



**ENVIRONMENTAL FACTORS AND HEALTH  
CARE SERVICE DELIVERY UNDER THE  
DEVOLVED SYSTEM IN KENYA: A CASE STUDY  
OF LEVEL 5 HOSPITALS IN KIAMBU COUNTY**

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**Abstract**

*The 2010 constitution created devolved system of government, this led to creation of 47 counties. The main goal of establishing county governments was to ensure services including health were closer to citizens hence addressing issues of accessibility and equity. Devolution empowered county governments to allocate resources to various departments including health care. It is the responsibility of county governments to ensure citizens get quality services, the national government establishes policies and guidelines and counties implement them. Against this background, the study sought to find out the effect of organization environment on health care service delivery under the devolved system. It was conducted in Kiambu County in Kenya. The study adopted a cross-sectional study design, which is a descriptive research that involved*



*collection of data once from 100 respondents at management level both at the county and the three level 5 hospitals in Kiambu County. Primary quantitative data was collected and analyzed. Results: Political influence, limited financial allocation, inadequate human resource capacity and weak monitoring and evaluation negatively affected health care service delivery under the devolved system. National government policies had a positive impact on service delivery by increasing revenue and availability of diagnostic and treatment machines. The study concluded that political influence, human resource, financial allocation, monitoring and evaluation, national government policies affect health care delivery under the devolved system. Most of these variables affect service delivery in a negative manner hence denying citizens access to quality health care. The policy makers both at the national and county governments need to recognize the effects of these aspects and develop policies and mechanisms that will facilitate better delivery of health care services*

*Keywords: Devolved System; Health Care Services Delivery, Political Influence, Financial Resources Allocation, Human Resource Capacity, Monitoring and Evaluation, National Government Policies*

## **INTRODUCTION**

### **Background of the Study**

External environment of an organization includes a variety of factors, whose existence influences its behavior and performance. The organization has limited control over these factors despite the impact it has on the organization's performance. Using the PESTEL model of identifying the external factors that affect an organization the following factors were identified to affect health care service delivery under the devolved system of government: Political influence, financial resources, human resource, monitoring and evaluation and national policies. The external environment forms a critical influencing factor in the performance of an organization and is usually beyond the firm's control (Stoddart, 2017). The external environment is a firm's aggregate of factors, exogenous to the organization that may have potential to impact organizational performance (Murgor, 2014), hence the need to evaluate the impact of this factors to the organization performance.

Hospitals have no control over these factors despite the fact that they affect health care service delivery. The external environment provides firms with inputs which they transform to outputs through internal processes and then the outputs are given back to the environment. Welch and Welch (2005), recommends an overall assessment of the conditions that affect firms

today is critical for its survival. An organization is driven by several factors that emanate from the external environment (Wortley *et al*, 2016). There are several external factors that affect organizations hence the need to define specific factors to be considered as advised by Machuki and Aosa, 2011. The factors chosen are relevant as emphasized by Murgor (2014).

Devolution was introduced to decentralize powers and allow distribution of resources to citizens. In the United Kingdom devolution was introduced with the aim of decentralizing the government powers and allows the transfer of powers from the United Kingdom Parliament to various assemblies. The central government retained control over the following critical sectors; defense, economic policy, foreign affairs and international relations. The South African 1996 constitution introduced devolution in to their country, it aimed at providing democratic and accountable government for local communities.

Thomas (2014) conducted an in-depth empirical study in 38 municipalities across South Africa, the study indicated that the main objectives of setting up decentralized units largely failed to achieve the desired objectives. Failure was associated with inadequate institutional capacity for municipal government to implement the devolved functions. Cameron, 2013, highlighted the role of politics in a decentralized system in South Africa. The housing project was shared between national, provincial, and municipal governments, the national governments influenced the implementation of this initiative.

In India devolution aimed at decentralizing power and authority from national to local governments in order to meet the needs of the local people (Asian, 2014). The Constitution of India assigns the functions and powers of the center and states, in Concurrent lists and Union State (Rao & Singh, 2004). Its residual powers are reserved to the center. The functions of the central government include those necessary to maintain macroeconomic stability, exploitation of major minerals, promote international relations and trade, those that affect more than one state as well as defense. In India, public health is assigned to states. Different countries have different approach to implementing devolution but the main goal of decentralizing government power and resources is to improve the lives of citizens (APSEA, 2011).

Kenya attained independence from the British colonial rule in 1963 adopting a constitution based on the Lancaster House template used by other British colonies in Africa. Although this process did not include the majority as the current constitution, it formed the bedrock of the values and aspirations of the people (Kariuki, 2015). This constitution was the symbol of the creation of a new state and was also proof of national unity because a majority of political leaders endorsed it.

The promulgation of the 2010 Kenyan Constitution marked an important milestone in how Kenya is governed. It required the dispersal of political power as well as economic

resources from the central government to the grassroots. This was to enable communities in the country to manage their own affairs, promote their development and promote the rights and interests of marginalized and minority communities (Hope, 2015). The new constitution also aimed to encourage social and economic development and provide easily accessible services throughout the country. Additionally, it seeks to ensure equitable sharing of local and national resources, enhance separation of power and checks and balances.

The Constitution of Kenya, 2010 created a devolved system of government where every county has both Legislature and the Executive systems in all the 47 Political and Administrative Counties as provided for under Article 6 and specified in the First Schedule. The main goal of creating devolved systems of governments was to decentralize administrative power, resources, and representation down to the county level. Devolution treated the inefficiency and laxity that had been experienced in the health sector. It was proposed that allocation of resources to the grassroots would enhance service delivery and hence improve the quality of life (Hope, 2014). This has been supported by Potter's definition of devolution as a process of transfer of political, administrative and fiscal management powers between central government and lower levels of government, primarily operating at city and region levels (Hope, 2014).

Before the enactment of the 2010 constitution, health services were under the Ministry of Health, the hospital administration and heads of department had powers and resources to control administrative operations such as budget planning, recruitment, resource mobilization, developing, implementing and monitoring procedures, policies and performance standards for medical, nursing, technical and administrative staff.

The Fourth Schedule of the Kenyan 2010 constitution provided specific directives on which services the county or national governments are to provide. Essential health service delivery is assigned to county governments, while the national government retains health policy, technical assistance to counties and management of the national referral hospitals. Each county has a governor who appoints the chief executives of various departments including health. Every county has its own criteria of financing, monitoring and supporting service delivery. Management at the county level comprises of; County Executive Officer (CEO), Chief officer and County Management Team (CMT). The CMT comprises of; director of health services, administrative officer, heads of units and medical superintendent of county hospitals. At the hospital level management is split in to two; Hospital Management Board (HMB) and Hospital Management Team (HMT).

HMB was introduced to promote public participation, the committee members are appointed by the Executive Member and approved by the Governor. The board comprises of; Non executive chairperson, medical superintendent acts as the secretary, one officer of the

department from the CHMT, representative from the faith based organizations, NGO representative, one person representing people with disability, one member representing women organizations and one member with accounting knowledge (Kiambu county health service act, 2014). Over 80% of hospitals in Kenya have functioning HFMCs and HMBs that meet regularly, at least twice a year, (World Bank 2014). The HMT comprises of Medical Superintendent, nurse manager, hospital administrator and heads of department, these are professional who are involved in day to day running of the hospital.

The devolved systems of government creates both opportunities and challenges in provision of health care services in public facilities, This identified the challenges hospital administration and heads of departments face under the devolved county systems of government in discharging their administrative duties. The study focused on the influence of organizational environment on health care service delivery under the devolved system in the following key areas: Extent of political influence on health care service delivery, adequacy of financial resources allocated by the counties to promote service delivery, capacity of human resource to provide health services, influence of monitoring and evaluation on service delivery and national policies on health care service delivery under the devolved health care system.

### **Kiambu County and Hospitals Profile**

Kiambu county is based in former central province, it borders Nairobi and Kajiado Counties to the South, Machakos to the East, Murang'a to the North and North East, Nyandarua to the North West, and Nakuru to the West. It has a total coverage of 2,543.5 KM<sup>2</sup>, with a total population of 1,623,282. Ferdinand Waititu is the current governor and is deputized by James Nyoro. The Department of Health is led by County Executive Committee Mrs. Mary Wanjiku Kamau. Health facilities in Kenya have been classified to 6 tiers; tier 6 are national referral hospitals that provide highly specialized treatment and controlled by the national government while tier 1 provide basic services at the community level.

