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ABSTRACT

This study sought to determine the challenges to strategic delivery of public health services in counties in Kenya, with a keen look at Machakos County by measuring four variables; management style, financing, adoption of ICT and staff training and their impact on delivery of public health services in Machakos County. The research was anchored on five theories; Contingency Theory, Resource-Based View Theory, Change Theory, Social Learning Theory and Andersen's Health Behavior Model. The research adopted a descriptive research design and targeted all the 159 public health facilities within Machakos County as at December 2015. The study's population was divided into four strata based on the level of the medical facilities; Level-2, Level-3, Level-4 and Level-5 facilities. Stratified random sampling was then applied in determining 2 respondents from each of the 40 sampled facilities; a total of 80 respondents were used in the study. Questionnaires were used to collect data from the respondents while data analysis was carried out using SPSS. Correlation and regression analyses were used to describe the type and nature of association between the study variables. Generally, the researcher established that there exists a strong positive association between dependent (successful healthcare service delivery) and the independent (management style, financing of healthcare services, adoption of ICT and staff training) variables with the independent variables explaining up to 79.0 percent of the success in healthcare service delivery. The findings of the study sought to further other studies through providing a reference platform for other researchers, provide policyholders with the necessary information to facilitate the development of regulations and policies and also aid decision makers in curbing challenges relating to strategic provision of health services in the country's health sector.

Key Words: Management Style, Financing, Adoption of ICT, Staff Training

INTRODUCTION

Improving the health standards of citizens of any given nation globally has emerged as an international priority and a Sustainable Development Goal (Nabukeera, 2016). The researcher adds that to this effect, various government based initiatives in relation to policy and infrastructure have been developed in Kenya that target at enhancing access to healthcare services. Despite years of serious advocacy towards the decentralization of healthcare systems, resolutions in most African countries relating to health are still undertaken at the various central positions (WHA, 2009). The resolutions are then passed from the top downwards through the regional administrations down to the department including hospitals, health centers and dispensaries (Kawonga, 2016). According to Ndavi, Ogola, Kiziti and Johnson (2009), the Kenyan government healthcare strategies that include devolution of management of healthcare services, public health insurance schemes and re-organisation of the health sector have been undertaken. A report in 2016 by the Ministry of Health revealed that the country' economic and socio-economic systems have registered unequal and rapid transformations within regions and populous and this has inevitably influenced the provision and accessibility to healthcare services.

The access to public healthcare services in Kenya is funded by the exchequer so as to enhance service delivery (Ministry of Health, 2012). Similarly, healthcare institutions have kept developing initiatives geared towards improving accessibility to healthcare services so as to meet the population' demand for quality health services (Ministry of Health, 2014) . The report by the ministry further argues that this is occasioned by the constant urge by the people for healthcare services that meet their needs. An assertion by Blewett (2009)

however indicates that the country' private sector has also registered an increase in demand for the healthcare services. An observation by Dean and Lang (2008) stated that the growth in the private health care sector was an issue of concern especially to policy makers in the health sector. This is due to the influence that the private health sector has on the publicly funded systems (Singh & Shah, 2011).

The private sector healthcare providers assist in easing off part of the pressure faced by the public health systems (Blewett, 2009). They add that this is against the difference in view of quality of care, efficiency in service delivery and funding constraints experienced by government facilities. Other assertions have however supported the idea that growth in the private healthcare sector as it is viewed to enhance clients' unique tastes and preferences (Dean & Lang, 2008). The major push for the private sector health reform in the 1990s was the need for solutions to challenges facing the budgetary demands and resource management that include personnel, drug supplies and infrastructure development (World Health Organisation (WHO, 2010). The organisation further proposed that the available scarce resources would attain better effectiveness through reallocation; in addition to ensuring that the public health sector availed a most of the populace with financially attainable essential healthcare services.

The disadvantage with this approach was the rise of a twin health structure that was characterized by the rich settling for the costly private healthcare providers, while the majority who had no enough ability depending on the publicly managed health institutions (Cheng & Vahid, 2010). The public health services providers however recorded overcrowded patients (Wavomba and Sikolia, 2015). The researchers assert that such is observed especially at laboratory, pharmacy, VCT centers and Antenatal with overcrowding also being observed in

in-patient wards with patients have to share beds. Road accidents also contribute to the huge number of patients in wards, more especially motorcycle accidents (JEPAK, 2013).

An assertion by Mangala (2015) opined that the concept of strategy is anchored on a number of related aspects. Such aspects include organisational competitive advantage, unique capabilities, strategic intent, resource-based strategy, strategic capability and management, strategic goals and strategic plans. Baker (2007) defined strategy as the outcome of some form of planning, organized process for anticipating and acting in the future so as to conduct an organisation's objective. Baker added that driver of strategies in an organisation are viewed to be visionary, entrepreneurial and innovative. On the other hand, strategy can also be viewed as the direction and scope of an organization over the long term, which achieves advantage in a changing environment through its configuration of resources and competences to meet the needs of markets and to fulfill stakeholder expectation (Johnson and Scholes, 2002).

Globally, governments through their relevant health ministries seek to enhance health production by engaging in the formulation of health policies, regulating health institutions and related agencies and sectorial financing (Berman et al., 2014). Health care services, as an end product in health production is esteemed only when it has a positive marginal impact on the beneficiaries (Polsa, Spence & Soneye, 2011). All governments express a measure of concern towards its public's health; health systems are therefore concerned not only with the protection of the health of societies, but also its improvement (UNDP, 2009). However, an imperfect health care system does not meet the patients' needs for healthcare services therefore make them consume valueless healthcare services (WHO, 2010). In September 2000, 189 heads of state adopted the Millennium Development Goals

(MDGs) designed to improve social as well as economic conditions in the world's poorest countries by 2015. Three of these related specifically to health with another two more having health components (UNDP, 2009).

