

# Factors Influencing Performance of Community Health Volunteers in Immunization Uptake in Pokot South Sub-county, Kenya

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**ABSTRACT :** Community Health Volunteers are known to play a key role in increasing immunizations uptake in the regions that are used. In Kenya, KDHS 2014 report indicates basic vaccination coverage reduced from 77% in 2008 to 71% in 2014 and the proportion of children who are fully immunized in West Pokot is only 31%. Little is known about the factors influencing performance of CHVs in uptake of immunization services in Kenya and Pokot South, Sub-County is no exception. This study, therefore, sought to determine the factors that influence performance of CHVs in the uptake of immunization services in Pokot South, Sub-County of West Pokot County. A mixed method of data collection was adopted targeting CHVs and the households served in the community units. The study employed multi-stage sampling method to select villages, community units and the households that were randomly sampled. The sample size calculation was based on Yamane's formula (1967) with resultant total of 184 CHVs and 356 caregivers who took part in the study. Data was collected using structured questionnaires for quantitative data and key informant interview schedules for qualitative data. Quantitative data was analyzed using SPSS Version 21.0. Odds ratios with 95% confidence interval were calculated to test the significance of association between each independent and the dependent variable. P value  $\leq 0.05$  was considered statistically significant. Qualitative data was processed by analyzing themes from key informant interviews. The information from the two methods was triangulated into one document. CHVs respondents comprised 67.4% males and 32.6% females. Mean age was 37.6 and ranged between 23 to 63 years. Majority (96.2%) were married with nearly two thirds (64.1%) having attained primary education. The results revealed that CHVs who were supervised by CHEWs were 4.5 times more likely to have performed better (OR: 4.5; 95%CI: 1.5 – 13.7;  $p = 0.01$ ). Similarly, those who agreed that they had been supervised were four times more likely to have had better performance than those who were not (OR: 4.0; 95%CI: 1.3 – 12.0;  $p = 0.02$ ). This study highlighted that training is an important factor affecting the CHVs' services. Households that were visited by CHVs were 1.7 times more likely to have had fully immunized children than those that were not (OR: 1.7; 95% CI: 1.1 – 2.8;  $p = 0.03$ ). The same was true where caregivers stated that CHV discussed vaccine preventable diseases during household visits (OR: 1.6; 95%CI: 1.0 – 2.5;  $p = 0.05$ ). In conclusion, CHVs play a major role in under-five immunization uptake. They act as link to households, communities and the health facilities and share health messages, trace defaulters, among other roles. The year when they were recruited and regular supervision by CHEWs are key factors that improve performance in the sub-county. This study recommends further strengthening of partnership between health facilities and CHVs. There also need for the MOH to adherence to the recommended number of training days and continuous training for CHVs and improvement in quality supervision and monitoring of CHVs by MOH and CHEWs.

**KEYWORDS:** Immunization, Contribution, Community Health Volunteers, Pokot south sub county

## I. INTRODUCTION

Immunization is amongst the most cost-effective public health interventions for reducing global childhood morbidity and mortality. It is a proven tool for controlling and eliminating life-threatening infectious diseases and is estimated to avert between 2 and 3 million deaths each year (WHO, 2015). It is one of the most cost-effective health interventions, with proven strategies that make it accessible to even the most hard-to-reach and vulnerable populations. However, immunization coverage remains far below the United Nations International Children's Emergency Fund (UNICEF) and World Health Organization (WHO) target of 90% in developing countries (WHO/UNICEF, 2015). Since 2010, the percentage of children who received their full course of routine immunizations has stalled globally at 86% (116.5 million infants). This falls short of the global immunization coverage target of 90%, between 2015 (WHO/UNICEF, 2015). Low immunization coverage leads

to an increase in preventable deaths and increased disease burden. This negatively impacts health outcomes and socio-economic development in the countries (UNICEF, 2015).

There are many strategies that have been put in place to improve and intensify immunization services and coverage in the globe. This has been done through equipping more health facilities with cold chain equipment, recruiting and training of community health volunteers, tackling outbreaks through campaigns and continuous monitoring and evaluation of immunization services (MOH, 2007).

