public health facilities. Similarly, in the draft Health Bill of 2015, the government declared that all people have the right to reproductive health care and emergency medical treatment (T. C. Okech, & Lelegwe, S. L., 2016). These initiatives are aimed at achieving Universal Health Care (UHC) aligned with the Sustainable Development Goal (SDG) and Kenya Vision 2030 on good health and well-being. This goal outlines all major health priorities, such as reproductive, maternal, and child health; communicable, non-communicable, and environmental diseases; universal health coverage; and universal access to safe, effective, high-quality, and affordable medicines and vaccines for all. The goal also calls for more research and development, increased health financing, and strengthened capacity in all countries to reduce and manage health risks.

Devolution of government services is one of the key principles of Kenya's 2010 constitution, which envisions counties as the primary units. The constitution requires these units to receive consistent sources of revenue to be self-governing and to provide effective services. Following the devolution of health services, there have been reports of health workers refusing to work due to low pay and working conditions, among other issues. A study on devolved governance in Kenya conducted by Khaunya (2015) revealed that counties have faced a slew of challenges that stand in the way of realized achievements. Inadequate funding, corruption, nepotism, inability to absorb some devolved functions, mistrust among stakeholders, and other issues are among the challenges. The study also revealed that devolved functions such as health had been plagued by difficulties, to the point where medical staff resisted having their function placed under the County Government's public service. Cases have also been documented in which the executive arm of the national government is hesitant to devolve funds intended for county development programs, thereby limiting service delivery such as salary payment and other grass-roots development by county governments (Abdumlingo. H, 2014). Trans-Nzoia County was found to be among the counties least prepared to provide healthcare services under the devolved system, according to a report by Barker (2014) on assessing county health system readiness in Kenya. Trans-Nzoia County had the highest (65%) staff absenteeism. Additionally, the county also appeared among the less prepared counties to provide high-quality treatment and care. Against this backdrop, the purpose of this study was to investigate the impact of the devolution of government service delivery on healthcare provision in Trans-Nzoia County, at the Kitale County Referral Hospital.

This study focused on the delivery of healthcare services at Kitale County Referral Hospital. With devolution in place, the study seeks to ascertain the impact of devolution on healthcare service delivery in different sub-national governments. This will help identify the gap as well as recommendations on best policies that would bolster positive devolution impact on healthcare service delivery.

## 2. LITERATURE REVIEW

Healthcare services availability and comprehensiveness of these services is a pillar in achieving Universal Health Coverage (UHC). This depends on skilled healthcare practitioners, health infrastructure e.g., medical equipment, building new health centres as well as improving and expanding the already existing ones, and the health financing system (WHO, 2014). On the other hand, a healthy population boosts the growth of the economy and reduces the poverty index hence helping in achieving the SDGs as well as the Kenya Vision 2030 (GoK., 2007; Sohnen, 2015). The areas of focus in the health sector as outlined in the Kenya Vision 2030 include; Accessibility, quality, capacity and institutional development. To achieve that, financing mechanisms, adequate human resources and infrastructure should be prioritized

Staffing in any health facility determines the efficiency and comprehensiveness of the services offered. Scholars have documented a lot about the health sector staffing. The majority of these studies have indicated lower staffing in health facilities. Lower staffing means an increase in the workload leading to burnout as well as affecting the quality and effectiveness of the service delivery of healthcare. This would predispose health workers to occupational health issues, affecting staff turnover (Akacho, 2014; Clarke, 2008; Huot, 2019; Wakaba, 2014). Wavomba (2015) in the same vein argued that the number of medical staff attending to malaria patients failed to meet the demand. The patient-medic ratio was high affecting the delivery of services. Lang'at (2015) in their study on the provision of healthcare services in Malindi Sub County argue that service provision has greatly been affected by a shortage of staff. (Gimoi, 2017) in her thesis study on the impact of devolution on Healthcare systems, focusing on Nairobi City County argued that devolution has not yet solved this challenge. Further, no mechanism has been introduced to motivate the staff, and there are very few medical facilities, suggesting that the motivation of health care workers in Nairobi City County is significantly reduced. Finally, most employees wanted more training to improve their service offerings.

