

Research Article

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## Awareness of beyond zero mobile van clinic among HIV positive women in Laikipia county

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### Abstract

Prevention of Mother to Child transmission of HIV can reduce infection of children to less than 2%. Despite success as shown by statistics globally, much more progress is needed especially through increased accessibility of health care services in order to eliminating mother to child transmission and to achieve the planned global target of 90% reduction of newly HIV infected children. This study assessed the role of beyond zero Mobile Van Clinic (BZC) on elimination of HIV from Mother to child transmission in Laikipia County, Kenya. It was based on the Health Belief Model and adopted cross sectional descriptive study design that targeted HIV- positive mothers attending Elimination of Mother to Child clinic at Nyahururu county hospital, Rumuruti hospital and Nanyuki county referral hospitals. The study used a questionnaire and interview schedules to obtain primary data. Descriptive statistics was used to analyze quantitative data with the support of computer software, the Statistical Package for Social Sciences (SPSS) version 20 to give output in form of percentages and frequencies. The study also did correlation and chi-test to determine the statistical relationship between the variables. The study revealed that Mobile Van Clinic are not fully utilized and majority of the respondents have not attended the training on the Mobile Van and that Mobile Van Clinic offered better and quality services. Majority tested their children for HIV PCR at six weeks with majority of results being HIV negative. Attitude of Health Care Providers statistically influences results of testing of children (Pearson value of  $-0.218^*$ ,  $p=0.042<0.05$ ). The study recommends that Mobile Van Clinic awareness campaigns should be conducted by Mobile Van Clinic officers and persons in charge of health care so as to encourage HIV testing during and before pregnancy among the mothers and infants. The community should be educated on the importance of loving, caring and accepting those living with HIV in order to encourage them and reduce stigmatization and discrimination against HIV positive expectant women.

### Keywords

awareness,  
beyond zero mobile  
van clinic.

## Introduction

Availability and accessibility of quality health care services is the success of EMTCT programs, ensuring that facility offering these services provide them adequately through all season without running of stock is key to success (WHO & UNICEF, 2007). According to WHO and UNICEF (2007) communication is very important in ensuring that EMTCT achieve a transmission of less than 2% during pre-natal and post-natal periods. Communication can be done through: health education and giving adequate information to the HIV positive pregnant women and the general population; and ongoing support and follow up to HIV positive mother after they give birth.

Study conducted in early 1994 in South Africa reported that a mono-therapy zidovudine dramatically helped in reducing the risk of transmission of HIV virus from mother to child (WHO, 2015). However, the cost of this drug hinders its implementation leading to resistant to some patient. In dealing with this government of South Africa took time before introducing a dual therapy of zidovudine and nevirapine to reduce the transmission of HIV virus. In 2001, comprehensive national program to prevent MTCT was launched and the political factors lead to conceptualization of PMTCT which was piloted and implemented in some regions and in the whole country. Communication and health education amongst the health care-worker and their clients, retention and good quality interpersonal skills capable of mobilizing uptake of EMTCT services in the community help to create awareness, practicable policy and implementation of EMTCT programs which ensure success in reducing transmission of HIV virus (WHO, 2015).

Kenya is facing various health challenges where HIV/AIDS and especially transmission from mother to child is one of them. Demographic and health survey conducted in 2008/9 showed that 1.4 million people representing 6.3% were living with HIV/AIDS in 2010. Due to major effort which the Kenya government has put up it is achieving stabilization, the HIV prevalence rate is decreasing from 5.9% in 2005 to 5.1% in 2006. Young women aged between 15-49 years of reproductive age are more vulnerable to HIV with a prevalence rate of 9% than men of the same age which is 5%. However, different regions have various variations between rural set up and urban set up, youth and aged and different gender men and women (UNAIDS, 2015). Significant variation has been noted in the number of new HIV infection since 2005 which

was 60,000 and later dropped to 55,000 in 2006, but later rose in 2010 to 105,000 due to inability to access ARV in some women in some part of the country (Chesney, 2014).

## Statement of the Problem

There were 190,000 children newly infected with HIV by 2015 globally, down from 330,000 in 2011 and from 430,000 new infections in 2009. By December in Kenya (2015) 6,613 had contracted the disease. However, much more progress is needed in order to achieve the planned global target of 90% reduction of newly HIV infected children despite the significant progress that has been achieved. This can only be achieved through increased accessibility of health care services for pregnant mothers to avoid MTCT of HIV (Mungai, Gichuki, Muchiri, Mckinnon, & Gelmon, 2012).

