

## **Factors Influencing Retention of Health Workers in Primary Health Care Facilities (A Case Study of Kakamega County, Kenya)**

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### **Abstract**

*Background: Kenya continues to experience a growing gap of health workers at all levels of service provision within its health infrastructure. As a consequence, this gap is a big impediment in her quest to achieve the health objectives and the global Sustainable development goals. This study examines factors influencing retention of health workers in primary health care facilities.*

*Methods: A cross sectional study design using semi - structured questionnaire tools involving 85 healthcare workers of different cadres at government rural health facilities was used in the County. Descriptive data analysis was used to profile the characteristics of the respondents; while Chi square tests were used to determine the differences between respondents who had stayed at their working station for at least two years. Multinomial Logistic Regression was used to analyse each factor that was considered significant in determining whether healthcare personnel stayed or left.*

*Results: Age, duration of working, and ability to balance work and personal life, fair evaluation, supervisor's competence, manageable work load and availability of equipment and logistics were statistically associated with whether healthcare workers would leave or continued staying at their current work stations.*

*Conclusion: The results show that financial incentives are not the only factors in retention of health workers. The above factors need to be addressed in retention strategies for the retention of health workers at primary health facilities.*

**Keywords:** Retention, Motivation, Primary Health care, Benefits, Leavers, Stayers, Incentives.

### **Introduction**

Sub-Saharan Africa is faced with a great challenge of low health worker to population ratios and poor health indicators. It is therefore critical to understand factors that influence decisions of health workers to remain or leave public health service.

In Kenya, faith-based organizations together with other civil society organizations have been collaborating with the government in health service provision at the lowest levels of service delivery. It has been noted that the retention of health workers at the health Centre and dispensary level is a challenge.

While efforts have been put in place by both government and NGO sector to train and retrain health workers, the trained paramedics frequently move to other locations or professions hence creating a gap in service delivery at community level. The gap created affects the implementation of integrated community development programs particularly those geared towards primary health care and the attainment of the millennium development goals.

Most of the empirical data reviewed by other scholars lacked the empirical research on employees' reactions to the retention and how it influenced employee retention. There was need to collect data from the employees to establish whether those factors influenced employee retention because most of the findings in other researches had been generalized.

Previous researchers had recorded the importance of providing ideal leadership qualities to employees in an effort to influence their behaviour. However, this still lacked an in-depth understanding of which



factors of leadership were ideal for different employees and also their effects on employee retention. There was also more emphasis on international migration with little research focusing on migration of rural to urban areas.

This was because different employees may not necessarily be influenced by the same leadership qualities; some should be subjected to tough conditions full of commands and strictness so that they can perform their work well and without any kind of supervision.

To fill the highlighted gaps, this study therefore aimed at analysing the factors that influence high employee retention in primary health facilities in Kakamega County since there is a gap in the proposed area of study.

### **Limitations**

The purposive selection (census) of all primary health facilities in Kakamega County based on the 2018 Ministry of Health facility inventory could have led to sampling bias since only facilities in 6 sub counties were selected leaving out the other facilities in 6 sub counties. Two respondents were from a sub county hospital. This resulted in the inclusion of one sub county facilities. This implies that the findings of the study cannot be generalized and applied to other County's situation and other Counties in Kenya.

Initially the researcher had envisioned comparing the views of those remaining in GOK PHC facilities and those leaving the public sector in the rural setting to other sectors or other facilities within the public sector. This would have entailed tracing paramedics who have left Kakamega County and gone to other counties or to NGOs.

### **Achievements**

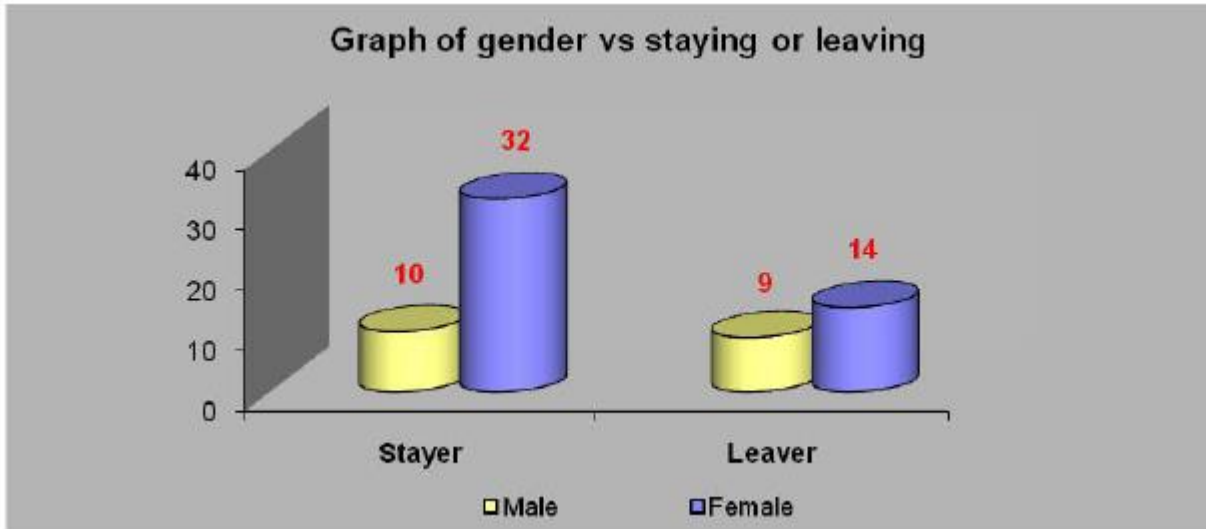
The study sought to establish factors associated with retention of health workers in primary health care facilities in Kakamega County. Several studies had been conducted focusing on health worker migration from developing to developed countries. However, most studies had not focused on all health workers in remote and underserved areas. This study is the first of its kind documenting factors influencing retention of health workers in primary health facilities in Kakamega. The study objectives were made as stated to the letter.