Kenya has an approximate population of 44 million people out of which an estimated 70% is reported to reside in rural set-ups. Health services in Kenya are provided through a network of over 4,700 health facilities countrywide, with the public sector accounting for about 51% of these facilities. The best quality of care is found at the national referral hospitals, which provide diagnostic, therapeutic and rehabilitative services. Kenya spends an average 6% of its Gross Domestic Product (GDP) on healthcare service delivery systems (KDHS, 2012). A huge portion of the Kenyan population depend on healthcare services in the public hospitals (Kenya Health Sector Integrity Study Report, 2011). This is as a result of subsidized services in the public hospitals (Ministry of Medical Services, 2010) hence they offer cheaper services compared to country's private hospitals. These patients are characterized with low income and a lack insurance cover for their health care services. The government however through the National Hospital Insurance Fund (NHIF) provides cover to employed and unemployed patients.

The government of Kenya has tried to address matters relating to health care services provision through devolution of health and enhancing the Public Health Acts that regulate the entire health sector (MoH, 2015). Counties are prospected to promote social and economic development and provide proximate, easily accessible services throughout (Constitution of Kenya, 2010). It was expected that a devolved health system would improve efficiency, effectiveness, stimulate innovation, improve access to and equity of services, and promote accountability and transparency in service delivery (MoH, 2014). An

argument by Gillam and Siriwardena (2014) indicated that health care improvement initiatives attain effectiveness if based on ample interactions with the populous and real evidences from the geographies within which they are to be implemented.

In Kenya, the health care delivery system is faced with three major challenges which includes accessibility, affordability and quality of services offered (Wanyoike, 2016). The MoH (2017) reported that the annual budgetary allocation for the health sector was about Shs. 60 billion in the fiscal year 2016/2017 which was an increase from the 59 billion allocated the previous year. The allocation still falls below the rightly required amount therefore hindering the quality of services generally offered by the public sector. There however was a decline in per capita expenditure towards the health sector since independence up to early 2000s (KHHEUS, 2013). The public health system in Kenya has for long been characterized by a persistent inadequacies relating to staffing, and also shortage of essential drugs. This disenfranchises those seeking healthcare services in these facilities (Omondi, 2016).

Machakos County is made up of eight sub-counties that include Athi River, Kangundo, Kathiani, Machakos, Masinga, Matungulu, Mwala and Yatta. The KNBS (2009) report revealed that the County is 6,208 square kms and has a population of 1,098,584 of which 49% were male and 51% were female. The report further indicated that the annual population growth rate for the county is 1.7% and currently has an estimated 264,500 households. Only one-third of the County' population uses water from safe and improved sources and better sanitation facilities. The MCHSP (Machakos County Hiv & Aids Strategic Plan: 2015 – 2019) report established that Machakos County operates on a number of social pillars that generally target at investing in the people within the county that include health care

delivery; education; water and sanitation; environment and gender, youth and vulnerability groups. The health care delivery specifically seeks to enhance the health care system so as to lower its current disease burden. As at 2012, the county had 1 provincial general hospital, 3 district hospitals, 1 sub-district hospital, 86 dispensaries, 22 health centers, 2 maternity homes, 34 medical clinics and 2 nursing homes. The report also established that the average distance to a facility was 5 kilometers with the most prevalent diseases being malaria and skin disease.

Statement of the Problem

Gillam and Siriwardena (2014) established that health care and health systems in developing economies including Kenya have remained poor and experience a number of challenges that include accessibility which encapsulates distance to the facilities, availability of transportation and cost of transportation; quality of services offered and health care financing issues that have resulted into their health systems falling far from attaining the goals of good health standards, equity, effectiveness, acceptability and sustainability. In addition, Karanja (2014) pointed out that the Kenyan government has continually fallen short in fiscal resource allocation towards health care in synch with the increasing demand and need for improved care among the populous. Inadequately trained staff and not empowering the medical staff in their decision making process so as to facilitate the execution of their responsibilities was identified by Wavomba and Sikolia (2015) as additional challenge in offering health services in public health facilities in the country.

The Kenyan health sector, as a result of the its devolution into the counties, has registered a number of initiatives that have given rise to growth which include increased number of health facilities and health workers, improved equipment and enhanced accessibility through provision of

emergency services. Despite these changes, few studies have been undertaken on the challenges affecting the provision of health care services within the devolved units of the Kenyan government and more specifically Machakos County. For instance, Omondi (2016) assessed factors influencing service delivery in public hospitals within Nairobi County. The researcher established that most of the hospitals had integrated information systems in their operations with drug supply being inadequate as a result of procurement bureaucracies. Wanjau et al. (2012) found out that employee capacity, adoption of technology, communication channels and financial resources impact provision of quality service in the public health sector in their study on factors affecting provision of service quality in the public health sector: a case study of KNH.

Little is therefore known on the challenges of provision of healthcare services in the Kenyan counties. This is attributed to most of the studies undertaken being based on factors affecting provision of the healthcare services other than the challenges in offering the services. This study was further motivated by the need to enhance public health services offered to the Kenyan citizens through addressing currently faced challenges. The researcher therefore sought to fill this knowledge gap by answering the research question; what are the challenges in the strategic provision of healthcare services in counties in Kenya with a keen look at Machakos County.

Research Objectives

The broad objective of the study was to determine the challenges to strategic delivery of public health services in counties in Kenya: a study of Machakos County. The specific objectives were:-

- To determine the effect of management style on strategic delivery of public health services in Machakos County.

- To establish the effect of financing on strategic delivery of public health services in Machakos County.
- To determine the effect of adoption of ICT on strategic delivery of public health services in Machakos County.
- To find out the effect of staff training on strategic delivery of public health services in Machakos County.