In Laikipia County, HIV prevalence is at 3.2% which is lower than the national prevalence and higher among women at (4.6%) than that of men (2.8%) indicating that women are more vulnerable to HIV infection than men in the County. In addition, in the year 2015 there were about 399 pregnant women living with HIV and who were who were provided with PMTCT services out of a total need of 435 pregnant women. In addition, there were 7.9% children who were infected with HIV in the year (National AIDS and STI Control Programme, 2017). By the end of 2015, a total of 7,770 people were living with HIV in the county and among these, 9% were children aged below 15 years. HIV transmission of infants at 6 weeks is currently 4.1% and this could contribute to increase in infant mortality related to HIV infection. There were 7.9% children infected with HIV in 2015 (UNAIDS, 2015) showing a 63% decrease from 2013 in the county with 38 children reported to have died of AIDS-related conditions in the same year. Laikipia County contributed 0.5% of the total new HIV infections in Kenya thus the need to assess the effects of mobile van clinic on elimination of HIV from Mother to child transmission in the county.

The researcher reviewed several literature on past studies related to effects of mobile van clinic towards zero elimination of HIV/AIDS from mother to child but very scanty information exists especially in developing countries like Kenya and particularly in

Laikipia county. No study has been carried on the role of mobile van clinic donated on beyond zero transmission of HIV among HIV positive women in Laikipia County, Kenya. Therefore there exists a research gap which this study will bridge.

### **Justification of the Study**

Elimination of HIV from mother to child is a major policy issue and health practitioners concern in the fight against AIDS/HIV burden in Kenya. High burden of HIV in Kenya accounts for an estimated 15% of death of children under the age of 5 years. Driven by a need to sustain the fight against HIV/AIDS, introduction of Option B+ , Bring Back the Mothers campaign, free maternity and Beyond Zero Campaign (BZC) approaches were initiated in the country which among other reasons aimed at tackling mother to child HIV transmission. This study will provide insight into how the beyond zero campaign model that is principally about a mobile clinic is contributing to the elimination of mother to child transmission. Stigma and discrimination of HIV positive women from the society are negative attitude and perceptions towards women in the region that could contribute to new infections as many women fear to disclose their status. This study will provide insight into how mobile van clinics are contributing towards reduction of stigma and discrimination of HIV positive pregnant women. Assessing the effects of mobile van clinic on elimination of transmissions of HIV from mother to child in Laikipia County and its influence on reducing the stigma and discrimination and creating awareness among HIV positive pregnant women will provide insight that could help policy formulators and implementers on rightful approach to ensuring that MTCT is totally eliminated.

The research findings could help policy maker and Laikipia county government department of Health on creating awareness in community and reducing stigma and discrimination. The finding could also provide relevant information to health care workers on areas that require emphasis concerning their attitude towards HIV positive women and their children. The study could be used as guideline for recommending a study to be done in different counties to find out the effects of the van on elimination of mother to child transmission of HIV. The information obtained could also be of help to students, academicians and other researchers interested in the area of study.

### **Objective**

The objective of the study was to determine the awareness of mobile van clinics among HIV positive women in Laikipia County.

### **Scope of the Study**

The study focused on assessing the role of beyond zero mobile van clinic on transmission of HIV from mother to child programs in Laikipia County, Kenya. The variable under consideration was awareness and mobilization of beyond zero mobile van clinic in the use of EMTCT. The study involves the mobile van clinic health care providers and health care provider in the main health facility Nyahururu county referral hospital, Rumuruti referral and Nanyuki county referral hospitals as well as the HIV positive within 2 months postnatal mothers (Laikipia County map Appendix V).

### **Study Limitations**

The researcher encountered respondents who were not willing to participate in the study for they were skeptical. To overcome this, the researcher explained to them that the study was purely academic and that their responses could not be used in any other way. The medical staff respondents had a very busy schedule providing health services and having them to respond to the questionnaire was interrupting their work. The researcher addressed this by booking an appointment at an appropriate time in order to minimize the interruption. Language barrier for some clients was another limitation which was attributed by illiteracy level of some clients. The researcher addressed this by use of an interpreter who understood the local language. This further won their trust and consent of most respondents. The other challenge experienced was insecurity which is a problem in the bandit and conflict prone Laikipia County. To overcome this, the researcher maintained contact with the security personnel on the ground when going for data collection and could not do so when the risk was high.