### **Results**

#### **Quantitative findings**

##### **Demographic characteristics of stayers and leavers**

Sixty-five individuals (stayers and leavers) participated in the study. 46 (70%) were females while 19 (30%) were males. 42 (65%) were stayers while 23 (35%) were leavers.



**Figure 5.1.** Gender vs. staying or leaving

The median age for all was 39 years (IQR 31-50) while the median age for the leavers was 34 (IQR 30-39). Fifteen (23%) individuals were above 51 years, a cumulative 55% respondents were between 31 to 50 years while the remaining 14 (22%) were aged between 25 and 30 years.

### Demographic factors

Age was significantly associated with whether individuals interviewed within the study left or stayed in Kakamega county ( $\chi^2= 11.16$ , d.f=3,  $p=0.01$ ). The 31 to 40 years age group exhibited the biggest percentage of leavers (57%) in comparison to age group 51 and above that had a higher percentage of stayers (33%)

The staff cadre did not significantly determine whether individuals left or stayed ( $\chi^2= 2.85$ , d.f=1,  $p=0.24$ ). There was however a higher percentage (70%) of nurses who left in comparison to clinical officers (30%). The nursing cadre also exhibited a higher percentage of stayers (80%) in comparison to COs (14%).

Gender, marital status and classification of place of birth did not significantly determine whether individuals left or stayed ( $\chi^2= 1.69$ , d.f= 1,  $p=0.26$ ,  $\chi^2= 3.14$ , d.f=1,  $p=0.21$  and  $\chi^2= 2.58$ , d.f=2,  $p=0.46$ ). In terms of percentages, females exhibited a higher percentage of stayers and leavers in comparison to males. This reflects the gender dynamics of the different cadre. Duration an individual had spent at the same station was significantly associated with leaving or staying ( $\chi^2= 12.72$ , d.f=3,  $p=0.01$ ). There were a higher percentage of stayers than leavers among health workers who had worked in the county for five or more years.

### Job-related factors

Job related factors were classified into 5 groups:

- Training,
- Supervision,
- Recognition,
- Working conditions and
- Compensation.

To obtain differences between the stayers and leavers, those who strongly agreed or agreed were categorized as **yes** whilst those who were not sure, disagreed or strongly disagreed were categorized as **no** to all the questions based on the 5-point Likert scale.

Having relevant training to perform optimally at their respective work places was significantly associated with leaving or staying at the respondent's current work station ( $\chi^2= 12.72$ , d.f=1, p=0.01). However, respondents did not consider it a factor to determine if they stayed or left based on whether their training matched their jobs or not ( $\chi^2= 0.63$ , d.f=1, p=0.57).

During FGDs, it was highlighted that "As RCOs, it is like we are enclosed in a box...you can't further your education...young people can't further their education and many RCOs have stagnated"

As regards supervision; encouragement at work within the last 6 months, fair evaluation and the commitment and competence of the facility administrator were strongly correlated with staying or leaving at ( $\chi^2= 11.08$ , d.f=1, p=0.00,  $\chi^2= 6.52$ , d.f=1, p=0.02 and  $\chi^2= 6.30$ , d.f=1, p=0.02) respectively.

On the contrary, expectations at work, the supervisor caring about the staff's well-being and being available when they needed support did not influence their decision to stay or seek alternative work places respectively.

Recognition for a job well done was more likely to influence whether the healthcare workers interviewed would stay or leave their workstations ( $\chi^2= 12.49$ , d.f=1, p=0.00). Whether individuals were actively involved in making the health facility better, or felt they were respected, or their opinions counted and considered themselves as part of the community, did not constitute significantly to their decisions to stay or leave their current stations.

This was further supported by FGD results that indicated that "There is a lot of burn out because of shortage of staff many times other people are given opportunity to move on as RCOs and pharm-techs remain at one level... when there are seminars, other cadre go while you are left behind...nobody feels that we are very important."

**Table 1.0.** Job related factors: Working conditions and compensation

VARIABLE	Overall outcome		D.F	Chi-Square.	P-values (95% CI).
	Leavers	Stayers			
<b>D. WORKING CONDITIONS</b> - This is a fun place to work in					
No	10 (44)	10 (24)	1	2.70	0.16
Yes	13 (56)	32 (76)			
I have flexibility to balance personal and work demands					
No	8 (35)	5 (13)	1	8.08	0.01
Yes	15 (65)	37 (87)			
The workload is manageable					
No	14 (61)	5 (13)	1	22.21	<0.00
Yes	9 (39)	37 (87)			
I have the supplies I need to do my job well and safely					

