FACTORS INFLUENCING EFFECTIVENESS OF KENYA'S COMMUNITY HEALTH STRATEGY IN THE FIGHT AGAINST HIV/AIDS: A CASE OF TRANSMARA WEST SUB COUNTY, NAROK COUNTY, KENYA

BY

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DECLARATION

This research report is my original work and has not been submitted for any award of degree in any other university.

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This research report has been submitted with my approval as the university supervisor.

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DEDICATION

I dedicate this work to my dad and mum, Mr. and Mrs. Maritim, whose hard work and determination to have us get a good education, is never lost to me. Thanks for the faith you have had in me and for being such sterling parents. That you denied yourself the luxury of life to ensure we schooled can never be gainsaid.

And to my siblings and friends; my pillars of strength, you are very much appreciated. Your wise advice and counsel will forever propel me to even greater heights.

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ABBREVIATIONS AND ACRONYMS

PLWHIV	Persons Living With HIV/AIDS
KNBS	Kenya National Bureau of Statistics
NACC	National AIDS Control Council
NASCOP	National AIDS & STIs Control Program
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNICEF	United Nations International Children's Fund
CU	Community Unit
CS	Community Strategy
KI	Key Informants
IP	Implementing Partners
DHMT	District Health Management Team
SCHMT	Sub County Health Management Team
DASCO	District HIV/AIDS & STIs Coordinator
SCASCO	Sub County HIV/AIDS & STIs Coordinator
CHWs	Community Health Workers
CHEW	Community Health Extension Workers
NCAPD	National Coordinating Agency for Population and Development
NPI	New Partnership Initiative
CCS MKE	Catholic Christian Society of Mount Kenya East
NIDP	Narok Integrated Development Programme
TRDP	Transmara Rural Development Programme

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ABSTRACT

The purpose of this study was to explore the factors that influence effectiveness of Kenya's Community Health Strategy in the fight against HIV/AIDS. Specifically, the study sought to establish the influence of resource allocation, cultural attitudes and practices, supportive supervision, and existing referral systems and linkages or networks on community health strategy in the fight against HIV/AIDS, in Transmara West Sub-county of Narok County. The research design used was descriptive in nature. Simple random sampling was used to select a sample size of 168 respondents from a population of 290 CHWs, using Cochran's 1977 formula. Census approach was used to sample all the 10 CHEWs while purposive sampling was employed to identify KIs. The respondents were males and females between 30 years and 50 years of age. Information was collected using a questionnaire by the researcher and administered by two trained research assistants under the researcher's guidance. Data was analyzed using descriptive summaries, and findings presented by the aid of tables. For quantitative data, analysis was done using SPSS and findings presented using tables, too. The study concluded that among the four factors namely; cultural attitudes and practices, resource allocation, supportive supervision and referrals, linkages and networks; resource allocation had the greatest influence on the effectiveness of the Kenya's Community Health Strategy in the fight against HIV/AIDS. This was followed by cultural attitudes and practices and then supportive supervision. Lastly, referrals, linkages and networks indicated a positive relationship with effectiveness of community strategy, but one which was weaker than the first three factors. The CHWs rated amount of funds allocated to Community Strategy as very high determinant as shown by a mean of 1.262 and a standard deviation of 0.839. Also, consistency of funding and availability of CHWs kit/IEC material and logistical support were rated as moderate determining factors at a mean of 3.114 and standard deviation of 0.984 and 1.050 respectively. Additionally, the respondents rated staffing levels of health centers as a moderate determining factor at a mean of 3.262 and a standard deviation of 0.911. At a mean of 2.465 and a standard deviation of 0.376 the CHWs agreed that cultural practices have high influence on effectiveness of community services in HIV/AIDs fight, and indicated at a mean of 2.537 and standard deviation of 0.674 that cultural beliefs and practices hindered access to proper care for HIV clients. Regular support supervision was rated as moderately influential at a mean of 3.032 and a standard deviation of 0.893 just as extensive coverage of indicators during supervision was rated at a mean of 3.078 and a standard deviation of 0.675 as moderately influential. CHWs further conceded with a mean of 2.993 and a standard deviation of 1.777 that completeness of referral process was a high determinant of effectiveness of the community health strategy in the fight against HIV/AIDS. The study recommends that issues around resource allocation be streamlined by the government to ensure a smooth implementation of the program. Resource allocation determined whether effective support supervision was achieved or not and the study thus recommends a dedicated budget to the strategy. On cultural practices, the study recommends that communities be empowered through more targeted community mobilizations by use of IEC materials that would bring out the real HIV issues for better understanding. Appreciating that supportive supervision at the Community Units increases quality of service and contribute to the uptake of community-based HIV services, there was need to ensure consistent and adequate supply of resources to the CHEWs and SCHMT to conduct this activity regularly and in a predetermined manner. Regular monitoring, guidance and mentorship visits by program officials help boost morale and motivation of the beneficiaries. Communities should be empowered and prepared to take up the responsibility of taking care of their own health through mainstreaming of community participation in all health and development projects. Finally, for fairly observable and measurable change on indicators, project or program implementation support period should be longer, say 3-5 yrs. The government should strive to have all partners commit to funding and/or technical support for periods not less than 3 years.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Globally there have been positive effects noted in community involvement in HIV response (Kidane & Morrow, 2000; Opiyo & Njoroge, 2009; Simba, Kaseje & Kiangi, 2003). But even so, globally, HIV/AIDS is the fourth largest killer with an estimated 42 million people living with HIV, about a third of them aged between 15 and 24 years (UNAIDS, 2010). Most people do not know they are infected and women are particularly vulnerable. Sub Saharan Africa is the region most affected by the epidemic and HIV is now the leading cause of death. It is estimated that about 11 million children have lost mothers or both parents (UNAIDS, 2010 & Moth, Ayayo and Kaseje, 2005).

Kenya first rolled out the Community Based Health Care (CBHC) programme in 1986 to 14 districts in the country as reinforcement to the Primary Health Care (PHC) programme that had been piloted in 1977 (Kara & Mcpake, 1993). However, in the late 1990s the system was abandoned due to shrinking health budgets and introduction of austerity policies by the World Bank and IMF - Structural Adjustment Programmes.

It was not until the year 2006 that Kenya adopted the Kenya Essential Package for Health (KEPH) – a CBHC programme - as the new approach to health care delivery which introduced Community Health Strategy in the year 2007 with the aim of enabling communities to improve and maintain a level of health that will enable them to participate fully in national development towards the realization of Vision 2030 (Ministry of Health, 2006). The overall goal of the Community Strategy, as espoused in the National Health Sector Strategic Plan (NHSSP II – 2005–2010): Taking the Kenya Essential Package for Health to the Community: A Strategy for the delivery of level one services, is to enhance community access to health care in order to improve individual productivity and thus reduce poverty, hunger, and child and maternal deaths, as well as improve education performance.

Ever since the program was rolled out by the Ministry of Health, it has desirably generated interest amongst all stakeholders. It has encouraged and acted as a bonding tool for all the stakeholders to collaboratively engage in the fight against all the causes of ill health (NACC, 2010; UNAIDS, 2011; UNICEF, 2010). The establishment of one CU per sub-location, complete with a CHC to manage and administer the unit's mandate is particularly innovative.

According to National AIDS Control Council (2010) donors – international and local – have supported these CUs to help them achieve their health objectives, which by design are shared by the community. Of particular focus were such community-based programs that were applied in the fight against HIV/AIDS. These included: - Mother-to-mother program (m2m), peer educators programme, Community Based HIV Counselling and Testing (CBHCT), couple counselling, etc. These strategies have been found to be extremely useful in the fight against HIV (UNICEF, 2010; Rutenberg, Field-Ngwuer, and Nyblade, 2012).

Kenya is home to one of the world's harshest HIV and AIDS epidemics. An estimated 1.6 million people are living with HIV; around 1.2 million children have been orphaned by AIDS; and in 2009 80,000 people died from AIDS related illnesses (UNAIDS 2010). Kenya's HIV prevalence peaked during 2000 and, according to Kenya AIDS Response Progress Report (2014) and Kenya HIV Estimates (2014), has dramatically reduced to around 6 per cent. This decline is thought to be partially due to an increase in education and awareness, and high death rate (UNAIDS 2010).

UNAIDS (2013) & NACC (2013) reported that approximately 53 out of 100 people in Narok County had never tested for HIV by 2009. And, of those who tested HIV positive, 65 per cent delayed before joining a care programme. Despite the country and world striving to close the tap of new infections, Narok County had about 1300 new adult infections in 2011. It is against this background that Community Strategy was established as a nostrum for the worrying trend.

On the basis of the foregoing, this paper sought to assess the determinants of effectiveness of the program, with particular bias on anti-HIV/AIDS interventions and finally give appropriate recommendations.

1.2 Statement of Problem

The HIV/AIDS scourge has been a major problem in Kenya. According to KNBS and ICF Macro (2010), entire households have been wiped out and this has seriously impacted on the economic and social status of this nation. Community systems and services have been suggested to be important in HIV care and treatment in ensuring continuity of services, support for adherence to treatment, treatment retention, linkages to complementary services, referral of clients, and a reduction in stigma and discrimination (Hubley, 1999; Khaemba, Maithya and Muange, 2009; Obel, 1995 & Rutenberg et al., 2012).

In spite of the widespread application of the community health strategy in Kenya since its inception in 2007, there is yet to be clearer evidence to demonstrate the effectiveness of the strategy in improving the overall state of health (UNICEF, 2010). More lacking was the link between the program with HIV/AIDS. According to Wafula nad Ndirangu (2009), consistent exposure of community and household members to essential maternal care messages resulted in increased adoption of health practices by mothers or caretakers of newborns. For Narok, majority of deliveries alarmingly remain largely unskilled. UNAIDS (2013) reported that 85 per cent of HIV-positive women do not deliver in a health facility while only 26 per cent of pregnant women attend the recommended four antenatal visits. This complicated the fight against the scourge even when such community-based programs as M2M, peer support groups, CUs, etc. exist in the county.

