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Services among Public Health Facilities in Western
Counties, Kenya

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# Devolved Healthcare Financing and Delivery of Health Services among Public Health Facilities in Western Counties, Kenya

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#### **Abstract**

**Purpose:** The general objective of the study was to determine the effect of devolved healthcare financing on delivery of health services among public health facilities in Western Counties.

**Methodology:** This study adopted a descriptive research design. The target population comprised of all the 72 public health facilities in Western Counties. The study unit of observation was the head of departments in these public facilities. A questionnaire was used for collecting primary data from the respondents. Descriptive statistics and inferential statistics were conducted.

**Findings:** The regression results revealed that source of funds had a significant positive influence on delivery of health services ( $\beta$ =0.188, p=0.000). The study also revealed that adequate fund allocation has a positive and significant influence on delivery of health services ( $\beta$ =0.566, p=0.000). Finally, the results of regression analysis revealed that equitability positively influences delivery of health services among public health facilities in Western Counties ( $\beta$ =1.117, p=0.000).

Implications: The study concludes that source of funds positively and significantly affects delivery of health services; adequate funds allocation has a positive and significant relation with delivery of health services and equitability positively and significantly delivery of health services of public health facilities in Western Counties. The study further concludes that devolved healthcare financing has a significant positive influence on delivery of health services of public health facilities in Western Counties.

Value and recommendation: The study recommends that the management of public health facilities in Western Counties should enhance their income generating activities so that it contributes significantly to their health service delivery. The study also recommends the need for policy makers among the public health facilities to come up with measures to ensure that the health care workers are well compensated and that the departments are well staffed. Finally, the study recommends the need for policy makers to ensure equitability in allocation of funds to the health facilities.

Keywords: Health Care Financing, Delivery of Health Services, Public Health Facilities

# Introduction

The decentralization of diverse functions to devolved units of administration is referred to as devolution. Devolution, in essence, is related with both responsibility as well as accountability because it entails resource management, like the health staff (doctors and nurses) and funds (Okech, 2016). Though health-care devolution is widely regarded as a way of improving the health-care system's efficiency as well as responsiveness, every country adopts and executes the idea in its own way (Jongudomsuk & Srisasalux, 2012). Nevertheless, the devolution procedure is not as simple as it appears. Devolution is supported by

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Mohammed, North, and Ashton (2016) to increase the efficiency of health service delivery efficiency as well as responsiveness to society requirements. To reap these advantages, though, a localized decision space in relation to finance, service organization, workforce, access regulations, and governance norms must be built.

This study was anchored on various theories including Oates (1972) decentralization theorem which specifies that some goods as well as services are distinctively suited for some precise areas and not others. This is because of diversity in tastes, preferences as well as natural endowments leading to efficiency in allocation of resources (Hallwood & MacDonald, 2010). Musgrave (1959) decentralization theorem contested that sub-national government use fiscal decentralization to entice individuals into their locality by "choosing with their feet". The theory argues that interjurisdictional competitions disciplines governments and pressurizes them to provide local public goods more efficiently. By allowing local public choice of goods and services, flexibility is encouraged which improves performance as sub-national government are then able to respond to variations in tastes and preferences. The Robert Solow growth model developed in the 1950's also seeks to explain how financing of capital projects and higher performance are interrelated. It argues that future rates of growth of outputs depend on current investments in capital goods. Kenya's 2010 Constitution additionally devolved health responsibility to the nation's 47 counties, particularly Western Counties (Republic of Kenya, 2014). Devolution dramatically altered the flow of resources via the health-care system, granting county governments far more authority and discretion over health-care spending. The financing of devolved healthcare has however not been adequate and this directly impacts of health services delivery (Okech, 2016). In the financial year 2018/19, 81% of all the counties in Kenya allocated at least 15% of their budget to health (Health Policy Project, 2019). In the same financial year the national government allocated 4% of the national budget to health (Netherlands Enterprise Agency, 2019). Money is insufficient due to the inadequate allocation, which has a direct influence on the health services delivery. There are also delays in provision of the funds leading to inefficiencies in operations of these health facilities (Okech, 2016).

