QUALITY PERSPECTIVE OF HEALTHCARE PROVISION IN SELECTED PUBLIC HEALTH FACILITIES AFTER DEVOLUTION IN GARISSA COUNTY

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Full Length Research

ABSTRACT

Devolution is delegation of power, governance and resources from centralized government to local/subnational level jurisdictions. The Kenyan constitution allows two levels of government i.e. the national and county levels with each level having its mandate. Provision of standard and sustainable health services to the Kenyan citizens is one of the fundamental roles of devolution as stated in the Kenyan Constitution. This study examined the quality of healthcare services delivered before and after devolution in selected public health facilities in Garissa County as perceived by the healthcare users. The study employed cross-sectional descriptive research design to explore the rating of performance of the health care system after the devolution. Two key domains employed were accountability and good governance; and supply of essential drugs. The sample size was 379 respondents representing clients attending outpatient services. Data was analyzed using SPSS software version 22. Qualitative data was analyzed using thematic content analysis. Descriptive statistics was analyzed using frequencies and percentages and inferential statistics was analyzed using Chi-square and Fisher's exact test to test for associations between variables. $P<0.05$ was considered significant. The study revealed that majority of the respondents were female (51.3%), had no formal education (47.6%), and were unemployed (57.6%). The mean age of the respondents was 33.49 years. The average time taken to reach the nearest health facility was 2.1 hours and average waiting time before service was 2.6 hours. The study found out that majority of the respondents 53.4% were able to get the essential drugs during the last facility visit. The study established that the challenges facing hospital managers in implementing devolution were poor infrastructure, unskilled staff, stockouts of essential medical supplies, delay in resource allocation and lack of equipment. The study concludes that healthcare services have declined substantially with the introduction of devolution of healthcare services.

Key words: **Access to care, Devolution, Essential drugs, Equity, Quality of care, Health, Governance.**

INTRODUCTION

Basically, devolution is delegation of power, governance and resources from centralized government to local/subnational level (Muia, 2008). The jurisdiction and powers that may be devolved may range from authority over such areas as health and the regulation of resources (Fox & Stephene, 2012). When government is devolved, all authority for decision-making is transferred to the county /local government (World Bank, 2012). Globally, the health sector is facing many challenges in maintaining and sustaining successful devolution. In majority of countries with devolution, most responsibilities of service a delivery are transferred to the county or local government that elect their own leaders and generate their own resources and make their independent decisions.

In Africa, the health sector is undergoing major policy, system, and infrastructural changes. Devolution played a great role in Ghana since independence and there was much

improvement in delivery of health services to local community (WHO, 2014). This led to improvement of health and reduction of mortality rates. In 1993, the improvement could not last due to inability to sustained devolution and hence limited the activities to public health section only (WHO, 2014). In Ethiopia decentralization has been implemented since 1996 where it started at the regional level and then at the district level in 2002 (Saharty et al., 2009). Despite experiencing good progress at the Regional level, it failed terribly at the District level where the targeted poor reside. The failure was due to lack enough resources to fully implement the government strategy.

Before promulgation of the new constitution, Kenya had a centralized government where all the activities were coordinated from a central place, i.e. from Nairobi, the country's capital City. Due to this, the country was mired with inequality in sharing of resources and poor allocation of resources. After the promulgation of the new constitution, citizens have had higher expectations since the new constitution clearly states the fundamental rights of the citizens including access to quality healthcare, clean water and proper sanitation. (KHSSIP, 2013-2017). Despite devolution of healthcare to the counties, majority of the citizens in the 47 counties, including Garissa County, are unable to access quality healthcare.