No	12 (52)	28 (67)	1	1.39	0.29
Yes	25 (48)	14 (33)			
I have the equipment I need to do my job well and efficiently					
No	8 (35)	35 (83)	1	15.65	<0.00
Yes	15 (65)	7 (17)			
Yes	15 (65)	25 (59)			
<b>E. Compensation</b> - My salary package is fair					
No	18 (78)	24 (57)	1	2.90	0.11
Yes	5 (22)	18 (43)			
There are sufficient opportunities for promotion with this employer					
No	18 (78)	33 (79)	1	0.001	1.00
Yes	5 (22)	9 (21)			

Having a manageable workload and equipment needed to do their job well and efficiently were very significantly correlated with seeking other work places or not ( $\chi^2 = 22.21$ , d.f=1,  $p < 0.00$  and  $\chi^2 = 15.65$ , d.f=1,  $p < 0.00$ ) respectively. Flexibility and ability to balance work and personal life was also statistically related to desire to stay or leave the current workstation ( $\chi^2 = 8.08$ , d.f=1,  $p = 0.01$ ).

Availability of supplies to carry out duties effectively and safely, job security, safe and sufficient transport to and from work and fun at the place of work were not statistically related to if participants stayed or left. This was further highlighted during FGDs, “The workload is a lot... this impact on family and social life for example you do not see your children or husband...it cuts you off from family and social life.”

Current salary package and whether there existed sufficient opportunities for promotion did not significantly affect individual’s decisions to stay or leave. However, this is contrary to the opinions of one RCO who commented that, “Salaries need to be improved because the economy has become unfavourable” a CO in the FGD also noted that, “appreciation of COs in as far as salaries are concerned should be differentiated from nurses”.

### Factors within stayers and leavers associated with retention and migration of paramedics

A multinomial logistic regression (MLR) was conducted on factors that exhibited significance between variables (chi square test) to establish the difference within variables i.e. the exact sub-classes of a variable that were significantly associated with staying or leaving

The multinomial logistic regression model allows the effects of the explanatory variables to be assessed across all the logic models and provides estimates of the overall significance (i.e. for all

comparisons rather than each individual comparison). The general multinomial logistic regression model is:

$$\log \frac{\Pr(Y=j)}{\Pr(Y=j')} = \alpha + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_k X_k$$

Where: j is the specific age group and j' is the reference age group

Pr(Y=j) is the probability of belonging to group j

X<sub>i</sub> is a vector of explanatory variables

β<sub>i</sub> are the coefficients estimated using maximum likelihood estimation.

The above model follows a chi-square distribution including the confidence interval and odds ratio. The significance test for the final model chi-square is statistical evidence of the presence of a relationship between staying/leaving and the combination of the independent variables. A p value of less than 0.05 was considered to be statistically significant at 95% confidence interval.

**Table 1.2.** Multivariate analysis of factors within stayers and leavers

Variable	Levels	Exp(β)	95% CI for Exp(β)		P-value
			Lower	Upper	
Age (years)	25-30	Ref	-	-	-
	31-40	0.071	0.007	0.701	0.023
	41-50	0.066	0.007	0.580	0.014
	51 and above	0.321	0.025	4.085	0.382
Duration worked in the organization	Less than 1 year	Ref	-	-	-
	1 < 5 years	0.183	0.039	0.863	0.032
	5 years or more	0.660	0.181	2.405	0.529
Having training needed to succeed in the position	No	Ref	-	-	-
	Yes	0.038	0.007	0.199	<0.001
Someone at work talking to encourage me	No	Ref	-	-	-
	Yes	6.5	2.04	20.67	0.002
Fair evaluation	No	Ref	-	-	-
	Yes	4.76	1.36	16.68	0.015
Facility administrator	No	Ref	-	-	-

competent and committed	Yes	5.07	1.33	19.37	0.018
Receives recognition for good work done	No	Ref	-	-	-
	Yes	12.86	2.47	66.86	0.002
Flexibility to balance personal and work demands	No	Ref	-	-	-
	Yes	6.93	1.62	29.69	0.009
Workload is manageable	No	Ref	-	-	-
	Yes	20.22	4.78	85.55	<0.001
Availability of equipment needed for efficient work	No	Ref	-	-	-
	Yes	0.107	0.03	0.35	<0.001

A multivariate analysis exploring factors associated with staying or leaving is presented in Table 1.1

Adjusting for age 25-30 years, there was significant differences associated with individuals aged between 31-40, 41-50 and 50 years and (OR 0.071, 0.066, 0.321 95% CI 0.007-0.701; 0.007-0.580, 0.025-4.085, P=0.023, 0.014, 0.382) respectively. Furthermore, after adjusting for work experience of less than one year, results showed that staying at a station BJ for five or more years was not significantly associated with leaving compared to those who had worked for between 1 to less than five years (OR 0.660, 0.0.183, 95% CI 0.181-2.406; 0.039-0.863, P=0.529, 0.032).

After adjusting for years worked at a station during interview and age-group, the observed respective odds of those who had appropriate training and felt they could succeed in their positions was highly associated with staying; 0.038 (P<0.001, 95%CI 0.007-0.199).

Fair evaluation had a higher chance of eliciting stayers than leavers (OR 4.76, 95% CI 1.36-16.68, P=0.015). Respondents who felt that they had someone at the workplace to encourage them were as much as 6.5 times more likely to stay than their counterparts who had none (OR 6.5, 95% CI 2.04 -20.67, P=0.002).