According to WHO (2016), owing to the declining resources and economic variables most of the Sub-Saharan nations 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 terms of operationalization, Jiminez and Smith (2015) measured devolved healthcare financing in terms of adequate finances, efficient financing, user fees, and financial sources. Olakunde (2012) operationalized devolved healthcare financing in terms of adequate fund allocation, timely disbursement, financial sources and equitability. The current study operationalized devolved healthcare financing in terms of source of funds, adequate fund allocation and equitability due to their wide applicability in previous literature.

Healthcare systems are one of the most complex systems that serve humans (Irurita, 2019). In order to deliver quality healthcare services coordination of various number of providers and organizations is needed. Additionally, coordination of very complex diagnostic, therapeutic and logistic practices and processes. Healthcare systems complexity, bureaucracy and too many departments are the some of the hindrances to their quality improvement. In addition, the challenges in healthcare are complex and need solutions that are highly tailored (Shahidzadeh-Mahani, Omidvari, Baradaran & Azin, 2018). Each patient and every condition is different. A straightforward issues needs the correspondence and co-activity of different divisions and workers.

Researchers have measured delivery of health services in various ways. Donabedian (2016) did a pluralistic evaluation aimed at establishing healthcare service delivery characteristics. The evaluation identified 182 characteristics of healthcare service delivery and clustered them in to five categories; efficiency, efficacy, effectiveness, empathy and environment. The current study will consider accessibility of the stated services, affordability, availability, efficiency and effectiveness as indicators of delivery of health services.

Devolution dramatically altered the flow of resources through the health-care system, granting county governments far more authority and discretion over health-care spending. National health funding used to bypass county budgets before devolution. Under devolution, counties have more autonomy in managing their finances, as well as all national resources must pass via the County Revenue Fund (CRFs) according to the Public Financial Management Act of 2012. The prioritization of health requirements varies widely, but the overall trend in terms of the share given to health is increasing. The resources available are determined by national government allocations as well as locally generated money. Nonetheless, the

opportunity for generating local revenues is restricted in several counties, and the bulk of resources originate from national government allocations (Dutta, Maina, Ginivan and Koseki, 2018).

In the financial year 2018/19, 81% of all the counties in Kenya allocated at least 15% of their budget to health (Health Policy Project, 2019). In the same financial year the national government allocated 4% of the national budget to health (Netherlands Enterprise Agency, 2019). A large portion of this budget was spent on personnel compensation, the purchase as well as upgrading of hospital equipment and infrastructure, and the procurement of pharmaceuticals. Nevertheless, due to the low allocation, the funds are insufficient, resulting in a direct influence on the quality of service. There are also delays in provision of the funds leading to inefficiencies in operations of these health facilities (Okech, 2016).

The relationship between devolved healthcare financing and delivery of health services is an ongoing debate. Mohammed, North, and Ashton (2016) advocates for devolved heath care financing as it increases the efficiency of health service delivery efficiency as well as responsiveness to society requirements. Kiambati, Kiio and Towett (2013) opposes this school of thought by arguing that devolution of health services has resulted in increased dissatisfaction within the medical community, with employees preferring to quit the public service system for greener pastures somewhere else or abandoning their careers as health practitioners entirely. The preceding demonstrates a glaring contrast between the projected health care devolution advantages as well as the reality of health-care delivery.

Kenya is a signatory to the Abuja Declaration, which commits African nations to spending 14% of their national budget on health. Surprisingly, the Kenyan government has not adopted this. In fact, the government has decreased funding to the health sector on several occasions. Kenya spent Sh7.20 of each and every Sh100 spend on healthcare in 2010. In 2011, it was reduced to Sh6.10, and in 2013, it was further reduced to Sh5.9. In 2019, the government spent Sh5.70 per Sh100 on the sector, significantly less than the promised 14 percent. These extreme healthcare cuts have resulted in subpar services, a scarcity of drugs, and frequent strikes, as well as higher death and morbidity rates. Government spending as a proportion of GDP has been stable at somewhat more than 4% during the last few years. Kenya ranks last in a regional comparison of overall health budget as a proportion of GDP, below Rwanda, Tanzania, as well as Uganda (KPMG Africa, 2019). The public health sector in Kenya therefore provides a good context to investigate the influence of devolved health care financing on delivery of health services.