Statement of research problem

Devolution of healthcare in Kenya started after the implementation of new constitution which promulgated in 2010. Despite devolution of healthcare much has not been done to improve the healthcare service delivery to the citizens and the impact of devolution of healthcare in Kenya has not been measured (Nyamu & Mwamuye, 2014). In marginalized areas like Garissa County, devolution of healthcare has not improved the indicators for successful devolution like resources mobilization and better referral functions (Government of Kenya, 2014). In addition, health affairs at the county level have been poorly managed and protected. Easy access to health services and equal distribution of national and county resources has not been ensured as required by the Ministry of Health (2014). This study, therefore seeks to examine the status of quality of healthcare after devolution within the public hospitals in Garissa County, Kenya. This was evaluated based on adequacy of health facilities, work force, performance levels, supply of essential drugs and accountability and good governance.

Research objectives

The main objective of the study is to assess respondent's perception on quality healthcare provision in selected public health facilities after devolution in Garissa County

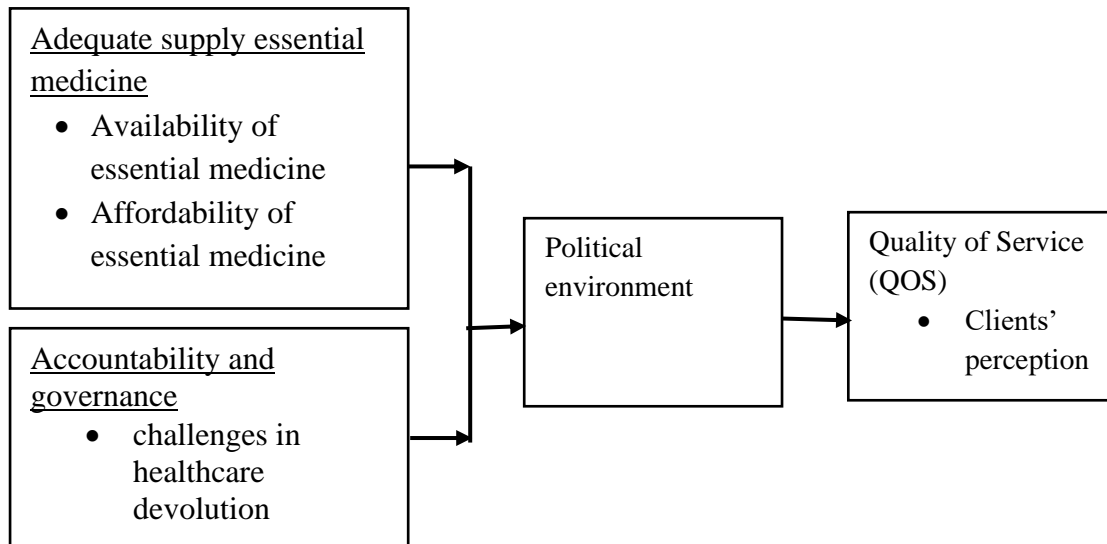The study will be guided by the following specific objectives:

i.   To determine availability of essential medicine in selected public hospitals in Garissa County;

ii.   To assess the challenges faced by hospital managers in implementing devolution in Garissa County.

Conceptual framework

Conceptual framework is analytical tool used to organize idea and plan to ease the process of the study. It shows how study variables are related as shown below.

Independent variable   **Dependent Variable**

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┌─────────────────────────┐
│ Adequate supply essential│
│ medicine                │
│   • Availability of     │
│     essential medicine  │──┐
│   • Affordability of    │  │
│     essential medicine  │  │      ┌──────────────┐      ┌──────────────────┐
└─────────────────────────┘  ├─────▶│ Political     │     │ Quality of Service│
                             │      │ environment   │────▶│ (QOS)            │
┌─────────────────────────┐  │      │              │     │   • Clients'     │
│ Accountability and      │  │      └──────────────┘     │     perception   │
│ governance              │  │                           └──────────────────┘
│   • challenges in       │──┘
│     healthcare          │
│     devolution          │
└─────────────────────────┘
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Source: *Adapted from Kenya Health policy framework (KHPF) 2014-2030*

Essential Medical Supplies

According to (WHO, 2002), essential medicines are those that meets the healthcare needs of the population. This was introduced in 1997 to ensure that the basic drugs are available and the countries should prioritize. The main characteristics of the essential medicines are they must be available, effective, safe and at an affordable price (WHO, 2002). Despite essential medicine being an important component in rating quality of services, majority of world population do not access essential medicines and are forced to succumb to treatable conditions (Chuchu, 2006).