LITERATURE REVIEW

Theoretical Review

Contingency Leadership Theory

This theory was part of the different contingency approaches developed by Fiedler in the 1960s. History wise, this theory has continuously sought to establish wide generalizations relating to the formal structures that are basically linked with or best fit the utilization of varied leadership models. The theory argues that longitudinal study of leadership processes entail a leader, his subjects and the situational needs to be made. Contemporary management view/management approach points at adapting management behavior to specific circumstances within the organization and to every given condition. This view however is different from the single best way that the theorists in the classical management sought since they based their assumption on management principles being universal or applicable in all situations, without considering the organization's unique conditions. According to Woodward (1998), apart from disregarding the past management perspectives, the contingency theorists acknowledge any correct and applicable principles that facilitate managers to effectively manage. Specifically, theorists have applied this theory to management issues relating to leadership, making of decisions, organizational change and structure, motivation of employees, human resource management. This therefore provide managers with a new set of methodologies to try which include situational leadership and

participative work groups. Even though critics realize the benefits that accrue from applying management principles to individual circumstances, they also argue that the contingency theory does not provide useful generalizations for leaders to apply (Barney, 1985). The theory is relevant to the current study as it is directly linked to an organisation's internal management characteristics, which is one of the study's objective, that may pose as challenges in delivering healthcare services in the public sector.

Andersen's Health Behavior Model

Andersen (1995) established a Health Behavior Model (HBM) in order to explain aspects that influence the utilization of health services. Generally, the average estimates of demand for health care differ greatly, especially when health care is differentiated by the type and nature of services. An argument by Ringel et al., (2002) asserts that some of the healthcare demand determinants depend on the types of health care. They further suggest for necessity while developing the association with healthcare service more specifically when making choices on the service provider in the health sector. The utilization of health services is dependent on three dynamics: predisposing factors, enabling factors and need (Andersen, 1995).

Predisposing aspects include characteristics such as age, race and health beliefs. The health belief encapsulates the belief on adequacy of the health institution to address the health need; this is influenced by the financial adequacy of the institution which impacts the facility's ability to be efficient. On the other hand, enabling factors comprise family support, health insurance access and one's community. The need factors represent both the actual and perceived need for health care services. The major assumption of this theory is that persons who hold a belief that that health care

services provide an effective solution diseases are more likely to seek attention for the healthcare providers of institutions (Andersen, 1995).

Change Theory

This study was informed by the change theory of Kurt Lewin (Bernard, 2004). It is based around the process Unfreeze, Change and Freeze, providing a higher level approach to the change process. With this theory, a manager or other change agents have a chance on a framework for implementing change effort however sensitive but seamless as possible. It follows three steps: Implementing a radical change, reduce disruption of operations structure and finally permanent adoption of change. The change theory can be well adopted by a variety of change agents to ensure that the devolution of health services to the lowest levels is well executed, operational and function to the greater good of the people (Omondi, 2016). The changes will come with resistance due to the initial centralized system but with good understanding of the process of change, most administrators will be able to pass this through to their team members in terms of change in management, implementation of ICT, regular training and streamlining the procurement process. This study therefore anchored the objective on adoption of ICT in delivering public health services.

Social Learning Theory

Albert Bandura's (1977) social learning theory is based on the idea that we learn from our interactions with others in a social context. Separately, by observing the behaviors of others, people develop similar behaviors. New concepts of social learning are being formed as new trends in distance education programs emerge (Hathaway, Muse, & Althoff, 2007). The rise in popularity of these programs increases the physical distance between educators and students. Bandura asserted that there are three key components to Bandura's social learning theory: observational learning, imitation, and behavior modeling. Learners observe

behaviors by others in order to start the learning process.

The next concept in Bandura’s theory that manifests is imitation. After observing the behavior of others, people assimilate and imitate that behavior, especially if their observational experiences are positive ones or include rewards related to the observed behavior; imitation involves the actual reproduction of observed motor activities. The third component of Bandura’s theory that happens is behavior modeling, the learner takes everything positive about the observed and imitated behavior, and begins acting according to the experiences. Basically, in social learning theory, employees acquire new skills and knowledge by observing other members of staff whom they have confidence in and as well believe to be credible and more knowledgeable.

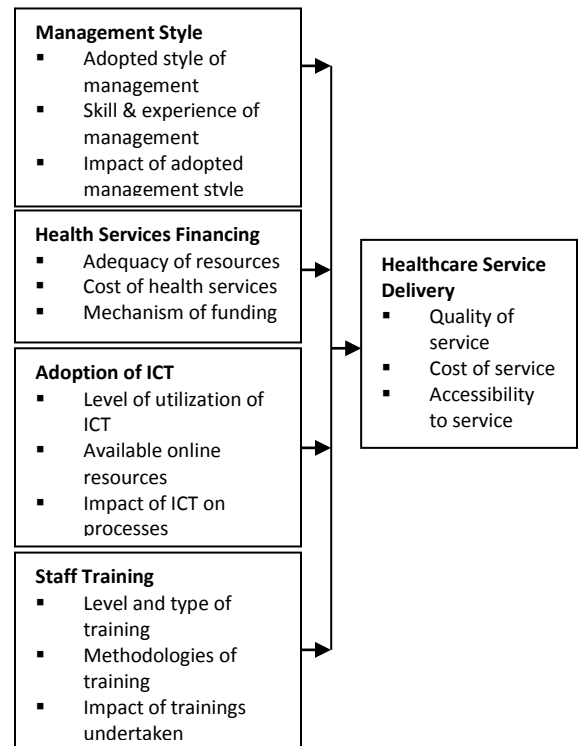
Resource-Based View Theory

The Resource Based View theory (RBV) argues that an organisation can enhance its performance through establishing resources which are unique and widely distributed (Barney, 1991). It further seeks to describe the association between organisational resources and performance (Fahy, 2000). This perspective of a business views the organisation as a conglomeration of distinct productive resources that its management utilizes (Lockett & Wild, 2014). On the other hand, Wernerfelt (1984) asserted that the theory pictures an organisation as a collection of assets or resources that are temporarily linked to the business’ management. The resources include human resource, financial capital and assets such as land. According to Barney (1991), the resource-based view (RBV) of an organisation’ performance is influenced by its particular resources and internal capabilities.