# **Research Objective**

The objective of the study was to determine the effect of devolved healthcare financing on delivery of health services among public health facilities in Western Counties.

#### **Literature Review**

# **Determinants of Delivery of Health Services**

According to a study by Grundy, Healy, Gorgolon and Sandig (2003) on devolution of health services in the Philippines, one of the first countries to embrace devolution, it was revealed that between 1992 and 1997, breakdown in management systems between the levels of government affected financing of operational costs of services. In Yukon Canada one of the territory where there is devolution system of government, a commitment to improving healthcare delivery was reflected in the 14% increase in the 2011-12 budget. In Northwest Territory, health sector was allocated 25% of the jurisdiction's \$1.339b budget (Powers, 2011).

Out-of-pocket spending accounts for more than half of healthcare costs on the African continent, a figure that can reach 90% in some nations. Because many of the poorest individuals cannot afford treatment, expenses are artificially maintained low by people's ability to pay, worsening the situation (The Economist Intelligence Unit, 2011). In Nigeria, primary healthcare is in charge of local government. Overall financing of Nigeria healthcare is mainly through tax revenue, out of pocket payments, donor funding, and health insurance (Olakunde, 2012).

Finance constraints are limiting Africa's ability to develop and expand healthcare services. According to the International Finance Corporation, Sub-Saharan Africa has 11 percent of the global population but carries 24 percent of the global illness burden. Even more concerning, the section accounts for less than 1% of world health spending. Healthcare funding from the public sector is still unevenly distributed across the continent. Although 53 African nations signed the Abuja Declaration vowing to contribute their national budgets 15% to health, most are still far from meeting that goal, and seven countries, according to some estimates, have actually slashed health spending in the prior decade (WHO, 2011).

Since 2013, KIPPRA (2018) has done an assessment of the use of public healthcare services in devolved government and found that healthcare service delivery has improved overall. Public health budget

allocations in both county as well as national governments increased between 2013/14 and 2015/2016, according to the report. The study's measures, including as maternal mortality rates, pre- as well as post-natal visits, child immunization, child nutrition status, as well as life expectancy, do not, however, fulfill the usual criteria of a middle-income nation or the SDGs metrics of healthcare service accessibility Brazil's devolved system got direct development subsidies from the national government, with incentives to invest more in hospitals, laboratories, as well as high-tech equipment in order to expand service coverage and public access (World Bank, 2017).

In Kenya, county-level management is expected to decrease some healthcare barriers to accessing by equally allocating resources to primary as well as secondary healthcare institutions in historically neglected areas (COK, 2010: Article 174). Counties obtain conditional funding to offer free maternal healthcare in order to do this. They are also compensated for any user fees that are eliminated, as well as money for medical equipment leasing. Each county gets a minimum of 15% of the consolidated income as well as a 0.5 percent equalization fund for marginalized communities. Level 5 hospitals are offered by national government both conditional as well as unconditional grants (Commission on Revenue Allocation, 2014).

Sparrow et al. (2015) investigated decentralization effects of health-care funding on Indonesian maternity care. The study looked at how sub-national health-care funding strategies differed in numerous Indonesian districts and evaluated the impact of the indicated local schemes on maternal-care provision ranging 2004 and 2010. Pseudo Data panel was used. The conclusions of the research suggested that the adoption of district plans resulted in an increase in antenatal care visits. Furthermore, programs like the Antenatal Care Package positively impact on the research area's local healthcare finance systems. This study was however conducted in a developed context and therefore findings cannot represent Western counties in Kenya.