Globally, given the limited human resource in the health sector, a community-based approach has been promoted as a cost-effective intervention to improve access of health care (Sarita, *et al.*, 2017). Community health volunteers are men and women chosen by the community, and trained to deal with individual and community health problems, working in close relationship with the formal health care system. One qualifies to be selected when they have interest, basic literacy and numeracy levels. CHVs are considered as a third health service delivery work-force and have evolved with community-based healthcare programmes (Bagonza, *et al.*, 2014).

The actions of professionals regarding health care were strongly influenced by the experience of others in the society (Stephenson, *et al.*, 2007). There are several variables that may affect efficiency, including demographic dynamics, situational factors and living circumstances, which could impact the quality of a CHV by a group (WHO, 2006). The role of social influences in the provision and use of immunization programs has been largely ignored (Cheboi, 2011). Incorporating the role of the population in CHV's performance analysis will provide an opportunity to highlight health risks associated with particular social systems and neighborhood ecologies, which can then clarify why community development, perceptions, expectations, and provision of health services have an effect on health-seeking behavior (Stephenson *et al.*, 2007). Cultural and leadership views are especially important in the need for immunization and other health services, particularly at the grassroots level. One of the reasons include; good interaction, which is a complex process which, at some point in time, has a classification that may be suitable for specific population classes. The state of health interaction for a given population relies on several thirds of the system and method. It covers government policy, health care guidelines, the framework and system of health care and the diverse social realities of a multicultural society (Yoshito, *et al.*, 2012). The issue of personal safety and security is a prerequisite for initiation and for the continuation of the delivery of health care; therefore there is a need to assess its role in the performance of CHVs (Liang, *et al.*, 2017). It is widely acknowledged and stressed that the effectiveness of the CHV services relies on constant and effective funding, storage, supply of drugs, supplies and supervision. The use of traditional medicines and conventional physicians is not included in information on the provision of health care in Kenya (Turin, 2010).

Medication, sickness and health service provider attitudes can interfere with the provision of health care (Langelilile, *et al.*, 2015). The propensity of clinicians to doubt and challenge advice offered by medical practitioners may also lead to the quality of CHVs. Cultural background is an important factor in the delivery of health services, particularly in Africa. Many cultural or social factors hinder the quality of CHVs. The social outlook on the quality of CHVs shows that medical needs are dictated not only by the nature of physical illness, but also by the cultural perception of sickness (Mishra A, 2014). Across cultures where people are not allowed to interact openly, across general with males, 25 CHV results by opposite sex may be impediment. Several experiments have looked directly into beliefs and attitudes (Glenton, 2010). Job satisfaction, affected by organizational variables such as financial considerations, working conditions, managerial ability and preferences, professional advancement and security at work, is a core determinant of health service provision in particular (WHO, 2006). There are few reports on the effect of happiness on the quality of CHVs (Kawakatsu, *et al.*, 2017). CHVs do not exist in a vacuum, they are part of, and they are affected by, the broader cultural and political climate in which they work.

### **A. Problem Statement**

In Kenya, statistics indicate that in the last two decades, there has been a continuous decline in immunization coverage levels across regions and worse trends have been documented to be high in marginalized areas (KDHS, 2008). KDHS 2014 report indicates basic vaccination coverage reduced from 77 percent in 2008 to 71 percent in 2014 and the proportion of children who are fully immunized in West Pokot County is only 31%. The disparities in immunization coverage reflect the country's inequities. Most of the children who have missed immunization are from poor and under-developed regions especially the arid and semi-arid lands. These vulnerable and marginalized populations contribute to the high number of under or un-vaccinated children in Kenya. Report from District Health Information System2 (DHIS2) indicates that west Pokot County has been lagging behind as its immunization coverage has been as follows; in the 2015 (69.7%), 2016 (58.1%) and 2017 (43%). In Pokot south, the coverage has been as follows; 2015 (70.5%), 2016 (58.1%) and 2017 (50.2%). Although CHVs have been recruited in West Pokot to facilitate improvement in immunization coverage, the factors influencing their

performance in immunization uptake in Pokot South Sub-County is still not known and hence the reason why the study was undertaken.