The term resources in this theory implies a business’ assets, leadership capabilities, organizational processes and attributes,

information, knowledge, among others, controlled by a firm that enable the firm to conceive of and implement strategies that improve its efficiency and effectiveness (Wiesbaden, 2014). An organisation management’ view relating to the aftermath of growth influences their decision to be efficient and enhance performance (Lockett & Wild, 2014). Furthermore, the researchers also established that non-economic factors such as the well-being of human capital and the level of conduciveness of the working environment that entails aspects such as technology, are also significant. With this theory being based on organisational resource management and its impact on performance, the theory therefore anchored the study’ objective of financing, adoption of ICT, staff training and management, which can all be viewed as organisational resources, in relation to efficient delivery of healthcare services within Machakos county health institutions.

Conceptual Framework



Independent Variables Dependent Variables

Figure 1: Conceptual Framework

Management Style

To a great degree, the management of Health care system has for a long time been inefficient, incoherent and hugely supply driven therefore hampering the patients attitudes towards the sector by restricting development and efficiency of service delivery process (Berenson & Cassel, 2009). Historically, the public health care organizations perceived customer service as an autonomous, non-important function left to the judgment of the medical experts (Ajayi & Tokon, 2009). Public health institutions that continuously have to deal with challenge of mega restructuring, encountered and are still experiencing difficulties in full and proper implementation of these services (Glickman, Baggett, Krugert, Peterson & Schulman, 2017).

The challenges include the reduced ability of the sector' workers to quickly adjust in relation to the transforming environment that further results to destruction of the organisations leadership structure hence leading to tensions and mistrust between the middle and senior organisational mangers (Gillam & Siriwardena, 2014). The health institutions' senior management need to depict commitment to service quality while middle level management should also reveal commitment and ensure they communicate policies, regulations, plans and benefits of the services rendered to their junior staff (Berenson & Cassel, 2009).

Financing

Healthcare financing relates to developing an entitlement for all to financial protection from the costs involved in accessing health services and access to required services of sufficient quality to be effective (World Health Organisation, 2010). Health services financing therefore lays emphasis in ensuring that no individual or certain population group in a nation is threatened or pushed to poverty by having to pay for health services (Lagarde & Palmer, 2011). It is usually so unpredictable when one may fall ill and therefore

be in need of healthcare services and at what cost the services might go for. he financing also relates to ensuring that everyone is able to access the necessary health services whether preventive, promotive, curative or rehabilitative (Nimpagaritse & Bertone, 2011).

Adoption of ICT

In most economies, the success of healthcare system has been attributed to highly developed ICT infrastructure, huge investments in ICT particularly by the Public Hospitals, well trained public health personnel, well developed training and health institutions and belief in the ICT solutions to the health problems (Omondi, 2016). Technology specifically plays a significant role in the healthcare sector (Adesina & Jim, 2008). However, according to Adesina and Jim (2008) in most developing countries, innovative approach to e-Health remains key. ICT is used in solving a number of challenges in health services delivery (Ajayi & Tokon, 2009). Establishing and adopting e-Health innovative solutions, which generally demand less infrastructure provision, is critical when deployed within communities as they reduce the cost operating healthcare institutions hence reducing the cost of benefiting from the healthcare services (Gatero, 2011).

Staff Training

In order to meet the existing and future organisational performances needs, employee training and development must be undertaken continuous so as to improve the competence of employees (Birasnav, Rangnekar & Dalpati, 2011). According to Argote and Ingram (2010), besides imparting the skills through training to all levels staff, the management of the organisations also target at transforming the behavioral patterns of the staff so as to attain the organizational efficiency, sustainability and growth. In this era of fast transforming scenario, having a solid

organisational financial foundation is not adequate for any public healthcare organization neither is adoption of high level technology since the competitive edge now heavily relies on the quality of the human capital, which determines whether the public organizations would ultimately remain in operation in the long-run (Hitt, Ireland & Hoskisson, 2010). As a service industry, healthcare still stands as key sub set, whose growth is predicted to be the most rapid in the transforming economic scenario of the nation.

Healthcare Service Delivery

According to the WHA (2009), better quality, lower cost and greater equity to health care services are most often cited as the rationale for measuring improved health care system while alignment of incentives, integration of technology, coordination of care and redesign of health care systems are some other elements used to measure performance of the health system. Even though the national government prescribed norms for health care infrastructure, it clearly lacked the capacity to implement them on the ground (WHO, 2010). Currently, long queues of patients awaiting and overcrowding have become common phenomena associated with the public hospitals in the country which arises from medical staff not being well empowered to enhance their decision making process while executing their responsibilities (Wavomba & Sikolia, 2015).

Empirical Review

Management Style and Strategic Delivery of Healthcare Service

The management of public health sector is majorly characterized by emphasis on effective performance and enhancing quality of healthcare. So as to achieve these key indicators, the public health management needs to be fully equipped with the required resources and management skills (Nembhard, Alexander, Hoff & Ramanujam, 2009).

These researchers further indicated that the health institution managers are more equipped with the management skills which facilitate them to effectively manage resources and hence influencing the organizational outcomes. Simply, the health professionals are adequately capacitated to facilitate them enhance the client services health outcomes. Berenson and Cassel (2009) asserted that with efficient management of resources and quality outcome being the emphasis, it is turning out to be important for healthcare institutions to establish to and execute good strategies that provide efficient care that further appeals to patients and focuses on managing operational costs. Organisations and the environment they operate in have transformed speedily in the recent past and this has resulted to the need of a less bureaucratic but more democratic style of leadership so as to enhance organizational performance (Funda & Cihan, 2014).