County governments control tier 5-1 health facilities. Kiambu county citizens are served by the following facilities classified in the following tiers: Tier 5-facilities (Thika level 5, Gatundu level 5 and Kiambu level 5), Tier 4 –Hospitals (11 hospitals), Tier 3 -Health Centers (24), Tier 2 - Dispensaries (70). The hospitals that were selected for this study include Thika level 5, Gatundu level 5 and Kiambu level 5 hospitals. Thika level 5-hospital is based in Thika town and has approximately 540 in patients beds and 114 infant cots. The hospital is providing specialized services including ICU and dialysis.

Gatundu level 5 hospital is based in Gatundu town, Gatundu south constituency, it has 191 beds and 11 infant cots. Kiambu level 5 hospital is based in Kiambu town and has 316

beds and 67 infant cots. These two hospitals were recently upgraded to level 5 and in the process of setting up specialized ICU and dialysis services. Kiambu County was identified since it is a densely populated county with a total population of 1,623,282. The county has three level 5 hospitals unlike most counties that have one or none. Data collected from level 5 hospitals is adequate to enable researchers make conclusions on service delivery under the devolved system.

### **Statement of the Problem**

Devolution aims at bringing services closer to the community, governments are being urged to promote devolution including health sector to improve quality, access and equity. Devolution also empowers local communities, increase innovation and efficiency and bring healthcare and decision-making as close as possible to where people live and work (Jalal et al, 2015). The devolved health care systems dictates that all aspects of health care will be managed at the county level including; financial allocation, human resource capacity, implementation of national policies as well as monitoring and evaluation.

The challenges that are affecting health care service delivery under the devolved system are: political influence, limited financial resource allocation, inadequate human resource capacity, weak monitoring and evaluation process and non engagement of counties in developing national policies. These challenges were also identified by Leah (2017) in her study, where she concluded that health care delivery under the devolved system face various challenges that are related to; capacity gaps, lack of infrastructure and personnel, conflictual relationships with national government and a lack of understanding of devolution among citizens.

Benjamin et al. (2017) noted that devolution led to political interference over recruitment and deployment of staff. From these studies it is evident that there are some factors affecting health care service delivery under the devolved system in Kenya. This study explored in depth some of the identified factors and introduced new ones that affect service delivery under the devolved system including: political influence, financial allocation, human resource capacity, monitoring and evaluation and national government policies.

### **Objectives of the Study**

The general objective of the study was to assess the influence of organizational environment on health care service delivery under the devolved system in Kenya: a case study of level 5 hospitals in Kiambu County.

### **Specific Objectives of the Study**

The study focused on the following key specific objectives:

- a) To establish effect of political influence on health care service delivery under the devolved system in Kenya.
- b) To determine the adequacy of financial resources allocated by the county governments on health care service delivery under the devolved system in Kenya.
- c) To explore the human resource capacity provided by the county governments on health care service delivery under the devolved system in Kenya.
- d) To establish the influence of monitoring and evaluation on the health care service delivery under the devolved system in Kenya.
- e) To determine the effect of national government policies on health care service delivery under the devolved system in Kenya.

### **Significance of the Study**

This study is of importance to the National government, Ministry of Health, County governments, hospital administration, health professionals, other policy makers, consumers, insurance companies and other researchers and academicians

### **THEORETICAL FRAMEWORK**

The study reviewed some theories of study to be able to demonstrate how organization environment affect health care service delivery under the devolved system.

#### **The Principal Agent Theory**

This was the anchor theory of the study, it stipulated that an individual or entity referred to as the principal is able to make decisions or take actions on behalf of others that impact another person or entity referred to as agent. In this study the county government, the national government and politicians make decisions or take actions that influence the health care service delivery under the devolved system therefore acting as principals. The hospital leaders and health care workers are the agents that implement decision made the county and national government. In many instances the principals and agents expectations are not aligned leading to conflict and poor outcomes. This theory was first published by Michael Jensen of Harvard Business School and William Meckling of the University of Rocheste in 1976. It was later adapted by Bossert (1998) as the Decision Space Approach.

The approach viewed decentralization in the context of the principal's objectives and how the principal could use different mechanisms of control to ensure that various agents work

towards achieving the said objectives. Both the principal and the agent have their own interest which affects the implementation of agreed tasks. In the context of this study the County governments, politicians and national governments should establish clear goals and guidelines and provide resources and supportive mechanisms to ensure health care services are delivered to citizens as required by the constitution. In the past the agent was seen as to be taking advantage of the principal and did not undertake the delegated tasks as required. Current researches suggest that the principal has their own challenges referred to as pathological delegation (Mor sobol, 2015). In most instances agents are blamed for failing to deliver the desired objectives without examining the root causes. Under the devolved system health care workers who are agents are often blamed for not delivering health services to citizens yet they are not facilitated to do so.

In this study the national and county administration who act as principals are responsible for; ensuring there is no political influence, there is adequate financial resources, the human resource meets the set standards and that there is proper monitoring and evaluation framework. They should also ensure that the national policies address the local needs. Sometimes health care providers tend to negatively change their practices to please their supervisors, this has been affirmed by Martino et al, where they noted that independent regulators acting as agents deviated from their normal practices to fit in to the principals expectations (Martino et al. 2016).

WHO has recognized that leadership and governance is key in delivery of health care services, this has been emphasized in health system building block 6; It states that leadership and governance should involve developing strategic policy frameworks, effective oversight, partnerships ,developing regulations and accountability (WHO 2007). This is in line with the principal agent theory. The county governments should develop and implement strategies that will motivate health care workers to provide services and should adopt facilitative model of leadership.

### **Stewardship Theory**

Stewardship Theory was developed by Donaldson and Davis (1991 & 1993), it aimed at understanding the existing relationships between ownership and management of the company. It emphasizes that stewardship should be institutionalized as a key aspect of management. This theory focuses on; trustworthiness of directors, professionalism, loyalty and willingness to be concerned and support others interests (Keay, 2017). The county administration should act as stewards by acting as role models, being professional and supporting their juniors who provide the services to patients within the hospital. The decisions made by both national and county governments should be for the best interest of the patient and not individual leaders.



The leaders should solicit for feedback from their juniors so that they can improve their performance (Kauppi 2015), the national and county administration should create a favorable environment for their juniors to respond on the impact on their administration and decision during monitoring and evaluation. They should also implement the M&E findings so that health care services are delivered as required.

### **Program Theory**

Program theory was developed at the Aspen Institute Roundtable on Community Change in 1990s as a new way of analyzing the theories motivating programs and initiatives working for social and political change. It assesses whether a program is designed in such a way that it can achieve its intended outcomes, it helps in evaluating if project has the capacity to attend to specific problems that need to be reviewed within projects. It also provides guidance on what areas need to be emphasized on during the evaluation process (Donaldson, 2012). The researcher used this theory because it provided an opportunity to demonstrate the advantage of M & E, supportive supervision and county administration influence on M & E systems in ensuring proper health care service delivery under the devolved system.

## **EMPIRICAL LITERATURE REVIEW**

### **Political influence and Health Care Service Delivery under the Devolved System in Kenya**

The main goals of devolution of government according to chapter 11, objective 174 of the Kenyan Constitution were to ensure democracy, give the power of self-governance to the people. Devolution was established to promote social and economic development and the provision of proximate, easily accessible services throughout Kenya. Health care being a devolved function of county governments it is the responsibility of county administration to ensure that citizens are able to access quality health care. Several studies have been done on the role of political interference on delivery health care but mostly from foreign countries. There is need to explore the extent of political influence on devolved health care system in our set up since we are faced with different political aspects.

National politicians see the new leadership established as a result of devolution as a threat to their claims for influence within the localities. Therefore, they could attempt to undermine the new devolved units through mechanisms such as conditional funding and under-financing to control the direction of local spending allocations. This not only establishes a new political arena but also creates an outlet for the distribution of important resources. According to Steeve (2015), this is often used by administrative and political elites. Political influence in

management and resource allocation affects how hospitals are managed under the devolved health care system.

Steeve (2015) accords that devolution of purchasing the power to counties if providing more discretion to the districts but the measure can remain unsuccessful till the procurement procedure has means to control drugs adequately in the national level, including the quantification of the need and keeping an adequate buffer stock. Therefore, most donors and others have urged for the procurement procedure to be altered to (semi-) independent trust. Hence, the discussions concerning institutional change are under way, but most complain concerning the long procedure and also express doubt of political influence

When devolution rules and systems are poorly designed and controlled there is a risk of politicians at the county level utilizing resources at their disposal to promote themselves in to power. This is accomplished this by diverting resources allocations in favor of their kinsmen, supporters, sycophants and all manner of political hangers-on to purchase political loyalty (Barrett et al, 2007; Nasong'o, 2002). This will negatively affect health care service delivery under the devolved system. Political influences, abuse of power and mismanagement have created inequality in land distribution in the country (Syagga, 2006). This might lead to loss of hospital land that might hamper expansion process hence negative impact on health care service delivery under the devolved system.