Milicevic, Vasic, and Edwards (2015) performed research in Serbia that focused on mapping health human resources governance. With Sremski exception, Serbian districts had exceeded the 59.4 presence criteria for accomplished nurses, midwives, as well as physicians per 10,000 people. However, the research demonstrates presence of obstacles in the country's financial and human resource distribution having a negative impact on both healthcare service provision. Furthermore, the research discovered that the district healthcare workers access differed significantly from the average nationally. This study presents a conceptual gap as it did not relate devolved financing with health care delivery.

In the context of Chad, health budget decentralization and health outcomes are assessed. This was found in a research Douzounet and Yogo (2015), their main goal was to look at both the direct as well as indirect impact of decentralizing health budgets on health results in the nation. From 23 Chadian areas, statistical panel data for the years 2007 to 2014 were used. The findings of the study showed that decentralizing the health budget improves health results in general. This study was conducted in a different context.

Shahidzadeh-Mahani, Omidvari, Baradaran and Azin (2018) focused on delivery of quality healthcare services and concluded that coordination between various organizations and providers is important. It's also important to manage very complex diagnosis, care and organizational processes as well as practices.

Locally, Kimanzi (2014) sought to establish the variables that influence quality service delivery within the Mwingi Sub County public sector. The research employed detailed survey design. The medics at Mwingi Sub County Hospital was the research's target population. Stratified sampling was utilized to pick 6 medical physicians and 12 officers of public health based at the Sub County hospital, while simple random sample was used to choose 20 nurses. Interview schedules as well as questionnaires were used to collect data. The outcomes of this analysis found that the government's funding allocation was insufficient, putting the Mwingi Sub County Hospital's provision of excellent health services at risk. The study presents a conceptual gap as the operationalization of devolved healthcare financing did not take into account the equitability aspect.

Koikai (2015) investigated the impact of devolution on Nakuru County based healthcare. Its goal was to see in what way the numerous devolution aspects influenced Nakuru County health service delivery. A quasi-experimental study approach was used to evaluate healthcare performance. Of the important variables being investigated in respect to in what manner impacted healthcare delivery was health care financing. The study found that wide-based health finance guided other health-system strengthening components. Above 60% of participants said they didn't think health financing had increased. This study presents a methodological gap as it was experimental in nature while the current study will be descriptive.

Okech (2016) looked at Kenya's public health care services devolution and how it affects universal health coverage. The research looked at in what way devolution has affected universal health care in terms of treatment quality, equity concerns, as well as the distribution of health resources including medical supplies

and vital drugs. Muthui (2018) sought to establish the influencers of the quality service delivery in health care facilities at Kitui County Referral Hospital. It used an exploratory research design with a sample size of 41 individuals. Open and closed ended questions helped in data collection and interviews which allowed proper triangulation of data. Inferential and descriptive statistics were applied in analyzing data. The findings of the study concluded that the capacity of healthcare personnel, financial resource availability and utilization, management commitment and monitoring as well as evaluation had a negative influence on the quality of services provided at Kitui County Referral Hospital.

# Methodology

This study adopted a descriptive research design to investigate how devolved healthcare financing as well as health services delivery are related. The population was the 72 public health facilities located in the 7 County Governments in the western region (MoH, 2021). The study used primary data via a structured questionnaire. Descriptive and inferential statistics were employed in the analysis of the data.

# **Analytical Model**

Using a multivariate regression model, it was possible to evaluate the relative importance of each of the explanatory factors with regard to delivery of health services.

The study employed the following multivariate regression model;

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

Where:

Y = Delivery of health services

 $X_1$ = Source of funds

 $X_2$ = Adequate fund allocation

 $X_3$ = Equitability

 $\alpha$  = Constant; y intercept that is, the value of y when x is equal to zero

 $\beta$  = Coefficients of the model

 $\varepsilon$  = Error term

# **Operationalization of the Study Variables**

Variable	Operationalization	Measurement	<b>Data Collection Tool</b>
Source of funds	County government	Likert scale	Questionnaire
	User fees		
Adequate funds	Sufficiency	Likert scale	Questionnaire
allocation	Timely		
Equitability	Political interference	Likert scale	Questionnaire
	Conflict of interest		
Delivery of	Accessibility	Likert scale	Questionnaire
health services	Affordability		

# **Findings and Results Discussions**

The findings revealed that most of the respondents disagreed that their health facility gets significant finances from user fees charged on patients (Mean=2.083, std. dev=0.954). The findings further revealed that the respondents disagreed with the statement that their health facility receives significant funding from donors (Mean=1.952, std. dev=0.932). The findings also revealed that the respondents disagreed with the statement that their health facility receives minimal funds from private corporate bodies (Mean=2.262, std. dev=1.264).