Whereas other services being offered by the Community Strategy at level one in Kenya under the hygiene and sanitation such as water safety, food hygiene and solid waste disposal among others were relatively more comprehensively covered, other components like HIV/AIDS were least covered (UNICEF, 2010). Several past studies (Airhihenbuwa & Webster, 2004; Heckman, Somlai, Peters, et al., 1998; Khaemba et al., 2009 & Koech, Maithya and Muange, 2003) on other parts of the country in deed support this assertion. This particularly curtailed the effectiveness of the CUs in the fight against HIV/AIDS. Further, past studies on community-based programs indicate that inadequate funding and shortage of qualified health staff impacts on community-led service delivery, particularly on supervision, IEC materials, Kits and referrals etc. (Jaffar, et al. 2009; Wangalwa, et al. 2012; AMREF, 2010; UNICEF, 2010; Tearfund, 2010; NACC, 2013).

Since CS was being applied all over the country for different health goals, it was important to investigate the factors that influence its effectiveness in the fight against HIV/AIDS. Furthermore, the specific extent of application of the strategy in the fight against HIV/AIDS was not well documented.

1.3 Purpose of the Study

The purpose of this study was to investigate factors influencing effectiveness of Kenya's community health strategy in the fight against HIV/AIDS in Transmara West Sub County.

1.4 Objectives of the Study

The study was guided by the following objectives:-

1. To establish the influence of resource allocation on effectiveness of the community health strategy in the fight against HIV/AIDS in Transmara West Sub-County, Narok County.
2. To explore the influence of cultural practices on the effectiveness of the community health strategy in the fight against HIV/AIDS in Transmara West.
3. To determine the influence of supportive supervision on effectiveness of the community health strategy in the fight against HIV/AIDS.
4. To explore the influence of existing referral systems and linkages/networks on effectiveness of community health strategy in the fight against HIV/AIDS in Transmara West sub-county

1.5 Research Questions

The questions that the study intended to answer included:

1. How does resource allocation influence effectiveness of community health strategy in the fight against HIV/AIDS in Transmara West Sub-County, Narok County.?
2. To what extent do the cultural practices of Transmara community members influence effectiveness of community health strategy in the fight against HIV/AIDS?
3. How does supportive supervision of community health workers influence effectiveness of community health strategy in the fight against HIV/AIDS?
4. To what extent do existing referral, linkages and networks influence effectiveness of community health strategy in the fight against HIV/AIDS in Transmara West?

1.6 Significance of the Study

A large proportion of Kenyans continue to carry one of the highest preventable burdens of ill health in the world. Much of this burden could be lifted and prevented with existing knowledge and resources.

The findings of the study may be found important to:-

Ministry of Health – the research aimed at identifying the challenges and opportunities for using community based approaches in the health system. This might further equip the Ministry in charge of health with a scope of HIV community based interventions, how the system is performing in regards to the country's HIV response plan and the challenges that were faced in the implementation of the program. This might assist the Ministry to come up with innovative structures of community involvement in HIV response.

Community of Program Managers - This study was hoped to contribute to the design of more effective interventions to promote anti-HIV/AIDS interventions that are evidence-based.

Other researchers – the research might be used as a point of reference by other authors and researchers in the same field. The literature reviewed might also act as base of information on the topic and may be used by other researchers to identify gaps for further study.

1.7 Delimitation of the Study

The study was conducted in Narok County and specifically in the Community Units operating in Trans-Mara West Sub-County. The participants of the study were Community Health Workers in the Community Units, Key Informants from the community, and key management staff in the public health facilities located in the sub-County as well as representatives of Implementing Partners (IPs). The study was carried out between October 2014 and November 2014.

1.8 Limitations of the Study

The researcher envisaged such limitations as withholding of information by respondents for fear of investigations, time which was not on the side of the researcher, poor road network as the region is mostly rural with little to no tarmac road and vastness of the area. The researcher overcame the limitation of withholding information by providing an approval from the university to do research to the respondents on top of providing assurance that utmost confidentiality would be maintained by the researcher.

The researcher also engaged 2 research assistants so as to finish data collection in good time. The researcher overcame the difficulty of impassable roads by using a four wheel drive vehicle. This, however, increased the project research cost for the researcher.

1.9 Assumptions of the Study

The researcher assumed that the situation in the community health strategy was similar or almost similar in the entire country. It also assumed that the information given by the respondents was correct and could be replicated elsewhere to strengthen health systems management in other counties.

1.10 Definition of Key Terms as used in the study

Effectiveness: Effectiveness of a program was here discussed in terms of relevance in addressing the HIV issues in the Community Units; its ease in replication at low cost; partners displaying some level of willingness to be involved in the program; and the extent to which it addressed the HIV/AIDS problem.

Effectiveness of Kenya's community health strategy: was here discussed in terms of its contribution towards reduced number of defaulting cases or LTFU, increased adherence to treatment and care, reduced stigmatization and discrimination of PLWHIV as well as improved socioeconomic status of PLWHIV.

Community Health Strategy: community-based approach through which households and communities take an active role in health and health-related development issues. Its goal is to enhance community access to health care by providing health care services for all cohorts and socio-economic groups at household and community levels; building the capacity of community health extension workers (CHEWs) and CHWs to provide community level services; strengthening health facility-community linkages; and raising the community's awareness of their rights to health services.

Resource Allocation: Was here discussed in terms of financial and material resource allocation to fund community health strategy, and also in terms of staffing levels at health facilities.

Culture: In this study, culture was explored in terms of cultural practices of polygyny and wife-sharing. Here, the extent of practice was investigated.

Supportive Supervision: For purposes of this study, supportive supervision was conceptualized as a visit by the Community Health Extension Workers upon the Community Health Workers for purposes of on-job training, mentoring, coaching, and general assessment and observation of their performance for purposes of improving their competencies.

Referrals, networks and linkages: This was discussed in terms of bi-directional case forwarding either from the community to a health facility or from the health facility to the community.

1.11 Organization of the study

This study was organized into five chapters. Chapter one presented a background of community health strategy with a view to positioning it in the existing body of knowledge. It is in this chapter also that statement of the research problem, research purpose, objectives, questions, assumptions, limitations, delimitation, definition of key terms as used in the study as well as a general organization of the study was presented.

The second chapter reviewed available and accessible literature on the subject while seeking possible explanation of the scenario from relevant theoretical perspectives. It covers four thematic areas, namely: resource allocation and community strategy, cultural practices and community strategy, supportive supervision in community strategy and referral networks and community strategy. It concluded with a conceptual framework indicating the linkage between the conceptualized dependent and independent variables.

The third chapter deals with methodology employed in the study. It describes research design, target population, sample and sampling procedures, research instruments and their validity and reliability, the data collection instruments and procedures, ethical considerations and how the data would be analyzed and presented.

The fourth chapter presented and analyzed the data obtained from the respondents. Here, data was reviewed, interpreted and presented according to the thematic areas. Findings were presented using tables, frequencies and percentages.

Upon analysis, interpretation and presentation of the findings, the last chapter presented the researcher's recommendations to health practitioners, policy makers, community of program managers as well as the academia.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

In this chapter, the researcher presents a review and a critique of some of the past and current literature on the subject, with possible explanation to the current scenario being sought from relevant theoretical perspectives. The chapter consists of a discussion of effectiveness of Kenya's community health strategy in the fight against HIV/AIDS and the four thematic areas – resource allocation and community strategy, culture and community strategy, supportive supervision in community strategy and referral networks and community strategy - as drawn from the conceptual framework.

2.2 Concept of Effectiveness of Kenya's Community Health Strategy in the fight against HIV/AIDS

Globally, according to WHO (2011), UNAIDS (2011) and UNICEF (2011), more than 34 million people are estimated to be living with HIV, and 67 percent of them reside in sub-Saharan Africa. While more than 16 million people are eligible for antiretroviral therapy (ART), an estimated 8 million people in low- and middle-income countries were receiving antiretroviral ART at the end of 2011.

In Kenya, 1.6 million people (6.3 percent of the population) are living with HIV. As of March 2013, of the 850,000 people in need of treatment, 614,400 were actively on ART, representing 72% coverage (NASCOP, 2013).

International treatment guidelines continue to change in line with new evidence that supports earlier initiation of treatment. Kenya will thus face increasing pressure to use emerging evidence to expand its treatment program despite resource constraints and many competing health priorities. Currently, approximately 70 percent of patients on ART in Kenya are managed in approximately 30 percent of the health facilities. These health facilities face serious human resource and infrastructure constraints that may slow the expansion of care and treatment. The engagement of the community has been cited as a key solution to address this issue (Ministry of Health, 2012).

Community systems and services, according to Ministry of Health (2013), are important in HIV care and treatment to ensure continuity of services, support for adherence to treatment, treatment retention, linkages to complementary services, referral of clients, and a reduction in

stigma and discrimination. As the population in need of HIV care and treatment continues to grow in Kenya, it is imperative that the country use community systems to ensure an efficient and effective response in an already overstretched health system.

Throughout the world, successful community-based programs, from peer support programs for people living with HIV to men encouraging other men to get tested, have been identified. For example, in several southern African countries, Goemaere (2012) reports, delivery of ART at the community level contributed to cumulative retention levels greater than 95%. In Tanzania, community-based volunteers linking patients to trained medical workers for ART contributed to fewer patients being lost to follow-up due to increased support of family and community (Roura, et al., 2009). In Uganda, according to Jaffar, et al. (2009), comparison of home-based ART delivery to facility-based ART delivery indicated that patient survival and ability to suppress viral load were equivalent, with both scenarios demonstrating that home-based care is an effective method of improving access. While a study in South Africa revealed that peer adherence support and nutrition can decrease delays in scheduled hospital visits (Ministry of Health, 2013).

Appreciating the immense role that community-owned and led health programs played in affording the public access to health care and health development, Kenya adopted the Kenya Essential Package for Health (KEPH) as the new approach to health care delivery which introduced Community Health Strategy in the year 2007 with the aim of enabling communities to improve and maintain a level of health that will enable them to participate fully in national development towards the realization of Vision 2030 (Ministry of Health, 2006). The overall goal of the Community Strategy, according to Ministry of Health (2006, 2007), is to enhance community access to health care in order to improve individual productivity and thus reduce poverty, hunger, and child and maternal deaths, as well as improve education performance. The community-based approach, as set out in the Community Strategy, is thus a mechanism by which households and communities strengthen their role in health and health-related development. The strategy intends to do this by improving community members' knowledge of health care as well as the skills they need to participate in planning and managing local health services (AMREF, 2010; MoH, 2006; NACC, 2013).