Before devolved system, the health facilities received standard kits containing essential medicines from Kenya Medical supply Agency (KEMSA) as push system. This agency has criticized with supplying medicine without prioritizing the need of the health facilities (Kimani, 2002). Currently the government has applied the pull system whereby the health facility orders from KEMSA according to their needs.

WHO survey indicates that there is variation in availability of essential medicines in Kenya and average availability is 20% in public sectors (WHO, 2010). According to WHO (2010) majority of the counties do not have access to adequate supply of essential medicine. Homabay for instance has severe shortage of essential medicine where 100% of the healthcare report inadequate drug supply which made health service delivery difficult. 70% of healthcare providers report that they sent patient to buy drugs which are not available

which makes the client not enjoy their constitutional right (WHO, 2010). Garissa County being one of the 47 counties of Kenya, it is not exceptional.

Leadership and Governance

Leadership and good governance play a big role in management of healthcare system. Good governance is number one factor in delivering quality healthcare through proper management of national and county resources and equal distribution and allocation of resources in order to properly implement the intentions of devolution (Merson, Black & Mills, 2006).

Some of the functions of good governance and leadership in healthcare delivery as state by (Merson, Black & Mills, 2006) are as follows; management systems and functions; partnership and coordination of health care delivery; governance systems and functions; engaging of public and private services providers; planning and monitoring systems and services; and health regulatory framework and services. The policy acknowledges the need for new governance and management arrangements at both levels of government.

In the county government, the Governor appoints the County Executive for health whose responsibility is to oversee all the activities in the county relating to health. For devolution of healthcare to work positively, the county health system needs good health policies and stakeholder's participation including the community (Berman & Bossert, 2010). The subject of integrity in governance would ensure a standard value of accountability and transparency in the health sector.

MATERIALS AND METHODS

Research Design

A descriptive cross-sectional study design was used to investigate the devolution of healthcare; a quality perspective in selected public Hospitals Garissa County, Kenya. The study was a cross-cutting covering the whole county health facility on quality of healthcare.

Study location

The study was conducted in Garissa County, Kenya. Garissa County is situated in North Eastern Region of Kenya. It rises from a low altitude of 20m to 400m above sea level. The major physical features are seasonal wells and the Tana River Basin on the western side of the county. Garissa County has six sub-counties which include: Fafi, Garissa, Ijara, Lagdera Balambala and Daadab. These correspond to constituencies in the county (CGG, 2018).

Study Population

The study population comprised of clients attending outpatient services in the Garissa County public healthcare facilities. Including men and women aged 18-49 years. Clients below 18yrs and those above 49 years were not included.

Sample Size Determination

The size of the sample was computed using the proportionate sampling method whereby this was used to achieve the number of participants from each strata in different level of hospitals. Therefore, the appropriate sample size for this research is based on below formula.

$$n = \frac{Nt^2 \cdot p \cdot q}{d^2N + t^2 \cdot p \cdot q}$$

Where

N=total population size (34875),

n- desired sample size,

p =probability of selecting a respondent from the sample which is 0.5,

q = (1-p) probability of not selecting a respondent from the sample which is 1-p =0.5,

t =standard normal deviation usually at 1.96 and

d= the degree of accuracy required = 0.05. In this case 95% confidence level has 5% error or 0.05 errors, therefore 0.05 is the level of significance.