Lenka (2013) on the other hand emphasizes the training of health workers on their enhanced responsibilities. T. C. Okech (2014) notes that there are limited opportunities for continuous training for medical practitioners. They argue that this is an important determinant of the improvement and success of health services. Barnes (2012) equally highlights the importance of staff training to ensure consistent quality care in fighting snakebites in Kitui County.

On specialized medical practitioners, the average specialists' gap ranges between 85% and 62% when compared to the Norms and Standards and as perceived by the County Directors of Health (CDH) respectively. However, infrastructure availability continues to negatively affect care and the ability of some key healthcare specialists, especially specialized healthcare professionals, to stay in public services. For example, many doctors have chosen to participate in private practice or give up pursuing further research after experiencing cases of complaints that specialists have not fully utilized their abilities. If the situation is not addressed, patients may be forced to rely on either services from unqualified healthcare personnel or providers, or alternative medicine services that may not guarantee quality. To make matters worse, others may seek services from private companies, which can be relatively expensive and are currently being sought after under the Enhanced National Hospital Insurance Scheme (NHIF). It negates the expected benefits of risk protection. Similarly, there are significant gaps in the professional care abilities required, forcing individuals to seek these services abroad again, influencing their quest for financial protection. On the other hand, the "Zero" Tolerance Initiative has been praised, but human efficiency remains an issue as it does not appear to be properly addressed by the two layers of government. After all, despite the best efforts of the First Lady, the equipment can be unused. Media coverage was flooded with cases of false investment in health care at the county level and aimed at improving medical technology, which is considered a key component of UHC's key to achieving universal health insurance (Miseda, 2017; T. C. Okech, 2014). This severe shortage of medical specialists jeopardizes Kenya's efforts toward the right to good healthcare by citizens, attaining Universal Health Coverage (UHC), achieving Kenya Vision 2030 as well and attainment of SDGs.

Infrastructure on the other hand refers to the basic facilities and systems that serve a country, city, or region (O'sullivan, 2003). It includes the services and equipment necessary for the functioning of its economy. It usually characterizes engineering structures such as roads, bridges, tunnels, water services, sewers, power networks, telecommunications, and interconnects that provide the goods and services that are essential to the realization, maintenance, or delivery of what is essential. It can be defined, as the physical component of the system improving social living conditions is important (Fulmer, 2009). In full realization of Universal Health Coverage, a strong, efficient, well-run health system is necessary (WHO., 2010). Infrastructure such as information management systems (Communication and ICT), physical infrastructure (hospitals, dispensaries), medical equipment, and Transport systems e.g. ambulances (Anand, 2012). Healthcare quality depends on new technology, effective dosing, the ratio of skilled staff to patients, the effectiveness of service delivery, affordability and efficiency. Professional quality in medical care is primarily defined by the technical accuracy and effectiveness of medical diagnostics and procedures or compliance with technical specifications. Functional quality is the way medical services are provided to the patient.

Healthcare facilities are major consumers of energy due to their need for electricity and thermal energy for heating, ventilation, lighting, air conditioning and use of medical and non-medical equipment (Papadopoulos, 2016; WHO., 2009). Modern and reliable energy is important in managing critical cases of ventilation. In a study involving 231 hospitals, in Kenya included, findings indicated that electricity was available uninterrupted in only 35%. Less than half of these hospitals reported unreliable power supply and had backup generators (Belle J, 2010). Otiangala (2020) notes that unreliable power supply in Kenya has largely affected oxygen security resulting in a high fatality rate in hypoxemic illness. Further electricity is critical in driving oxygen concentrators during emergencies; however, such has failed especially in Kenya where power outages are the order of the day.

Healthcare financing at the county level as a devolved function is done through the county government and consumers through cost-sharing. In the 2014/15 budget, the district received about 25 per cent of the total budget (Olugo, 2015). However, at the individual county allocation level, most counties allocate less than 5% of their budget to health care. Many of these allocations were directed to staff compensation, hospital equipment and infrastructure purchases and upgrades, and drug purchases. However, due to the small allocation, there is a shortage of funds and it directly affects the quality of supply.

Nevertheless, a study by Masaba (2020) on the progress and challenges of the devolved healthcare system in Kenya notes a great improvement in health structural development as a result of devolution in the country. However, the study recognizes that the major impediment in the health sector upon devolution is inadequate resources/funds from the national government and low-level staffing in health facilities.