Political influence affects the human resource management at the county level including; hiring, compensation and deployment of health care workers. In 2013 newly posted medical officers were hired based on their tribal and county of origin background. In Kilifi a dispensary was closed because the members of public led by area Member of County Assembly (MCA) demanded the nurse working there to be deployed (Tsofa, 2017). This political factor affect distribution of resources towards health care, appointment of hospital managers and in some instances the daily running of health facilities hence negatively affecting health care service delivery under the devolved system. They tend to counteract the intended intentions of devolving health care services which were to improve service delivery.

Some of these policies restrict hospital leaders from providing the best care to the patient. For instance; the governors appoint county ministers of health and county directors of health whose intellect and management capabilities are inferior to that of the hospital leaders, there is likelihood for an inefficient and ineffective formulation and implementation of proper health care system, At Jaramogi Oginga Odinga Hospital in Kisumu a senior doctor resigned citing "interference from the county government executives" (Apollo, 2014).

This study indentified the impact of political influence on health care service delivery under the devolved system in Kenya.

## **Financial Resources and Health Care Service Delivery under the Devolved System in Kenya**

Studies in the past have focused on financial factors before decentralized health sector. In the current devolved government, there have been few research studies on the financial factors and have not addressed the impact of financial allocation by county governments on health care service delivery under the devolved system. This study focused on how financial resources affect the organizational environment in the health sector under the devolved government. Grundy *et al.* (2003) carried out an overview on the devolution of health care services in the Philippines where he established that devolution in the healthcare system had caused a decline in the coverage and quality of health care services in some locations, mainly rural and remote areas. The study also established that the introduction of devolution caused poor morale, underutilization of services in various health care facilities, inadequate maintenance of infrastructure and equipment and under financing of health care operations.

Kenya is a signatory to the Abuja Declaration according to which African countries are committed to invest 15 per cent of the national budget in health, however Kenya has never honored this commitment and the health sector budget has never been above 10% of total national budget (Briscombe *et al.*, 2010). Combined national and county government budget 2016/2017, health was allocated only 7.6% (MoH budgetary analysis 2017). The resources allocated are not adequate to meet the health needs for the growing population. Moreover Bradley *et al.* (2015) asserted that the recurrent expenditures and allocations mostly dominate the general Medical Services sub-sector. In many low and middle income countries, budget allocation does not factor in current changes in health care needs like increased population size and diverse disease patterns restricting the ability of health care services to respond to these changes which are in turn negatively influence the delivery of health services.

There is need to incorporate all the stake holders when developing national and county budgets to promote effective participation. Counties need to involve hospitals and communities when developing health budgets to ensure they factor in the necessary requirements to meet the desired needs. Bossert *et al.*, (2000) realized that a formula for allocating budgets to districts resulted in a fair distribution per capita allocation among districts. They also observed that there is need to consider epidemiological and cost differences among districts, based on their needs. This will ensure health facilities receive adequate resources based on their needs hence affecting the health care service delivery under the devolved system.

Most counties health facilities are experiencing shortage due to financial limitations and lack of prioritization by the county administration leading to inadequate infrastructure and limited supplies hence affecting health care service delivery under the devolved system. Additionally, availability of financial resource ensures high quality services through high quality inputs. Financial resources allocation also ensures that employees are paid on time since good job is usually driven by full pockets (Mosadeghrad, 2014). Counties need to explore alternative sources of funds to finance health care service delivery. Combining sources affects the amount of financial resources that can be mobilized, efficiency, the cost of healthcare and patterns of equity (World Health Organization, 2002). Some of the options to be considered is the adoption of insurances and Private –Public care partnership where private organizations finance some of the public healthcare initiatives, this includes private companies and donors.

The study identified the impact of resources allocated by counties on the health care service delivery under the devolved system in Kenya.

### **Human Resource Capacity and Health Care Service Delivery under the Devolved System in Kenya**

County governments have the responsibility to recruit, deploy, retain and capacity build their health workforce (KHSSP, 2012). The quality of services in any healthcare facility depends on the commitment, technical skills and knowledge of the practitioners. Therefore, healthcare professionals, who are the main human resources in the hospital, should always enhance their competencies such as knowledge, skills and attitudes so that they can deliver quality services (Kabene *et al.*, 2006). Additionally, these medical professionals should be enough for every patient so that there is not overcrowding in the hospital due to low delivery of services to patients. Also, having adequate nurses and doctors helps in sharing of work that does not leave these practitioners tired at the end of the day.

When nurses and doctor are not overworked, their motivation is increased; thus, they provide quality services every day (Kabene *et al.*, 2006). In turn, the work of the hospital leaders become easy as they are able to deal with workers that are willing to work well. Hospitals continue to experience severe shortage of staff under the devolved health care system (Truphena 2017). There is need for county governments to hire more staff to bridge the gap.

According to Bradley *et al.* (2015), there was a shortage of staff, lack of clinical doctors and officers, work overload as a result of too many patients and inadequate obstetric skills. Hospital staff in Malawi also raised concerns over inflexible scheduling as well as staff

allocations that made it difficult to ensure quality delivery of care hence negatively affecting the health care service delivery under the devolved system. As pertains to the impact of devolution on human resources, Ooko (2016) noted that the constitution empowers county governments to establish and employ people performing functions assigned to them in the Fourth Schedule. The result is that individuals working in health departments in the county are employed by the county governments.

County governments need to develop strategies to attract and retain health care workforce, in a study conducted by Shattuck et al. (2008), about the retention and motivation of healthcare workers in developing countries, methods such as the provision of financial incentives and opportunities for career development were used to improve motivation and were effective in facilitating retention although this varied from one country to the other. Through the assistance from Intrahealth, counties have managed to form Human Resources for Health (HRH) Inter Agency Coordination Committee (HRH ICC) that develops the plans to resolve the HRH issues amid other things. For instance, the HRH ICC Lake Basin Cluster has proposed the following plans: the HR board of Council of Governors (CoG) to deal and coordinate with the inter-county transfers, review of the inter-governmental associations Act 2012 to ease inter-county transfers, heads of the county's public service board to expedite establishment and promotions of the county's department for health HR advisory agency, the provision for low interest car and housing loans, creation for low interest mortgage plan to allow the HCW's construct and purchase residential homes, implementation for the Capacity Assessment and Rationalization of the Public Service (CARPS) exercise recommendations in recruitment for additional health staff and establishing a doctor's plaza in the county referrals hospitals for provision of the rental spaces, human resource mapping of development and specialist of specialist sharing the framework and telemedicine.

According to Kenya Health Sector Strategic & Investment Plan (2012-2018), the current health staff in Kenya meets only 17% of staff requirement for effective and efficient services delivery. The health care personnel is below the recommended rates for example, Kenya has only 7 nurses per 4,000 residents which is half of the recommended ratio (14 per 4,000) by the World Bank. From the above research findings one can conclude that when counties hire competent and adequate number of staff and motivate them then there will be smooth and positive health care service delivery under the devolved system.

This study explored the adequacy of staff providing services under the devolved health care system in terms of numbers and competency since this has not been explored in depth in the other previous studies.

## **Monitoring & Evaluation and Health Care Service Delivery under the Devolved System in Kenya**

Monitoring and evaluation influences the decisions made when discontinuing and improving an intervention or policy. Many changes in the government of Kenya have introduced more policies that match with the new structures in the counties. Therefore, there is the need for developing and implementing models of monitoring and evaluating the delivery of health services under the devolved health care system. The current study examines the way monitoring and evaluation process can influence the organizational environment of the devolved health sector in Kenya. A Study conducted by Shiraz et al. (2013) on the impact of devolution on the healthcare system in Pakistan established that devolution had a progressive impact on monitoring and supervision of the delivery of healthcare services and led to more financial autonomy allowing the relevant authorities to prioritize according to the needs. However, the study also identified different challenges facing the delivery of care following devolution which includes poor governance, inadequate human capacity, late releases of funds, poor governance and lack of healthcare facilities such as laboratories and wards.

According to Oyugi (2015), it is important to increase evaluation and monitoring of service delivery as well as education and training opportunities for healthcare workers. Additionally, it was established that devolution had a significant impact on the adequacy and availability of human and financial resources in various healthcare facilities across Kenya. In the heart of assessment of how best to offer services effectively and efficiently is the problem of how to serve public interest and also generate 'public value'. The notion of public value was advanced in a manner of thinking about it and assessing the performance and goals as providing a yardstick for assessing the activities supported and produced by the government. Therefore, public value offers a wider measure than the conventionally used in the new public management literature, covering the results, the ways to deliver them as well as legitimacy and trust. Hence, it addresses issues such as accountability, ethos, and equity.