Presently, Kenya's response to the HIV/AIDS scourge is determined by the National AIDS Control Council which is in turn guided by the Kenya National HIV and AIDS Strategic Plan which emphasizes several other sub-strategies. Foremost among these is the provision of cost-effective prevention, treatment, care and support services. It also sets out for the mainstreaming of HIV in key sectors through long term programming as well as community participation with a view to creating AIDS-competent populations (NACC, 2009).

Perhaps indicating the indispensability of communities in health care and health development matters, other players in the health sector like the civil society organizations (CSOs) and the Faith Based Organizations (FBOs) have - since the rolling out of the community health strategy in 2007 - meaningfully complemented the government's efforts in establishing community units aimed at empowering the communities to manage their own health (AMREF, 2010). These initiatives have been essential in HIV care and treatment to ensure continuity of services, support for adherence to treatment, treatment retention, linkages to complementary services, referral of clients, and a reduction in stigma and discrimination (NACC, 2013; Rutenberg et al., 2012; Simba et al., 2003; Tearfund, 2010; UNICEF, 2010 & UNAIDS, 2013).

Examples of such initiatives include the African Medical Research Foundation financing of CBOs and training of community health workers in home-based care (HBC) to conduct the Maanisha community-based project. The five-year project reached more than 64,000 people living with HIV with HBC and provided 37,000 clients with nutritional support (Wafula and Ndirangu, 2009).

Another, according to Wafula and Ndirangu (2009), is the USAID-funded mothers2mothers (m2m) program which was successfully implemented in 77 facilities in Kenya. This is a peer support program in which HIV-infected mothers mobilize their peers to seek services through health facilities. The m2m, according to USAID/Kenya (2012), program uses a "Prevention with Positives" (PwP) approach by training and employing HIV-positive mothers to provide high-quality support and education to their peers in the healthcare setting. More than 170 mentor mothers have been employed to support more than 22,000 pregnant and postnatal women (USAID, 2012). Other major community-based care and support programs in Kenya include the USAID-supported APHIA II and APHIA plus projects.

These projects, according to Wafula and Ndirangu (2009), typically train community health workers to provide home-based care, track and refer clients for services, follow up with pregnant mothers for services to prevent mother-to-child HIV transmission, and identify orphans and vulnerable children for care. This is in line with Kenya's vision 2030, through which the government intends to scale up community units in the country, and also work towards improving the health service delivery at level one.

Recent studies by the AMREF (2010), UNICEF (2010) and NACC (2013) have shown that community health strategy was an effective approach to delivering community based interventions. This has been evidenced by significant changes in essential maternal and newborn care practices (Wangalwa, et al. 2012), successful community-based programs, from peer support programs for people living with HIV to men encouraging other men to get tested, have been identified (Lyer, et al., 2013; NACC, 2013) and improved and sustained coverage of the target populations with specific interventions over time (WHO, 2009; UNAIDS, 2010).

However, the population in need of HIV care and treatment continues to grow in Kenya with 1.6 million people (6.3 percent of the population) living with HIV and of the 850,000 people in need of treatment, 614,400 are actively on ART (National AIDS/ STI Control Program, 2011). In fact, available literature on the subject indicates that many people in Kenya are still not being reached with HIV prevention and treatment services. Only 1 in 3 children needing treatment were receiving it. This demonstrates Kenya still has a long way to go in providing universal access to HIV treatment, prevention and care (WHO/UNAIDS/UNICEF, 2010).

In spite of the fact that Community Strategy was being implemented in many counties in Kenya, Narok included, Narok County had about 1300 new adult infections in 2011 (UNAIDS, 2013). HIV counseling and testing and linkage to care and treatment are important steps in reducing the sexual transmission of HIV. Despite the huge importance of HIV testing as a way to increase prevention and treatment, the UNAIDS (2013) & NACC (2013) reported that about 53 per cent of people in Narok County had never tested for HIV by 2009. Of those who tested HIV positive, 65 per cent delayed before joining a care programme. This delay was attributable to weak linkages between HTC service points and Care and Treatment service points (NACC, 2013). This is a gap that community-based interventions such as

CBHTC and being linked to the immediate CHW, CU or peer support groups sought to bridge.

According to the UNICEF (2010), there was need for further research/study on the performance of the Community Strategy but with emphasis on the key health indicators. This was likely to reveal the particular impacts created by the specific community based interventions. Indeed, the UNICEF (2010) evaluation report of community health strategy implementation in the then 64 implementing districts established that the services that were being offered by the Community Strategy at level one in Kenya under the hygiene and sanitation such as water safety, food hygiene and solid waste disposal among others were relatively more comprehensively covered as compared to the other components (like HIV/AIDS).

While it was, therefore, imperative - on the basis of the foregoing - that the country used or scaled up community systems to ensure an efficient and effective response in an already overstretched health system, there was little to show for the program's contribution towards the fight against HIV/AIDS. As alluded to by UNICEF (2010), there were societal, policy and/or systemic challenges that denied the program the chance to comprehensively articulate and address issues of HIV/AIDS. This study sought to unravel these challenges.

2.3 Resource Allocation and Community Health Strategy

This sub-chapter concerns itself with two aspects of resource allocation. On the one side is financial resources allocated to the health system in general, and to the health system's fight against HIV/AIDS in particular. Secondly, and intricately and closely linked to financial resources, is human resources engaged to deliver health outcomes. A discussion of the two items, in terms of trends of levels and consistency of allocation, follows below.

2.3.1 Financial Resource Allocation and Community Health Strategy

According to Obonyo (1997), as part of its development strategy to alleviate poverty and improve the welfare and productivity of the nation, Kenya's independence government was desirous of providing "free" health services. However, Obonyo (1997) points out, various territorial and extraterritorial constraints made it impossible for the government to continue financing increased demands for healthcare. Poor management and inappropriate pricing of services curtailed the realization of the objectives (Donohue et al., 2005). In reaction to these,

Fajans et al., (2006) reported that healthcare policy reforms have been adopted as a strategy of supplementing government budget to revitalize healthcare delivery systems. The most notable health reforms the government adopted included decentralization and cost sharing.

According to the 2001–2002 National Health Accounts (NHA), Kenya spends 5.1% of its GDP on health. The health budget has grown significantly from Ksh15.2 billion in Fiscal 2001/02 to Ksh34.4 billion in Fiscal 2008/09. In contrast, the proportion of overall government expenditure the government spends on health declined over the same period from 9% to 7.9% in Fiscal 2006/07.

Even with the introduction of cost-sharing system in 1992 in a bid to leverage more resources for health services, many other social sectors ended up sharing in the revenue, as they were equally affected by the SAPs. Indeed revenue from the cost-sharing system increased exponentially from Ksh60 million (approximately US$770,000 in 2008 dollars) in fiscal 1992/93 to over Ksh1, 468 million (US$19 million) in Fiscal 2005/06. However, the revenue's overall share of total health expenditure for Fiscal 2005/06 was just 6.4% of the MOH's total spending (NHA, 2009)

There are three major sources of financing for health services in Kenya. As summarized in the NHA, the government (central and local) contributes 30%, with households paying 51% out of pocket and donors (international and domestic) 16%; the statutory National Hospital Insurance Fund (NHIF) and other private insurers and sources contribute the rest.
Considering that the largest burden of health care financing was borne by the patients and their households, PLWHIV who were unable to regularly work due to ill health (as a result of opportunistic infections) or stigma and discrimination from the workplace were continuously being pushed towards real abject poverty and absolute dependence on their households. This stirred even a bigger problem of community dependence on the aged as the productive age groups were the greatest casualties of the disease (UNAIDS, 2013; Wafula and Ndirangu, 2009; Gulliford & Morgan, 2013).

Some 48% of MOH spending, according to National Health Accounts (2001&2002), was skewed towards curative services, even though the national health policy expected the government to focus more resources on preventive health in areas where Kenya's burden of disease is concentrated. It's not in contention that HIV/AIDS is one single most contributor

of Kenya's burden of ill health. Yet this funding policy, or lack of it, did not afford the HIV/AIDS steering organs like NACC and NASCOP the ability to design, plan and implement effective HIV prevention programs. Given that donor funding went directly to implementing agencies, there was bound to be duplication of effort and sustained implementation of non-evidence based interventions (NACC, 2009). It is this challenge that has seen the state, through NACC, institute a policy of ensuring that all partners and implementing partners were guided by one consultatively, sector-wide generated framework i.e. KNASP I, KNASP II and KNASP III all tied to funding patterns and contracts.

Donor funding for the health sector as a share of the total budget increased from 8% in Fiscal 1994/95 to 16% in Fiscal 2001/02 (NHA, 2009). Major donors include Japan, the US, the UK, and the European Commission. Traditionally, donor funding has gone to the development budget of the Ministry of Health, which for many years has amounted to 60–90% of budget support. According to Ministry of Health (2005), The Joint Program of Work and Funding devised by the stakeholders—government, donors and NGOs—expected donor funding to fill a gap of US$92 million for supporting health services in districts for Fiscal 2006/07. However, as reported in NACC (2009), the bulk of donor funds to the health sector were allocated directly to specific interventions according to the programs agreed between donors and the Ministry of Health. Hence, the MOH and implementing agencies had limited flexibility to reallocate donor assistance to fit government priorities. Funds donated through other programs such Global Fund and the US President's Emergency Program for AIDS Relief (PEPFAR) were off- budget support and went directly to the implementing agencies, whether government or NGO (NACC, 2009&2013; AMREF, 2010; UNICEF, 2010; Republic of Kenya, 2006).

Manifestly, therefore, coordinating the mobilization and strategic allocation of financing to different areas of the HIV response has been difficult. In fact, NACC (2009) concedes that many parallel financing systems exist; there was little coordination, harmonization or alignment among donors; a problem confounded by a lack of alternative financing mechanisms such as debt-relief, airport taxes, or sustained private sector advocacy, for the HIV response in Kenya besides traditional donors and government funds.