## II. MATERIALS AND METHODS

The location of the study was Pokot south sub county of West Pokot County, Kenya. West Pokot County is one of the 47 Counties in Kenya with four sub-counties, namely, West Pokot, Central, North and Pokot South sub-county where this study was undertaken. The sub county was chosen because of its performance in immunization uptake. It had four county assembly wards out of which two had pastoralism life and nomadism while the two-practice mixed farming. The sub county is part of a county which practice pastoralism as means of economy and was marginalized in terms of access of health care services.

A multistage sampling technique was adopted to select the wards in the sub-county and the units served by the CHVs. At the ward level, CHVs were purposively identified and households that took part in the interview identified using simple random sampling by use of the register of households as the sampling frame. CHEWs who were interviewed as KII participants were also purposively identified. Total numbers of community health volunteers in the 13 functional units in the sub-county were 344 and the sample size calculation was based on Yamane's formula (1967) which gave a sample of 185.

## III. RESULTS AND DISCUSSION

A total of 184 CHVs were interviewed, CHVs were the individuals who are believed to create demand for immunization services. 356 caregivers provided data to validate what community health volunteers had said and 7 supervisors (CHEWs) from seven functional community units were interviewed.

### B. Socio-demographic characteristics of CHVs

Table 1, shows socio-demographic characteristics of community health volunteers. Most of the respondents were males (67.4%; 124/184) compared to the female counterparts (32.6%; 60/184). About half (48.4%) were aged between 35 – 44 years followed by those aged 25 – 34 years (32.4%). The average age was 37.6 with a SD of 7.2 and ranged between 23 to 63 years. Majority (96.2%) were married with nearly two thirds (64.1%) having attained primary education. Almost, nine out of ten (89.1%) relied on CHV as an occupation.

(1) Table 1: CHVs Socio-demographic characteristics (n=184)

Variable	Responses	N	%
Gender of respondent	Male	124	67.4
	Female	60	32.6
Age group of respondents (years)	15 – 24	2	1.1
	25 – 34	63	34.2
	35 – 44	89	48.4
	≥55	30	16.30
Mean age ± SD (Range)		37.6 ± 7.2 (23.0 – 63.0)	
Marital status of respondent	Married	177	96.2
	Single	5	2.7
	Widow	2	1.1
Level of education	Primary	118	64.1
	Secondary	66	35.9
Occupation	CHV	164	89.1
	Agriculture	12	6.5
	Teacher	3	1.6
	Other	5	2.7

### C. Socio-demographic characteristics of caregivers

Table 2, shows the socio-demographic characteristics of caregivers interviewed in all the sub-county. A total of 356 caregivers were interviewed and their data were available for analysis. Almost 90% of the respondents were spouses to the head of household. Majority of the respondents were female (88.2%; 314/356) with more than half (54.7%) of those interviewed aged between 25-34 years. Females in pastoral communities take care of young one while males are moving around with the animals; this explains why females were the majority. The

mean age was 32.2 years (SD = 6.7) and ranged from 19 to 65 years. Majority (90.7%) were married. Two-thirds (67.7%) had attained primary education while slightly more than a quarter (26.1%) had secondary education. More than half 55.1% were of protestant faith compared to 43.8% who were Catholics). Respondents were also asked about their occupation. While 17.7% were housewives, 18.5% were unemployed giving a total 36.2% (separate the results) who were either unemployed or housewives. About a third (32.3%) practiced farming. Pastoralism as an occupation was probably underplayed (8.1%) by the respondents because of the belief that it is men who move around with the animals. Those with stable employment (employed or had business) accounted for 16.3% of the respondents.

(1) Table 2: Caregivers' socio-demographic characteristics (n = 356)

Variable	Responses	N	%
<b>Respondent's characteristics</b>			
Relationship to head of household	Head	29	8.1
	Spouse	320	89.9
	Relative	7	2.0
Gender of respondent	Male	42	11.8
	Female	314	88.2
Age group of respondents (years)	15 – 24	34	9.6
	25 – 34	194	54.5
	35 – 44	113	31.7
	≥55	15	4.2
Mean age ± SD (Range)		32.3 ± 6.7 (19.0 – 65.0)	
Marital status of respondent	Married	323	90.7
	Single	28	7.9
	Widow	5	1.4
Level of education	Primary	241	67.7
	Secondary	93	26.1
	College/University	22	6.2
Religion	Catholic	156	43.8
	Protestant	196	55.1
	Muslim	4	1.1
Occupation	Unemployed	66	18.5
	Housewife	63	17.7
	Pastoralist	29	8.1
	Farmer	115	32.3
	Employed	36	10.1
	Business/Self-employed	22	6.2
	Casual	25	7.0