The study evaluated the impact monitoring and evaluation has on health care service delivery under the devolved system in Kenya.

## **National Government Policies and Health Care Service Delivery under the Devolved System in Kenya**

On June 1 2013, the national government directed that maternity services in all public hospitals should be free. The reaction from the general public was ecstatic and resulted in increased numbers in medical facilities especially for patients seeking maternity services. At the time of

the declaration, the health ministry was in its baby steps towards devolution and debates dominated the public space as to whether the health ministry was to be devolved or maintained at the national level. Many of the professionals in the health sector proposed that the health function should be maintained at the national level due to the teething problems expected in the counties due to limited funds (Burke, 2014). However, the president's directive was supported by a budgetary allocation of Kshs 4 billion was set aside for this function for the 2013/2014 financial year.

The national government policies created new impetus among players in the public health sector to improve facilities in level 5 hospitals. In this regard, the ministry of health presided over the purchase of cancer diagnostic and treatment equipment in select level 5 hospitals including Kiambu. This initiative greatly improved the delivery of health care as highly specialized services were now availed at the grassroots. Nevertheless, the increasing number of patients who came to seek services at these facilities stretched the resourcefulness of these establishments beyond capacity (Topazian, 2016). The funding set aside for refurbishment of level 5 hospitals did not meet the need in the various counties and resulted in the overworking of the few medical practitioners. In addition, doctors and other medical practitioners were establishing new working relationships with the county governments under the devolved units and many medical professionals failed to receive their salaries on time. Because of the expected confusion in remuneration, many medical practitioners chose to engage in private practice and, as a result, the human resource in the public health sector experienced serious deficits.

The overstretched staff and facilities could not deliver to optimum levels which resulted in the dwindling of services (Topazian, 2016). The Kenya Medical Practitioners and Dentist Union together with the Kenya Union of Nurses reacted by calling for a nation-wide strike to compel the government to hire more doctors and improve their working conditions and salaries among other requirements. However, the unity of the medical practitioners was greatly hampered because whereas most counties had failed to pay doctors' salaries in time, some counties had paid the professionals working in their jurisdictions. Although the national government policies are in line with international conventions that seek to provide healthcare for all, the counties seemed ill equipped to deliver free medical services to the people.

The study evaluated the impact of national government policies on health care service delivery under the devolved system in Kenya.





## RESEARCH METHODOLOGY

The study adopted a cross-sectional study design, which is a descriptive research that involved collection of data once from a given sample of a population (Flick, 2015). The gathered data from the 100 respondents described their views regarding health care service delivery under the devolved system. The research design was selected because it calls for generalization in a particular parameter.

Quantitative research was utilized to quantify the challenges using numerical data and data that can be quickly transformed into practical statistics. It was used to quantify opinions, attitudes, and behavior to generalize the results from the sample population. The quantitative research utilized measurable data to uncover patterns and convey facts. Quantitative research was preferred in this study because the respondents were busy engaged with various administrative and managerial responsibilities and therefore did not have a lot of time at their disposal to respond to a qualitative research.

Quantitative data also favored the limited study time for this research since the researcher does not have enough time to undertake and analyze a qualitative study. The study enabled the researcher to have a better understanding of the current study on the organization environment and effect on health care service delivery under the devolved system in Kiambu County.

### Target Population

Bryman (2015) assert that a target population is the aggregate number of the members or subjects that conform to a particular set of conditions. The study targeted County Executive Committee (CEC), Chief Officer (CO), 12 County Health Management Team (CHMT) members, 24 Hospital Management Board members (HMB) and 62 hospital administration and heads of departments in three level 5 hospitals in Kiambu County; Thika level 5, Kiambu level 5 and Gatundu Level 5 hospitals. A total of 100 respondents filled the questionnaires. These personnel have been identified because of the major roles they play in the county and hospital management, meaning they understand various administrative challenges encountered, pertaining to political influence, financial resources, human resource capacity, M&E process and impact of national government policies on health care service delivery under the devolved system. Kiambu County was identified since it is a densely populated county with a total population of 1,623,282. Most counties don't have level 5 health facilities but Kiambu has 3 level 5 hospitals therefore able to provide a rich data that can be used to provide information on the health care service delivery under the devolved system in Kenya.

## Methods and Procedures of Data Collection

According to Bryman (2015), there are different methods of quantitative research. However, the study focused on the collection of numerical data. The reason for utilizing different methods is to ensure diversity and minimize the weaknesses that may be present in either method when utilized without the other. In the primary research, quantitative data was collected from the 100 respondents using questionnaires. Each questionnaire took approximately 20 minutes or even less because respondents had busy schedules undertaking both administrative and clinical work. The first questions focused on social demographic data. The next questions explored impact of devolution on; political influence, financial resources, human resources, M&E as well as national government policies affect health care service delivery under the devolved system.

Some of the questions utilized dichotomous and Likert point scale as the research is a quantitative one. Also, most of the questions were close-ended, which enabled the respondents to answer the questions quickly and easily within the short time allocated to each questionnaire. The scales facilitated the production of more accurate results during the analysis of the data. All 100 respondents were notified in advance to ensure that they assembled at the agreed location in time to participate filling the questionnaire. The respondents gave consent before they filled the questionnaire, they were also informed about the objectives of the study.

Overall, the Likert scale will be more convenient for the respondents and the researcher because it consumed less time to complete compared to other methods of data collection. The questionnaire allowed respondents to respond to questions in time, therefore, increasing the accuracy of the data collected (Bryman, 2015). The closed ended questions allowed the researcher to collect data that could be easily analyzed. The questions were brief to enhance the rate of feedback. Secondary data from budgets, articles, journals and reports was collected to complement the responses obtained from respondents.

## Sampling

The researcher utilized purposive sampling method because the samples are based on the objectives of the research (Neuman, 2006). In this sampling method, the researcher picked the samples according to the relevance in the study instead of randomly selecting individuals (Babbie & Mouton, 2006). The sample size was 100 and included: County Executive Committee (CEC), Chief Officer (CO), 12 County Health Management Team (CHMT) members, 24 Hospital Management Board members (HMB) and 62 hospital administration and heads of departments in three level 5 hospitals in Kiambu County; Thika level 5, Kiambu level 5 and Gatundu Level 5 hospitals. The researcher selected all the above managers from Kiambu

County since they were able to identify the challenges faced under the devolved health care system.

### Pilot Study

The pilot study was conducted in Thika level 5 hospital. Hospital administration and heads of department were selected randomly to pre-test the questionnaire. 10 questionnaires were used in this exercise. This helped in checking out the response rate, reliability and validity of the research instrument. This also enabled the researcher to familiarize with the research instrument, the administration procedure as well as identification of the missing items in the instrument that required modification (Mugenda & Mugenda, 2003).

### Reliability Testing

Reliability is a key aspect when it comes to quality of a quantitative research (Cope, 2014). The research ensured dependability by describing a rich and detailed research process as endorsed by Marques and McCall (2005). Also, during the filling of questionnaire, the researcher was cautious to avoid leading the respondents in a way that it would create biasness. The Cronbach's alpha was used to determine good internal consistency or the reliability of the measured factors in the questionnaire. The Cronbach's alpha reliability coefficient ranges from 0 to 1, where coefficient 1 shows greater internal consistency of the items on the questionnaire.

Table 2 Reliability Test Results

Constructs	Cronbach's alpha	Comments
Devolution	0.895	Accepted
Political influence	0.897	Accepted
Resource Allocation	0.896	Accepted
Human Resource	0.893	Accepted
Monitoring and evaluation	0.891	Accepted
Presidential directive and national policies	0.894	Accepted

### Validity Testing

External and internal validity is required in all quantitative research (Cope, 2014). Similarly, in a qualitative study, conformability, transferability, and credibility are crucial components in validity (Elo *et al.*, 2014). The validity of the current study was challenged by the fact that the selected sample is not adequately representing the whole population of hospital leaders in the 47

counties. However, through instrumental data collection and analysis methodologies, the detailed evaluations and assessments will be interpretive (Vicary, Young and Hicks, 2016).

Credibility refers to accurate interpretation and description of the experiences of the participants (Zarshenas *et al.*, 2014). The respondents were given a chance to look at the questionnaire and show any possible errors during data collection and data interpretation (Koelsch, 2013), thus ensuring face validity.

Transferability refers to the ability of the study to transfer or apply beyond the bounds of the current research (Elo *et al.*, 2014). The study achieved transferability by providing a rich description of the research design, data collection, research method and data analysis and presentation (Elo *et al.*, 2014). Anyone wishing to apply the results to different settings has the final say to whether to use the information or not (Simon and Goes, 2013).