## 2.1 Hypothesis and Conceptual Framework

### 2.1.1 Hypothesis of the study

From this approach, we develop the following Hypothesis for this study;

**H1** – Proper Infrastructure, staffing and adequate financing positively influence healthcare service delivery

**H2** – When the government moderates infrastructure, staffing, and finance devolution, the environment positively influences healthcare service delivery

**H3** – Both Infrastructure, staffing, finance devolution and government significantly correlate while positively impacting healthcare service delivery

### 2.1.2 Conceptual Framework

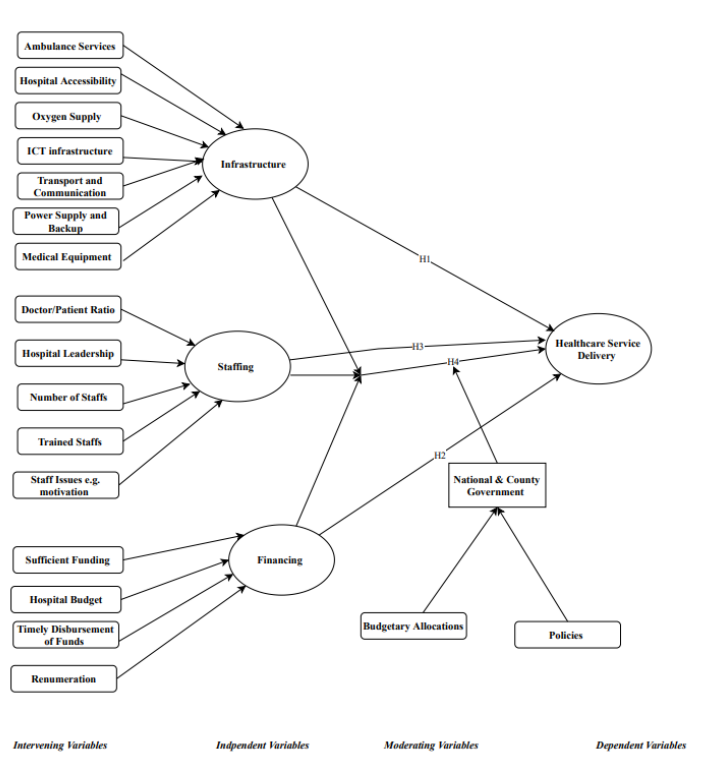


Figure 2. Conceptual Framework

### 3. METHODOLOGY

#### 3.1. The dataset

The study employs primary data extracted from a questionnaire structured best to suit the alignments and aspects poised in the objectives of this study but based on the healthcare service devolution—healthcare utility relation environment.

#### 3.2. Methodology

The study employed a Descriptive analysis of variables.

##### 3.2.1 Research Setting

The study will be carried out in Trans-Nzoia County in the upper Western part of Kenya with the research focusing on the delivery of healthcare services by the Kitale County Referral Hospital in Trans-Nzoia County. According to the Kenya National Bureau of Statistics (KNBS, 2019), Trans Nzoia County closed (990, 341) to 1 million people. Trans-Nzoia county has five sub-counties; Trans-Nzoia West, Trans-Nzoia East, Kwana, Endebess and Kiminini. Kitale County Referral is located in Kitale town, the headquarters of Trans-Nzoia County. At this location, the hospital is at the centre of the County hence it serves people from all parts and even outside Trans-Nzoia County.

##### 3.2.3 Data gathering instrument and mode of data collection

This study will use a structured questionnaire tuned on the Likert-type scale but with the questionnaire items significantly touching and or revolving around the main aims under study. Apart from question ratings, respondents will be expected to leave comments to confirm their ratings for some questions. Such questionnaires allow researchers to collect answers according to the purpose of their research. Comments serve as qualitative data. The link to this questionnaire will be shared online with residents of Trans-Nzoia County who are eighteen years and above.

##### 3.2.4 Sample size and sampling technique

The target population includes all the heads of the health facilities in Trans-Nzoia County with the sampling technique being Non-Probability Sampling, specifically, Purposive Sampling used to identify all the heads of government hospitals, Health Centres and dispensaries in the county, as they possess the relevant knowledge required for the study. Questionnaires will then be used to obtain primary data with significant customized items based on the aspects and factors affecting, causing or inducing changes in health infrastructure and personnel development.