A number of leadership styles that are behavioral based exists; transactional, transformational and paternalistic leadership (Funda & Cihan, 2014). It is mostly hard for the healthcare sector to attract and retain talented employees alongside offering efficient services (Omondi, 2016). Effective leadership style is treated as a key facilitator of quality from the providers' view, managers and policy-makers. Leadership influences everything within the hospital environment (Mosadeghrad, 2014). Great ideas remain useless in the wake of poor organisational leadership. Nembhard, et al. (2009) opined that most studies have pointed out to a lack of well qualified and efficient leaders in public healthcare institutions.

Financing and Strategic Delivery of Healthcare Services

A number of different mechanisms can be used to fund health services. These methodologies include both internal (domestic) and external financing (Di McIntyre, 2012). There exists two main types of

health financing plans: Out-of-pocket payments (Yates, 2009); and Pre-payment funding (Thomson, Mossialos & Evans, 2012). According to Yates, out of pocket payments implies that a beneficiary of health service settles the provider directly through paying a user fee at a public health facility or paying a consultation fee to a private physician or for drugs at a pharmacy. When households are required to pay out of their pocket in order to access healthcare services, they may completely fail to utilize the services or might be in a position to only use inadequate services or may utilize the service but be impoverished as a consequence (WHO, 2010).

On the other hand, pre-payment funding refers to paying for the health services cost before being demand for them. An argument by Thomson, Mossialos and Evans, further explained that the financing is either through paying tax or contributing to a health insurance scheme and the health service providers are then paid from these prepayment funds when the need to use the services arises. However, several African countries have introduced free healthcare services policies (Nabyonga, Mugisha, Kirunga, Macq & Criel, 2011). These policies have resulted to different outcomes. Generally, service utilisation has tremendously increased as financial barriers to health services reduce (Lagarde & Palmer, 2011). However, unintended adverse consequences have also been registered (McPake, Bricki, Cometto, Schmidt & Araujo, 2011).

Adoption of ICT and Strategic Delivery of Healthcare Services

Improving the quality, accessibility and efficiency of healthcare for citizens is considered as the main aim of Information Communication and Technologies for health (Venter, Burns, Hefford & Ehrenberg, 2012). Managing the escalation costs in the access of healthcare services and enhancing the services is what economies target to attain through adopting

ICT in their healthcare systems (Rudowski, 2009). Rudowski added that ICT within the health sector is applied across a number of functions which include consultations which are done online by patients and doctors using websites and emails, distance referrals, emergency evacuations, and advance transmission of images and data of patients from ambulances is known to reduce lead times of intervention in emergency wards of most hospitals. Most of these applications are however still at their relatively baby stages in implementation especially in the developing economies since most of the governments find it hard to easily undertake their investment priorities in ICT in the health sector (Berland, Elliott & Morales, 2010).

The success of adoption of ICT in the healthcare sector has been as a result of well-established technological infrastructure (Koch, Marschollek, Wolf, Plischke & Haux, 2009). Benefits from adopting technology in the health sector range from improved diagnosis and consultations to establishing of career options and professional nurses (Hebda and Czar, 2013). Hebda and Czar add that tele-nursing have resulted to enhanced patients' clinical and healthcare outcomes. An argument by Venter et al. (2012) indicated that online and mobile platforms have already opened up the possibilities for reducing hospitalization and an increase in home care. The growth of electronic health that is ICT enabled health provision, has greatly reduced the cost of healthcare hence increasing efficiency through improved data management and transfer, disease management and quality transfer of knowledge (Oladosu et al., 2009).

Staff Training and Strategic Delivery of Healthcare Service

Within the public health sector, employees in both the management and lower cadre are involved in the healthcare services delivery (Wamai, 2009). The

researcher also indicates a positive association between greatly skilled employees and enhanced health services delivery. According to Argote and Ingram (2010), developing a health training system and programs, ensuring right staff recruitment methods and sustained staff training and development is important in the attainment of well skilled employees within the public hospitals that aim at enhancing organisational performance. This phenomenon is frequent in the developed economies and turns out as one of the major reasons these economies register better quality services within the public hospitals.

It is therefore key for medical institutions to execute human resource strategies that include selective hiring, staff retention, monitoring of staff performance so as to meet the necessary standards in offering quality services and sustain growth (Polsa et al., 2011). Kenya has a low standard of teaching within its nursing training schools when compared to their counterparts in developed nations globally hence explaining the low standard of care for patients (Argote, 2010). The negligence in the health sector is also revealed in under developed training systems and insufficient reorientation courses hence over reliance on conservative training program (Argote & Ingram, 2010).

METHODOLOGY

This study adopted a descriptive design. This design encapsulates the determination of the possible respondents and also the utilization of questionnaires and/or carrying out interviews so as to obtain information relevant to the study's objectives (Lewis et al, 2012). The study's target population comprised of all the employees within the management level of public health facilities that have been in operation in Machakos County as at

December 2015. The below simple regression model was adopted;

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon$$

Where; Y – Successful strategic healthcare service delivery

β_0 - Constant

β_i (i = 1,2,3,4) - Regression Coefficients

X_1 – Management

X_2 – Financing

X_3 - Adoption of ICT

X_4 - Staff Training

ε - Error term

FINDINGS AND ANALYSIS

Management Style

The researcher sought to determine the effect of various measures of management style on service delivery in the public health facilities within Machakos County and the level to which the respondents agreed with a number of aspects relating to management style.