Among respondents of the same age group and similar years of working at the same station, the commitment and competence of the hospital administrator and receiving recognition for work done were 5 and 12 times more likely to be associated with staying at the current work station (95% CI 1.33-19.37; 2.47-66.86, P=0.018, 0.002) respectively. This was consistent with those who felt that they had a flexible schedule that allowed them to balance between their work demands and personal needs with a significant OR of 6.93 and 95% CI 1.62-29.69 and P=0.009.

Respondents who felt they had all equipment needed to efficiently carry out their duties were 0.11 at odds to stay compared to those who were not (95% CI 0.03-0.35, P<0.001) whilst those who felt the workload was manageable were twice as likely to stay compared to those who thought the workload wasn't manageable (OR 2.02, 95% CI 4.78-8.55, P<0.001).

### Demographic characteristics of administrators

Nearly a third (29%) of the administrators interviewed were clinical officers. Two thirds (64%) were nurses and only 4% individuals without clinical qualification respectively. The ratio of males to females was 3:5 (44%:56%). The distribution of marital status was 21%, 75% and 4% for single, married and widowed respectively.

The oldest Administrators/managers were in the ages of 55 – 60 years while the youngest were in the ages of 26 – 30 years. Individual manager having the highest age was 58 years whereas the youngest Administrator was 27 years old. Majority, 67.86% (n = 19) of the Managers had experience of more than

10 years. 25.0% (n = 7) had 5 years and below, while 7.14% (n = 2) had between 6 – 10 years of experience.

Generally, financial incentives ranging from salary compensation, terminal benefits and any other allowances were considered important by the administrators who were interviewed (93%, 89%, 68% and 61% respectively). The managers did not feel workload was a vital factor i.e. 36% of respondents felt it was not important while 32% each felt that it was either somewhat or very important respectively.

The managers also did not see communication as important with almost half (46%) saying it wasn't important and only 14% saying it was very important to have communication issues sorted out. However, 46% of the administrators felt that opportunities for growth were very important with a quarter (25%) feeling it wasn't important and 29 saying it was somewhat important.

Majority of the administrators 71.4% (n=20), think that overall job satisfaction is important to employees. However, 67.9% (n = 19) of the Administrators feel that their organization adequately performs on this. Table 5.6 shows that a clear discrepancy exists between what the administrators felt was important and how their respective health facilities performed against the listed variables. Overall, the results show that health facilities are performing below either set standards or expectations of both the workers and administrators.

### Administrators'/managers' opinion on issues and rating of health facilities performance

A paired t-test was used to compare the means of (a) how the administrators/managers rated specific variables regarding healthcare delivery for instance administration, employee welfare etc and (b) how their health facilities actually performed against the rating. The 2-tailed test was used because a non-equality of means alternative hypothesis was assumed. A p value of less than 0.05 was considered to be statistically significant at 95% confidence interval.

**Table 1.3.** Opinion of administrators/managers of health facilities

Variable	Mean	Lower	Upper	T	d.f	Sig.(2-tailed)
Placing people in jobs for which they are suited - How well?	0.40741	0.18098	0.63384	3.698	26	0.001
Having clear job expectations - How well?	0.30769	0.0582	0.55718	2.54	26	0.018
Recognizing and rewarding Good work - How well?	0.59259	0.25874	0.92645	3.649	26	0.001
Supervisors who care about their staff and offer support - How well?	0.44444	0.19107	0.69782	3.606	26	0.001
Talking to staff regularly to encourage their	0.37037	0.12143	0.61931	3.058	26	0.005



development - How well?						
Overall morale - How well?	0.46154	0.17637	0.74671	3.333	26	0.003
Valuing and respecting each Worker - How well?	0.37037	0.12143	0.61931	3.058	26	0.005
Offering the training needed for staff to succeed at their Jobs - How well?	0.34615	0.15019	0.54212	3.638	26	0.001
Using appropriate methods and standards to measure job Performance - How well?	0.51852	0.26426	0.77278	4.192	26	<0.001

The administrators' mean rating of the importance of placing workers in positions where they were most suited is much higher than the actual performance at their respective health facilities (two-sided t-test,  $t(26) = 3.70$ ,  $p = 0.001$ ). The p-value for recognizing and rewarding good work; supervisors caring about and supporting their staff and offering training needed for staff to succeed in their duties was 0.001 (two-sided t-test,  $t(26) = 3.65$ , 3.61 and 3.64 respectively).

The mean rating of having clear expectations, constant talking and encouragement of staff, valuing and respecting staff and overall morale were also higher than the actual health facility performances (two-sided t-test,  $t(26) = 2.54$ , 3.06, 3.06 and 3.33,  $p = 0.018$ , 0.005, 0.005 and 0.003 respectively). The administrators also agreed that their areas of jurisdiction were underperforming when it came to using appropriate methods and standards in measuring job performance (two-sided t-test,  $t(26) = 4.19$ ,  $p < 0$ ).

### **Qualitative findings**

This section highlights factors associated with retention and migration of paramedics and perceptions on what motivates and discourages paramedics in PHC facilities. During the FGD, the health workers were asked several open-ended questions and responses recorded under each. The study reveals several factors regarding migration and retention of health workers in Kakamega County as highlighted by the two cadres.

#### **Factors associated with retention and migration of paramedics**

When asked whether they have considered leaving their jobs, ALL (n=3 out of 8) clinical officers participating in the FGD answered "YES". The FGD discussions revealed that there is a perceived stagnation on one job group for years and burn out due to a lot of work being loaded on one clinical officer when other staffs at the facility is out for seminars. Half nurses in FGD also indicated that given the opportunity they would leave.