$$n = \frac{34875x\ 1.96^2 \cdot 0.5 \cdot 0.5}{0.05^2x\ 34875 + 1.96^2 \cdot 0.5 \cdot 0.5}$$

n=379

The approach that was used to determine the sample size for patients in each sampled hospital is proportionate sampling method where the sample size of each level of hospital is proportionate to the population size of the subgroup/stratum as below:

Selected sample size in each hospital= Population size in the selected hosp (N) x sample size
Total population size (N)

For example, Garissa County Referral Hospital (GCRH)

Selected sample size in each hospital= 16500 x 368 =174
                                                        34875

Sampling Technique

For quantitative data, public hospitals were stratified according to the levels of hospitals that creates three strata (that is level 5, level 4, level 3 hospitals and level 2) with outpatient department in Garissa County which are homogenous, mutually exclusive and every hospital was assigned to only one stratum (sub-group). Garissa County has 1 (one) level 5, 7 level 4, 25 level 3 and 45 level 2 health facilities. A complete list of all the Public hospitals was made and a unique number assigned to each of them. A set of finally, systematic sampling was then used to select the respondents from each hospital. Every 5th of the clients was interviewed. In addition, one key Informant Interviewer was included from each facility. Through

proportionate allocation the questionnaires were then distributed among the facilities. The table below shows in sampling framework;

Table 1: Sample Size

Level	Hospitals /health centre/ dispensaries	Average No. of OPD quarterly	Sample size
Level 5	Garissa county referral hospital	16500	179
Level 4	Ijara district hospital	10,425	113
Level 3	Medina health centre	4500	49
Level 2	Alfaruq dispensary	3450	38
	Total av.OPD	**34,875**	**379**

Data Collection Methods

Structured questionnaires were used to collect data. In quantitative method the main research instrument to be used was interview schedule for primary respondent and structured questionnaires for facilities managers. In-depth interview guide was employed as the main qualitative method during data collection.

Pilot Study

A pilot study was conducted at a neighboring public health facility that was not part of the study. A total of five respondents participated in this preliminary study. The pilot study helped identify the weaknesses of the research instruments by determining their reliability and validity.

Validity and Reliability

The extent to which a research data collection tool can measure accurately with minimal bias is called validity. Validity is concerned with whether the research tools actually elicit the intended information from the respondents. Validity helped the determine whether the instruments yielded the intended results.

Reliability is concerned with the consistency in which certain items measure the same contrast (Gwamaka, 2012). Reliability decreases random error (Mugenda & Mugenda, 2003). The research assistants were selected and trained on data collection tools and pre-testing of tools was conducted to evaluate the respondents' understanding of the items in the research tools. The questions which were ambiguous were corrected for better understanding of the respondents to ensure the reliability of the research outcome. To test the reliability of the research tools a Cronbach's alpha was used.

As advised by Sekaran (2013), coefficients which are less than 0.6 are considered poor, coefficients between 0.6 and 0.8 are considered acceptable while coefficients greater than 0.8 are considered good. Cronbach alpha was found to be 0.76.

Data Management, Analysis and Presentation

In the course of this research, data checking, cleaning and editing of questionnaires was done simultaneously during data collection to make sure that there is completeness and consistency before analysis. Data was then transcribed, coded and labeled in order to conduct content analysis and draw conclusions. The study utilized SPSS software version 22 to compile and analyze data. Data was then presented in form of tables through frequencies and percentages. To determine relationships between independent and dependent variables, this study used Chi-Square tests calculated at 95% confidence interval with a margin of error of 0.05. It is appropriate since both variables used in the study were measured at nominal and categorical levels. Boshoff et al., (2003) recommends analyzing data from the Key Informants through examination of patterns and trends of responses to generate themes. In this study, qualitative data was analyzed using content analysis based on arising themes.

REASEARCH FINDINGS

Introduction

This chapter presents the results of analysis of the responses obtained from respondents who attended selected public health facilities in Garissa County. The results are presented in respect to the objectives of the study.