### **Delimitations of the Study**

The study delimited itself to HIV positive mothers who attend EMTCT clinic within Laikipia County particularly in the major hospitals of Nanyuki County Referral Hospital, Rumuruti General Hospital and Nyahururu County Referral Hospital. The women

were targeted because they would give information relevant to the study and would compare their experiences both at beyond zero mobile van clinic and at the hospital. The hospitals were selected since they are the main ones that serve Laikipia County and thus the population in these hospitals would give a fair glimpse into the situation of the entire county. The study adopted cross sectional descriptive study since it allowed for flexibility to collect detailed data from the respondents located in the different hospitals at the same time

### Assumption of the Study

The researcher assumed that all the respondents who participated in the study were either aware or had had an experience with beyond zero mobile van clinic and thus represented the target population of all HIV pregnant women receiving ART in Laikipia County. It also assumed that the area is wholly reached by beyond zero mobile clinics that operate within schedule and at regular intervals.

### Summary

This chapter has covered the background of the study, the statement of the problem and the objectives of the study that included both the broad and the specific objectives. The chapter also had the research questions and the hypothesis. It has also looked at the justification of the study, the scope, study limitations and delimitations and then concluded with the assumptions of the study.

## Research Methodology

### Research Design

The study adopted cross sectional descriptive study design, a type of observational study in the medical studies that analyzes data from a population, or a representative subset, at a specific point in time. A cross-sectional study examines the relationship between a disease (or other health related issues) and other variables of interest as they exist in a defined population at a single point in time or over a short period of time (Public Health Action Support Team, 2017).

### Study Area

The scope of the study was limited to main Laikipia County referral hospitals at Nyahururu and Nanyuki referral and to Rumuruti sub-county hospitals.

The three facilities provided adequate data for the study due to the high number of HIV positive women seeking services in them. The facilities have enough staff and they don't run out of drug stock especially ARV. Nyahururu is a rural-urban town in Laikipia west sub-county Laikipia County. Nanyuki is a town in Kenya, lying in Laikipia east Sub County. Laikipia County borders Samburu County to the North, Isiolo County to the North East, Meru County to the East, Nyeri County to the South East, Nyandarua County and Nakuru County to the South West and Baringo County to the West and is one of the 14 counties within the former Rift Valley region, and one of the 47 counties in the Kenya. The County borders (Soft Kenya, 2017).

The county is served by the Beyond Zero Campaign mobile van. The initiative that aims at improving maternal and child health outcomes in Kenya, was launched by the First Lady of Kenya, Margaret Kenyatta on 24 January 2015.. It is geared towards accelerating the implementation of the national plan towards the elimination of new HIV infections among children (UNAIDS, 2015).

### Study Population

The population of this study constitutes HIV- positive mothers attending EMTCT clinic at Nyahururu county hospital, Rumuruti hospital and Nanyuki county referral hospitals. Eligible patients were enrolled in the study through inclusion criteria of 18 years and above. In addition, the study obtained data from 3 health care workers working with the van since they had firsthand experience and knowledge of MVC as well as 9 health care workers in the three EMTCT clinic main facilities.

### Inclusion Criteria

For this analysis, expectant women attended by staff at a mobile van clinic were considered for inclusion, where they were 18 years of age and above, and were from Laikipia County. They too had to independently consent to participate in the study.

### 3.3.2 Exclusion Criteria

Participants were excluded if they were critically ill, drunk or of unsound mind.

### 3.4 Sample size Calculation

Sample size was determined by Fisher's formula (1954).

$$n = \frac{Z^2 P (1 - P)}{d^2}$$

Where n= sample size,  
z = Z statistic for a level of confidence,  
p = expected prevalence or proportion  
d = precision (In proportion of one; if 5%, d = 0.05).  
z = 1.96, MTCT prevalence rate in Kenya by 2015.  
4.5%, (Ministry of Health, 2016).  
P=0.06 d = 0.05

Therefore  $N = \frac{1.96 \times 1.96 \times 0.045(1 - 0.045)}{(0.05 \times 0.05)} = 66$ .

To provide for lower response rate, the research added 10% to this sample size, thus the number targeted was 72.