**D. Factors influencing performance of community health volunteers in immunization uptake**

Evaluations of CHVs performance based on their individual factors yielded heterogeneous results and pointed to the importance of year of recruitment and supervision as presented in Table 3, Improved performance was noted where recruitment was done before 2013 as shown by 3.4-fold increase in performance (OR: 3.4; 95%CI: 1.2 – 10.1; p = 0.03) and up to 10 times likelihood to have performed well compared to those were recruited later than 2013. CHVs who were supervised by CHEWs were 4.5 times more likely to have performed better (OR: 4.5; 95%CI: 1.5 – 13.7; p = 0.01). Similarly, those who agreed that they had been supervised were four times more likely to have had better performance than those who were not (OR: 4.0; 95%CI: 1.3 – 12.0; p = 0.02). However, cases where CHVs confirmed they were in charge of less than 30 households (OR: 0.3; 95%CI: 0.1 – 1.0; p = 0.04) or topics covered during training included immunization (OR: 0.3; 95%CI: 0.1 – 1.1; p = 0.07) were negatively associated with higher performance, although for the association marginally statistically significant for coverage of topics on immunization.

A supervisor CHEW5 had this to say:

*“Community health volunteers were recruited through public meetings (baraza) with the local assistant chief or chief chairing the meeting.....people with good personal reputation,*

heart to do volunteer work were considered, The distribution of the CHVs was based on the village one come from". (KII, 7).

Another supervisor from Sondany CU had to say this:

"The package of training community health volunteers are 12 which they will undergo and one of them is immunization...They do under go five days training – But the actual days were 3 due to limited partners support". (KII 4)

(1) Table 3: Factors influencing performance of community health volunteers in immunization uptake in Pokot South sub-county

Variable	Categories	n	Role performance of CHV		OR	95%CI	p value
			High (%)	Low (%)			
Gender	Male	124	88.7	11.3	0.4	0.1 – 1.5	0.2
	Female	60	95.0	5.0			
Age group in years	<40	112	91.1	8.9	1.1	0.4 – 3.0	0.8
	≥40	72	90.3	9.7			
Marital status	Married	177	90.8	9.2	4.3	0.8 – 24.2	0.1
	Others	7	71.4	28.6			
Level of education	None or primary education	118	91.5	8.5	1.3	0.5 – 3.5	0.6
	Secondary	66	89.4	10.6			
Year recruited	Before 2013	155	92.9	7.1	3.4	1.2 – 10.1	<b>0.03</b>
	After 2013	29	79.3	20.7			
Number of households assigned	<30	87	86.2	13.8	0.3	0.1 – 1.0	<b>0.04</b>
	≥30	97	94.8	5.2			
Number of days trained	≥5	133	90.8	9.2	1.6	0.5 – 4.9	0.4
	<5	39	87.2	12.8			
Supervisor	CHEW	160	93.1	6.9	4.5	1.5 – 13.7	<b>0.01</b>
	Others/CHC	24	75.0	25.0			
Topics covered during training	Immunization	26	80.8	19.2	0.3	0.1 – 1.1	0.07
	Others	158	92.4	7.6			
Refresher training conducted	Yes	100	93.0	7.0	1.8	0.6 – 4.9	0.2
	No	84	88.1	11.9			
Had been supervised	Yes	158	93.0	7.0	4.0	1.3 – 12.0	<b>0.02</b>
	Never	26	76.9	23.1			
Means of transport	On foot	169	91.7	8.3	2.7	0.7 – 11.0	0.1
	Other means	15	80.0	20.0			