### Data Analysis and Presentation

Multiple linear regression analysis is the type of modeling that was used to assess the connection between the dependent and the independent study variables. The general model of the regression data analysis demonstrated the dependent variables under the devolved health sector and the coefficients of the independent variables. The data collected was captured on Microsoft Excel spreadsheet and be allocated numeric codes and then simplified into tables; in form of means, standard deviations and percentages. The main issues that were discussed and the study covered the administration challenges faced by county and hospital management in hospitals in Kiambu County. Specifically, the study focused on organization environment and health care service delivery under the devolved system.

Regression model helped to identify the relationship between dependent and independent variables, this model was incorporated in this study to identify relationship and impact of political influence, human resource, financial allocation, monitoring and evaluation and national government policies on health care service delivery under the devolved system in Kiambu County. Linear regression technique was applied for this study. To test the significance of the association between independent variables against the dependent variable a multiple linear regression was used as indicated below:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e$$

Where:

Y = Health care service delivery under the devolved system

X<sub>1</sub> = Political influence

X<sub>2</sub> = Human resource

X<sub>3</sub> = Financial allocation

$X_4$  = Monitoring and evaluation

$X_5$  = National government policies

$\beta$  = Beta coefficient

$e$  = Error term

### Ethical Considerations

Nueman (2006) asserts that an ethical research should ensure that the respondents are not exposed to physical or psychological damage. As such, the researcher observed all the necessary ethical requirements to make sure that the respondents suffered no harm and that the responses were confidential and used only for the purpose of the study. Consent was obtained from all the respondents and they were informed of their rights and expectations. The questionnaire did not include questions that could potentially elicit emotions or affect the respondents' mental well-being.

### RESEARCH FINDINGS

#### Response Rate

The data in table 3 present the outcome in terms of the participation by the respondents in filling the questionnaires with the total units of observation derived from the study estimate of 150 participants.

Table 3 Response Rate

Outcome	Frequency	Percentage
Responded	100	67
Did not respond	50	33
<b>Total</b>	<b>150</b>	<b>100</b>

The findings in Table 3 present the response rate from the filled questionnaires. A total of 150 questionnaires were distributed to respondents who were identified and accepted to take part in the study. A total of 100 questionnaires were successfully returned in time to commence the data analysis process. The researcher took personal initiative to contact all the participants but eventually only a 100 respondents successfully filled the questionnaire. This represented a 67% response rate which is within the acceptable limits for analysis.

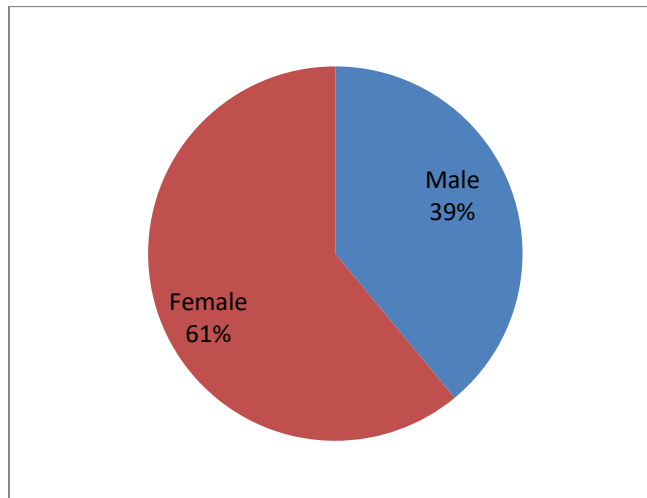
According to Kothari (2004), a 50% response rate, represents an average turnout, whereas 60 – 70% 36 response rate is an adequate figure for statistical deductions. In addition, Morrison and Louis (2007) noted that a response rate of above 60% is adequate for making

significant conclusions. In this study the response rate was adequate, the data gained was useful to make conclusion.

## Respondents' Demographic Information

### *Distribution of Respondents by Gender*

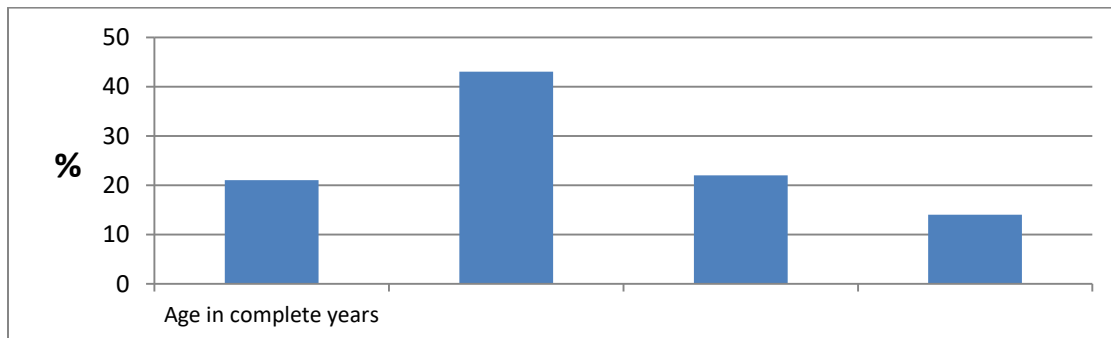
Figure 2 Respondent Distribution by Gender



The findings indicate 39% of the respondents were male while 61% were female, from the observation most of the male respondents were in senior positions at the county and hospital, while majority of female respondents were heads of departments within the hospitals. These findings confirm the global trend of increasing number of women in leadership positions, it also agrees with many findings where women are allocated mid level management and not top management positions.

### Age Distribution

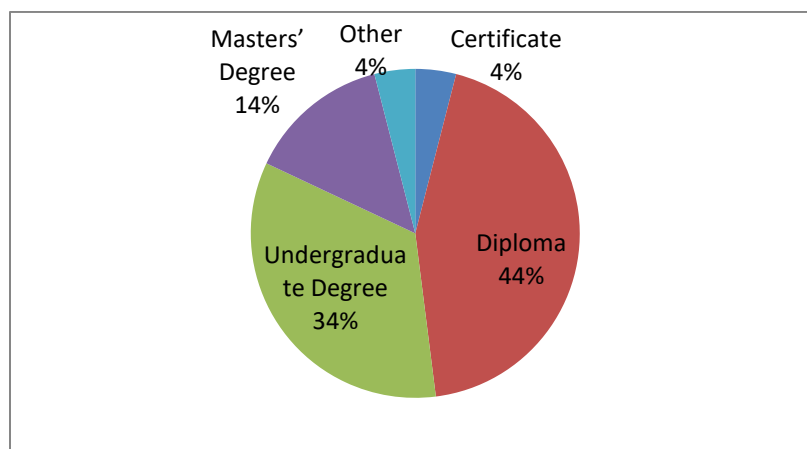
Figure 3 Age Distribution



Majority of respondents were between the age of 31-40 years at 43%, this demonstrates that young people are taking up leadership positions and hence continuity of services for many years before they retire. These findings also demonstrate age diversity which is critical in decision making. In the past majority on individuals in leadership position were above 45 years, this trend is changing due to young people becoming more empowered and increased advocacy to engage young people in leadership positions to promote continuity.

### ***Education Level***

Figure 4 Education Level



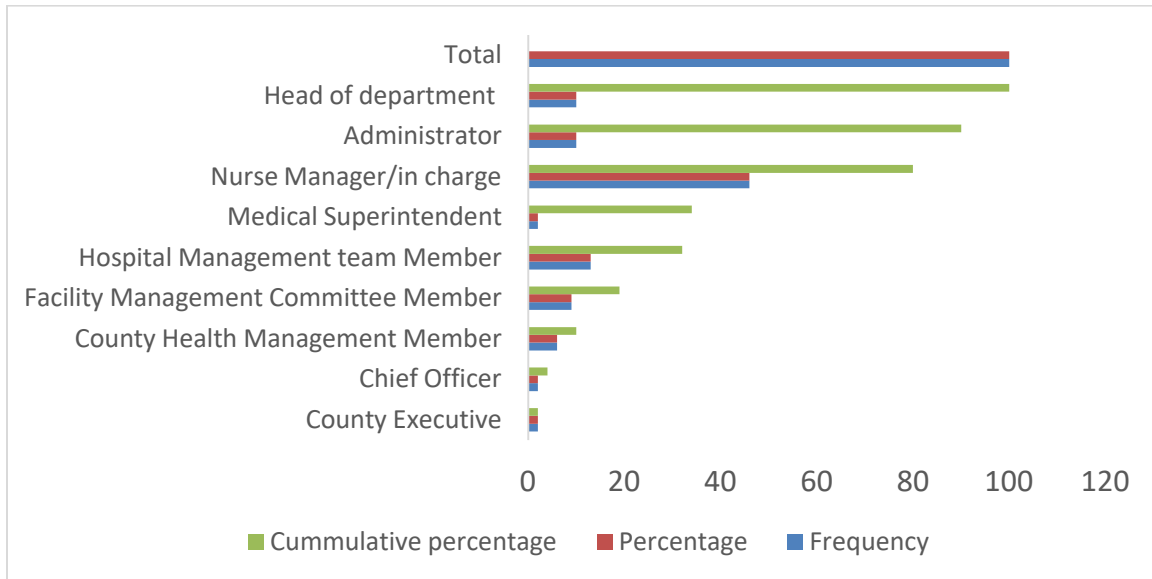
Computation of the respondents' distribution by education level is highlighted in Figure 4. According to the findings, only 4% of the respondents had certificate as their top most level of education with 44% having a diploma and 34% having attained an undergraduate level. 18% of the respondents had master degrees.