Implementation of the community health strategy projects, according to Tearfund (2010), expected synergistic and complementary support from other partners, particularly the public sector. However, key partners like ministry of health and that of Youth, Gender, Children, and Social Services were faced with lack of allocated funds to support these important activities, particularly in establishing CUs, carrying on OVCs programs, sustaining the CUs and in joint supportive supervision. Appreciating this bottleneck, UNICEF (2010), reported that facilitation resources were limited and therefore it proposed a further resource mobilization strategy that would have the government provide an annual budget line specifically for the strategy in the ministry of health. While UNICEF's (2010) study focused on the entire program's components, this study sought to find out whether resource allocation to the fight against HIV/AIDS in the community had an influence on the success of the program in the fight against HIV/AIDS.

2.3.2 Human Resource Allocation and Community Health Strategy

According to Mwaniki and Dulo (2008), the focus of improved healthcare services delivery was the need to increase the cost effectiveness and efficiency of resource allocation and use. This entailed evidence-based financing and attracting and retaining qualified personnel with the right skills and attitudes towards work. The Kenya Health Policy Framework (KHPF) (2007) outlines the need to establish staffing norms that defined an appropriate mix of personnel, operations and maintenance inputs at all levels in order to obtain optimal performance and efficiency. The focus of KHPF was to ensure that all health professionals underwent reorientation, retraining and redeployment so as to meet the manpower demand and resource availability, particularly at the central level.

The Ministry of Health's *Norms and Standards for Health Service Delivery* (MoH Kenya, 2006) uses population-based parameters to define norms for establishing various types and levels of health facilities as shown in.

However, the Kenya Service Provision Assessment Survey 2004 (NCAPD, 2005) showed that the average population coverage per health facility significantly exceeded these norms. The report also indicated that government and faith-based organizations' (FBO) health facilities experienced higher workload compared to private-for-profit health facilities.

According to the Ministry of Medical Services (2008), more health facilities would be required to meet the aspirations in the National Health Sector Strategic Plan (NHSSP) II.

With the current population estimated to be 40 million, the estimated needs were 7,600 community health units, 3,800 dispensaries, 1,267 health centers, 380 primary hospitals and 38 secondary hospitals (Ministry of Health, Kenya, 2006 p.6). This would have significant staffing implications especially for nurses and also on financial/budgetary allocation.

The Report on Human Resource Mapping and Verification Exercise (Ministry of Health, Kenya, 2007 a) showed that in 2004 the Ministry of Health had 2,156 health facilities served by a workforce of 35,643 staff including nurses, doctors, clinical officers and community health workers.

According to NACC (2009), human resources for the country's health system were severely constrained. In addition, there has been high staff turnover and lack of capacity among many. Several programmes, as reported by AMREF (2010), have sought to bridge professional health workers and caregivers to provide level-one services. However, repeated attempts to remunerate these workers have failed at the policy stage (UNICEF, 2010 & Wafula and Ndirangu, 2009). This was worsened by the fact that such strategies were neither contemplated nor costed in KNASP II, which was also weakly linked to the National Health Sector strategic plans (NACC, 2009).

It is to be found, therefore, that inadequacy of financial resources – be they from government, donors or FBOs – will affect even staff retention. Particularly pronounced was the case in Community Strategy as it made use of CHWs who were not paid. It would appear that nothing further motivated them to remain working outside of the training.

According to a study by Kalembo and Zgambo (2012) on PMTCT LTFU in Sub- Saharan Africa, utilizing trained and paid community health workers that conducted community outreach and home visits could also benefit continuity of care, follow-up care, and family involvement. And according many studies (Heckman et al., 1998; Bwirire, Fitzgerald, Zachariah et al., 2008 & Berer and Ray, 1993), it could as well help to combat some of the many barriers that women faced in seeking care in PMTCT and in general Care and Treatment programs. Provision of continuous training for PMTCT providers and community workers was also needed to ensure quality services in PMTCT programs.

UNICEF (2010), in its assessment of the Tearfund's '*Scaled up Response to HIV and AIDS through Civil Society Project'*, reported that the NPI project started well in many partners but were immediately struck by shortages of trained technical staff. In CCS MKE the staff

migrated to the public sector after training. In Transmara, in particular, the report indicated that there was not enough number of trained nurses and other technical staff to effectively support NIDP and TRDP in their outreach programs, while according to Wafula and Ndirangu (2009) high drop out of volunteers seeking greener pastures elsewhere for better pay affected the same programs in Kakamega initially. This was particularly the basis for UNICEF's (2010) recommendation that other non financial incentives be instituted to help retain the CHWs beyond training. However, limited resources - as evidenced in inadequacy of bicycles, CHW kits and IEC materials, even when such were extremely necessary for effective implementation of the strategy - curtailed the successful implementation of the program. On the basis of the foregoing, therefore, this study proposes to investigate whether human resource limitations had an influence on the effectiveness of the program in the fight against HIV/AIDS in Transmara.

2.4 Role of Supervisory Support in Community Health Strategy

Supervision is conceptualized as the link between district and peripheral health staff, and is considered important in staff motivation and performance (Capblanch, 2008). Supervision often includes aspects of problem solving, reviewing records and observing clinical practice. Supervision mostly means visiting supervisees, but also includes meetings in the centre.

Supervision is regarded as a managerial activity typically carried out by health staff supervising lay health workers (Gill, 1990). Supervision is focused on line management with an emphasis on the control and support of health staff undertaking delegated functions at primary healthcare level, such as infrastructures and financial management. In high-income countries, rural healthcare face similar problems of isolation, heavy work load, limited opportunities for professional development and low numbers and retention of personnel (Lin 2006).

Supervision within the CUs by the CHEWs, DHMT, and partners needed to be closely, regularly done (Ministry of Health, 2006). At the higher level, New Partnership Initiative, as reported in its End of Project evaluation report by UNICEF (2010), performed supervisory visits to its partners regularly and closely after the initial training of trainers to strengthen the skills acquired at the centralized training sessions. However, in their Tearfund End of Project Evaluation report, the partners themselves, and the service recipients indicated that regular

supervision and follow-on activities were not always done regularly, nor detailed enough to strengthen the skills acquired at the centralized training sessions.

In terms of policy, the DHMT and CHEWs were required to offer regular support to the community units (Ministry of Health, 2006). However, lack of or inadequacy of funds to support such field visits have made it almost impossible for such visits to be implemented (UNICEF, 2010). The result has been to leave such important function to the respective CHEWs who are also under-resourced despite the challenges occasioned by vastness and rugged terrains of the areas. Where such visits were made, it was often rushed in order to cover as many CUs and partners as possible, ultimately losing detail (UNICEF, 2010).

According to UNICEF (2010), capacity building started with training of trainers (ToTs) for DHMTs – two focal persons (comprising mainly the District Public Health Officer/Nurse per district). These officers were then mandated to train and supervise the CHEWs in their districts. However, there was lack of continuity of supportive supervision as a result of frequent transfers of those focal persons. There was, therefore, need to train all DHMT members to ensure continuity of supportive supervision and sustainability of community strategy. But the feasibility of such trainings was at question considering no new staff had been hired to at least boost the numbers of service providers, nor had the government factored in a budgetary support specific to Community Strategy in the current and past Fiscal years. More worrying, according to Friedman et al. (2014), was the fact that now health was a devolved function and so far the county governments had not shown the willingness to improve on line ministry's funding.

2.5 Referrals, Linkages and Networks and Community Health Strategy

A meta-analysis conducted in sub-Saharan Africa indicated that the largest obstacle to PMTCT program was traveling long distances to health centers (Painter, Diaby, Matia et al., 2004), and a lack of maternal secondary education was associated with mother-baby pair non-adherence to nevirapine (NVP) (Moth, Ayayo, and Kaseje, 2005).

Various studies have reported gaps in the referral systems and networks (Kalembo and Zgambo, 2012; Hurtig, Emmelin, and Kasenga, 2007; Heckman et al., 1998; Tearfund, 2010; UNICEF, 2010 & Raburu, 2004). Due to excessive distances between the health facilities in Narok and Transmara areas of Tearfund's implementation, UNICEF (2010) for example, reported that many clients that were referred from the outreach clinics were unable to

complete the referral process. This scenario created “missed opportunities” to the use of services. In some areas, the same study revealed, MOH officials felt that the NPI project, itself a Community Strategy, lacked comprehensiveness in depth. They felt that linkages with other HIV care and support were not complete, particularly linkages with care for orphans and vulnerable children, home based care and support to the PLWHAs on treatment. It was in this incomplete, and therefore, ineffective processes that loss to follow-up and defaulting cases were increased. Partly to blame, for Narok, was the special hardships due to terrain and poor infrastructure that made it difficult to reach some areas, especially during the rainy seasons.

These incomplete systems promoted LTFU in PMTCT programs in the country (Kalembo and Zgambo, 2012). Urgent strategies were, therefore, required to address the high rates of LTFU in PMTCT services. Studies by several researchers (Kalembo and Zgambo, 2012; Friedman et al., 2004; Heckman et al., 1998 & Khaemba et al., 2009) have proposed several strategies to address LTFU. Some of the strategies include psychosocial support, family-focused approach, home visits, monitoring and evaluation, and health information systems – majority of which a community-centered.

Psychosocial support from peers helps women adhere to PMTCT program recommendations. A good example is Mothers2mothers (m2m), a clinic-based, peer-support program that provides education and psychosocial support to HIV-positive pregnant women and new mothers in sub-Saharan Africa (Kalembo and Zgambo, 2012). Mothers2mothers (m2m) employs HIV-positive mothers as peer educators and care providers in clinical health facilities to enhance the quality and effectiveness of prevention of mother-to-child-transmission (PMTCT) services. It helps women access existing PMTCT services and follow-ups with mothers and infants after delivery (Kalembo and Zgambo, 2012 & Khaemba et al., 2009). An evaluation of this program, as reported in Amani-Bose et al., (2009), found out that women participating in m2m program were significantly more likely to reveal their HIV status to at least one person; receive CD4 testing during pregnancy; receive nevirapine for themselves and their infants; practice an exclusive method of infant feeding (in most cases, exclusive formula feeding). Male partner and community involvement have been found to provide psychosocial support and eventually improving retention of clients in PMTCT program (Lettow, Bedell, Landes et al, 2011).