Availability of essential medicine in selected health facilities

Frequency distribution of availability of essential medicine during the last health facility visit

Figure 2 indicates the status of availability of essential drugs during respondents' last health facility visit. Majority of the respondents 204(53.4%) were able to access the essential drugs at the health facility with 178(46.6%) being unable to access the essential medicine.
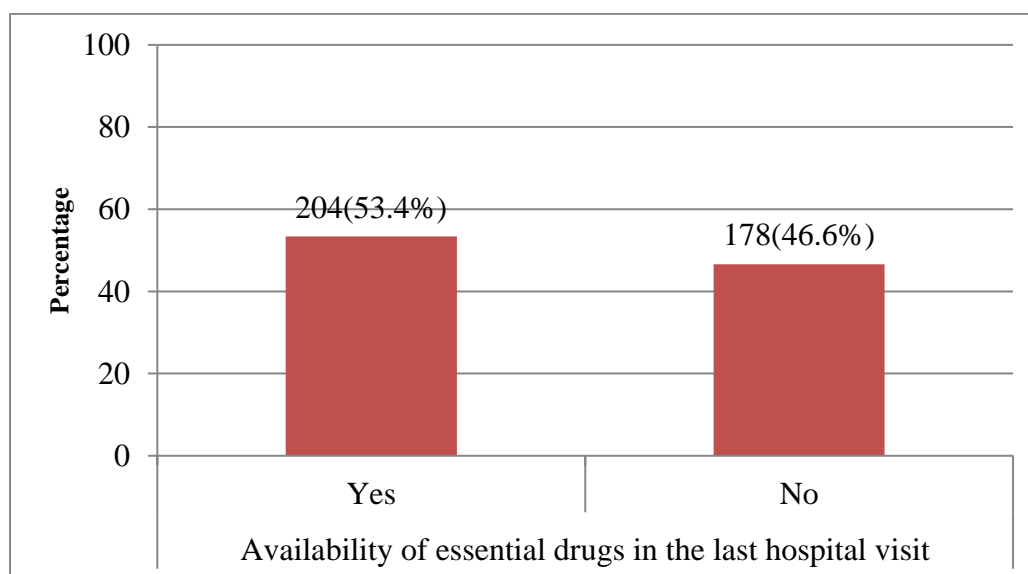

Figure 1: Availability of essential drugs during the last health facility visit

Association between name/level of health facility and availability of essential drugs during the last health facility visit

Majority of the respondents who said that there was availability of essential medicine during their last health facility visit 67(32.8%) were those who had visited Afraruq dispensary (level 2); while the least 35(17.2%) were those who had visited Medina health centre (level 3). There was no statistical significant difference between availability of essential medicine and the name/level of health facility visited last prior to the study (χ^2=5.951; df=3; p=0.114). This therefore means that the level of health facility was not a predictor of the availability of essential medicine during the last health facility visit.

Table 2: Availability of essential medicine during respondents last health facility visit

Availability of essential medicine	Name/level of health facility visited				Significance
	Garissa Referral Hospital Level 5	Ijara Sub-District Hospital (ISH) Level 4	Medina Health Centre Level 3	Afraruq Dispensary Level 2	
Yes	49(24)	53(26)	35(17.2)	67(32.8)	χ^2=5.951; df=3; p=0.114
No	43(24.2)	38(21.3)	48(27)	49(27.5)	

The figures in parenthesis represent the percentages (%)

Whether availability of essential medicine as improved with devolution

Frequency distribution for respondents' perception of whether availability of essential medicine has improved with devolution