It was also revealed during the study that some clinical officers are not able to access equipment/facilities e.g. water, thermometers, privacy and general furnishing of rooms. The

Study also revealed that there was a challenge with administration i.e. Unclear administration hierarchy hence work is not clearly defined. The RCO also indicated that the new Act 2017 developed by Moh indicates that RCOs should be in charge of health centres however, "*now, nurses and RCOs are trained at the same level, hence no clear structure to guide work*" A clinical officer lamented that, "*it is demoralising not to know clear specifications.*"

When asked what some of the factors contributing to nurses wanting to stay in the county, one nurse commented, "*there are no opportunities or greener pastures to go to...I can't leave when there is no definite place to go.*" Salary comes on time in kakamega county', one Rco said. The study also revealed that there was an imminent "*fear of hooking for another job elsewhere*" as one Rco commented.

The study also revealed that some RCOs and nurses remain in Kakamega County because they have the passion to serve the community, this they saw as a "calling". The study also revealed that most of the RCOs in the FGD rated salary differentials as one of the key push factors, as one RCO commented, "*Salaries need to be improved because the economy has become unfavourable.*"

The study also revealed that, "*patient referrals have improved greatly by Red Cross vehicles...though at times it delays but always comes.*" The study revealed that poor facilities also contribute to migration; in addition, the poor working conditions are encountered.

The nurses also highlighted that the reason for staying on in Kakamega is that there is, "*no alternative... uncertainty about the future keeps us going...if there was an alternative we would go to better paying ventures*", a similar factor was raised by RCOs. A key reason highlighted was, "*the calling to serve our own people*", most of the nurses were from Kakamega area or are married in the county and belonged to the Luhya ethnic group. It can therefore be postulated that, ethnicity is associated with retention of primary health care workers in Kakamega since health

workers feel it is their duty to serve in the communities where they are stationed and due to devolution; they are guaranteed job security in this county.

### **Perceptions on what motivates and discourages paramedics in PHC facilities**

A motivator shared by both cadres was that, the region is of favourable climatic conditions and that community members in Kakamega are friendly. Both cadres are able to access groceries and other requirements easily since, *“there is a lot of natural food in the area”*. It was also noted that, *“there is a good team in this county...team work is a mode of operation here,”* commented a Clinical officer. Since the county hosts the county offices, the respondents indicated that there is a good link to the county head office.

Another motivator was security. According to the respondents, *“the area is safe...people can work at any time... the community respects health workers.”*

Both cadres highlighted what discourages them in PHC facilities. The study revealed that quite a number of facilities are understaffed and both cadres work over time. According to the respondents, *“this leads to low quality service to clients...sometimes you can find only one RCO in a facility, meaning they can't go for further training, leave etc...”* The respondents also indicated that, *“there is a lot of illiteracy...health centres experience low turn up of clients.”*

## **Discussion of the study -discussion**

### **Age of respondents**

In the study, it was established that age had a statistical significance in influencing whether paramedics left or stayed at their work stations. Health workers ages 31 - 40 years were more likely to leave their work stations in comparison to other age groups. This could be attributed to their stage in the life span. It is likely that participants in this age group have young dependents and thus desire the opportunity to further their career ambitions in order to provide better schools and other social amenities for the family. In addition, furthering education or career prospects for oneself is likely in this age group in comparison to the age group 51 years and above who exhibited stability in staying at the facility.

Ndetei et al (2008) state that Human Resource records were not standardized hence reasons for departure of health workers were not known. The Kenya Ministry of Health Services gave optional retirement before official age; mandatory official retirement age; golden handshake/retranchment as some of the factors related to leaving. On age, Mullei et al (2010) revealed that, attitudes to working in rural areas were significantly positively affected by being older, but negatively affected by being an upgrading student.

### **Birth place**

The study revealed that classification of birth place did not significantly determine whether a paramedic stayed or left a rural work station. However, the study by Mullei et al (ibid) indicates that working in communities dominated by other tribes was an impediment to retention due to the experience from the 2007 – 2008 general elections chaos.

### **Duration at the duty station**

The results of this study show that the duration an individual had spent at the same station was significantly associated with leaving or staying. Humphreys et al (Nov 2009) indicate in a study conducted in Australia that longer duration of stay has been associated with being older, having attended school locally, owning or purchasing a home, living with family, enjoying the rural lifestyle and establishing professional and community networks, while a sense of social and personal isolation may contribute to the decision to leave a rural area.

## **Training**

Having relevant training to perform optimally at their respective work places was significantly associated with leaving or staying at the respondent's current work station. A study by Henderson et al (2008) found that Education, training and professional development opportunities influenced retention of health workers. Ndetei et al (2008) established through a focus group discussion that limited educational opportunities were a factor that influenced health workers to leave. This is further affirmed by the study by Mullei et al (2010) that poor infrastructure, inadequate education facilities and opportunities affect retention of paramedics in rural areas

## **Supervisory related factors**

Supervision and encouragement at work; fair evaluation and the commitment and competence of the facility administrator were strongly associated with staying or leaving. The Directors/administrators on the other hand, did not see communication as important with almost half (46%) saying it wasn't important and only 14% saying it was very important to have communication issues sorted out. Yet the staff indicated that encouragement (mostly through communication) was a vital component of retention. This therefore implies that supervisory related factors affects retention of paramedics. A study by Henderson et al (2008) listed supervision and management as factors influencing retention. On the contrary, this study has revealed that expectations at work, the supervisor caring about the staff's well being and being available when they needed support did not influence their decision to stay or seek alternative work places.