Home visits provided by health and peer workers upon enrolment to PMTCT program as well as follow-up visits if needed in case of non-adherence to scheduled visits or in case of social difficulties is helping to reduce loss to follow-up in PMTCT and in general Care, Support and Treatment programs. Home visits are designed to include counseling and education to the families on importance of following Care and Treatment protocols (Amani-Bose et al., 2009; Friedman et al., 2004; Heckman et al., 1998; Khaemba et al., 2009 & Nuwagaba-Biribonwoha, Mayon-White, Okong, and Carpenter, 2007). However, arising from the vastness and poor terrains of the Narok and Transmara areas, health and peer workers are in most cases unable to reach to all the defaulters/LTFUs. This was even compounded by the inadequacy of funds from the Ministry of Health to support such logistical demands (Tearfund, 2010).

According to UNICEF (2010), each CU had two CHEWs, a nurse who worked mainly at the health facility and a Public health technician who worked in the field. The CHEW nurses working in dispensaries were overworked because each dispensary was run by only one nurse. Similarly, there was only one PHT per sub-location (in some cases per location) who also had other responsibilities as per their job descriptions. The study noted that the PHT-CHEW was, however, more involved in CS field activities while the Nurse-CHEW was more involved at the health facility indicating synergy.

Health facilities in Transmara, according to UNICEF (2010), were sparsely located in an expansive environment. Distance to health facilities was also far for some community members. It is in this infrastructural challenge that innovative processes such as use of phone calls by the CHWs to remind PLWHIV of their next clinic visits to rid against defaulting cases.

2.6 Cultural Attitudes and Practices and Community-Based HIV/AIDS programs

A meta-analysis conducted in sub-Saharan Africa reported that rates and barriers to disclosure of HIV results amongst women varied from 16.7% to 86% and that between 3.5% and 14.6% of women reported experiencing a violent reaction from a partner following disclosure (Baek and Rutenberg, 2010). This was due to the fact that in most African cultures, women were regarded as sex objects to be used by men to propagate their lineages and were easily, therefore, accused of bringing the disease into the family even when it was the

men/husbands who engaged in extramarital affairs which were mostly sanctioned and condoned by culture (Airhihenbuwa et al., 2004; Berer and Ray 1993 & Koech et al., 2003).

Among the Maasai as a patriarchal society, Akaranga and Ongong'a, (2013) reports, women are culturally viewed as children who cannot contribute when "adults" are taking a decision. They may be seen but not necessarily heard! The tradition upon which the patriarchy bases its power does not allow for matriarchal open participation without explicit sanction by the male folk!

Polygyny, according to Clavence (2004), which is a marriage of one man with more than one wife, is equally dangerous in the age of HIV/AIDS. Polygyny among the Maasai is widely practiced because, as a patriarchal community, they fear dying without children and again in their social group, power is demonstrated by having many wives and children. In fact, traditionally, in polygyny, men may find the advantages of variety to access sex during taboo periods of menstruation, pregnancy and lactation. Apart from such subjective benefits, the Maasai like other African societies practice polygyny because of the cheap labour supplied by several wives and their children. Whatever the traditional advantages of this pattern of marriage, today it places Maasai women and other African women in a dangerous situation of being prone to HIV infection (Nayree, 2009).

In a polygamous marriage, the moment one of the partners is infected, be it the husband or one of the wives the whole group is endangered. This is why the practice of arranged marriages among the Maasai people places the young women intended for such marriages in dangerous position. Once more, the African tradition favours men's decision and or authority over their wives' sexuality. The women are not expected to discuss or negotiate their sexual options. They cannot suggest the use of condoms even when they suspect that their partner may not be safe. Even if they had knowledge that one of their co-wives is having an affair outside the marriage, they can hardly persuade their husband to take precaution (Akaranga and Ongong'a, 2013).

Apart from the health hazard posed by plurality of spouses, the Maasai's tradition of wife sharing amongst age mates is equally unsafe. Wife sharing by age mates has been cited as one of the outstanding paths to HIV infections (Akaranga and Ongong'a, 2013).

Culture, according to Koech et al. (2003), does greatly moderate any intervention program designed to be implemented in the community, by and with the community members. In implementing BCC programs in the community for example, care is usually taken to ensure that effective prevention and care messages are designed to diplomatically push the idea, as necessary, to avoid conflict, and to take into account community's traditions, culture, norms and values. It is impressive to note that, by design, most community strategy projects addressed this issue of culture sensitivity in advance to avoid any misunderstanding during the implementation of the projects. However, some issues of cultural practices have been found to be a hindrance to effective program uptake. For instance, Tearfund's End of Project evaluation report (UNICEF, 2010) indicated that in Narok, just like most parts of Kenya, culture did not allow boys and girls to be taught life and sex related skills together and in the same sitting, hence arrangements had to be made to reach the two genders effectively and separately. Also, wives sharing, as a cultural practice amongst the Maasai community, increased the risk of HIV cross infection amongst men and women. The same report also revealed that some of community members did not believe that HIV and AIDS were real; they believed it was a curse from a previous wrong doing. More so, some local leaders were not convinced that HIV and AIDS were real; hence they didn't support the program. They believed the program was curtailing their tradition of marrying more wives or enjoying sexual life with different women or men.

A study on PMTCT LTFU in Sub-Saharan Africa by Kalembo and Zgambo (2012) indeed recommended that health workers should attend ward development and other community meetings to explain the importance of male partner involvement and the need for expectant parents to be tested. Community HIV programs should also integrate beliefs, values, and practices of different cultural settings so that it can attract more male partners (Byamugisha, Tumwine, Semiyaga, and Tylleskär, 2010; Njunga and Blystad, 2010).

2.7 Theoretical Framework

There is need to place any study in the context of the general body of knowledge pointing to the general agreements and/ or departures with/ from previous studies. It was on this basis that some of the theories that are relevant to the study topic were analyzed in a bid to synthesize the problem. The sub-chapter is broken into 2 sections that cover the most frequently used theories and models of behavioural change from varied perspectives. It

begins with one that focuses on the individual's psychological process, such as attitudes and beliefs; then concludes with one that emphasizes social relationships.

Although each theory is built on different assumptions they all state that behavioural changes occur by altering potential risk-producing situations and social relationships, risk perceptions, attitudes, self-efficacy beliefs, intentions and outcome expectations (Kalichman, 1997).

2.7.1 Focus on Individuals (Psychological Models)

Models of individual behavioural change generally focus on stages that individuals pass through while trying to change behaviour. These theories and models generally do not consider the interaction of social, cultural and environmental issues as independent of individual factors (Auerbach, 1994).

Central to HIV prevention interventions based on psychological- behavioural theory is the practice of targeted risk-reduction skills. These skills are generally passed on to individuals in a process consisting of instruction, modeling, practice and feedback (Kalichman, 1997). One of the most instrumental psychological theories in the design and development of HIV prevention interventions is briefly described below.

2.7.1.1 Health belief model

The Health belief model, developed in the 1950s, holds that health behaviour is a function of individual's socio-demographic characteristics, knowledge and attitudes. According to this model, a person must hold certain beliefs in order to be able to change behavior. First, one must have a perceived susceptibility to a particular health problem ("am I at risk for HIV?"). Second, one must belief in the perceived seriousness of the condition ("how serious is AIDS; how hard would my life be if I got it?"), Third, belief in effectiveness of the new behavior ("condoms are effective against HIV transmission"), Fourth, belief in some cues to action ("witnessing the death or illness of a close friend or relative due to AIDS"), Fifth, belief in the perceived benefits of preventive action ("if I start using condoms, I can avoid HIV infection"), and sixth, belief that certain barriers to taking action are there ("I don't like using condoms").

In this model, promoting action to change behaviour includes changing individual personal beliefs. Individuals weigh the benefits against the perceived costs and barriers to change. For change to occur, benefits must outweigh costs. With respect to HIV, interventions often target

perception of risk, beliefs in severity of AIDS ("there is no cure"), beliefs in effectiveness of condom use and benefits of condom use or delaying onset of sexual relations. This is particularly the basis for such community-led programs as m2m and use of peer educators/counselors in comprehensive care centers and Community Units.

2.7.2 Social Theories and Models

Psychosocial models of behavioural risk can be categorized into 3 major groups: those predicting risk behaviour, those predicting behavioural change and those predicting maintenance of safe behaviour. According to psychosocial models, effective prevention efforts, especially in vulnerable communities that do not have the larger societal support, will depend on the development of strategies that can enlist community mobilization to modify the norms of this peer network to support positive changes in behavior (Kelly, 1995). More recently, social researchers have come to realize that because complex health behaviours such as sex take place in context, socio-cultural factors surrounding the individual must be considered in designing prevention interventions.

A greater interest in the context surrounding individual behaviour has led to increased numbers of interventions guided by the following social theories and models. Under this category, diffusion of innovation theory is found most appropriate to understanding the use of community strategy in the fight against HIV/AIDS, and here below discussed.

2.7.2.1 Diffusion of innovation theory

The diffusion of innovation theory (Rogers, 1983) describes the process of how an idea is disseminated throughout a community. According to the theory, there are four essential elements: the innovation, its communication, the social system and time. People's exposure to a new idea, which takes place within a social network or through the media, will determine the rate at which various people adopt a new behaviour. The theory posits that people are most likely to adopt new behaviours based on favorable evaluations of the idea communicated to them by other members whom they respect (Kegeles, 1996).

Kelly (1995) explains that when the diffusion theory is applied to HIV risk reduction, normative and risk behavioural changes can be initiated when enough key opinion leaders adopt and endorse behavioural changes, influence others to do the same and eventually diffuse the new norm widely within peer networks. When beneficial prevention beliefs are

instilled and widely held within one's immediate social network, individuals' behaviour is more likely to be consistent with the perceived social norms (Kelly, 1995).

Interventions using this theory generally investigate the best method to disperse messages within a community and who are the leaders able to act as role models to change community norms.