On Measures of Management Style and Strategic Service Delivery, the researcher summarized the findings on the level of impact of various measures of management style on strategic service delivery in public health facilities within Machakos County in table 1. The findings indicated that the management' level of power & authority and established strategic plan highly impact service delivery within the facilities as depicted by the mean of 2.67 (0.321) and 2.51 (0.467) respectively. Besides, management structure (2.09, 0.488) and chain of command (1.73, 0.399) have a medium impact on service delivery. The standard deviations of less than 1.0 indicated that the responses did not significantly vary.

Table 1: Measures of Management Style

	Mean	Standard Dev	Rank
Management' level of power & authority	2.67	0.321	1
Established strategic plan	2.51	0.467	2
Management structure	2.09	0.488	3
Chain of command	1.73	0.399	4

On the aspects of Management Style and Strategic Service Delivery, the researcher sought to determine the degree to which the respondents agree with statement on the relationship between various aspects of management style and challenges in service delivery. The respondents were to give their opinion in a likert scale where 1 = strongly disagree and 5 = strongly agree. The findings were summarized in table 2 below.

From the results in table 2, the respondents agree that inefficient and incoherent management of health care system in the facility hampers the service delivery processes as depicted by the mean of 4.41. The standard deviation of 0.567 (<1.0) further indicated that the responses did not greatly vary. Similarly, the mean of 4.23 depicted that implementation of services within the facilities is hindered by management problems while the standard deviation of 0.393 (<1.0) confirmed that the responses did not vary widely. The respondents however disagreed that the facilities have adopted a supply driven style of managing healthcare services which negatively influences the efficiency

of delivery of these services (2.39, 0.405). In addition, the results depicted that the respondents strongly disagreed that the institutions have sufficient resources that enhance effectiveness in the management of public health services (4.67, 0.592).

The results of the research were however not conclusive as to whether the facilities' poor management style reduces the ability of its workers to adjust to the transforming environment, efficiency of delivering health services within the facilities is influenced by management challenges that result to mistrust between middle and senior managers, good number of managers in the facilities are not qualified professional managers but healthcare professionals such as doctors and clinical officers and if the current national policies are restrictive and do not allow for flexibility and overall effective management of the facilities. These findings are depicted by the mean of 2.57, 3.19, 3.06 and 2.65 respectively. Besides, the standard deviation of 0.566, 0.601, 0.673 and 0.604 (<1.0) reveal that the responses did not widely vary.

Table 2: Aspects of Management Style and Service Delivery

Services	N	Mean	Std. Dev.
Inefficient and incoherent management of health care system in the facility hampers the service delivery processes.	75	4.41	0.567
The facility has adopted a supply driven style of managing healthcare services which negatively influences the efficiency of delivery of these services.	75	2.39	0.405
Implementation of services within the facility is hindered by management problems.	75	4.23	0.393

The facility' poor management style reduces the ability of its workers to adjust to the transforming environment.	75	2.57	0.566
Efficiency of delivering health services within the facility is influenced by management challenges that result to mistrust between middle and senior managers.	75	3.19	0.601
The institution has sufficient resources that enhance effectiveness in the management of public health services.	75	1.47	0.592
A good number of managers in the facility are not qualified professional managers but healthcare professionals such as doctors and clinical officers.	75	3.06	0.673
The current national policies are restrictive and do not allow for flexibility and overall effective management of the facility.	75	2.65	0.604
Valid N (listwise)	75		

Financing and Strategic Service Delivery

The researcher sought to establish the various forms of health services financing that the facilities run on and the level to which the respondents agree with the various aspects relating to health care financing within the facilities.

On financing of Health Care Services, the researcher summarized the findings on the various methods of financing health care services within the facilities in Machakos County in table 3. The results depicted

Table 3: Financing Health Services

		Frequency	Percent
Out-of-pocket financing	Yes	75	100.0
	No	-	0.0
	Total	75	100.0
Pre-payment (Tax)	Yes	75	0.0
	No	-	32.9
	Total	75	100.0
Pre-payment (Health Insurance)	Yes	59	78.7
	No	16	21.3
	Total	75	100.0

On the aspects of Financing and Strategic Service Delivery, the study sought to determine the degree to which the respondents agreed with a number of statements on the relationship between financing and challenges in service delivery. The opinion was

that all the facilities were run by out-pocket financing and pre-payment financing (tax) as depicted by the frequency of 75 that represents 100% of the respondents. On the other hand, slightly above three-quarters (59, 78.7%) of the facilities are also run by pre-payment financing (health insurance). The results therefore implied that not all residents within the county had secured a health insurance cover of any form: private or universal via NHIF.

to be given in the following likert scale: 1=Strongly Disagree, 2=Disagree, 3=Not sure, 4=Agree, 5=Strongly Agree. The findings were summarized in table 4 below.

The results as summarised in table 4 indicated that the respondents strongly agreed that the type of financing adopted by the facilities had greatly influenced the quality of services offered in the institution (4.69) and that the current health financing structure denies the institutions enough resources to enhance its services (4.51). The respective standard deviations of 0.324 and 0.406 (<1.0) implied that the responses obtained were not varying greatly. With the mean of 3.79 (0.558), 3.63

(0.574) and 4.04 (0.468), the results also confirmed that increased utilization of services within the facilities was as a result of financial barriers suffered by most of the clients it served, increased utilization of the public health services in the institutions was mostly not matched with an equivalent increase in financial resources and that the facilities suffered from a lack of sufficient financial resources that resulted to them being understaffed and suffer drug stock-outs.