## **Job related factors**

### **Recognition**

Recognition for a job well done was more likely to influence whether the healthcare workers interviewed would stay or leave their workstations. Whether individuals were actively involved in making the health facility better, or felt they were respected, or their opinions counted and considered themselves as part of the community, did not constitute significantly to their decisions to stay or leave their current stations. This implies that when health workers are recognized for doing a good job, they stay longer at a duty station. Though this study focused on job related recognition, Henderson et al (2008) list social recognition as a key factor to retention.

### **Workload and equipment**

Having manageable workload and the equipment needed to perform well and efficiently was significantly correlated with staying or leaving. The administrators however did not feel that heavy workload was a vital factor. This indicates a discrepancy between what the administrators view as vital and what the employees – paramedics view as important. If workload issues are not addressed, there is a greater likelihood for paramedics to leave.

Dussault and Frances chini (2006) found that several aspects of the organizational environment contribute to workforce shortages in some areas. They argue that workers are less likely to remain in organizations with poor management, which lack equipment, supplies and other important infrastructure. Survey data support these assertions with negative workplace factors such as stress, workload, inflexible working hours, poor quality work environment, lack of managerial support, and lack of locum relief and/or qualified assistants associated with poor retention in rural and remote areas. Furthermore, a study by Mullei et al (2010) revealed that higher workloads, and inadequate supplies and supervision are variables negatively associated with retention.

The results show that flexibility and ability to balance work and personal life was also statistically related to desire to stay or leave the current workstation. This implies that work and family life balance is essential to retaining paramedics in the 31- 40 years age bracket most likely because of young dependents

### **Administrators/managers**

The overall conclusion is that the performance of healthcare facilities in some aspects was in conformity and in line with the ratings done by the managers/administrators. While others were not tallying with the responses and perception of the managers.

### **Summary of discussion of result**

This study established that indeed as hypothesized, age and duration of working at a station as demographic characteristics contributed significantly to “staying” or “leaving” by paramedics from PHC facilities in Kakamega County.

Through FGDs, the study also established differences of opinion and perceptions on what motivates and discourages paramedics with regard to “staying” or “leaving”.

Further, using multivariate analysis, the study established the following as key factors that influence retention of health workers in primary health facilities:

- i. Training
- ii. Supervision
- iii. Competence of facility in-charges/managers
- iv. Recognition for good work
- v. Flexibility at work
- vi. Manageable workload and
- vii. Availability of equipment
- viii. Recommendations for this study

Based on the findings from the qualitative and quantitative data gathered in this study, the following are some of the recommendations I put forward as the researcher.

The major gap that needs to be filled is ensuring that the health workers who already indicate job satisfaction and interest to remain in service in the rural and underserved primary health care facilities remain motivated through financial and non-financial incentives highlighted in the study. The study findings indicate that the workers would stay longer in public health service if the Ministry of health Services takes the following into consideration:

1. Placement of competent in-charges and sub county managers who ensure open communication, fair evaluation and recognition of a job well done by the health workers under them. This calls for regular performance appraisals of the administrators in the county and facility in-charges.
2. Institute measures for enhanced coaching and mentoring of in-charges by their supervisors in supportive supervision for improved supervision of paramedics at the facility level
3. Timely replacement and provision of equipment and related health logistics for efficient service provision at facility level
4. Work family balance for the health workers be instituted as a means to retaining professional motivated PHC workers
5. Recognition, opportunities for trainings and timely promotions is key in retaining health staff in the county
6. The county needs to come up with a policy on hiring of technical qualified staff as casuals to easy staff shortages in the facilities.

### **Areas for further research**

1. A comparative study of health worker retention through effective procurement strategies in the private and public sector.
2. An in-depth study of factors that influence retention of health workers in all levels of health service provision in Kenya.
3. The role of private facilities in staff migration from public health facilities to private and private to public

## Conclusions

The study sought to establish factors associated with retention of health workers in primary health care facilities in Kakamega County. Several studies have been conducted focusing on health worker migration from developing to developed countries. However, most studies have not focused on all health workers in remote and underserved areas. This study is the first of its kind documenting factors influencing retention of health workers in primary health facilities in Kakamega, Kenya. The study attempted to answer the following research question;

Are there any specific factors related with primary health care workers staying or leaving Kakamega county? The following are the conclusions of the study based on the findings.

The study revealed that health workers in the age group 31 - 40 years were more likely to leave the county. This therefore implies that health systems policy makers and planners should look into and address the attitudes and needs of paramedics in this age group in order to have them retained in this rural underserved area. Lessons and experiences can be drawn from the older health workers who are most likely to stay on in the county.

The study further shows that, place of birth did not significantly determine whether a paramedic stayed or left the county. It can be concluded that health workers are ready to work in a location away from their birthplace. It should however be noted that the post-election violence of 2007 and those of 2017 may have some implications on the acceptability of paramedics in areas dominated by one ethnic group.

The duration an individual had spent at the same station was significantly associated with leaving or staying. The study therefore concludes that longer duration at a work station can be due to family ties, ability to engage in other income generating ventures, affordability of services as well as favourable climatic conditions for food production and work family balance.