2.8 Conceptual Framework

Mugenda and Mugenda (1999) posit that a conceptual framework is a hypothesized model identifying concepts under the study and their relationship. It is a graphical representation of the relationship between the variables under study. It clearly establishes the link between the independent and dependent variables even in the face of intervening and moderating variables that the study might not study its effect on the independent-dependent relationship.

As shown in Fig. 2.1, effectiveness of CS can be influenced by amount of financial resources and human resource levels, as well as by cultural factors like beliefs, gender differentials, attitudes, customs and traditions. Supportive supervision is particularly stressed in the government's policy paper establishing the Community Health Strategy, and thus regularity and detail of such supportive supervision is conceptualized to influence effectiveness of CS. Central to community based HIV programs is the principle of linkage and referral networks. Completeness of existing referral and linkage networks is believed to influence effectiveness of community strategy in the fight against HIV/AIDS. This study conceptualizes effectiveness of the strategy in terms of reduced defaulters/LTFU, increased retention, adherence, and stigma and discrimination.

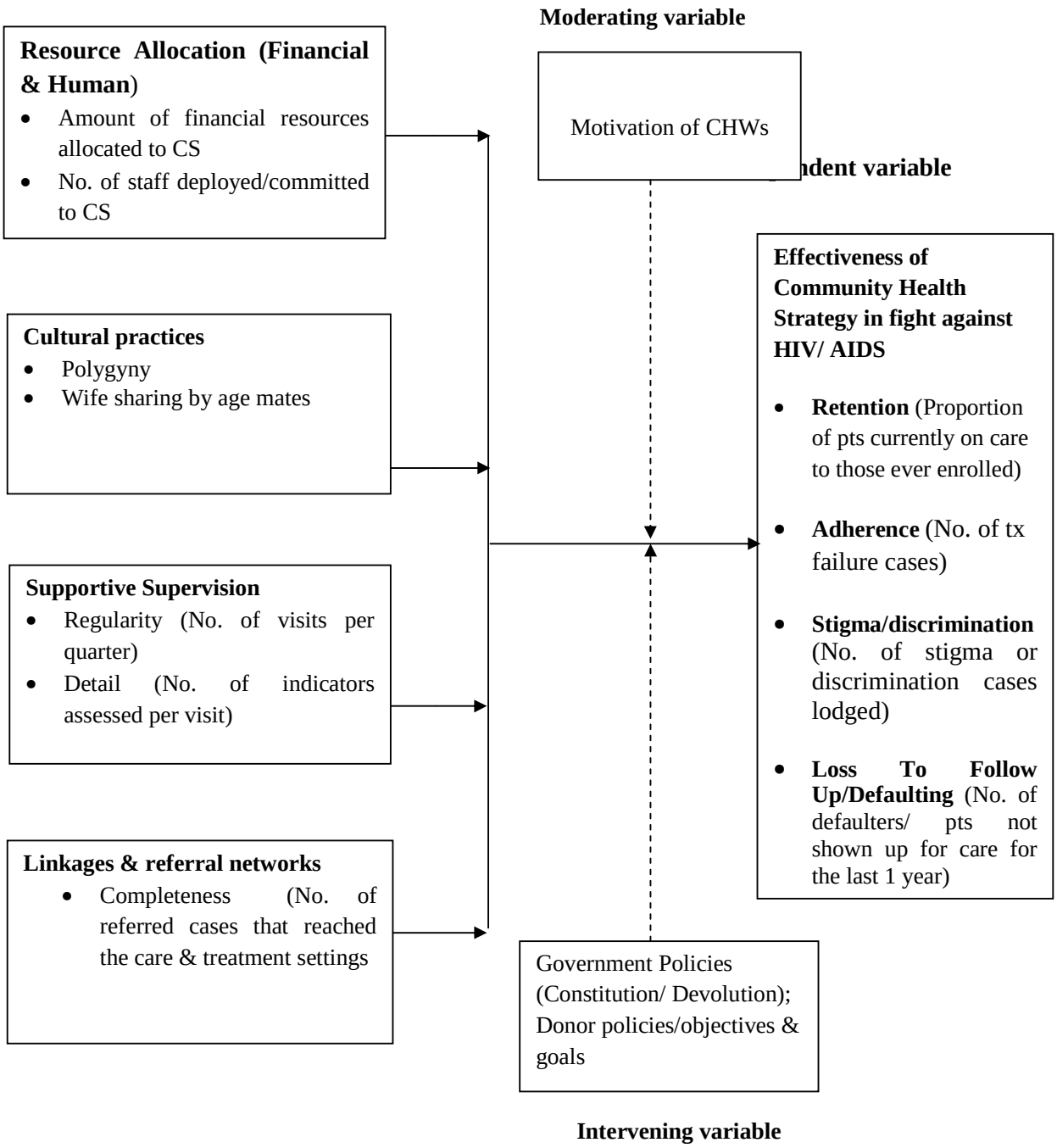

Fig. 2.1 Conceptual Framework.

2.9 Knowledge Gap

Many people in Kenya are still not being reached with HIV prevention and treatment services. Only 1 in 3 children needing treatment are receiving it. This demonstrates Kenya still has a long way to go in providing universal access to HIV treatment, prevention and care (WHO/UNAIDS/UNICEF (2010).

While past studies have indicated that community health strategy was effective in the adoption of maternal and neonatal best practices as well as in embracing good sanitation and hygiene habits among households, there has never been a clear-cut link between the program and anti-HIV/AIDS interventions. Indeed, there exists a multitude of community-based/centered programs that were supported by donors and the government to reverse the trend in HIV/AIDS. However, there was little empirical evidence located on the effectiveness of these community based strategies in promoting adherence to treatment, treatment retention, safe sex, safe and skilled deliveries, etc. According to UNICEF (2010) there was need for further research/study on the performance of the CS but with emphasis on the key health indicators. This was likely to reveal the particular impacts created by the specific community based interventions. This study is particularly driven by this recommendation.

2.10 Summary of Reviewed Literature

Today, interventions to stem the spread of HIV throughout the world are as varied as the contexts in which we find them. Not only is the HIV epidemic dynamic in terms of treatment options, prevention strategies and disease progression, but sexual behaviour, which remains the primary target of AIDS prevention efforts worldwide, is widely diverse and deeply embedded in individual desires, social and cultural relationships, and environmental and economic processes. This makes prevention of HIV, which could be an essentially simple task, enormously complex involving a multiplicity of dimensions.

Either implicitly or explicitly nearly all HIV prevention interventions are based on theory. Most rely on the assumption that giving correct information about transmission and prevention will lead to behavioural change. Yet research has proven numerous times that education alone is not sufficient to induce behavioural change among most individuals. Thus, second-generation interventions were developed based on individual psychosocial and cognitive approaches that educate individuals in practical skills to reduce their risk for HIV infection (Kalichman, 1997). More recently, social researchers have come to realize that because complex health behaviours such as sex take place in context, socio-cultural factors surrounding the individual must be considered in designing prevention interventions.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the methodology to be employed in the study. It describes research design, target population, sample and sampling procedures, research instruments and their validity and reliability, the data collection instruments and procedures, ethical considerations and how the data will be analyzed and presented.

3.2 Research Design

Research design deals with the ways in which data are gathered from subjects. This study will employ survey research design, incorporating both descriptive and exploratory approaches. The design is selected because of the ease in which the researcher can obtain the respondents' opinions thus describing their views in relation to use of the community based health care approach in HIV/ AIDs prevention and treatment. It is also through this design that original data will be collected on implementation challenges – efficiently, fast and comprehensively - which will then help explain the existing link between the conceptualized study variables.

3.3 Target Population

The target population will be the 290 CHWs from the ten (10) CUs spanning Transmara West, and the 10 Community Health Extension Workers (CHEWs) supervising the Community Health Workers CHWs (DHIS, 2014).

Mugenda and Mugenda (1999) contend that a target population is that population that the researcher wants to generalize the results of a study. It is a complete set of individuals, cases or objects with some common observable traits. In that regard, the researcher will undertake the study in Transmara West Sub-County's established community units (CUs).

3.4 Sample size and Sampling Procedures

Sampling, according to Kirakowski (1998), is that part of statistical practice concerned with the selection of an unbiased or random subset of individual observations within a population of individuals intended to yield some knowledge about the population of concern, especially for the purposes of making fair generalization of results back to the population from which they were chosen.

3.4.1 Sample size

As indicated in the Table 3.1, out of the possible 290 CHWs spanning the 10 community units, 168 CHWs were sampled for purposes of this study. Further, of the 10 CHEWs supervising the 290 CHWs, all were sampled.

Table 3.1 Sampling matrix

Category	Population Size (N)	Sample size (n)
CHEWs	10	10
CHWs	290	168
TOTAL		178

3.4.2 Sampling Procedure

In order to get accurate and reliable data and taking into consideration the target population, the researcher adopted census approach for CHEWs. Thus, all the 10 CHEWs were reached for responses. A census approach was also employed to sample all the 10 CUs in the study area. The study sought responses from the CHWs within these 10 CUs. From the 10 CUs, there were a total of 290 CHWs. The sample size was, therefore, 168 respondents selected by the Cochran's (1977) formula as shown:

$$n = \frac{N}{1 + N(d)^2}$$

Where;

'n' is the desired sample size, (When the population is less than 10,000)

'N 'is the target population and

'd' is the acceptable margin of error estimated at 0.05 (at 95% CL).

$d^2 = (0.05)^2 = 0.0025$

Therefore, sample size (n) =

$$n = \frac{290}{1 + 290\,(0.0025)}$$

$$n = \frac{290}{1 + 0.725} = \frac{290}{1.725}$$ Therefore, n = 168

A list of random numbers was computer-generated using the excel function =RANDBETWEEN (1,290), and spread to 168 cells to represent the 168 units of study sampled from the sampling frame. Further, the study purposively sampled 3 DHMT members and 2 IPs representatives as Key Informants.

3.5 Research Instruments

The study used self administered questionnaires as the main primary data collection tools for the study. In addition, there was structured face - to - face interviews for the Key Informants. The questionnaires were structured, incorporating both open-ended and closed-ended question items, and self administered to the respondents. Cooper and Emory (2008) posit that questionnaires are cheaper and quicker to administer, and are above researchers' effect and variability.