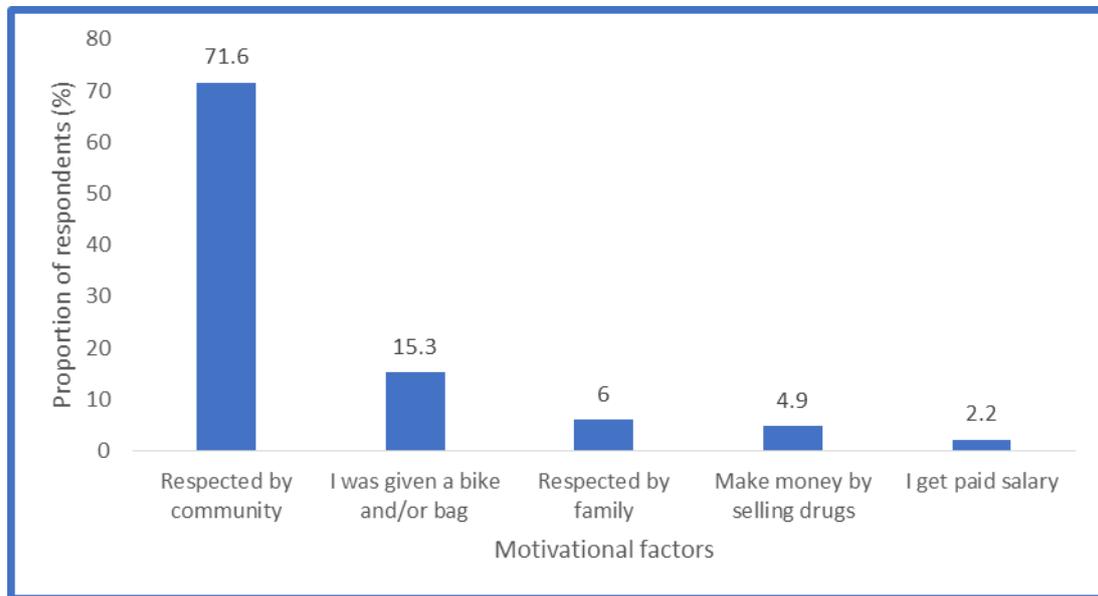
E. Socio-demographic factors influencing performance of community health volunteers in immunization uptake

In the bivariate analysis, relationship between independent and dependent variables were computed and results presented in Table 4.7. Age groups of participants in the study (OR: 0.5; 95%CI: 0.3 – 0.8; p = 0.01), marital status (OR: 0.6; 95%CI: 0.4 – 0.9; p = 0.02), level of education (OR: 0.6; 95%CI: 0.4 – 1.0; p = 0.04) and gender of caregiver (OR: 0.6; 95%CI: 0.4 – 1.0; p = 0.06) negatively influenced CHV performance. Further analysis shows that households with protestant church members (OR: 0.4; 95%CI: 0.2 – 0.8; p = 0.006), caregivers who were employed (OR: 0.5; 95%CI: 0.3 – 0.9; p = 0.02) or where the children was older than 12 months (OR: 0.6; 95%CI: 0.4 – 1.0; p = 0.04), were 60%, 50% or 40%, respectively being unlikely to have performed well. The results show that religious beliefs have an influence on performance of CHVs as depicted by data on immunization coverage at the household level. Households whose members were from other religious groups other than Catholics, their children were less likely to have completed their immunization schedule.

1) Community Health Volunteer motivational factors

This study determined motivational factors for the performance of CHV roles in the community. More than seventy percent get respect from the community; this explains why they volunteer to serve the community. On

the other hand, 15.3% were given a bike or a bag compared to 6% who were respected by the family members. This shows the kind of support CHVs get in order to perform their roles towards contributing to immunization uptake. Less than 4% and 2% make money by selling drugs and get paid salary respectively.



**Figure 1: Motivational factors (n = 183)**

#### F. Factors influencing performance of community health volunteers in immunization uptake

Factors influencing CHV performance were evaluated by examining the training (topics covered), supervision, and transportation system, use of incentives and conduct of refresher trainings with the outcome being their performance. Mean of the response variable was derived from scoring cases where at least a household is assigned, tasks are assigned, made a visit in the past month, referred a child for immunization in the last one month and refers severely ill child. From the result, in view of the role performance scores being normally distributed, therefore, role performance was categorized into 2 levels of high and low performance using its mean as cut-off point. CHV whose role performance score was above the median ( $>3.89$ ) was categorized as high performance and vice versa.