### Sampling and Sampling Techniques

The study adopted a systematic random sampling for the patients and purposive sampling for health workers. Systematic random sampling is a probability sampling method in which every Nth member of population is sampled. In this approach every Kth item is selected to produce a sample of size n from a population size of N" and thus requires a sampling frame (Bajpai, 2010). Purposive is a non-probability sampling technique sampling in which sampling focuses on sampling techniques where the respondents are chosen based on the judgment of the researcher (Lund Research Ltd , 2012).

All eligible respondents were enrolled during the study period until the desired sample size of 66 was attained. In this procedure, the 1st respondent was selected randomly and after this every 3rd client was selected and this was done at the EMTCT clinic in each of the three health facility from Monday to Friday when the EMTCT clinic was open. History of the patient was taken because of exclusion criteria and the procedure explained on how to fill in the questionnaire, those who agreed signed the consent form. In some cases, an interpreter was used to those patients who had no education background and for the health care provider, an interview schedule was conducted after booking the appointment due to their busy schedules. All positive

post-natal woman who met the inclusion criteria were sampled until a sample of 66 was reached.

Purposive was used to select the HCW who participated in the study. Purposive sampling is a non-probability sampling technique in which decisions concerning the respondents is taken by the researcher, based upon various criteria such as specialist knowledge of the research issue, capacity and willingness to participate in the research as well as participants likelihood to contribute appropriate data both in terms of relevance and depth. In this study, purposive sampling was used to identify HCW who participated in the study.

### Research Instruments

The researcher used a questionnaire to the mothers and interview schedules for the health care providers. Questionnaire comprised of questions relating to mobile van clinic and other factors. Questionnaires gave respondents freedom to express their views or opinion and also to make suggestions while maintaining anonymity. It also collected secondary data from secondary sources on the trend of enrolment of HIV of Positive expectant mothers to EMTCT programme and the trend of change in the number of HIV Positive children.

### Data Collection Procedures

Quantitative data was obtained by use of a self-administered questionnaire while qualitative data was obtained through interviews.

### Questionnaire

A questionnaire is made up of a list of carefully structured questions and chosen after testing, with the view of eliciting reliable responses from the respondents. A structured questionnaire was developed for the study which allowed the researcher to do quantitative data analysis by use of statistical software. The procedure of data collection was repeated in the three facilities, in which pregnant women were given the questionnaire up to a quota of 6 per day and after 4 weeks the sample was exhausted.

### Interviews

In-depth interviews were administered on Health Care Providers. These respondents were purposively selected based on their personal and professional

knowledge on EMTCT. Respondents interviewed using this technique considered as being knowledgeable, skilled and able to express their views explicitly on the subject being discussed. This method allowed greater depth of understanding on the subject under study.

## **Validity and Reliability**

### **3.8.1 Validity of Research Instrument**

The questionnaire was evaluated for face and content validity by the research supervisor and this ensured accuracy. A pilot study was conducted before the actual data was collected. The pilot study was done to Olkalou County Hospital on 10 randomly selected HIV positive respondents, 4 mobile clinic staff and 4 staff from the hospital, but the findings are not included in the actual main area. This aimed at testing the validity and reliability of the survey instrument. Its main purpose was to check on suitability and the clarity of the questions on the instrument design, relevance of the information being sort out, the language used and the content validity of the instruments from the responses that were given and the reliability of the research instruments. This helped in making necessary adjustment on the instruments to enhance validity. The instrument was also shared with experts for expertise opinion and recommendations. The researcher discussed the structure of research instruments with the supervisor to improve their content, construct and face validity. These competent persons examined the questionnaires individually and provided feedback to the researcher. Content validity was employed in this study by examining if the instruments answered the research questions.

### **Reliability of Research Instrument**

A reliability of coefficient, of 0.711 was achieved and thus considered adequate for this study. Credibility and trust worth were adhered to while collecting the data. The researcher discussed the structure of research instruments with the supervisor to improve their structure. Those items that were found to be inadequate or vague were edited to improve the quality of the research instrument, thus increasing reliability.