Two sets of questionnaires were used; one set was used on CHWs whereas the second set was on CHEWs. The questionnaires were pretested to assess feasibility and validity. Structured interviews were conducted on KIs.

3.5.1 Pilot Testing of Research Instruments

With the help of research assistants, the researcher administered the questionnaires and the interview guide to a select few CHWs, CHEWs and KIs. Nine CHWs drawn from Lepolosi (3), Nkararo (3) and Romosha (3) CUs were sought for responses. The 3 CHEWs supervising these CUs also participated in the pilot. With regards to interview schedule, 2 KIs from the District Hospital were sought for responses. Effort was made to ensure that those CHWs and KIs who participated in the pilot study did not form the final study sample.

And as indicated by Nachmias et. al (1996), in seeking to improve efficiency of instruments, adjust strategies and approaches to maximize response rate, an evaluation of how the sample responded to the questionnaire was done, particularly highlighting important comments and suggestions from the respondents.

3.5.2 Validity of the Research Instruments

For purposes of this study, the researcher adopted content validation approach to ensure that the measures covered the full range of the concepts' meaning. To determine that range of meaning, the researcher solicited the opinions of experts and reviewed literature that identified the different aspects or dimensions of the concept. Specifically, the expertise of the project supervisor was sought to afford the study tools the desired content validity.

Kothari (1990) posited that validity was the most critical criterion in research as it indicated the degree to which an instrument measured what it was supposed to measure. In other words, validity was the extent to which differences found with a measuring instrument reflected true differences among those being tested. Mugenda and Mugenda (1999) put it even simpler that validity was the accuracy and meaningfulness of inferences, which are based on the research results. It had to do with how accurately the results obtained from the analysis of research data represented the variables of the study.

3.5.3 Reliability of the Research Instruments

This study espoused the internal consistency reliability approach as a measure of consistency in the responses obtained in the main study as against those obtained in a pilot study.

Cronbach's alpha test was used to check the reliability of the instrument, basing on internal consistency of the research instruments. Cronbach's Alpha was established for all the themes in the questionnaire, which formed a scale in order to test the reliability of the questionnaires. The finding was as shown in table 3.2

Table 3.2 Reliability Test

Variable	Cronbach's Alpha	N of Items
Resource allocation	0.805	4
Cultural Practices	0.713	3
Supportive supervision	0.841	2
Linkages & referral networks	0.888	2
Effectiveness of CS	0.867	1
Average	0.823	2

The table 3.2 shows that linkages and referral networks had the highest reliability (α= 0.888), followed by supportive supervision (α= 0.841), resource allocation (α= 0.805) and cultural practices (α= 0.713). The dependent variable effectiveness of community strategy, had a reliability alpha of α= 0.867. This illustrated that the scales measuring the objectives met the reliability criteria as the alpha value for each scale exceeded the rule of thumb threshold, (α>0.7) with the average reliability for all the constructs being (α= 0.823). This showed that the research instrument (questionnaire) was sufficiently reliable and therefore admitted.

3.6 Data Analysis Techniques

This research is descriptive in nature and thus descriptive statistics that include percentages and frequencies were calculated. The researcher de-synthesized data by sorting them out into thematic areas while identifying and eliminating those that might have erroneously been filled in. Once sorting, cleaning and coding were done, such data was fed into the Statistical Package

for Social Scientists computer-based statistical analysis software for analysis. This was then summarized and presented using tables, frequencies and percentages. Qualitative data obtained from open-ended questions in the questionnaires and interview guides was organized, analyzed and presented according to themes and research questions or objectives.

In addition, regression and correlation analyses were applied to determine the extent to which the independent variables conceptualized in the study predicted the dependent variable. This was conducted at 99% confidence level.

3.7 Operational definition of Variables

According to Mugenda and Mugenda (1999), operational definition refers to the measurement of a variable. It is the description of the operation that will be used in measuring the variable. Operationally defining a concept renders it measurable. This is done by looking at the behavioural dimensions, indicators, facets or properties denoted by the concept. These are then translated into observable and measurable elements so as to develop an index of the concept. Operationalizing variables allows for clear specification of how such concepts will be measured and specifies procedures and operations necessary to measure a concept. The Table 3.3 succinctly summarizes operational definition of variables in this study.

Table 3.3 Operational definition of variables

Objectives	**Variables (Independent)**	**Indicators**	**Measurement**	**Measurement scale**	**Data collection instrument**	**Tools of Analysis**
To establish the influence of resource allocation on effectiveness of the community health strategy in the fight against HIV/AIDS	Resource Allocation (Financial/ Human)	Level of allocation (Amount of resources & No. of staff)	Amount of financial resources committed to CS No. of Health staff concerned with CS	Interval Interval	Questionnaire; interview guide Questionnaire; interview guide	Cross tabulation; frequency distribution Cross tabulation; frequency distribution
To explore the influence of culture on effectiveness of the community health strategy	Cultural practices	Polygyny, Wife sharing among age mates	Extent of practice of polygyny Extent of wife sharing	Ordinal Ordinal	Questionnaire; interview guide Questionna	Cross tabulation; frequency distribution

in the fight against HIV/AIDS					ire; interview guide	
To determine the influence of supportive supervision on effectiveness of the community health strategy in the fight against HIV/AIDS	Supportive Supervision (regularity and detail)	Regularity of visits Detail/coverage of such visits	Number of visits per quarter & Percentage coverage of indicators (Extent to which all indicators are assessed per visit)	Interval Interval	Questionnaire; interview guide Questionnaire; interview guide	Cross tabulation; frequency distribution
To establish whether completeness of existing referral systems and linkages/networks influence effectiveness of community health strategy in the fight against HIV/AIDS	Referral networks/linkages	Completeness of referral network/linkages	Number of referred cases that reached care and treatment centers in a quarter No. of clients enrolled in ccc as a proportion of those who test sero-positive	Interval Interval	Questionnaire; interview guide	Cross tabulation; frequency distribution;
	Dependent Variable					
	Effectiveness of community health strategy in the fight against HIV/AIDS	Retention levels, Adherence to treatment, Stigma and discrimination, LTFU/ Defaulting	Proportion of pts currently on care to those ever enrolled No. of tx failure cases No. of stigma/discrimination cases lodged No. of patients not shown up	Ratio Ratio Ratio	Questionnaire; interview guide	Cross tabulation; frequency distribution and Regression analysis

		cases	for care for the last 1 year			

3.8 Ethical considerations

Research ethics is a system of moral values concerned with the degree to which research procedures adhere to professional as well as legal and social obligations to the study respondents (Polit and Beck, 2004).

For purposes of this research, appropriate approvals to carry out the study were sought from the university and the line ministry. Only those participants who gave consent were included in the study, and confidentiality and consent upheld. A transmittal letter accompanied the questionnaires.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

This chapter covers the analysis, presentation and interpretation of the findings. The purpose of this study was to determine factors influencing effectiveness of Kenya's community health strategy in the fight against HIV/AIDs, the case of Transmara West Sub County, Narok County, Kenya. Specifically, study sought to determine the influence of resource allocation, cultural practices, supportive supervision and referral, linkages and networks on community health strategy as applied in the fight against HIV/AIDS in Transmara West. The findings are presented in tables and pie charts for clear presentation of the data.

4.2 Questionnaire Response Rate and Key Informants attendance

This study had a sample of 168 CHWs out of whom 130 were reached for responses. This represents a response rate of 77.38%. According to Babbie (2002) any response rate of 50% and above is adequate for analysis, thus 77.38% is appropriate for the analysis.

Additionally the study sought information from 10 CHEWs who were all reached. This was for the purpose of data verification and corroboration or otherwise. The study also sought key information through KIs with participants drawn from the District Health Management Team (DHMT) and Implementing Partners (IP).

4.3 Demographic Characteristics of Respondents

This section presents the demographic characteristics of the study. Among the characteristics gender, age, marital status, highest level of education and marital status were analyzed.

4.3.1 Distribution of Respondents by Gender

The study sought to find out the gender of the CHWs. The findings obtained are as shown in table 4.1.

Table 4.1: Distribution of Respondents by Gender

Gender	Frequency	Percentage (%)
Male	56	43.08
Female	74	56.92
Total	**130**	**100**

As shown on Table 4.1 majority (74; 56.92%) of the CHWs were female while male CHWs were 43.08% of the respondents. This was a very good representation of gender and showed that both genders are well represented in the implementation of the program. At least two thirds majority of either gender indicates that there is gender equity and that there is no discrimination in terms of gender for the CHWs that were sampled.

4.3.2 Distribution of Respondents by Age

The study also sought to establish the age distribution of the CHWs. Age bracket was important in order to know which age bracket formed the majority of the CHWs. The findings were as shown in Table 4.2.

Table 4.2 Distribution of respondents by age

Age group	Frequency	Per cent (%)
Below 30years	48	36.92
31-40 years	55	42.45
41-50 years	14	10.87
51-60 years	9	6.92
61years and over	3	2.84
Total	**130**	**100**

As shown above, the majority of the CHWs are within the 31-40years (55; 42.45%) and below 30 years (48; 36.92%). This indicates that a total of 79.37% of the CHWs are of 40 years and below, which means that the CHWs is composed of quite a young population. The older CHWs, that is, those of 51years and above are very few making up to a total of 9.76% of the total population of CHWs that were sampled. These findings show that most of the CHWs are of the age between 31- 40 years, and were thus fairly energetic to fend for their families while also serving as CHWs especially considering that the enjoyed no remuneration from their community health work.

4.3.3 Distribution of Respondents by Highest Level of Education

The study also established the respondents' highest level of education. The level of education was important in order to determine the capability of the CHWs to carry out their duties and as well as to understand their responsibilities.