Several factors may affect the quality and effectiveness of CHVs, both individually and on a programmatic basis. CHVs function in dynamic, relational settings (Sharma, *et al.*, 2014).

##### 1) CHV individual characteristics: socio-demographic profile

Age has been found to be an important factor in the performance of the CHVs, Community health volunteers who were less than forty years (37.6%) were 1.1 times more likely to perform highly than their counterparts above forty years. This can be due to other responsibilities. This finding is consistent with Hsien, *et al.*, (2017) study on CHV role performance, indicating the age groups with the best role performance are ranging from 35 to 44 years and 24 years and below. This can be attributed to career progression for the younger volunteers and the hope that they might be paid in future. A study in Kisumu West district of Kenya found older age ( $>40$  years) to be a strong predictor of CHV productivity (Kawakatsu, *et al.*, 2012), while the opposite was true in Guinea-Bissau (Lopes, *et al.*, 2014). This finding was contrary with a study in Mali that older CHVs (medium age was 42 years old and range 18 to 83) tend to perform better than young community health volunteers (Perez, *et al.*, 2009).

Based on the result, it is shown that marital status was an important factor that influences on how community health volunteers perform their roles. Those who were married were 4.3 times more in performing of their duties. Many findings have shown that CHVs who were married had better support for performing household duties than those who were not married, which explains the high performance (Kok, *et al.*, 2017). However, another study also indicated that no difference was found between married and unmarried CHVs (Kawakatsu, *et al.*, 2012). Perhaps these differences could have been due to cultural perception on the role of married person in a society. Previous studies have highlighted the importance of a CHV's socio-demographic characteristics for their performance, including age and sex (Kawakatsu, *et al.*, 2012).

It was also established from the findings that Community health volunteers who were recruited before 2013 are more likely to perform better ( $p = 0.03$ ) than those recruited after 2013; This period is when there was mass recruitment of CHVs due to introduction of free maternity services in the country and the roll out of community strategy in west Pokot County. This can be explained by the fact that those who had been in the system for longer were more experienced in their work with resultant improvement in role performance.

Most of the respondents were males (67.4%; 124/184) compared to the female counterparts (32.6%; 60/184). This finding was in line but lower than the study done in Burkina Faso, where 81.5% of the CHVs were male compared to their counterparts (Robertson, 2015). On the contrary, Egypt reported that, they totally utilize females as CHWs (World Health Organization, 2016) probably in line with Islamic practice where only females are allowed to interact with mothers over child health matters.

Occupation Almost, nine out of ten (89.1%) relied on CHV as an occupation. This explains the stipend given to CHV by government when the community strategy was introduced. Nearly two thirds (64.1%) attained primary education. It was important to determine level of education because education imparts knowledge and intellectual capacities that would help CHVs perform their duties. This conforms to the health policy of 2006 that says one qualifies to be recruited as CHV when he/she is able to read and write. According to Robertson, (2015), performance is associated with a CHW's, literacy, and education. This is worth for effective performance. Standardized curricula within a country can improve CHV knowledge, skills and performance based on local needs and priorities. World Health Organization, (2016), reported that, for CHVs to provide quality work, there should be acquire core competencies, with additional training modules based on epidemiological variation within a country. A country like Oman have utilized Diploma nurses, doctors and other university degree social workers as CHVs and achieved excellent performance. Education has been demonstrated to improve performance of all the services provided by CHVs including immunization.

## 2) Health System Factors

Health system factors (training, supervision) have been found to influence the performance of CHVs, the study results highlighted that, CHVs who received training for more than five days are 1.6 times more likely to perform better than their counterparts and for those who received refresher trainings are 1.8 times more to perform better although results are not satisfactory. Early and on-going training is a critical component to ensuring that CHVs have the resources and expertise to carry out their job (Haines, *et al.*, 2007). Refresher training is important in improving the skills and knowledge of CHVs (Msisuka, *et al.*, 2011), consistent training and refresher training of CHVs with ideal content of addressing immunization program will therefore improve their performance.