Senior county and hospital administration respondents had degree and masters training while majority of heads of department had diploma. Diversity in education levels ensures that issues are viewed in different a perspective which is critical in decision making and delivery of services at the county level.

### ***Leadership Position Held***

Figure 5 demonstrates the distribution of the respondents in various leadership positions both at the county and hospital level. There is only one County Executive Committee member and Chief Officer. There are 3 medical superintendent, nurse manager and administrator, each in every hospital. Majority of the respondents are heads of departments, they are based in the hospital and therefore able to appreciate the impact of devolved health care on service delivery.

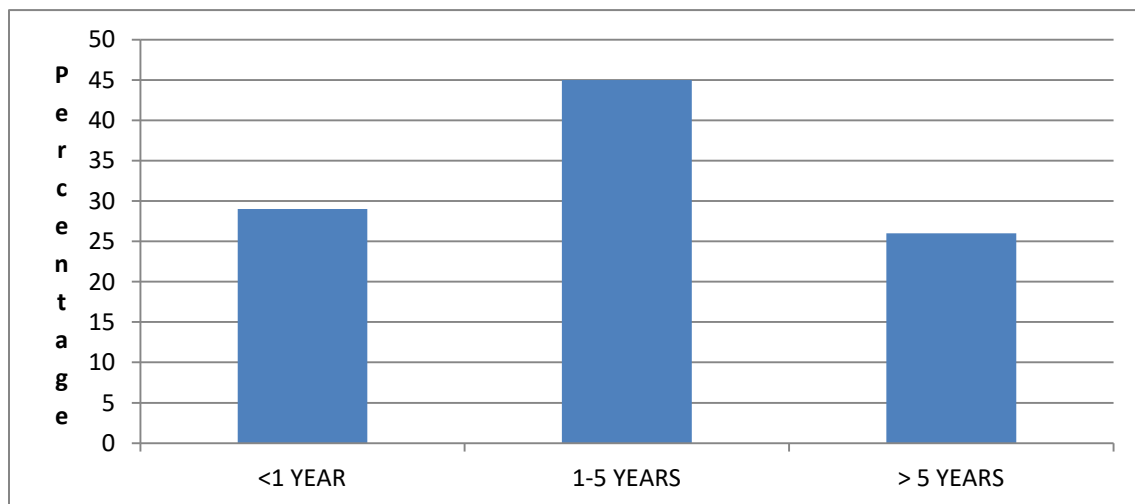
Figure 5 Leadership Position Held



**Period Worked In Current Position**

Most of the respondents (45%) had worked in the positions they held for a period of between 1-5 years, this indicates that they had gained better insight and able to understand the impact of devolved health care in delivery of health care services. 29% having worked in their positions for less than one year and 26% having worked for over a period of over 5 years. It is assumed that the number of years one works in supervisory position increases his or her capacity to provide effective leadership. Most of the respondents had over one year experience in their current position hence enabling them have a better understanding the impact of devolved functions

Figure 6 Period Worked in Current Position





## Respondent Feedback on Devolution

Descriptive analysis was done before proceeding with the linear regression analysis to show the relationship between the health care service delivery (dependent variable) and political influence, resource allocations, human resource capacity, monitoring and evaluations and national government policies (Independent variables). Descriptive analysis was done to provide summaries through the use of frequencies, percentage, mean, standard deviation and graphical presentations.

Table 4 Analysis on Devolution

Devolution items	%					Mean	Std
	SA	A	N	D	DS		
County governments were adequately prepared to manage health facilities in their region at the commencement of devolution	4.0	19.0	14.0	29.0	34.0	3.70	1.23
There have been positive changes in delivery of health care services under the devolved system	6.0	26.0	9.0	32.0	27.0	3.48	1.29
County governments have addressed the local community health needs adequately	3.0	23.0	15.0	33.0	26.0	3.56	1.19

**SA=Strongly Agree, A=Agree, N=No Opinion, D=Disagree, SD=Strongly Disagree**

### ***Adequacy of preparedness of county governments to manage health facilities in their regions at the commencement of devolution***

A 5 likert scale analysis indicated that majority of respondents believed that county governments were not adequately prepared to manage health facilities. 34% and 29% strongly disagreed and disagreed respectively that at the commencement of devolution county governments were adequately prepared to manage health facilities within their regions. Only 4% of respondents strongly agreed that county governments were adequately prepared; however, 14% of the respondents expressed no opinion when this question was posed. Most of the respondents were in agreement that county governments were not adequately prepared to manage health care facilities under the devolved health care system with a mean of 3.7 (standard deviation= 1.23) as indicated in table 4.

This finding was also reported in KEMRI policy brief report (2018), it stated that counties did not have structures and capacity to handle some of the devolved functions including health.

The report noted that lack of preparedness led to disruptions to health services including; funding to facilities, delays in salary payments to health workers and health worker strikes. The report recommends strengthening institution capacity prior to allocation of responsibilities especially critical sectors like health.

***Positive changes within the health system in the delivery of health care services under the devolved system***

The respondents indicated to a large extent that devolution did not improve health care delivery with a mean of 3.48 (Standard deviation = 1.29). 32% and 27% of the respondents disagreed and strongly disagreed respectively that there has been positive changes in the delivery of health care services with devolution with 32% agreeing that there has been positive changes in health care delivery. 9% of the respondents had no opinion regarding this issue.

The KEMRI policy brief report (2018) had similar finding, the lack of improvement in health care service delivery was attributed to poor administrative structures at the counties, weak procurement process and unclear defined roles between national and county governments.

***County governments have addressed the local community health needs adequately***

Devolution aimed at distributing resources closer to the local citizen, the county governments was supposed to meet the needs of their citizens. Analysis of the impact of devolved services seems not to meet the local needs with a mean of 3.56 (standard deviation = 1.19). Majority of the respondents either disagreed or strongly disagreed (33% and 26% respectively) that county governments had addressed the local community health needs adequately while 23% were in agreement and 15% had no opinion regarding this issue. Over 50% of the respondents do not believe that devolved resources and administration have improved service delivery to the local residents as indicated in the table 5.

**Respondents Feedback on Political Influence**

The second objective of this study was to establish the impact of political influence on delivery of health care services under the devolved health care system. It focused on the following; recruitment, human resource management of staff, running of health facilities and resource allocation. Table 5 has a summary of the data analyzed from all the respondents regarding political influence.

Table 5: Political Influence on Delivery of Devolved Health Care Services

Political influence items	%					Mean	Std
	SA	A	N	D	DS		
Politicians influence the recruitment of hospital leaders	29.0	39.0	17.0	14.0	1.0	2.19	1.04
Politicians influence hiring, transfer, promotion, or disciplining of other staff	32.0	40.0	12.0	16.0	0	2.12	1.04
Politicians influence daily running of the hospital	23.0	41.0	10.0	23.0	3.0	2.42	1.16
Politicians influence resource allocation and distribution	37.0	44.0	11.0	7.0	1.0	1.91	0.92

**LA**=Large Extent, **ME**=Moderate Extent, **SE**=Some Extent, **SME**=Small extent, **NA**= Not at All

A 5 likert scale was used to analyze the data collected; A descriptive results indicated in table 5 demonstrates the respondent`s views on the impact of political influence on delivery of service delivery under the devolved health care. The findings indicate that respondents are in agreement that politicians influence the recruitment of hospital leaders with a mean of 2.19 (standard deviation= 1.04). Respondents are in agreement to a large extent that politicians influence hiring, transfer, promotion, or disciplining of other staff with a mean of 2.12 (standard deviation = 1.04). The findings demonstrate that respondents believe that politicians influence daily running of the hospitals under the devolved health care system with a mean of 2.42 (standard deviation = 1.16).