### **Data analysis and Presentation**

Once developed, questionnaires were coded to ensure they are maintained only for research purpose and kept

under lock and key. The researcher ensured completeness of the data collected, and also ensured cleaning after which the data was stored in computer software. Descriptive statistics was used to analyze quantitative data with the support of computer software, the Statistical Package for Social Sciences (SPSS) version 20 to give output in form of percentages and frequencies. Statistical tests done on data per each objective included ANOVA and Chi-test. Presentation was done using graphs, tables, frequencies and pie charts. To compare the variables at the set level of statistical significance, Chi square was used and the levels of association of variables to the mobile van clinic.

Qualitative data obtained was used to supplement interpretation of quantitative data and which was done according to the objectives of the study. Both content and thematic analysis was used to interpret the data. Qualitative data was appropriate since through it, it was possible to describe the qualities and characteristics of the sampled population and provided details about behavior, emotion, and personality characteristics in a way that could not be achieved through quantitative data.

### **Ethical Consideration**

Institutional approval of the study was sought at Nyahururu County Hospital, Rumuruti sub county hospital, Nanyuki teaching hospital and Laikipia County Health department, education department and the county commissioner office Laikipia County. Ethical clearance was obtained from the Mount Kenya University research and ethical committee. A research permit was obtained from NACOSTI Ref P/17/1904/15971. All information and data obtained from the patients was treated with utmost confidentiality and used for research purposes only. Consent was sought from the patients during recruitment. Patients who declined to participate in the study were exempted.

## **Research Findings and Discussions**

### **Response Rate**

The study had a sample size of 66 respondents but targeted 72 as a contingency measure for lower response rate, and out of which 66 responded by filling and returning the questionnaires, which was a 91.67% response rate.

The objective of the study was to determine the awareness of mobile van clinics among HIV positive

women in Laikipia County. The results of analysis of obtained data are presented in the section below.

**Table 4:1 Awareness of Mobile Van Clinics among HIV Positive Women in Laikipia County**

Variable	Parameter	f	%	df	p-value	t	Sign.
<b>MVC training in the area</b>	Yes	24	31.8	0	0.01	-2.261	0.028
	No	42	68.2				
<b>Have attended a training on MVC</b>	Yes	24	36.4		-0.27	-	-
	No	42	63.6				
<b>Have heard about MVC through</b>	Posters	13	19.7	60	.052	-2.44	0,568
	Radio	9	13.6				
	TV	6	9.1				
	Social media	16	24.2				
	News print	9	13.6				
	None	13	19.7				
<b>attended a counselling and testing session at MVC</b>	Yes	24	36.4	60	.157	2.593	0.12
	No	42	63.6				
<b>avenues for getting information on MVC</b>	Through friends	33	50.0	60	-.065		0.808
	Through family	18	27.3				
	Through Church	7	10.6				
	Through barazas	3	4.5				
	Through school	5	7.6				
		5	7.6				
<b>Effectiveness of MVC in reaching pregnant women in remote areas?</b>	Very effective	14	21.2	60	0.143		.65
	Effective	15	22.7				
	Slightly effective	13	19.7				
	Ineffective	12	18.2				
	Very ineffective	12	18.2				