The results showed that supervision is an important factor to influence better performance. CHVs that were supervised by CHEWs were 4.5 times more likely to have performed better. Similarly, those who agreed that they had been supervised were four times more likely to have had better performance than those who were not. Supervision contributes to high CHV morale and high productivity. Community health interventions require supportive supervision to community health volunteers that will contribute to increased immunization uptake. Studies have shown that when supervision of CHVs was vigorous and extra resources were directed to primary health care, immunization services will improve (Hill, *et al.*, 2014). This result confirms the findings of a study conducted in Nepal that indicated that FCHVs supervised by the government health care system can perform better in maternity care including immunization services in resource-poor areas. Petersen *et al* (2014) concluded that sufficient preparation, oversight and surveillance of CHVs can lead to better performance of the CHVs in improving services. Therefore, supervision is an important factor to improve better performance, since it contributes to high CHV morale and high productivity. Previous studies have shown a link between CHV supervision and performance, and the study found a similar link in our studies too (Sharma, *et al.*, 2012). What appears to be most important, however, is not the mere fact of supervision, or the frequency of supervision visits, but rather the nature and quality of supervision; this demands the CHEWs need to visit CHVs in their working area and support them as they provide the service: This human aspect of supervision is receiving increasing attention, not only for CHVs but for facility-based health workers (McAuliffe, *et al.*, 2013). For example, Immunization, HIV, Nutrition, maternal Health and sanitation supportive supervision in CHV programs have yielded promising results (Robertson, *et al.*, 2015a). Many reports found that positive oversight was a vital facilitator for the effectiveness of CHV-led services, while the absence of such encouragement from the health care system culminated in a service breakdown (Smith, *et al.*, 2014). Another study by Mdege, *et al.*, (2013) has supervision as a significant motivating tool to CHVs to perform better (Mdege, *et al.*, 2013).

A research on management of CHs in the Kalabo District of the Republic of Zambia shows that inadequate supervision leads to weak CHV morale and reduced performance (Ludwick, *et al.*, 2014). For instance, this did not have and a positive impact on performance because the reliability was low and almost half of the CHVs did

not gain from supervisory visits. Therefore, the study finding suggests that supervision is a key factor in improving the performance of community health volunteers. Other studies have showed the role of health system factors, such as the training of CHVs and the supervision of CHVs (Liang, *et al.*, 2017), financial and non-financial incentives as factors that improve performance (Kok *et al.*; 2015).

### 3) *Community Factors*

From the results, majority of the community health volunteers do get support from members of the community (45.8%) and health care workers at (42 %). Such support included; training and supervision in the community setting by the CHCs, recognitions from the community members, and provision of incentives to include financial and non-financial. This conforms to results of a recent systematic review of “intervention design factors” and their influence on the performance of CHVs found that financial and non-financial incentives, clearly defined CHV roles, supervision and continuous training, and the embedment of CHVs in community and health systems all helped to enhance performance (Kok, *et al.*, 2014). Tripathi *et al.*, (2016) On the other hand, it suggested that the participation of community members in the recruitment of CHVs, the appreciation and acceptability of volunteers and group ownership were seen as promoting progress. Other studies have shown a link between CHV performance and the existence of community health committees (Callaghan-Koru, *et al.*, 2012; Jaskiewicz & Tulenko, 2012).

Maji, *et al.*, (2010) came to similar conclusions that recognitions and support at the community-level for CHVs usually motivate community health volunteers to volunteer more. On the contrary, this finding is not in line with Yoshito *et al.*, (2012) who reported that negative opinions about the quality and affordability of health care by community members and rejection or lack of support by family members were main motivators for volunteers.

## **IV. CONCLUSION AND RECOMMENDATIONS**

The year when CHVs were recruited, especially those recruited before 2013 had more experience as they were regularly supervised by CHEWs and that was identified as one of the key factors that improve performance in the target sub-county with harsh terrain. Again, poor performance was recorded where CHVs were assigned less than 30 households. Based on the response from CHVs, the proportion of those who advised caregivers on immunization was fairly low which could be attributed to topics covered during training. Available evidence shows that even where immunization topics were covered during training, CHVs were 70% less likely to have performed well. Whereas the training of CHVs on the 12 packages is supposed to take five (5) days, in the study area, this was reduced to three (3) days which could have affected their performance in sharing of messages on immunization. The study recommends proper, continuous and enough days for CHVs training should be uphold as training was recorded to be among the factors that influences the performance of CHVs.

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