The sample population for the study will be adults from Trans-Nzoia County who are above 18 years old and have internet access. In this 21<sup>st</sup> century, the study assumes persons above 18 years can access the internet. Article 260 of the 2010 Kenya constitution defines an adult as a person who has attained the age of eighteen years. According to The Kenya National Bureau of Statistics annual (2019), 534,115 persons have attained the age of 18 years and above in Trans Nzoia County. The study will use proportionate stratified random for the public to respond to the questionnaire. In determining the sample size, the study employs the formula suggested by Fisher, et al (1983) in Mugenda (2003) in the estimation of sample sizes in social surveys as illustrated below

$$n = \frac{Z^2 pq}{e^2} = \frac{(1.96)^2 \times 0.5 \times 0.5}{(0.05)^2} = 384$$
; where n = sample size, Z = 95% confidence = 1.96, e = sampling error 5%, p = maximum variability of the population at 50% = 0.5 and q = 1-p = 0.5 Population above 10,000 the sample size is 384 (Fisher, et al 1983).

Sampling will be random depending on who has internet access and can access the questionnaire.

#### 3.3 Data Analysis

To investigate best the role of devolution in healthcare delivery, the study implored a Descriptive approach.

##### 3.3.1 Descriptive Analysis

This technique expected to be implored will be important in depicting the physical characteristics of the data and insinuating the likely general relationship between infrastructure, financing, staffing and government influence on healthcare service delivery in Kitale County Referral Hospital.

**Table 2. Correlation Matrix and ICT (infrastructure) Amalgamation**

	ICT in Hospital	ICT& Timely Service Delivery	ICT Influence	Computing	ICT& Service Variety	ICT Reliability	HIIMS
ICT use in Hospital	1.000						
ICT& Timely Service Delivery	0.483	1.000					
ICT Influence	0.751	0.556	1.000				
Computing	0.596	0.489	0.882	1.000			
ICT& Service Variety	0.651	0.560	0.906	0.964	1.000		
ICT Reliability	0.621	0.498	0.889	0.931	0.930	1.000	
HIIMS	0.681	0.710	0.690	0.520	0.583	0.585	1.000
Kaiser-Meyer-Olkin (Adequacy Sampling Measure) 0.869***							
Components extracts (computational weights)	0.790	0.692	0.953	0.913	0.944	0.922	0.776

#### 4. RESULTS AND ANALYSIS

The chapter concerns the results of the study and their analysis based on the objectives outlined in the study. The objectives concerned; first, finding how finance, infrastructure and staffing impact healthcare service delivery, second, how the government mediates the impact from main variables to healthcare service delivery, and third, how the main variables correlate with healthcare service provision in Kitale County Referral Hospital. Largely, the chapter is organised based on the objectives. However, the need to identify the likely underlying characteristics of the data started the analysis with insights into their descriptive statistics.

##### a) Variable Descriptives

The ICT infrastructure variable is a latent component pooled from various variables enshrining information on how ICT is integrated and operationalized in hospital operation activities and the efficiency of the ICT in use. These ICT variables together with the HIIMS variables are well captured in Table 2. That is, in the order, of whether ICT<sup>1</sup> is used in the hospital, influence of ICT on HCSD, use of computing techniques in service processing and operations, reliability of the technology in service delivery, ICT variances and HIIMS. These variables are amalgamated into latent ICT

Infrastructure has their correlation analyzed to depict if they significantly postulate the aspect of infrastructure concerning ICT on HCSD.

Therefore, according to (the upper part of) Table 2, insights into the correlation depict some critical relations among the variables of ICT. All a cross, there is, from average to strong correlation between respective variables evidenced by the greater than or approximately equal to 50% correlation statistic. The higher KMO statistic (0.89) is statistically significant and points to the significance of the underlying relationship between the variables of ICT to latent the infrastructure variable. In this order, the component extract is also significant and depicting to how they best latent the larger ICT infrastructure variable. Moreover, information on the scree<sup>2</sup> plot shows the amalgamated component satisfactorily explains 74.13 % variance in the latent ICT variable. The input of the latent (ICT infrastructure) variable is then implied as an enabler variable on infrastructure, one of the main variables determining HCSD. Thus, the description of the determinants of the factors affecting HCSD is displayed in Table 3.