Source: Researcher, 2018

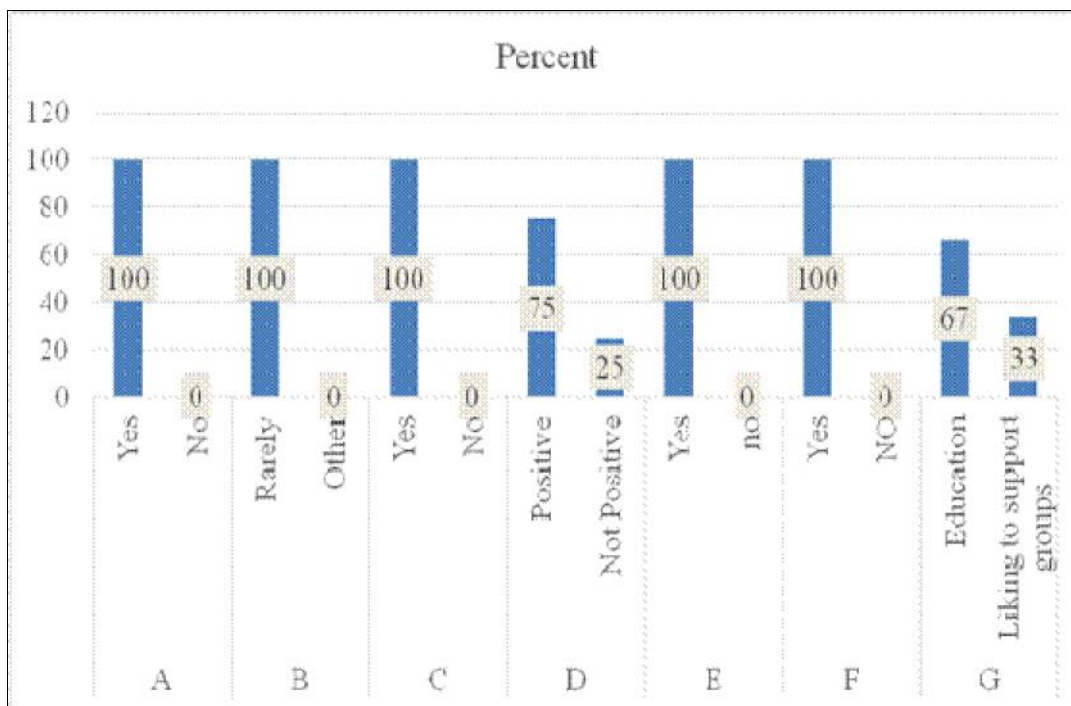
The findings in Table 4.4 show that majority (68.2%) of the respondents disagreed that there are mobile van clinic training in their areas while 31.8% agreed. The findings also show that majority (63.6%) of the respondents disagreed that they have attended any MVC Training while 36.4% of the respondents agreed. The study sought data to determine the means by which the respondent heard about the MVC. The result of analysis of data obtained and presented in Table 4.2 shows that majority (24.2%) of the respondents indicated they had heard about the mobile van clinic through radio while 19.7% heard through TV and 13.6% through word of mouth. The study sought data to determine avenues through which respondents get

more information on MVC and the findings presented in Table 4.2. The findings in Table 4.2 shows that majority (63.6%) of the respondents get more information on MVC through friends while 36.4% of the respondents get through family. The study sought data to determine how effectiveness of MVC in reaching pregnant women in remote areas. The result of analysis from data obtained is presented in Table 4.2. The findings in Table 4.2 shows that majority (43.2%) of the respondents were of the opinion that MVC is effective in reaching pregnant women in remote areas (21.2% effective and 22.7% very effective) while 36.5% responded they are ineffective.

### Qualitative Responses

The researcher engaged the health care providers drawn from 3 staff working in the MVC and 3 from each of the three health facilities in the county namely

Rumuruti, Nanyuki and Nyahururu referral hospitals on various issues related to the mobile van clinic. The responses were analyzed and presented in Figure 4:1 below:



**Key**

- A MVC and EMTCT awareness
- B Frequency of MVC referrals
- C Effectiveness of EMTCT services and community awareness
- D Attitude and EMTCT initiative
- E staff training and EMTCT
- F discrimination of HIV women
- G Remedy to stigma and discrimination

**Figure 4:1 Content analysis of Qualitative Responses**

On whether the mobile van clinic enhanced awareness of the community members on EMTCT of HIV, all (100%) the health care providers said no. This implied that the mobile van clinic had no significant effect in enhancing awareness to the community members. A clinician working in Nyahururu said,

*“are you taking of Nyandarua county beyond zero van clinic because I have never seen the Laikipia county BZC van in this town I was even thinking the first lady forget about us”*

In relation to how frequently they received referrals courtesy of the mobile van clinic, the all (100%) said rarely. This was confirmed by nurse who said,

*“ for the time I have been in this facility I have only met around four mother referred to this facility by staff of MVC , this is a drop of oil in the ocean compared to the population”*

The researcher sought the health care providers’ opinion on whether the effectiveness of EMTCT services depended on the level of community awareness. All (100%) the respondents said yes. a pharmacist working in Rumuruti hospital said,

*“if this community of pastoralist will be educated on the importance of HIV testing and seeking service in the hospital and be aware of this illness we can reduce transmission from mother to child but the van moving in this region is rarely cause of insecurity ”*



The researcher asked the health care providers to comment on the effect of their attitude on EMCT initiative. The majority (75%) of the health care providers said they had a positive attitude whose effect was a reduction in transmission of HIV from the mother to the child and therefore reduced cases of HIV positive births.