According to figure 3, majority of the respondents 187(49%) said that availability of essential medicine did not improved with devolution; whereas the least proportion of respondents 68(17.8%) did not know that availability of essential medicine improved with devolution.
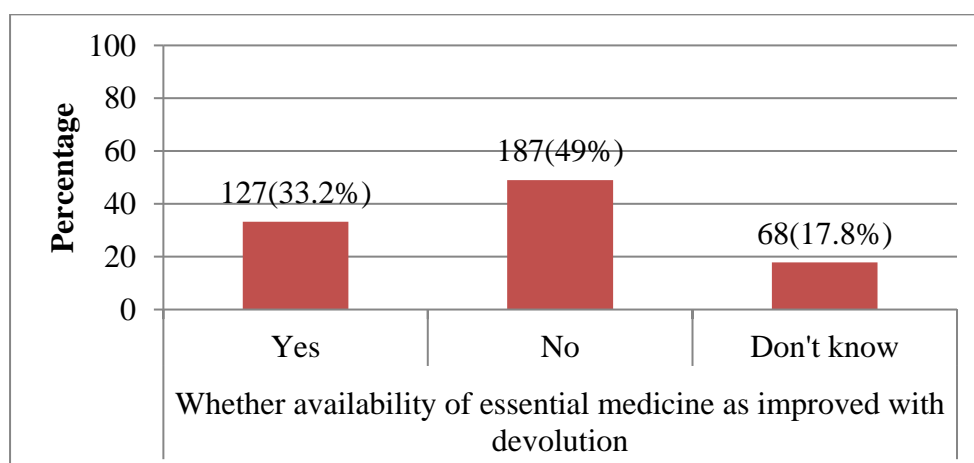

Figure 2: Respondents' perception on whether availability of essential medicine as improved with devolution

Perception on whether availability of essential medicine improved with devolution

Majority of the respondents who perceived an improvement in availability of essential medicine 33(35.9%) were those who attended Garissa referral hospital (level 5 health facility); whereas the least 26(31.3%) were those who attended medina health centre. Majority of the respondents who perceived no improvement in availability of essential medicine 26(55.4%) were those who attended Medina health centre (level 3 health facility); whereas the least 38(42.2%) were those who attended Afraruq dispensary (level 2 health facility). Majority of the respondents who did not know of availability of essential medicine 29(25%) were those who attended Afraruq dispensary (level 2 health facility); whereas the least 11(13.3%) were those who attended medina health centre (level 3 health facility).

There was no statistical significant difference between perception of whether availability of essential medicine has improved with devolution and the name/level of health facility visited last prior to the study ($\chi2=7.190$; df=6; p=0.304). This therefore means that the level of health facility was not a determinant in respondents' perception of availability of essential medicine during the last health facility visit.

Table 3: Respondents' perception on whether availability of essential medicine improved with devolution

Availability of essential medicine improved with devolution	Name/level of health facility visited				Significance
	Garissa Referral Hospital Level 5	Ijara Sub-District Hospital (ISH) Level 4	Medina Health Centre Level 3	Afraruq Dispensary Level 2	
Yes	33(35.9)	30(33)	26(31.3)	38(32.8)	$\chi2=7.190$; df=6; p=0.304
No	45(48.9)	47(51.6)	46(55.4)	49(42.2)	
Don't know	14(15.2)	14(15.4)	11(13.3)	29(25)	

The figures in parenthesis represent the percentages (%)

Challenges faced by health facility managers in implementing devolution

The respondents noted a number of challenges facing hospital managers in implementing devolution. Among the notable challenges were poor infrastructure, unskilled staff, stockouts, delay in resource allocation and lack of equipment.

Poor infrastructure

The respondents noted that the area had poor infrastructure especially roads that were impassable roads. Road connection plays a significant role in transportation of health facilities from the headquarters to health centers around Garissa County. One respondent noted that;

> *"It is difficult to access essential medicines especially during rainy season. Sometimes it takes longer time to get the medicines thus worsening the situation on the ground and at times patients die."*

Though an arid area, Garissa County experiences flash floods during rainy season. Combined with the poor road network in the area, transportation becomes impossible. The sick becomes the most affected as means of accessing health centers becomes difficult. Another respondent based in a health center in the county added that;