<sup>1</sup> Table 2 displays significant information e.g., regarding variable measurement (whether on Likert or binary ordinal scales), among other succinct variable information.

<sup>2</sup> The scree plot diagram could not be displayed herein due to space and is available upon request from the author

**Table 3. Descriptive Statistics (of Factor Variables)**

Parameter	mean	Std. dev	Observations		mean	Std. dev	Observations
<b>Infrastructure</b>				<b>Government (National/County)</b>			
<i>Accessibility</i>	2.508	0.897	384	<i>Health care Policies</i>	2.252	1.143	384
<i>Stable Oxygen supply</i>	0.607	0.49	384	<i>Resource Allocation</i>	2.828	1.454	384
<i>Power Backup</i>	0.628	0.484	384				
<i>Standby Ambulance Service</i>	0.918	0.276	384				
<i>ICT latent</i>	11.47	3.577	384				
Transport & Comm	0.897	0.006	384				
<b>Staffing</b>							
<i>Staff</i>	3.005	0.955	384				
<i>Dr./Patient Ratio</i>	3.098	1.138	384				
<i>Trained Staff</i>	1.3098	0.463	384				
<i>Hospital Leadership</i>	2.375	1.064	384				
<b>Finance</b>							
<i>Timely Disbursement</i>	2.453	0.924	384				
<i>Sufficient Funding</i>	2.898	1.055	384				
<i>Devolution of Finance</i>	1.107	0.309	384				
<i>Hospital Budget</i>	3.091	1.105	384				
<i>Resource Allocation</i>	2.903	1.076	384				
<i>Remuneration</i>	3.692	1.529					

According to Table 3, statistics regarding the determinant factors to the latent variables as infrastructure, government, staffing and finance have been presented. Based on mean values, and starting from infrastructure, we find variables such as accessibility, ICT latent and T&C have significantly large means for postulation that they best determine infrastructure. With finance, timely disbursement, sufficient funding, devolution of finance, hospital budget, resource allocation and remuneration with significantly greater weights also best determine finance variables whereas government is best determined by health care policies and resource allocation. The significantly less weight by the standard deviation for most variables and adding to the fact that the factors seemingly best fit to latent the three main variables, is a plus for significantly chosen determinants of HCSD for the referral facility. In this line, the current study then delved into the descriptive characteristics of the constructed variables of HCSD and the results presented in Table 4.

**Table 4. Descriptive Statistics of Latent Constructs**

Parameter	Infrastructure	Finance	Staffing	Government	HCSD
mean	11.41	5.533	12.01	22.49	12.08
Standard deviation	3.982	2.155	4.231	9.375	4.001
Skewness	0.345	0.398	0.234	0.324	0.543
Kurtosis	0.103	0.865	1.083	0.543	0.543

Jarque-Bera statistic 2.546 (Probability=0.786)

Note: \*,\*\* and \*\*\* denotes to the 10%, 5% and 1% significance respectively

According to Table 4, parameters such as the mean, standard deviation, skewness, kurtosis and the Jarque-Bera statistics have been presented for the latent constructs; infrastructure, finance, staffing, government and HCSD. Overall, the largest mean is by infrastructure, staffing and government of over 11 while finance has the lowest mean weight of 5.53 for the likely implication that infrastructure, staffing and government form part of the main players of a significant healthcare service delivery for the referral facility.

In addition, the diagnostic test on the variable constructs for normality in the distribution of the construct, and reliability analysis presented in Table 5 postulates some significant insights that the constructed latent variables significantly determine healthcare service delivery for the case of the referral facility. The (*Kolmogorov-Smirnov*) normality statistics for infrastructure finance, government, staffing and HCSD are all significant and so are the Cronbach statistics that are significantly large. The implication from these insights, therefore, converges to the fact that the variable constructs best

determine health care service delivery for the referral facility. This additionally implies that the variables suit regression to find out their impact on HCSD as well as their correlation.

**Table 5. Normality and reliability diagnostics: Latent Constructs**

<b>Test of normality</b>			
	<i>statistics (the Kolmogorov-Smirnov)</i>		
		df	Sig.
Infrastructure	0.128***	384	.000
Finance	0.753***	384	.000
Government	0.244***	384	.000
Staffing	0.740***	384	.000
HCSD	0.017***	384	.000
<b>Test of reliability</b>			
	<i>Reliability statistics</i>		
	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
	0.3	0.397	10

Note: \*\*\* depicts to 1% statistical significance

The general implication from the descriptive statistics, and Table 4 and Table 5 depict that there seems to be some significant relation between the determinant variables of HCSD and HCSD itself, and also that the health sector is yet underdeveloped. We carry forward the postulation and implicate the causal path over which infrastructure, finance and government granger cause health care service delivery for the referral facility. This is executed in the next sub-section.