*“Am a nurse and a mother and the best thing a women wish is to have a healthy baby like any other and I appreciate working and interacting with the younger mother I feel motivated when a mother after 18 month say thank you sister after getting the final result of her baby and I feel bad when people have a negative attitude towards this clinic”*

Others said their attitude will help reduce the burden on the pregnant mothers by providing quality, effective and accessible health care.” In relation to whether staff training had an effect on attitude of staff on EMTCT, the all (100%) said yes. They said training changed their attitude, enhanced the quality of their services and helped reduce stigma and discrimination of HIV positive pregnant mothers a clinician said,

*“training changed my attitude and this started when I was attending a seminar in Meru where we were interacting with HIV positive mother but they were coached to behave like HIV negative women seeking service latter we were told that they were HIV positive and since then I realize training help a lot”*

Further they stated that stigma affected the EMCT initiative. On the aspect of whether women infected with HIV discriminated in the society, all (100%) health care providers sad yes and attributed it to lack of education and little sensitization in the community as a male said,

*“before I was transferred in Nyahururu I used to work in dispensary in a remote area and I met a HIV positive who told me that the villager are accusing him that he have a contagious diseases and she is not allowed to shake hand or share anything including utensil I felt bad and I told her don’t worry God will help you we will come and educate them and am sorry for that”*

The researcher asked the health care providers to state the remedy to stigma and discrimination of HIV positive women. Majority (67%) said that the public should be educated on HIV related issues while 33%

opined that there should be a link between HIV positive women to support groups where they can be helped. A nurse in Nanyuki hospital said,

*“We as the health care provider are supposed to change and be a good example to the community and now then we educate the community on how to take care of HIV positive people”*

## Discussion

The study revealed that MVC trainings are not available to majority of women residing in the area of study. This finding corroborate the views of the health care providers that were key informants .who when asked whether mobile van clinics enhances awareness, majority were of the opinion that mobile van clinics had not had significant effect in creating awareness and which the informant attributed to lack of training from the MVC. The further revealed that majority of respondents had not attended any MVC training, which means MVC training has low influence on creating awareness about HIV in the study. The study further revealed that majority of the respondents had not attended counseling and testing sessions at MVC, which suggests a low utilization of counseling and testing services at MVC. This implies there is need for more information and awareness creation about MVC in the study area in order to increase the uptake of this service. Qualitative responses indicated that MVC did not have significant influence on creation of awareness to community members on EMTCT. It also showed that the number of referral cases from the mobile van clinic to the three health facilities was very low, which suggested a weak network between the mobile van clinic and health facilities. Qualitative data also revealed that the MVC to offer effective services to the pregnant mothers in Laikipia County, there is need to increase the level of community awareness on the nature of the services offered.

The study further showed that the radio is an important means of passing information on HIV in the area, followed by a TV and then word of mouth. This suggests that these are best channels through which can be communicated. The study also revealed that majority of the respondents share more information on MVC with their friends, which suggests the value of the word of mouth in sharing information regarding MVC in the study area. It also suggests that change of behavior communications are better channeled through contacts and family members. The study also revealed that MVC is effective in reaching pregnant women in

remote areas. According to Caring Crowd (2016) in rural communities in Kenya, accessing the nearest health center is a significant challenge. They gave an example of Marakwet East where families must walk an average of three hours to reach a health facility. This distance is particularly burdensome for an extremely ill child or for a woman in labour. The poor access to facilities leads to a number of health challenges such many women in rural areas delivering their babies at home under unhygienic conditions which can increased risk of HIV transmission or death at childbirth (Caring Crowd, 2016). The MVC could eliminate barriers to access basic healthcare services in the rural areas by bringing them directly to those who need it most in Laikipia County.

## Conclusion

On respondents awareness of mobile clinic among HIV positive women the study found out that more than two thirds of the respondents disagreed that there are mobile van clinic training in their areas while slightly less than a third agreed. The study further showed that almost two thirds of the respondents disagreed that they have attended any MVC Training while more than a third of the respondents agreed. On the means by which the respondent heard about the MVC majority (24.2%) of the respondents indicated they had heard about the mobile van clinic through radio while 19.7% heard through TV and 13.6% through word of mouth. On the avenues through which respondents got more information on the study revealed that majority (63.6%) of the respondents get more information on MVC through friends while 36.4% of the respondents get through family. On the effectiveness of MVC in reaching pregnant women in remote areas the study showed that majority (43.2%) of the respondents were of the opinion that MVC is effective in reaching pregnant women in remote areas.

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