Having relevant training to perform optimally at their respective work places was significantly associated with leaving or staying in the county. The study therefore concludes that training and professional development is vital in retaining professional and skilled paramedics in rural areas of Kakamega. The study further concludes that paramedics in Kakamega are likely to work in departments where they do not have the required training since they did not consider it a factor to determine whether they stayed or left based on whether their training matched their job or not.

## References

- [1].Adano Ummuro. 2008. The health worker recruitment and deployment process in Kenya: an emergency hiring program. Human Resources for Health Available at: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2557010/?tool=pubmed>. Accessed on 20<sup>th</sup> May 2009.
- [2].Bancroft Emily. 2006. Uganda Health Workforce Retention study manual. Created for the Health Workforce Advisory Board of the Uganda Ministry of Health and The Capacity Project
- [3].Bailey. P, Farmer D. Jessop, (2008). *Business principles and management*, 3<sup>rd</sup> edition, Pitman, London, UK
- [4].Britten N. 1995. Qualitative Research: Qualitative interviews in medical research. *British Medical Journal*; 311:251-253.
- [5].Buchan J. 2005. Scaling up Health and Education Workers: Increasing the performance and Productivity of an Existing Stock of Health Workers. DFID Health Systems Resource Centre
- [6].Centres for Disease Control. 2010. Kenya's Health Workforce Training Capacity: A situation Analysis. Available at: [www.google.com/search?client=safari&rls=en&q=Kenya+health+workforce+project+2010&ie=UTF-8&oe=UTF-8](http://www.google.com/search?client=safari&rls=en&q=Kenya+health+workforce+project+2010&ie=UTF-8&oe=UTF-8) Accessed on 23<sup>rd</sup> February 2012.
- [7].Centres for Disease Control – Malaria. Available at: <http://www.cdc.gov/malaria/cdactivities/kenya.htm> - Accessed on 20<sup>th</sup> May 2009.
- [8].CREHA Newsletter, December 2008. Improving Health workforce performance
- [9].Cameroon, K. and P.M. Pierce, (2007). *Building profit through people: Making your workforce the strongest link in the value-profit chain*. Alexandria, Virginia: Society for Human Resource Management.
- [10]. Chandran, E. (2009). *Research Methods*, Nairobi: Star bright services limited, Kenya
- [11]. Cooper, D.R and Schindler, P.S (2010). *Business Research Methods*, Tata McGraw-Hill, 8<sup>th</sup> Edition, New Delhi, India.

- [12]. Dambisya M. Yoswa, May 2007. A Review of Non-Financial incentive for Health worker retention in East and Southern Africa. ECONET discussion paper No. 4.
- [13]. Dieleman M, Cuong P, Anh L, Martineau T. 2003. Identifying factors for job motivation of rural health workers in North Viet Nam. *Human Resources for Health*; 1:10.
- [14]. Dieleman M, Harnmeijer JW. 2006. Improving health worker performance: in search of promising practices. Geneva: World Health Organization.
- [15]. Dieleman M, Toonen J, Toure H, Martineau T. 2006. The match between motivation and performance management of health sector workers in Mali. *Human Resources for Health*; 4:2.
- [16]. Dussault G, Franceschini MC. 2006. Not enough there, too many here: understanding geographical imbalances in the distribution of the health workforce. *Human Resources for Health*, 4:12.
- [17]. Gakunju E.M. 2003. Determinants of Health status in Kenya. Available at: <http://www.google.com/search?client=safari&rls=en&q=Gakunu+E.M+Determinants+of+Health+status+in+Kenya&ie=UTF-8&oe=UTF-8> - Accessed on 23<sup>rd</sup> January 2009.
- [18]. Glaser, Barney G & Strauss, Anselm L., 1967. *The Discovery of Grounded Theory: Strategies for Qualitative Research*, Chicago, Aldine Publishing Company.
- [19]. GOK., 2005. Millennium Development goals in Kenya needs & costs, prepared by the Ministry of Planning and National Development, Courtesy of the UNDP, Kenya, and the Government of Finland, Government of Kenya.
- [20]. GOK., 1994. National Food Policy. The ministry of Agriculture and Central Bureau of Statistics (Citation - J, Keino. Susan in; Nutrition and the Millennium Development goals- A Kenyan Perspective on the eradication of Extreme Poverty and Hunger).
- [21]. Hsieh H-F, Shannon SE. 2005. Three Approaches to Qualitative Content Analysis. *Qualitative Health Research*; 15:1277-1288.
- [22]. Kenya National Bureau of Statistics (KNBS) and ICF Macro. 2010. Kenya Demographic and Health Survey 2008-09. Calverton, Maryland: KNBS and ICF Macro.
- [23]. Lehmann Uta, Marjollein Dieleman, Tim Martineau. 2008. Staffing remote rural areas in middle - and low - income countries: A literature review of attraction and retention. Available at: <http://www.biomedcentral.com/1472-6963/8/19> Accessed on 23<sup>rd</sup> January 2009.
- [24]. Lemiere Christophe. 2009. Evaluating and Designing Policy Options for Rural Retention: Some insights from Niger. February 3.
- [25]. Lyn N Henderson and Jim Tulloch. 2008. Incentives for retaining and motivating health workers in Pacific and Asian countries. Available at: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2569066/> Accessed on 23<sup>rd</sup> January 2009.
- [26]. Ministry of Health. 2006. Norms and Standards for Health Service Delivery. Nairobi: Health Sector Reform Secretariat
- [27]. Manongi R, Marchant T, Bygbjerg IC. 2006. Improving motivation among primary health care workers in Tanzania: a health worker perspective. *Human Resources for Health* 4:6.
- [28]. Mathauer I, Imhoff I: 2006. Health worker motivation in Africa: the role of non-financial incentives and human resource management tools. *Human Resources for Health*; 4:24.
- [29]. Ministry of Health. 2005. The Second National Health Sector Strategic Plan of Kenya  
a. Reversing the Trends (NHSSP II 2005-10). Nairobi: Ministry of Health.
- [30]. Mullei Kethi, Sandra Mudhune, Jackline Wafula, Eunice Masamo, Michael English Catherine Goodman, Mylene Lagarde, Duane Blaauw. 2010. Attracting and retaining health workers in rural areas: investigating nurses' views on rural posts and policy interventions (*BMC Health Services Research*: 10(Suppl.1):S1. Available at: <http://www.biomedcentral.com/1472-6963/10/S1/S1> Accessed on 31<sup>st</sup> March 2011.
- [31]. Mwaniki DL, Dulo Charles O. 2008. Migration of Health workers in Kenya: The impact on health service delivery. Discussion paper 55. March, Mustang Management Consultants.
- [32]. Nair N.K (2009). *Simplified Business management*, 2<sup>nd</sup> print: Vikas publishing Cox, T. Jr., (2008). The Importance of research in determining organizational Effectiveness, *International Journal of Management Reviews*, Vol. 2 No.4.
- [33]. Ndeti DM; Khasakhala, L; Omolo, JO. 2008. Incentives for health worker retention in Kenya: An assessment of current practice Discussion Paper 62: Available at: [www.equinet africa.org/bibl/docs/DIS62HRndetei.pdf](http://www.equinet africa.org/bibl/docs/DIS62HRndetei.pdf) - Accessed on 23<sup>rd</sup> January 2009.