> *"We do not have many vehicles plying our routes. For this reason, patients are forced to trek for long to get to hospitals. It is a dauting task for the sick whose condition may worsen along the way."*

The respondents further indicated that they experienced electricity shortages or at times prolonged blackouts. One manager at a dispensary said;

> *"Electricity is a challenge here and at times we go for days without it. This has really affected the quality of healthcare in our facility as we have to refer patients to other hospitals. They don't like the idea of being referred because that means more expenses on their side. The facility has not been able to afford a generator that may chip in when there is no electricity."*

Poor infrastructure in the county is mainly dictated by the bad state of the roads and lack of electricity. The quality of health in Garissa county is thus affected by bad infrastructure. Frumence et al. (2013) confirms this by indicating that the individuals located in faraway areas from health centers are likely to experience more complications that if they were able to access healthcare in timely.

Lack of or inadequate equipment

The participants also noted that they experienced either lack of or inadequate equipment in their health centers. Some managers indicated a shortage of some equipment for some time while others experienced lack of the equipment throughout. One manager noted that;

> *"Our facility falls short of basic equipment for work such as stethoscopes, gloves, thermometers and weighing scales among others. This limits the health providers on the kind of services to offer. At times an injured patient may come in but cannot be attended if the facility does not have gloves. Since we cannot put the lives of our workers at risk, we refer the patients to other facilities."*

The managers further complained of lack of life saving equipment. One respondent reiterated that;

> *"The ventilators we have in our facility are not well functioning. This therefore poses danger to our patients and it's just risking their lives."*

Lack of equipment in public hospitals has been reported across the country. The situation was however seen to be dire in Garissa county owing to the distance from the main capital.

Capacity of healthcare workers

Another challenge noted was lack of skilled personnel in the public hospitals. The number of staff in a hospital determines the number and nature of patients to be served on a daily basis. The respondents further noted that a high number of available staff were unskilled. One respondent noted that;

> *"Many people do not want to work in this region. This is especially because most of the workers hail from other regions of Kenya. They complain of the harsh environment and mostly don't work for more than one year. We therefore have a shortage of healthcare workers all through."*

Another participant supported him by indicating that they rely on the services from local semi-skilled workers.

> *"Some of the workers serving patients do not have necessary knowledge and expertise. We allow them to work alongside the nurses in order to increase the efficiency and also serve more patients."*

This is an indicator that public hospitals in Garissa county face challenges related to healthcare personnel.

Delay in resource allocation by county government

The respondents noted that the resources allocated to their facilities were in most cases delayed owing to either distance or collaboration with the county government. One respondent noted that;

> *"The county government takes longer to issue the allocated resources. Sometimes we have to wait until the next financial year to receive what was promised or allocated. The health facilities in this area are thus constrained on what they can do and the kind of health service to provide."*

A manager at the Garissa referral hospital agreed that the resource allocation was slow in their hospital. He said;

> *"The government has for a long time promised to provide better equipment in the hospital. This has not come to be and the last set of equipment we got are either not working or no trained personnel to operate them."*

Public hospitals are mainly at the mercy of their respective county governments and they therefore have to operate based on the standards set. Since county governments are led by politicians, they sometimes dictate things to suit their desires.

Insecurity

Cases of insecurity was also noted as a challenge in implementing devolution by health facility managers. Insecurity challenges either delayed provision of services or halted the operation completely for some time. One participant had this to say;

> *"This area experiences a lot of insecurity issues particularly pertaining to al-Shabaab. When such cases occur, we are forced to close the facility temporarily thus affecting the services we have to offer."*

Another manager was concerned of the effect insecurity had on services offered by hospitals in Garissa county. He lamented;

> *"We have problems procuring products such as drugs in good time. Cases of stolen drugs during transit is reported from time to time. This has a great effect on availability of medicines within our premises."*

Issue of insecurity also affected the number of staff in a health centre as well as those willing to work there. One manager explained;

> *"There was a time when few of our staff were kidnapped by terrorist groups. One was killed while two others managed to escape. They remaining personnel immediately asked for transfer to other safer areas. Such scenarios have limited our staff capacity as majority fear an attack might happen anytime."*

Insecurity is therefore a big challenge within health centres in Garissa County as its effect cuts across all areas.