The study generally looked into the four broad areas of health service provision, staffing, governance, Infrastructure and healthcare financing. Infrastructure, Staffing and financing remain key enablers of an effective, efficient, affordable and accessible healthcare service. An evaluation of these key contracts within which healthcare is set up provides a huge room for improvement. It is over a decade since Kenya adopted the new constitution in 2010. The game changer in this amalgamation was devolution. Giving birth to local sub-national governments, famously known as Counties was well celebrated because it endeavoured to take government services close to the people.

First, a strong and flexible infrastructure system enhances healthcare service delivery, from the results; notably, ICT, good transport and communication systems, availability of ambulances, and facilities such as bed capacity among other amenities build a strong infrastructure base for healthcare. For instance, ICT establishment and improvement within the facility were well commented on by respondents. However, they note the challenges of lack of personnel to make the system effective. Further, other respondents noted that despite the strong ICT system, the referral hospital is still using a manual system for some hospital services.

From that response, the hospital has ensured revenue collection is through the system but the rest of the services are manual. The response also indicates that the patient system is not effective as it frequently collapses hence majority of the patients are handled manually. Respondents however indicate that with an effective ICT system, services will be easily accessible hence improving the turnaround time.

Tsai, 2003 And Adonis 2012 agree that a well-established ICT system enables any organization to comfortably run activities unimaginably. Although technology is essential to providing healthcare services, ICT assistance for healthcare is hampered by inadequately designed functional structures. All forms of physical infrastructure, such as hospital beds, medical gear, transportation, and ICT, are considered part of the health infrastructure. Further, for an effective ICT system, electricity infrastructure needs to be reliable and with power backup. The positive response from the respondents implies a stable source of power to support the implementation and running of the ICT system.

Despite the notable improvements and positive adjustments regarding infrastructure ranging from installing a power backup generator, Good road networks, an oxygen plant for making and supplying oxygen to the hospital, and standby ambulances for the transfer of patients; this study finds other tooting challenges that remain unsolved in finality. They include; a lack of specialized facilities for critical patients i.e. ICU, HDU AND NICU, chronic congestion with fewer wards, and lack of advanced medical equipment like MRI and CT-Scan.

Secondly, staffing is a key driver to the day-to-day operations of any healthcare facility. This study established that the hospital is generally understaffed. This is characterized by few resident doctors, which study shows has jeopardized the



delivery of healthcare to the growing number of patients. Although the recruited staff are qualified, they cannot handle the influx of patients referred from both private and public facilities around Kitale town and its environs. Further, the few recruited staff are poorly remunerated. Low salaries lower their motivation and commitment to their duties. The {MoH, 2015 #2351} notes that Kenya's Health sector faces a significant shortage of health workers despite the investments made by the government has made following devolution. This challenge is attributed to the rapid population growth rate that has exacerbated the long-term recruitment freeze for healthcare workers and has continued to put pressure on demand for health services. Lack of sufficient medical personnel may prevent the delivery of high-quality healthcare. Consequently, {WHO., 2010 #32} report affirms that achieving universal health coverage depends in part on the quantity and calibre of health professionals at facilities and depends on the availability and breadth of health services provided at a facility.

A well-motivated working force guarantees good service in any sector. Heavy workloads, poor working conditions, delays in salaries, and poor remuneration with no structures of appraisals and promotions are just but among the issues that would exacerbate demotivation among health workers. The study finds that the majority disagreed that staff are well paid and motivated to work. {Dielemann M, 2003 #2353} and {Willis-Schattuck M, 2008 #2354} agree that Poor physical working conditions coupled with low job satisfaction and stability, are bound to demotivate health workers and impact retention. A key element of motivation and retention is compensation. However, the majority of health workers, notably at Kitale County Referral Hospital, believe that their pay is unfair. Key components of motivation are chances for career advancement or promotion {Willis-Schattuck M, 2008 #2354}.