- [34]. Orute, R. O., Mutua, S. M., Musiega, D. & Masinde, S. W. (2015). Leadership style and employee job satisfaction in Kakamega County, Kenya, *International Journal of Management Research & Review*, 5 (10), pp. 876
- [35]. Olusegun, S.O. (2013). Influence of Job Satisfaction on Turnover Intentions of Library Personnel in Selected Universities in South West Nigeria. *Library Philosophy and Practice* (e-journal).
- [36]. Oyugi, B. O. (2015). Potential impact of devolution on motivation and job satisfaction of health care workers in Kenya: Lessons from early implementation in Kenya and experiences of other sub-Saharan African countries, *The Journal of Global Health Care Systems*, 5 (1), pp. 1-30
- [37]. Okthari, C.R. (2009). *Research Methods: Methods and techniques*, 3<sup>rd</sup> Edition. New age international publishers
- [38]. Shattuck –Willis Mischa, Posy Bidwell., Steve Thomas, Laura Wyness, Daune Blaauw and Prudence Ditlopo. 2008. Motivation and retention of health workers in developing countries: a systematic review. *BMC Health Services Research* 8:247:  
Available at: <http://www.biomedcentral.com/1472-6963/8/247> Accessed on 23<sup>rd</sup> January 2009.
- [39]. Thaxton Mellisa, 2007. Integrating Population Health and Environment in Kenya. Available at: <http://www.prb.org/pdf07/phe-kenya.pdf>. Accessed on 20<sup>th</sup> May 2009.
- [40]. The Private health care consortium, 2007. Private Health Sector Policy
- [41]. Development - Presentation Thursday, 6<sup>th</sup> December -presented by Dr. Aida Samirand John A. M. Maliti. Available at:  
[www.hdwgkenya.com/new/index.php?option=com\\_docman&task=doc\\_download&Itemid=&gid=121](http://www.hdwgkenya.com/new/index.php?option=com_docman&task=doc_download&Itemid=&gid=121).  
Accessed on 23<sup>rd</sup> January 2009.
- [42]. The Yeshiva University fatherhood Project, Introducing Qualitative Hypotheses–Generating Research. Available at: <http://www.nyupress.org/webchapters/0814706940chapt1.pdf>. Accessed on 30<sup>th</sup> May 2010.
- [43]. Wheeler Erica, 2009. Health Workforce retention and the Kampala declaration; Global workforce Alliance
- [44]. World Bank. 2008. Kenya Poverty and Inequality Assessment. Volume1: Synthesis report. Available at: <http://siteresources.worldbank.org/INTAFRREGTOPGENDER/Resources/PAKENY A.pdf> Accessed on Feb 23<sup>rd</sup> 2012.
- [45]. World Health Organization. 2009. Increasing access to health workers in remote and Rural areas through improved retention WHO global recommendations 1<sup>st</sup> expert meeting 2-4 February Geneva.
- [46]. World Health Organization. 2006. Health Report - working together, WHO World Health Organization. 2006. Fact sheet N° 302 April. Available at:  
<http://www.who.int/mediacentre/factsheets/fs302/en/print.html> Accessed on 15<sup>th</sup> October 2008.
- [47]. Zurn Pascal, 2008. Retention of Health workers with a focus on rural areas, 20-21 October. G
- [48]. Zurn Pascal, Dolea Carmen, Stilwell Barbara. 2005. Recruitment: developing a motivated workforce. WHO.