DISCUSSION OF THE FINDINGS

Devolution was presumed to enhance healthcare distribution across the country. World Health Organization (2016), mandates that essential medicine should be available in health facilities throughout the year. This study, however, noted that essential drugs were not always available in public hospitals in Garissa County. Shortages were more ubiquitous in dispensaries than in higher-ranking hospitals. The findings are in agreement with a study by Balasubramaniam et al. (2011), who found the mean availability of essential medicines in hospitals in Sri-Lanka to be 45-54%. Our research established that there was no improvement in the availability of essential medicine 49% with devolution and status is just the same as compared to pre-devolution period. The type of health facility does not influence drug availability due to either county preparedness or unpreparedness towards tackling the same. Dabare (2014), however, noted a significant difference between the availability of NCD essential medicines in primary and secondary health centres. The availability was higher (>50%) in secondary hospitals, while primary hospitals reported the availability of 36.4%.

The challenges facing public hospitals vary across the counties in the country. Our study nevertheless established several challenges facing public hospitals in Garissa county. Mitchelle and Agnes (2016) found that dispensaries were faced with more problems than higher-level public hospitals. One of the challenges associated with lower-level public hospitals were resource scarcity, poor infrastructure and inadequate health personnel. Poor infrastructure in the county was associated with flash floods during the rainy season. Bad roads, for instance, hampered access to essential medicines. Public hospitals also experience electricity shortages or at times, prolonged blackouts and could not afford a generator. Public hospitals lack basic equipment work such as stethoscopes, gloves, thermometers and weigh scales, among others. It was reported that a high number of available staff were unskilled.

Many people were not willing to work in the region due to the harsh environment. Some of the workers serving patients did not have the necessary expertise. Similar challenges were noted by Okech (2017) indicating that public health facilities experienced drug stockouts, unskilled and inadequate health workers and overspending. Insecurity is yet another challenge limiting the implementation of devolution by health facility managers in Garissa county. Cases of insecurity cut across all the levels of public hospitals, although worse at the lower level due to lack of adequate security personnel.

CONCLUSION AND RECOMMENDATIONS

Conclusions

The study concludes that essential drugs were not always available in public hospitals. Shortages were more notable in dispensaries than in higher-ranking hospitals. Devolution has not led to improvement in availability of essential medicine with the status remaining the same compared to pre-devolution period. The type of health facility does not influence drug availability due to either county preparedness or unpreparedness towards tackling the same.

The study concludes that public hospitals experience several challenges that hamper their provision of quality services. The most common challenges are poor infrastructure, poor resource allocation, inadequate health personnel and insecurity. Impassable roads especially during rainy season causes delay in provision of health facilities to patients who have difficulties accessing the hospitals as well as transporting drugs and other medical equipment. Public hospitals also experience electricity shortages or at times prolonged blackouts. They also at times fall short of basic equipment for work such as stethoscopes, gloves, thermometers and weigh scales among others. Insecurity challenges either delayed provision of services or halted the operation completely in some hospitals.

Recommendations of the Study

The study has come up with the following recommendations in view of the study findings:

The county government should be guided by statistics to ensure that all levels of public health facilities get enough resources to serve the patients. They should liaise with dispensaries from time to time to ensure that medical supplies reach them in good time.

More workers hailing from the county should be encouraged through incentives like proper housing and security to work within the county. This will encourage the new comers to settle in any area within the county thus improving the quality of health services.

The county government of Garissa should improve security in all areas of the county. One way of strengthening being formation of nyumba kumi that notices and reports cases of new entrants in their regions. This will be important in the retention of healthcare personnel.

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