Table 4: Aspects of Financing and Service Delivery

Health financing aspects	N	Mean	Std. Dev
The type of financing adopted by the facility has greatly influenced the quality of services offered in the institution.	75	4.69	0.324
The current health financing structure denies the institution enough resources to enhance its services.	75	4.51	0.406
Increased utilization of services within the facility is as a result of financial barriers suffered by most of the clients it serves.	75	3.79	0.558
Increased utilization of the public health services in the institution is mostly not matched with an equivalent increase in financial resources.	75	3.63	0.574
The facility suffers from a lack of sufficient financial resources that results to it being understaffed and suffer drug stock-outs.	75	4.04	0.468
Valid N (listwise)	75		

Adoption of ICT and Strategic Service Delivery

The study sought to determine the degree to which the respondents agreed with a number of statements relating to challenges in strategic service delivery and adoption of ICT. The feedback was to be provided in a likert scale where 1=Strongly Disagree, 2=Disagree, 3=Not sure, 4=Agree, 5=Strongly Agree. The findings were summarized in table 5 below.

The results as indicated in table 5 revealed that the level of adoption of ICT within the facilities was hampered by a lack of sufficient resources to purchase the available technology (4.21) and that the adopted ICT technologies did not facilitate quality knowledge and information transfer in their facilities (4.14). The standard deviation of .567

(<1.0) and 0.438 (<0.438) confirmed that the responses did not greatly vary. The respondents also strongly asserted that the current government policies are restrictive in relation to the type of technology the facility could adopt. This was indicated by the mean of 4.61 and a standard deviation of 0.495. The results were however not conclusive as the respondents were not sure if the high cost of available technology in the market was a hindrance to their adoption (3.11, .631), whether lack of sufficient support from the technology developers reduced the impact registered from the adopted technologies (3.29, .681) and if scanty information on the available technologies hampered the level of their adoption in their facilities (0.717). Besides, it was evident that the respondents disagree with the fact that most of the

current available technologies do not fit the facilities' needs and requirements. This was affirmed by the mean of 2.44 and the standard

deviation of 0.731 (<1.0) which further confirmed that the responses did not greatly vary.

Table 5: Adoption of ICT

Adoption of ICT aspects	N	Mean	Std. Dev
The level of adoption of ICT within the facility is hampered by lack of sufficient resources to purchase the available technology.	75	4.21	0.567
Most of the available technologies in the market are of high cost hence the facility cannot afford.	75	3.11	0.631
The current government policies are restrictive in relation to the type of technology the facility can adopt.	75	4.61	0.495
Most of the current available technologies do not fit the facility's needs and requirements.	75	2.44	0.731
Lack of sufficient support from the technology developers reduce the impact registered from the adopted technologies.	75	3.29	0.681
So scanty information on the available technologies hampers the level of their adoption in your facility.	75	3.02	0.717
The adopted ICT technologies do not facilitate quality knowledge and information transfer in your facility.	75	4.14	0.438
Valid N (listwise)	162		

Staff Training and Strategic Service Delivery

The researcher asked the respondents to provide feedback on how they agreed with a number of aspects that related to staff training and challenges in strategic service delivery in their facilities. The responses were to be given in a likert scale that ranged from 1 = Strongly Disagree to 5 = Strongly Agree. The results were as summarized in table 6 below.

The results as presented in table 6 below revealed that the facilities had sufficiently skilled employees (3.89, 0.500) and that negligence in the institutions is due to over reliance on conservative training programs (4.11, 0.585). In addition, the respondents

also agreed that the institutions had under developed training systems that negatively impacted the quality of health services offered (3.91, 0.673) though it was also confirmed that the facilities recruit rightly qualified staff so as to enhance the quality of service delivery and knowledge impartation (4.12, 0.317). On the other hand, the respondents affirmed that the institutions did not deliberately and consistently organize for trainings for their staff (2.42, 0.641) and that the institutions do not well conduct the impartation of skills, knowledge and abilities through the use of new technologies (2.22, 0.427). The standard deviations had a value less than 1 therefore implying that the responses obtained varied less.

Table 6: Staff Training

Staff training aspects	N	Mean	Std. Dev
We have sufficiently skilled employees in this facility.	75	3.89	0.500
The institution deliberately and consistently organizes for trainings for its staff.	75	2.42	0.641
Negligence in the institution is due to over reliance on conservative training programs.	75	4.11	0.585
The institution has under developed training systems that negatively impact the quality of health services offered.	75	3.91	0.673
The institution well conducts the impartation of skills, knowledge and abilities through the use of new technologies.	75	2.22	0.427
The facility recruits rightly qualified staff so as to enhance the quality of service delivery and knowledge impartation.	75	4.12	0.317
Valid N (listwise)	162		

Inferential Analysis**Correlation Analysis****Table 7: Correlation Analysis**

	Management style	Financing	Adoption of ICT	Staff Training	Strategic Service Delivery
Management Style	1				
Financing	0.367	1			
Adoption of ICT	0.427	0.586	1		
Staff Training	0.478	0.506	0.289	1	
Strategic Healthcare service delivery	0.879	0.889	0.762	0.801	1

Table 8: Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Sig.
4	0.889 ^d	0.790	0.675	0.638	0.001

a. Predictors: Constant, management style; b. Constant, management style, financing; c. Constant, management style, financing, adoption of ICT; d. Constant, management style, financing, adoption of ICT, staff training.

Table 9 presented the coefficients of the regression equation for the independent variables. From the table the regression model for the study is

$$\text{generated as: } Y = 2.013 + 0.248X_1 + 0.265X_2 + 0.186X_3 + 0.202X_4 + \varepsilon$$

From the results in table 9, the constant value of 2.013 depicts that if all the independent variables

(management style, financing of healthcare services, adoption of ICT and staff training) were set as zero, success in strategic healthcare service delivery would be 2.013. The findings also indicate that with the other variables held constant, a unit

increase or decrease in management style, financing of healthcare services, adoption of ICT and staff training results to 0.248, 0.265, 0.186, 2.02 units increase or decrease in the success of healthcare service delivery respectively.