Variations in what are seen as the most crucial motivators by various categories of healthcare providers need to be taken into account, even if they were not specifically included in this study. Several job characteristics that can be directly modified by health policy to promote appeal to rural postings have been identified by a study to establish ways to improve nurse recruitment and retention in rural Kenya. These include reduced years of experience required for promotion, permanent contracts tied to rural jobs, allowances, training opportunities, and permanent contracts {Blaauw D, 2010 #2355}. More recent studies that are recent like {Vindigni SM, 2014 #2356; Wakaba, 2014 #24} also offer further suggestions. These findings demonstrate that nurses place the highest value on characteristics that one may anticipate would have immediate financial benefits, like wage increases or long-term variables (promotion, training and permanent contract).

Hospital leadership is also a key spice to motivating staff as well as promoting quality and organized services in any given hospital. Findings from the study show that Kitale County referral hospital is disorganized and lacks a clear guideline on an escalation of issues. Some of the challenges in the facility are attributed to poor planning and priority setting. In most cases, stakeholders and general staff are never involved in decision-making. Offering consultative and open leadership goes a long way to building trust among staff and enabling staff to act accordingly without a fixed mentality or attitude. {Shuck, 2011 #2357}, argues that trust creates positive employee engagement and consequently minimizes negative influences. Although the majority of respondents agreed that, the available leadership is up to the task, comments about having a disorganized flow of issues and services pose possible gaps in the hospital leadership.

Thirdly, finance remains a key driver of the above enablers of HCSD. The majority of the respondents indicated that healthcare is underfinanced. Additionally, the delays in disbursement of the available limited resources are another challenge affecting healthcare service delivery. As a result, the tradition of county government wrangling with national government over these delays has characterized the scenario leaving hospitals in limbo. These wrangles have interfered with the assigning of responsibility.

Despite Kenya being a signatory of the Abuja Declaration of 2001, which commits the country to allocate at least 15% of resources to healthcare, national healthcare expenditure has remained at 6% over the past decade albeit other countries reporting improvement (Maina et al. 2016; Ochieng et al. 2015; Nesoba 2014). This illustrates a deliberate move by both national and county governments to prioritize other sectors over healthcare.

While the Kenyan constitution states that county governments would be given the authority to administer health services together with the necessary funding, it is unclear how much funding or how much responsibility will be given to each county. A national independent commission (the Commission on Revenue Allocation) oversees the transfer of funds between the national and county governments, as well as between the 47 county governments. The Treasury, a department that has been the subject of disputes between the counties and the national government over how much to transfer, when to transfer, and under what circumstances to transfer, is in charge of carrying out the actual transfers of resources (Were 2017). For instance, the chair of the Commission for the Implementation of the Constitution (CIC) stated in 2015 that service delivery was hampered by delays in the transfer of funding and functions (Anami 2015). Additionally, financial issues

encountered by county governments in 2016 because of delays in national government funding transfer were reported (Wakhisi 2016). The result has been procurement inefficiencies, which have had detrimental effects on the supply of pharmaceuticals at hospitals, staff compensation, and the number and calibre of healthcare institutions in several regions. These challenges remain unaddressed over time as it is reflected at Kitale County Referral Hospital.

The National Government blames county health management teams for failing to follow the Treasury's administrative and finance management framework for the delays and inefficiencies. County governments on their side contend that the national government must set up the necessary mechanisms and structures to support fiscal decentralization (Anami 2015). Additionally, they argue that the national government should not use the insufficiency of systems as justification for limiting the fiscal authority of county governments and limiting access to funds designated for service delivery at the county level (Anami 2015). These blame games are sustained at the expense of poor healthcare service from hospitals.