The respondents` agree to a large extent (mean = 1.91, standard deviation= 0.92) that politicians influence allocation and distribution of resources under the devolved health care system. This finding was also highlighted in the KEMRI policy brief report (2018), it indicated that political influence affected hiring of health care workers based on their tribe. Politicians also influenced procurement process hence affecting delivery of essential medical and non medical supplies.

### Respondents Feedback on Financial Resource Allocation

Health care department is important in ensuring that citizens are healthy and productive. For a health department to functioning well, it requires allocation of adequate resources to meet the required needs. This study explored the relationship between resources allocation under the devolved health care and service delivery. The data in Table 6 highlights the analyzed results on the impact of resource allocation to the devolved health care system.

Table 6 Financial Resources Allocation Factors

Financial Resource allocation items	%					Mean	Std
	SA	A	N	D	DS		
The county administration/ hospital administration participate in the budget making process for the county/ hospital	33.0	40.0	17.0	7.0	3.0	2.07	1.02
The financial resources allocated to the hospital by the county government are adequate to meet the daily needs for running services	2.0	11.0	12.0	37.0	38.0	3.98	1.06
Hospital administration is authorized to utilize the funds generated at the hospital to support provision of services	4.0	27.0	12.0	30.0	27.0	3.49	1.26
The county governments and hospital administration are authorized to seek funding from private sector including donors to meet the financial gaps	24.0	45.0	21.0	5.0	5.0	2.22	1.03

**LA=Large Extent, ME=Moderate Extent, SE=Some Extent, SME=Small extent, NA= Not at All**

Budget making process requires involvement of both hospital and county government representatives, this will ensure the needs of the hospitals are factored in. Majority of the respondents agreed that both the county and hospital administration are involved in the budget making process with a mean of 2.07 (standard deviation = 1.02). However despite the participation of both hospital and county governments in budget making, the resources allocated to hospitals are not adequate to cater for the daily needs of running services (Mean = 3.98, Standard deviation = 1.06).

The bureaucratic process at the county hinders availability of funds for hospitals utilization hence negatively affecting delivery of services. Some counties have implemented policies allowing hospitals to use the revenue raised at the hospital level directly without engaging the counties administration.

To a large extent the respondents did not agree that the hospital administration is authorized to utilize funds generated to support provision of services with a mean of 3.98 (Standard deviation = 1.06). When respondents were asked if the county governments and hospital administration are authorized to seek funding from private sector to meet financial gaps, majority answered in the affirmative with mean of 2.22 (standard deviation 1.03) .

Before devolution hospitals were allowed to generate revenue through user fees which was guided by Facility Improvement Fund Policy (FIFP), they were also allowed to use the

funds collected to improve service delivery. This was abolished under devolution leaving hospitals with limited funding to address medical needs including emergency supplies. Some of the factors that also contributed to less funding for health care under the devolved system were; withdrawal of donors after devolution, weak county systems in strategic planning and budgeting (KEMRI policy brief report, 2018).

### Respondents Feedback on Human Resource Capacity

Human Resource capacity incorporates; hiring, motivation, deployment and managing staff within the organization. It is the responsibility of county governments to allocate adequate human resource capacity and incorporate all the aspects of human resource management for effective health care service delivery to citizens. A 5 likert scale was used to compute respondents' feedback on the 7 questions that they responded on human resource capacity. Table 7 highlights the analyzed feedback including mean and standard deviations.

Table 7 Human Resource Capacity

Human Resource items	%					Mean	Std
	SA	A	N	D	DS		
There is an established mechanism by the county government to motivate and retrain staff working in the hospital	16.0	42.0	14.0	14.0	14.0	2.68	1.29
Devolution has caused poor staff morale/ motivation among the staff	27.0	44.0	8.0	13.0	8.0	2.31	1.23
Hospital administrators participate in staff management (promotion, discipline, deployment)	22.0	38.0	7.0	18.0	15.0	2.66	1.39
Staffs hired by the county governments are competent to provide quality services	25.0	48.0	12.0	8.0	7.0	2.24	1.13
County government officials follow the established procedures when hiring/disciplining/firing/transferring/promoting staff within the county	11.0	32.0	15.0	26.0	16.0	3.04	1.29
Doctor- patient ratio in your hospital/ county is adequate to meet the demand for services?	5.0	11.0	7.0	32.0	45.0	4.01	1.19
Nurse-patient ratio in your hospital / county is adequate to meet the demand for services	1.0	11.0	4.0	28.0	56.0	4.27	1.03

**SA=Strongly Agee, A=Agree, N=No Opinion, D=Disagree, SD=Strongly Disagree**

Most of the respondents acknowledged that the county government has an established mechanism to motivate and retrain staff working at the hospital with a mean of 2.68 (standard deviation= 1.29). This is important since motivated staffs are more productive and hence improved service delivery. However the mechanism did not result to increased staff motivation and morale, the respondents were in agreement to a large extent that devolution contributed to poor staff morale and motivation (mean= 2.31, standard deviation =1.23). The KEMRI 2018 policy brief report highlighted some of the contributing factors to low staff morale. Some of these factors are; Delays and discrepancies in salaries, political influence and weak human resource management.

Hospital administration are direct supervisors of all health care workers based at the hospital, the findings indicate that hospital administrators participate in staff management with a mean of 2.66 (standard deviation 1.39). Competent staff ensures that services provided are of desired quality, it is the responsibility of county governments to hire competent staff to deliver services in public health facilities. The respondents agree to a large extent (mean= 2.24, standard deviation=1.13) that staff hired by the county governments are competent to provide quality services. Public Service Commission has established procedures for hiring, disciplining, firing, transferring, and promoting staff working in public sector. Respondents had almost 50-50% response on adherence by county officials to laid down human resource procedures with a mean of 3.04 (standard deviation=1.29).

World health Organization has established required doctor patient ratio and nurse patient ratio required for effective and quality service delivery. The findings indicate that there are few doctors and nurses to ensure services are delivered as desired (mean= 4.01, standard deviation=1.19) and (mean=4.27, standard deviation=1.03) respectively. Counties need to engage more health care providers to address these gaps.

### **Respondents Feedback on Monitoring and Evaluation**

Monitoring and evaluation should be given priority since it guides the implementation of the devolved function that is managed by county governments including health. Monitoring and Evaluation helps project managers in keeping track the implementation of the projects and its prudence in the utilization of the resources. It provides decision makers with a strategy to plan for sustainability of the projects and guidance for future endeavors (Tecla, et al., 2017). The Table 8 demonstrated respondents' feedback that has been analyzed regarding monitoring and evaluation.

Table 8 Monitoring and Evaluation

Monitoring and Evaluation items	%					Mean	Std
	SA	A	N	D	DS		
There is an established mechanism by the county administration to receive updates, feedback or recommendations from hospital leaders	9.0	25.0	13.0	32.0	21.0	3.31	1.30
There is a well set/established monitoring and evaluation process by the county administration for measuring performance/ service delivery	13.7	31.6	19.4	21.4	14.3	2.92	1.28
The monitoring and evaluation process is followed according to the set guidelines	10.0	27.0	20.0	30.0	13.0	3.09	1.22
The county government implements M& E recommendations fully	9.0	22.0	21.0	34.0	14.0	3.22	1.20

**SA=Strongly Agree, A=Agree, N=No Opinion, D=Disagree, SD=Strongly Disagree**

From the analysis the respondents, majority believe there is a well established mechanism by the county governments to undertake monitoring and evaluation (Mean= 2.92, standard deviation= 1.28), however the county administration was not willing to receive updates, feedback or recommendations from the hospital leaders (Mean=3.31, standard deviation=1.30). This indicated that the hospital leaders have limited chances in discussing with the county administration on areas of improvement.

The county government officials did not follow the monitoring and evaluation process as stipulated by the set guidelines (Mean= 3.09, Standard deviation= 1.22). This indicates that different officials conducted M&E activities differently hence creating inconsistency in data collected. The recommendations from M&E visits are not implemented fully as they are supposed to be (Mean=3.22, standard deviation 1.20). Few counties have M&E units, this is based by a study that was conducted by UNDP in 2017. Kiambu County has made significant milestone since they have established M&E framework. Unfortunately most counties do not provide opportunities for their staff to improve their skills on M&E, this affects their capacity to undertake the required M&E activities.

All the counties that were involved in UNDP study indicated that counties did not allocate adequate resources for M&E, this would explain why there were limited implementation of M&E findings.