Table 9: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	2.013	.573		1.552	.001
	Management Style	.248	.036	.052	1.200	.003
	Financing	.265	.049	.066	1.209	.001
	Adoption of ICT	.186	.035	.123	1.175	.000
	Staff Training	.202	.047	.356	.932	.026

CONCLUSIONS AND RECOMMENDATIONS

The researcher established that the management' level of power & authority, an established strategic plan, management structure and the organisation's chain of command impacted the success of healthcare service delivery. The results also indicated that service delivery is hampered by inefficient and incoherent management of health care system in the facility, management problems, lack of adoption of a supply driven style of managing healthcare services and insufficient resources that enhance effectiveness in the management of public health services. It was however not clear as to whether the facilities' poor management style reduces the ability of its workers to adjust to the transforming environment, if efficiency of delivering health services within the facilities is influenced by management challenges that result to mistrust between middle and senior managers, if a good number of managers in the facilities are not qualified professional managers but healthcare professionals and whether the current national policies are restrictive and do not

allow for flexibility and overall effective management of the facilities.

The results also depicted that all the facilities are run by out-pocket financing and pre-payment financing (tax) methods. However, not all facilities run by pre-payment financing (health insurance) further depicting that not all residents within the county have secured a health insurance cover of any form: private or universal via NHIF. The results further indicate that the type of financing adopted by the facilities has greatly influenced the quality of services offered in the institution and that the current health financing structure denies the institutions enough resources to enhance its services. It was also confirmed that increased utilization of services within the facilities is as a result of financial barriers suffered by most of the clients it serves, while increased utilization of the public health services in the institutions is mostly not matched with an equivalent increase in financial resources.

The facilities also suffer from a lack of sufficient financial resources that results to them being understaffed and suffer drug stock-outs. In relation

to adoption of ICT, the results indicated that the level of adoption of ICT within the facilities is hampered by a lack of sufficient resources to purchase the available technology and that the adopted ICT technologies do not facilitate quality knowledge and information transfer in their facilities. The current government policies were also faulted for being restrictive in relation to the type of technology the facility can adopt. Besides, it was evident that most of the current available technologies fit the facilities' needs and requirements. However, It was not clear if the high cost of available technology in the market was a hindrance to their adoption, whether lack of sufficient support from the technology developers reduced the impact registered from the adopted technologies and if scanty information on the available technologies hampers the level of their adoption in their facilities.

The findings on staff training also confirmed that the facilities have sufficiently skilled employees and that negligence in the institutions is due to over reliance on conservative training programs. In addition, the institutions have under developed training systems that negatively impact the quality of health services offered though it was also clear that the facilities recruit rightly qualified staff so as to enhance the quality of service delivery and knowledge impartation. On the other hand, the findings revealed that the institutions do not deliberately and consistently organize for trainings for their staff and impartation of skills, knowledge and abilities through the use of new technologies is not well conducted. Generally, the researcher established that there exists a strong positive association between dependent and the independent variables with the independent variables explaining up to 79.0 percent of the success in healthcare service delivery.

Conclusion of the Study

The researcher concluded that financing of healthcare services, management style, adoption of ICT and staff training strategies strongly and positively impact the success in strategic healthcare serviced delivery. These aspects explain a great percentage (79%) of the success attained in the delivery of healthcare services within the health facilities in Machakos County. The study also concludes that service delivery is hampered by inefficient and incoherent management of health care system in the facility, management problems, lack of adoption of a supply driven style of managing healthcare services and insufficient resources that enhance effectiveness in the management of public health services.

In connection with the financing of healthcare services, the study concluded that all facilities within the counties are run by out-pocket financing and pre-payment financing (tax) methods. A reasonable number of facilities also rely on pre-payment financing (health insurance). This further leads to a conclusion that not all residents within the county have secured a health insurance cover of any form: private or universal via NHIF. Besides, it was also concluded that increased utilization of the public health services in the institutions is mostly not matched with an equivalent increase in financial resources.

The researcher also concluded that the level of adoption of ICT within the facilities is hampered by a lack of sufficient resources to purchase the available technology and restrictive government policies in relation to ICT adoption. Furthermore, the adopted ICT technologies do not facilitate quality knowledge and information transfer in their facilities. In relation to staff training, the study concluded that staff negligence in the institutions is due to over reliance on conservative training programs and that the currently under developed

training systems negatively impact the quality of health services offered. The facilities also do not deliberately and consistently organize for trainings for their staff.

Recommendations of the Study

In order to enhance healthcare service delivery in the facilities within the county, the study recommends that the policy makers should seek to make policies that enhance the management' level of power & authority, facilitate the establishment of a strategic plan, develop a favorable management structure and organisation's chain of command.

With the findings that not all residents within the county have secured a health insurance cover of any form: private or universal via NHIF, the researcher also recommends that strategies to increasing the universal health insurance cover by the government should be enhanced. This will see to it that more people are allowed access thus enhancing the financing of the health services within the facilities via insurance cover. The study recommends that that the government should seek to match the utilization of the public health services in the institutions with financial and/or other required resources. This will enable the facilities avoid finding themselves being understaffed or suffer resource strains such as drug stock-outs.

The researcher also recommends that the institutions should deliberately and consistently organize for trainings for their staff and impartation of skills, knowledge and abilities through the use of new technologies. The institutions should therefore avoid over reliance on conservative training programs. Adoption of ICT in most of the services and process undertaken in the facilities should also be made deliberate. Besides, sufficient resources should be made available to facilitate this.

Suggestions for Further Studies

The current research sought to determine the challenges to strategic delivery of public health services in counties in Kenya, casing Machakos County. An extension of this study can be done on the counties other than Machakos County so as to enhance the findings and also allow for a more global conclusion on the results. Besides, a similar study can be conducted with other variables of interest in relation to service deliver in public health facilities being measured. Such variables may include the adopted management structure of the facilities, availability of health facilities, accessibility of health facilities and quality of services offered. In addition the study can be replicated but target the private sector as the study area.

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