**Table 1: Descriptive Statistics on Source of Funds** 

			Std.
Statements	N	Mean	Dev
This health facility gets significant finances from user fees charged		2.083	0.954
on patients	66		
This health facility receives significant funding from donors.	66	1.952	0.932
This health facility receives minimal funds from private corporate		2.262	1.264
bodies.	66		
This health facility has income generating activities that bring in		4.012	1.204
significant revenue.	66		
This health facility receives significant funding from county		1.702	1.055
government.	66		
Overall mean Score	66	2.402	

Additionally, findings discovered that majority of the respondents agreed that their health facility has income generating activities that bring in significant revenue (Mean= 4.012, std. dev=1.204). The descriptive results also revealed that the respondents disagreed with the statement that their health facility receives significant funding from county government (Mean=1.702, std. dev=1.055). On average, the results revealed that public health facilities do not have adequate source of funds as shown by an average mean of 2.402.

# **Adequate Fund Allocation**

On adequate finding allocation the findings showed that most respondents disagreed with the statement that funds disbursed to their health facility are sufficient to cater for the hospital budget (Mean=1.881, std. dev=1.040). The findings also discovered that the respondents disagreed with the statement that their facility is adequately staffed in all departments (Mean=1.893, std. dev=0.802). The findings also show that most of the respondents disagreed that healthcare staffs are adequately remunerated as per their job group placements (Mean=2.345, std. dev=1.029). Additionally, findings revealed that most of the respondents disagreed that funds disbursement to their health facility is executed timely (Mean=1.595, std. dev=0.847). Further, findings shown that many respondents disagreed that the healthcare staff training and development is done regularly (Mean=2.155, std. dev=1.052). The overall mean was 1.974 suggesting that for most of the statements regarding adequate fund allocation, respondents disagreed. The summary of the findings are summarized in table 2.

**Table 2: Descriptive Statistics for Adequate Fund Allocation** 

			Std.
Statements	$\mathbf{N}$	Mean	Dev
The funds disbursed to this health facility are sufficient to cater for the		1.881	1.040
hospital budget.	66		
This facility is adequately staffed in all departments.	66	1.893	0.802
The healthcare staffs are adequately remunerated as per their job group		2.345	1.029
placements.	66		
Funds disbursement to this health facility is executed timely.		1.595	0.847
The healthcare staff training and development is done regularly	66	2.155	1.052
Overall Mean Score	66	1.974	

# **Equitability**

The findings on equitability in table 3 showed that respondents disagreed with the statement that there is equitability in disbursement of funds to county health facilities (Mean=1.905, std. dev=0.934). Similarly, findings showed that respondents disagreed on the statement that cases of medicine and supplies stock-out in this facility are rare (Mean=3.262, std. dev=1.114). The findings also showed that respondents disagreed with the statement that there are no cases of political interference in decision making process in their facility (Mean=3.298, std. dev=1.008). The findings further showed that the respondents disagreed on the statement that their facility rarely experiences cases of expired drugs and supplies (Mean=2.167, std. dev=0.974). Finally, findings showed that the respondents agreed that cases of conflict of interest in funds disbursement are rare (Mean=3.595, std. dev=0.914). The overall mean was 2.845 implying that an average, respondents disagreed with statements regarding equitability.