Fourth, these challenges are witnessed because of the policy gaps. The current policy framework developed between 1994 and 2010 cannot succinctly steer the healthcare sector to the next level. Despite Kenya having a Health Policy that runs from 2012 to 2030, stakeholders attribute such challenges to the government using old policies to finance healthcare. The 2012 – 2030 policy highlighted key areas such as Healthcare Financing, healthcare leadership, health products and technologies, health information, health workforce, service delivery systems and health infrastructure to achieve Universal Healthcare by the year 2030 (MoH, 2014). While the provision of healthcare services is decentralized and overseen by county governments in Kenya, the national government is nonetheless responsible for oversight and policy formation (Kibui et al. 2015; Ochieng et al. 2015). According to some (Kibui et al. 2015; Ochieng et al. 2015), this is required for standardization and strategic direction among other things. The unintended consequence of this strategy is that county health management teams are less equipped to develop and execute cutting-edge, contextualized health systems that are appropriate for their specific situations (Ochieng et al. 2015). National norms and regulations have a significant impact on decisions made at the county level, whether it be in the purchase of medications and other health commodities or human resources management (Kibui et al. 2015; Ochieng et al. 2015). This implies that though healthcare is devolved, a junk of functions including policy-making remains in the national government.

Despite the challenges facing this hospital and a replica of challenges to the rest of healthcare facilities in Kenya, there is a general impression of improvement since devolution. The ongoing project of a new referral hospital could increase the capacity of the facility among other ongoing projects. Recent studies have equally noted the steps towards improving healthcare in Kenya. For instance, according to Atieno, Nancy, and Spitzer (2014), the health sector has produced significant results in line with its mandate, reducing infant and under-five mortality from 77 per 1000 live births to 52 per 1000 live births and under-five mortality from 115 per 1,000 live births in 2003 to 74 per 1,000 live births in 2008/9. In this study, more than 50% of the respondents agreed that healthcare services had improved since the implementation of devolved governance.

The Millennium Development Goals (MDGs) 2013 report demonstrates a significant improvement in healthcare quality over the previous ten years as a result of foreign funding. This is consistent with research showing that achieving universal health coverage depends on the accessibility and comprehensiveness of the medical services provided at a facility (WHO, 2010). Improved service quality, according to Leicht, Honekamp, and Ostermann (2013), generated chances to change consumer behaviour. The availability, cost, accessibility, and acceptability of healthcare services have all grown and improved. According to the World Bank (2012), devolution involves giving sub-national governments (counties), that elect their political leaders, generate their resources, and have autonomous ability to make investment decisions, and responsibility for services. Local governments have distinct and legally recognized geographic limits within which they can exercise their authority and carry out their public duties under a devolved system. One of the primary purposes of a health system is to guarantee accessibility to and availability of health care. Such services ought to adhere to a minimum standard of quality (WHO, 2010). Therefore, in any health system, good health services are those that provide those in need with efficient, safe, high-quality, non-personal treatment at the appropriate time, with the least amount of waste. The results of this study are in line with those of Okech & Lelegwe (2016), who emphasize that the government has made significant progress toward this goal over the years by focusing on the idea that health services should be made easily accessible to Kenyans and should meet the population's basic needs. This initiative has helped to improve the nation's health.

## **5. CONCLUSION AND RECOMMENDATION**

A summary of results based on objectives (i), (ii) and (iii), that is direct impact, moderate impact and correction depicts significant postulations. By direct impacts for the first objective simply points that government, staffing and infrastructure negatively relate with HCSD finance that (weakly) positively impacts are asserted via the regulation effect of government (and concern by the second objective), we notice that infrastructure and staffing negatively impact HCSD except for the

direct impact of financing that is positive on HCSD. With the third objective, we notice that there is a significant correlation. Although the **government relates negatively with HCSD**, it positively influences the financing done on the growth and development of health care and so does staffing and infrastructure. Further, it is important to conclude that notable improvements in the health sector cannot be ignored challenges notwithstanding. Healthcare accessibility, affordability, efficiency and effectiveness have tremendously improved. There is still room for improvement regarding adequate resource allocation, timely disbursement of funds, creating more sources of funding to support this sector as well and hiring more health personnel. Increasing the capacity of the facility to a status as the name suggests (Referral hospital) would be another area that should be focused on.

## RECOMMENDATIONS

This study therefore recommends the following;

- a) Government should develop a policy that would see smooth disbursement of funds to county governments for all devolved healthcare functions.
- b) Develop a framework that will be used actively to monitor, evaluate and recommend areas to improve in hospitals within a specified period, either quarterly, semi-annually or annually. This will facilitate real-time solutions to challenges that would otherwise jeopardize healthcare services.
- c) Strictly adhere to the Human Resource Manual in appraising, promoting and recruiting. A routine audit of staffing is also needed to bridge gaps.
- d) The government should also perform regular surveys on patient satisfaction using records available at the hospital.

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