## Respondents Feedback on National Government Policies

Under the devolved system of governance the national government which is headed by the president formulates policies while devolved county governments' implements those policies and provides services directly to citizens. In this research the focus was on the impact of national government policies; involvement of counties in developing policies, equipments supplied to hospitals and the revised National Hospital Insurance Fund (NHIF) package. Table 9 demonstrates the research findings on these key issues.

Table 9 National Government Policies

National government policies	%					Mean	Std
	SA	A	N	D	DS		
County governments are consulted before policies are issued	11.0	18.0	32.0	24.0	15.0	3.14	1.21
County governments are consulted/ involved in formulating national policies	11.0	21.0	36.0	18.0	14.0	3.03	1.18
National government policies contribute positively in improving delivery of health care services	14.0	31.0	23.0	19.0	13.0	2.86	1.26
The equipment distributed by the national government to county hospitals have improved delivery of services	28.0	41.0	8.0	14.0	9.0	2.35	1.27
The new NHIF initiatives including linda mama program have resulted in generation of more finances to support delivery of services	32.0	44.0	14.0	5.0	5.0	2.07	1.06

**LA=Large Extent, ME=Moderate Extent, SE=Some Extent, SME=Small extent, NA= Not at All**

Majority of respondents expressed that county governments were not consulted by the national governments before policies that had an impact of health care delivery (Mean= 3.14, Standard deviation= 1.21). However respondents expressed no opinion or were not aware if the county governments were engaged in developing national policies with a Mean of 3.02, (Standard deviation=1.18).

County governments are key stakeholders in health care delivery in the country and should be engaged in policy formulation and implementation. This has been emphasized by Makau (2012). Governors claimed that they were not consulted by national government before the implementation of Medical Equipment Services (MES). The national government procured medical machines on leasing basis and distributed them to counties without involving them



(Daily nation, 24<sup>th</sup> April 2019). There is need to involve stakeholders right from strategy formulation, implementation and evaluation to ensure good success of the programs run by these organizations which will lead to a higher impact in the society.

Respondents agreed to a large extent that national government policies contribute positively in improving delivery of health services with a mean of 2.86 and standard deviation= 1.26. They also affirmed that the equipments distributed by the national government to county hospitals had improved delivery of services with a mean of 2.35 and standard deviation of 1.27. Most of the respondents agreed to a large extent that new NHIF initiatives including linda mama program have resulted in generation of more finances to support delivery of services (Mean=2.07, standard deviation=1.06).

### Multivariate Regression Test

The study performed a multivariate regression test between the independent variables and the dependent variable. The multivariate test examined the linear regression test between the combined organizational environment drivers notably; political influence, financial allocation, human resource capacity, monitoring and evaluation, national government policies against the health care service delivery under the devolved system in Kenya.

Table 10 Analysis of Independent and Depend Variables

Model		Sum of Squares	Df	Mean Square	F	Significance
1	Regression	14.244	1	3.470	45.314	0.000b
	Residual	7.569	39	0.219		
	Total	21.813	40			

- a. Dependent variable: health care service delivery under the developed system
- b. Independent variables: political influence, human resource, financial allocation, monitoring and evaluation, national government policies

The results in Table 10 implies that, the Fischer statistical value,  $F = 45.314$ . This indicates that there exist substantive variance in means of both the independent and the dependent variables.

The test deduced a p-value of 0.000, which is below the significance value of 0.01 ( $p = 0.000$ ,  $p < 0.01$ ). This confirms that, there exists a significant statistical association between the independent variables and dependent variable as supported by (Gelman, 2012 and Dalson, 2013). This can be inferred to a bigger scope when more counties are engaged.

Table 11 Regression Coefficients

Model		Unstandardized		Standardized	t	Significance
		Coefficients		Coefficients		
		B	Standard error	Beta		
1.	Health care service delivery under the devolved system	1.227	0.321		0.757	0.000
	Political influence	0.599	0.103	0.183	2.431	0.001
	Human resource	0.419	0.119	0.153	4.652	0.001
	Financial allocation	0.527	0.163	0.241	3.529	0.002
	Monitoring and Evaluation	0.625	0.107	0.101	2.411	0.000
	National government policies	0.517	0.161	0.239	3.717	0.002

A. Dependent variable: independent variables

The findings in the Table 11 represent the regression coefficient test. It demonstrates the level of independence between independent and dependent variables. The results indicate that, all the p-values, including;  $p = 0.001$ ,  $p = 0.001$ ,  $p = 0.002$ ,  $p = 0.000$  and  $p = 0.002$  for independent variables; political influence, human resource, financial allocation, monitoring and evaluation, national government policies respectively. This indicates that the test results are all significant at 0.01 significance level (Dalson, 2013).

The regression test which was used for this study is;  $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e$  where,  $Y$  = health care service delivery under the devolved system,  $\beta_0$  = constant,  $X_1$  = Political influence,  $X_2$  = Human resource,  $X_3$  = Financial allocation,  $X_4$  = Monitoring and Evaluation and  $X_5$  = national government policies.  $\beta_1, 2, 3, 4, 5$  represents the beta values for independent variables, hence the regression equation:  $Y = 1.227 + 0.599X_1 + 0.419 X_2 + 0.527X_3 + 0.625X_4 + 0.517X_5$ .

From this regression equation, it indicated that all the organizational values are equated to beta value zero, the constant change for the health care service delivery under the devolved system is 1.227 units. The result indicate that, for every unit change recorded for political influence, a 0.599 units change is recorded for the service delivery, for a unit change in human resource contributes to 0.419 unit change in the service delivery. For a unit change in financial allocation contributes to 0.527 unit change in service delivery. The results also indicate that, for a unit change in monitoring it contributes to a 0.625 units change in performance. Lastly , for a unit change in and national government policies results to a 0.517 units change in the health care service delivery under the devolved system in Kenya

## CONCLUSION

The study findings indicate that there exist strong positive correlation between dependent and independent variables. The results indicate that political influence, human resource, financial allocation, monitoring and evaluation, national government policies affect health care service delivery under the devolved system. The study also establishes that every change in independent variables could bring either negative or positive effects on health care service delivery.

The findings indicate that political influence affected the leadership, interfered with running of hospitals and negatively influenced resource allocation and utilization. Overall political influence negatively affected health care service delivery under the devolved system. There is need to need to develop policies and guidelines to safeguard service delivery from the political class. This will ensure health care services are not negatively affected by politicians. From the analyzed data, hospitals are not receiving adequate financial resources from the county government to deliver health care services effectively. This has resulted to stock out of medicines and other supplies, inadequate infrastructures and even in some instances lack of basic facilities. In some hospitals patients are forced to share bed or sleep on the floor due to limited space and other infrastructure.

It is the responsibility of county governments and county assemblies to allocate adequate financial resources towards delivery of health care services. The Abuja declaration stated that governments should allocate at least 15% of their budgets to health. The national government, county assemblies and county assemblies have not complied to these guidelines.

From the study findings the Human Resource Capacity was limited in terms of recommended ratios by WHO (doctor/ patient and Nurse/ patient). This resulted in high workload, burn out and low staff morale. This will affect negatively delivery of health care services and might also contribute to clinical errors. It is the responsibility of the county governments to employ and retain adequate staff to deliver health care services. It is also the responsibility of county governments to regularly monitor and evaluate health care service delivery within their regions. They should develop and implement the M&E framework to guide delivery of health care services. Hospitals collect data and share with the county administration but very limited actions are taken to implement M&E recommendations to improve service delivery. The study findings indicate that there is limited implementation of M&E findings by the counties hence little opportunities for improvement.

The study findings indicated that the county governments and hospital administration were not consulted by the national government when it was developing policies. Health care is devolved to county governments and are key players in the sector. For proper implementation

and buy-in of national government policies, there is need for involvement of all relevant stakeholders including county governments. Despite the fact that implementers of national government policies were not involved in the planning process, the national government policies contributed positively to delivery of health care services.

## RECOMMENDATIONS

The study recommends that hospital administration need to be engaged by both the national and county government since they are the direct implementers of services. It also recommends that there is need to strengthen monitoring and evaluation mechanism to ensure that services are regularly reviewed to improve service delivery.

Human Resource is critical and this study recommends that there is need to have adequate, well trained and effectively managed work force to deliver the services.

The study recommends that politicians should avoid interfering with service delivery both at the national and county level. The study recommends that national assembly, senate and the county assembly should allocate adequate resources to ensure services are delivered effectively. The study also recommends that both National and County governments should develop policies that will streamline service delivery with clear demarcation of responsibilities of each stakeholder.

The study recommends future research to focus on the following areas; involvement of more counties to ensure better representation of counties and introduce the new national policies like the Universal Health Coverage

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