**Table 3: Descriptive Statistics for Equitability** 

			Std.
Statements	N	Mean	Dev
There is equitability in disbursement of funds to county health facilities.	66	1.905	0.934
Cases of medicine and supplies stock-out in this facility are rare.	66	3.262	1.114
There are no cases of political interference in decision making process in			
this facility.	66	3.298	1.008
This facility rarely experiences cases of expired drugs and supplies.	66	2.167	0.974
Cases of conflict of interest in funds disbursement are rare.	66	3.595	0.914
Overall Mean Score	66	2.845	

#### **Delivery of Health Services**

The mean as well as standard deviation for precise attributes of delivery of health services are as indicated in Table 4. The mean score for health services provided being available was 3.583 and 1.126 standard deviation implying that those polled concurred that health services provided in this facility are often available. Meanwhile, a (Mean 4.238, SD= 0.701) accessible roads implied that most of surveyed members agreed that there are accessible roads to this health facility. A (mean 3.833, SD=0.801) for signage at this health facility is an indicator that the respondents agreed there is signage at this health facility. A (mean, 4.393, SD=0.618) for acceptability of health services provided indicated participating members agreed with the statement that health services provided in the facility are acceptable. A (mean, 4.369, SD= 0.870) for

affordability of health services implies that majority of surveyed members agreed with the fact that the health services provided in this facility are affordable.

**Table 4: Descriptive Statistics for Delivery of Health Services** 

Statement		Mean	Std.
			Dev.
Health services provided in this facility are always available.	66	3.583	1.126
There are accessible roads to this health facility	66	4.238	0.701
There are signage at this health facility	66	3.833	0.801
Health services provided in this facility are acceptable.	66	4.393	0.618
Health services provided in this facility are affordable.	66	4.369	0.870
There are rarely complaints lodged by patients in this facility.	66	3.583	1.014
The healthcare workers are available to offer requisite health services.	66	4.226	0.605
The delivery of health care in this hospital is frequently supervised by the county government	66	4.060	0.679
In this institution, the Ministry of Health is associated with the quality of all health services	66	3.571	1.003
Payers (such as NHIF as well as other insurance companies) have little impact on health-care delivery	66	2.952	1.234
Since healthcare was decentralized, the amount of time it takes to serve a patient has decreased dramatically	66	3.226	1.155
Since healthcare was devolved, the number of patients seeking assistance at this hospital has risen dramatically	66	3.321	1.197
Overall mean		3.780	

The Pearson correlation was used to determine the level of the relationship between each of the indicated independent factors and the result/related variable. Table 5 displays the findings.

**Table 5: Correlation Results** 

	Delivery of health services		
	Pearson 's correlation	P	
Source of funds	0.240	0.042	
Adequate fund allocation	0.534	0.000	
Equitability	0.892	0.000	

The correlations findings shown that the relationship between source of funds and delivery of health services was positive and significant (r=0.240, p<0.042). The implication of this is that source of funds are positively related with delivery of health services. Furthermore, the correlations findings shown that the relationship between adequate fund allocation and delivery of health services was positive and significant (r=0.534, p<0.000). The implication of this is that adequate fund allocation is positively related with delivery of health services. Finally, the correlations findings shown that the relationship between equitability and delivery of health services was positive and significant (r=0.892, p<0.000). The implication of this is that equitability is positively related with delivery of health services.

Multiple regression analysis was done in determining the effect of devolved healthcare financing (source of funds, adequate fund allocation and equitability) on delivery of health services public health facilities in Western Counties. The model fitness findings were as exhibited in Table 6. The findings reveal that the R square was 0.944 which suggested that devolved healthcare financing (source of funds, adequate fund allocation and equitability) explain 94.4% of the variation in delivery of health services.

**Table 6: Model Fitness** 

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.972a	.944	.941	.152069		
a. Predictors: (Constant), Equitability, Source of funds, Adequate fund allocation						

The ANOVA results in Table 7 indicated that the overall model used to assess the relationship between devolved healthcare financing (source of funds, adequate fund allocation and equitability) and delivery of health services was significant. This was supported by a significance level of 0.000 which was less than 0.05 at 95% confidence level.

**Table 7: ANOVA Results** 

Model		Sum of Squares	Df	Mean Square	F	Sig.
	Regression	24.242	3	8.081	349.443	.000 <sup>b</sup>
1	Residual	1.434	62	.023		
	Total	25.676	65			

a. Dependent Variable: Delivery of health services

The regression coefficient results in table 8 indicated that source of funds positively and significantly relate with delivery of health services ( $\beta$ =0.188, p=0.000). This implied that change a unit change in source of funds would result in 0.188 change in delivery of health services as shown in the model. The findings also revealed that adequate fund allocation was positively and substantially related with delivery of health services ( $\beta$ =0.566, p=0.000). This suggested that change in delivery of health services would result in 0.566 changes in delivery of health services as shown in the model. Furthermore, findings revealed that equitability and delivery of health services were positively and significantly related ( $\beta$ =1.117, p=0.000). This suggested that a change in equitability would result in 1.117 changes in delivery of health services as shown in the model.

 $Y = 1.797 + 0.188X_1 + 0.566X_2 + 1.117X_3$ 

Where Y is delivery of health services,

 $X_1$  is source of funds,

X<sub>2</sub> is adequate fund allocation and

X<sub>3</sub> is equitability

**Table 8: Regression Coefficients for the Overall Model** 

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	<del>-</del>	В	Std. Error	Beta		
	(Constant)	1.797	.134		13.388	.000
1	Source of funds	.188	.029	.225	6.493	.000
1	Adequate fund allocation	.566	.055	.538	10.353	.000
	Equitability	1.117	.041	1.440	27.060	.000
a. Dep	endent Variable: Delivery of h	nealth servic	es			

b. Predictors: (Constant), Equitability, Source of funds, Adequate fund allocation

The correlation findings revealed that the relationship between source of funds and delivery of health services was positive. The regression coefficient results also indicated that source of funds positively and significantly related to delivery of health services. The results support a study by Douzounet and Yogo (2015) whose primary objective was to analyze both the direct and indirect effects of health budget decentralization on health outcomes in the country. Statistical panel data of 23 regions in Chad for a period spanning from 2007 to 2014 were utilized. The study results indicated that in general, decentralization of the health budget improved health outcomes. In particular, it was established that increasing the regional health budget by 5% increased the deliveries by assisted births by 0.25% margin. In addition, the study found that increasing the regional health budget by 10% was bound to reduce the number of malnourished kids by 1.35%.

The study findings is also in line with a study conducted in Kenya by Koikai (2015) who checked the effect of devolution in Nakuru County on healthcare in Nakuru County. Its aim was to examine how the various components of devolution affected delivery of health services in Nakuru County. A quasi-experimental research design was adopted in rating the performance of healthcare prior to and after devolution. Health care financing was one of the key aspects that were examined in relation to how they affect healthcare delivery. According to the study, that broad-based health financing steered the other aspects of health system strengthening. More than 60% of the respondents disputed that health financing for health had improved. Moreover, it was found that health financing had worsened under a devolved structure of governance.

The regression coefficient results also indicated that adequate fund allocation positively and significantly related to delivery of health services. This was in line with a research by Akashi (2014) who found out that about 51% of the responses shown that inadequate financing was a factor that affected the effective delivery of health services at county levels. Otieno and Mach aria (2014) assert that there is a need to improve the budget allocation for the health sector by the government. Financial plans should be done to enhance support from donors to facilitate development. Okech (2016) argues that health budgets are majorly funded through tax generated income and donor funding. It is, therefore, critical to enhancing equitable distribution in geographical. Some payments especially those from pockets can be kept at minimal levels when there is increased tax funding and used appropriately. This is key to the reduction of the barriers to financial access.

The findings further showed that equitability had a positive relationship with delivery of health services. The regression coefficient results indicated that equitability positively and significantly relate with delivery of health services. This was in line with Murtha (2016) who sought to establish factors affecting implementation of free maternal health care in government health care facilities in Kisumu Location, Samburu County, Kenya. A descriptive survey design was applied in this cross sectional study. The target population was Larrikin Division residents and accessible population was Kisumu Location residents from which a sample of 202 residents were selected using stratified sampling; 80 adult women, 75 men and 47 youth . Purposive sampling was applied in selecting 10 health care providers. Data was collected through questionnaires, document reviews and interviews and descriptive statistics was applied in analyzing data with the help of SPSS version 20. Content analysis was applied for the qualitative data. The study established that 76.2% of the respondents were unemployed and 50% were uneducated. The quality of health care services was rated to be good but attendance on antenatal and post natal clinics was too low.

#### **Conclusions and Recommendations**

Based on the study findings and the discussion provided, it is concluded that source of funds positively and significantly affects delivery of health services. The study further concludes that the health facilities do not get significant finances from user fees charged on patients and that they do not receive significant funding from donors. Further, the study revealed that the health facilities do not receive funds from private corporate bodies and that the health facilities have income generating activities that bring in significant revenue. Finally, the results revealed that the public health facilities do not receive significant funding from county government.

Based on the study findings and the discussion on adequate fund allocation and delivery of health services, the study concluded that adequate fund allocation is positively and significantly related with delivery of health services. The study also concludes that the funds disbursed to the public health facilities in Western Counties are not sufficient to cater for the hospital budget and that the health facilities are not adequately staffed in all departments. Further, the study revealed that the healthcare staffs are not adequately remunerated as per their job group placements. In addition, funds disbursement to public health facilities are not executed timely. Finally, the results revealed that the healthcare staff training and development is not done regularly.

On equitability and delivery of health services, the study concluded that equitability positively and significantly affects delivery of health services. The study further concluded that there is no equitability in disbursement of funds to county health facilities and that cases of medicine and supplies stock-out in public health facilities are common. Further, the study revealed that there are cases of political interference in decision making process among public health facilities in Western Counties. In addition, the health facilities often experiences cases of expired drugs and supplies. Finally, the study revealed that cases of conflict of interest in funds disbursement are rare."

Delivery of health services is enhanced when there is diversification in terms of funding sources. Based on the conclusions made and the study findings, the study recommends that the management of public health facilities in Western Counties should enhance their income generating activities so that it contributes significantly to their health service delivery. The public health facilities should also look for donors to enable them raise adequate funds towards delivering quality health services. The health facilities should also consider partnering with private firms in a bid to raise more funds. The policy makers should come up with policies that require county governments to allocate more towards health services.

Adequate fund allocation was found to enhance delivery of health services. Specifically, having adequate staffing in all departments and compensating them well leads to enhanced delivery of health care. The policy makers among public health facilities should come up with measures to ensure that the health care workers are well compensated and that the departments are well staffed. In addition, the allocated funds should be disbursed on a timely basis as this will enable delivery of quality healthcare among the health facilities.

This study found that equitability translates to improved delivery of health services. Following the study findings and conclusion, the study recommends that policy makers among public health facilities should ensure equitability in allocation of funds to the health facilities. In addition, mechanisms should be put in place to minimize or eliminate cases of stock outs in the health facilities. In addition, the policy makers should come with policies that will protect public health facilities from political interference.

The findings of this study will aid the government and other policy makers by enabling them to formulate devolved financing policies and strategies for guiding effective decentralization of government functions especially public healthcare to ensure the primary goal of advancing services closer to the citizenry is met.

# **Suggestions for Further Research**

This study was conducted on the effect of devolved healthcare financing on delivery of health services of the public health facilities in Western Counties. Future studies can study the effect of devolved healthcare financing on delivery of health services among other counties in Kenya. Future studies should also consider conducting comparative studies to confirm how different or how similar are the devolved healthcare financing from one county to another.

This study investigated how devolved healthcare financing influences delivery of health services of public health facilities in Western Counties. The study particularly focused on source of funds, adequate fund allocation and equitability. The study recommends that a study focusing on other aspects of devolved healthcare financing should be conducted to show whether they differ on how they influence delivery of health services.

Primary data was solely utilized in the study, alternative research can be employed using secondary sources of data or even qualitative primary conducted collected using interview guides as this will offer more insights. These can then approve or disapprove the current study findings.

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