Table 4.3: Distribution of respondents by their highest level of education

Level	Frequency	Per cent (%)
Primary	26	20.00
Secondary	59	45.39
College	40	30.76
Undergraduate degree and above	5	3.85
Total	**130**	**100**

The findings indicated that majority (59; 45.39%) of the CHWs had secondary education as the highest level of education. Those with college education accounted for (30.76%) of the total population of CHWs sampled. Some 26 (20%) of the CHWs had primary education as the highest level of education. CHWs with an undergraduate degree and above were the least at 3.85%. These findings show that most of the CHWs have secondary education as the highest level of education attained.

4.3.4 Other occupations that CHWs engaged in

A majority (91; 70.0%) of CHW workers were engaged in other work outside CHW work. This is shown by the findings where only one-third (39; 30.0%) of them depended on CHW work as their only source of livelihood. Those salaried by CBOs and FBOs are a small number at 9.2%. Majority of them (45; 34.6%) are also engaged in farming, followed by 26.2% (34) who engage in the business of buying and selling.

Table 4.4 other occupations which CHWs engage in

Nature of occupation	Frequency	Percentage (%)
Farming	45	34.6
Business(Buying and selling)	34	26.2
Salaried(E.g by CBO/FBO)	12	9.2
CHW only	39	30
Total	**130**	**100**

4.4 Resource allocation

The study sought to determine the influence of resource allocation on effectiveness of community health strategy in the fight against HIV/AIDS in Transmara West Sub-County, Narok County. The respondents were asked to rate different aspects relating to resource allocation and availability.

4.4.1 Financial and material resources and Community strategy

One of the aspects that were measured was facilitation of the CHEWs to be able to offer adequate supervision to the CHWs. 67% (87) of the CHWs indicated that there was inadequate financial support to the CHEWs making it difficult for there to be planned and structured supervision. This finding was corroborated by all the CHEWs (100%) indicating that they were under-facilitated, and as a consequence of the inadequate financial and material resources proper implementation of the strategy as was envisaged in the establishing framework could not be realized.

Table 4.5 Financial and material resources & Community strategy

Response	Frequency	Percentage
YES	87	67%
NO	43	33%
TOTAL	130	100%

Further, of the 130 CHWs reached for responses, eighty nine (69%) reported finding their work difficult to execute. Among the reasons given by the CHWs for this assertion were lack of remuneration and adequate material and logistical support which are all resource problems. The findings are summarized as follows.

Table 4.6 CHWs view of their work

	Strongly Agree	Agree	Disagree	Strongly Disagree
Not Remunerated	56%	30%	1%	0%
No adequate support from CHEW/DHMT	53%	43%	3%	1%
Limited material and logistical support	76%	21%	3%	0%

Lack of remuneration (86%; 112), inadequate support from CHEWs/DHMT (96%; 125) and limited logistical and material support (77%; 100) came out strongly as the reasons that made it difficult for the CHWs to carry out their duties as community health workers.

4.4.2 Consistency of funding and Community strategy

Consistence in funding is another aspect of resource allocation that was measured. 73% (95) of the CHWs indicated that inconsistency in funding was a major setback to the community health strategy as applied to the fight against HIV/AIDS.

Table 4.7 Is inconsistent funding a setback to community health strategy

Response	Frequency	Percentage
YES	95	73%
NO	35	27%
TOTAL	130	100%

This finding was backed by the KIs who indicated that there was inconsistency in funding which posed a major setback to the community health strategy's anti-HIV/AIDS interventions. Further, the KIs submitted that donors and the government fund community health strategy but

there was no consistency or guarantee of continued support beyond establishment of community units.

4.4.3 Staffing in health facilities

The staffing levels of health facilities were another aspect of resource allocation that was looked into. The findings were as shown in Table 4.8

Table 4.8 Staffing of health facilities

Levels	Range	Mean	Std. Deviation
Very Understaffed	3	2.097	0.472
Fairly staffed	3	2.426	0.402
Adequately staffed	3	1.345	0.894

At a mean of 2.097 and a standard deviation of 0.472, the CHWs disagree that the health centers were very understaffed. The CHWs, however, agreed at a mean of 2.426 and a standard deviation of 0.402 that the health centers were fairly staffed. Lastly, the CHWs strongly disagreed that the health centers were adequately staffed. This was corroborated by all the KIs who indicated that there was a staffing challenge in all facilities and by 90.0% of CHEWs who indicated that they were deployed on other functions other than Community Strategy hence shared level of effort at the expense of the strategy.

As to how trained to handle CS the CHWs were, 93.1% indicated that they were adequately trained to handle all the demands of the CS. Further asked to indicate the extent of health components they could competently handle, a total of 97 out of 100 indicated they could handle over half the components in CS. This could be summarized as shown in the table 4.9:

Table 4.9 Competency of CHWs to carry on their duties

No. of Health Components (Percent, %)	Frequency	Percentage
0 – 25	0	0%
25 – 50	4	3%
50 – 75	5	4%
75 – 100	121	93%
TOTAL	**130**	**100%**

The findings above were further corroborated by the KIs who indicated that the CHWs in their jurisdiction were adequately trained before being deployed to their areas of work. The training was based on the national Ministry of Health's approved manual for pre-service training.

In general, the resource allocation element can be summarized as shown in the table 4.10:

Table 4.10 Resource allocation in Community Strategy

Factor/Element	Range	Mean	Std. Deviation
Well trained CHWs	4	3.245	0.869
Staffing levels at health centers	4	3.262	0.911
Availability of CHWs kit/IEC Material and logistical support	4	3.114	1.05
Consistency in funding	4	3.114	0.984
Amount of funds allocated to CS	4	1.262	0.839

According to the findings, the CHWs rated amount of funds allocated to Community Strategy as very high determinant as shown by a mean of 1.262 and a standard deviation of 0.839. Also, consistency of funding and availability of CHWs kit/IEC material and logistical support were rated as moderate determining factors at a mean of 3.114 and standard deviation of 0.984 and 1.050 respectively. Additionally, the respondents rated staffing levels of health centers as a moderate determining factor at a mean of 3.262 and a standard deviation of 0.911. Further, the respondents indicated with a mean of 3.245 and a standard deviation of 0.869 that well trained CHWs was a moderately influential factor.

From the correlation analysis, the study found out that there was a positive relationship between resource allocation and effectiveness of community health strategy, where the correlation coefficient was 0.945 and a p-value of 0.000. Resource allocation, therefore, as an independent variable had a significant influence on the dependent variable (effectiveness of community health strategy) because the p-value in the relationship was 0.000 which was less than the alpha value (level of significance) 0.01.

4.5 Cultural practices

The study sought to determine the influence of cultural practices on effectiveness of the community health strategy in the fight against HIV/AIDS in Transmara West. Various aspects of the community's cultural practices, traditions, beliefs etc. were explored for their possible influence on effectiveness of the community health strategy.

One of the aspects explored was the cultural barriers that made it difficult for the CHWs to carry out their duties. Being a woman made it very difficult for one to talk about HIV/AIDs to the men and vice versa. This finding can be summarized as indicated in Table 4.11:

Table 4.11: Culture (attitudes & practices) and CHWs work

Response	Frequency	Percentage
Strongly disagree	8	6%
Disagree	18	14%
Agree	61	47%
Strongly agree	43	33%
Total	**130**	**100%**

As summarized in the Table 4.11, 47% of the CHWs agreed that cultural attitudes & practices made it difficult for them to talk to people of the opposite sex about HIV/AIDs. 43 (33%) strongly agreed, 18 (14%) disagreed and 8 (6%) strongly disagreed that talking to people of the opposite sex about HIV/AIDs was difficult on the instigation of cultural attitudes and practices.

4.5.1 Women participation in community campaigns against HIV/AIDS

The above findings are further supported by the way women participate in community campaigns against HIV/AIDS. To establish the level of women's participation in HIV/AIDS campaigns, the research sought to find out whether the informants had participated in HIV/AIDS campaigns. Participation in this study refers to either attending the campaign meetings or acting to facilitate the awareness or listening to the messages and asking questions. As the Table 4.12 shows, women rarely participate in these campaigns.

Table 4.12 Women participation in community campaigns against HIV/AIDS

Attendance levels (Audience mix)	Frequency	Percentage (%)
Very low (0-25%)	6	60
Low (25-50%)	2	20
High (50-75%)	1	10
Very high (75-100%)	1	10
TOTAL	**10**	**100%**

From the findings above, women participation in HIV/AIDS forums was still very low. Majority (60%; 6) of the CHEWs reached for responses reported that women representation in campaigns was as low as 25 women for every 100 participants. Further, the CHEWs submitted that it was only in 1 out of 10 forums that one could record at least 3 women in 4 (75%) participants.

The results can further be summarized as follows:

Table 4.13 Influence of Cultural Practices & traditions on Community Strategy

Response	Mean	Std. Deviation
Handling the opposite sex	1.89	0.789
Hindering access to proper care	2.537	0.674
Practices and traditions of community	2.465	0.376

At a mean of 2.465 and a standard deviation of 0.376 the CHWs agreed that cultural practices have high influence on effectiveness of community services in HIV/AIDs fight. Corroborating this, a more specific question on practice of polygyny among community members saw 100% of CHEWs indicate that it was still being practiced. On polygyny still, 60% (6) of CHEWs reported that it was being practiced on a lower extent compared to 40% (4) who indicated that its practice was moderate. The same response was obtained on the question of wife sharing among age mates. The KIs reached for responses concurred with the CHEWs in corroborating the finding on polygyny and wife sharing among age-mates. However, the KIs indicated that it was to a moderate extent. As to how polygyny and wife sharing influenced the fight against HIV/AIDS, all the KIs indicated that it really complicated the fight as it led to cross infection – a reason for increased new infections among the 15-29 year-olds. Lastly the CHWs indicated at a mean of 2.537 and standard deviation of 0.674 that cultural beliefs and practices hindered access to proper care for HIV clients.

Upon correlation analysis, the study found out that cultural practices and effectiveness of community health strategy correlated positively (correlation coefficient was 0.935 and a p-value of 0.000). Cultural practices, therefore, as an independent variable had a significant influence on the dependent variable (effectiveness of community health strategy) because the p-value in the relationship was 0.000 (<0.01).

4.6 Supportive Supervision

The study also sought to determine the influence of supportive supervision on effectiveness of the community health strategy in the fight against HIV/AIDS. A majority (90 out of 100 CHWs) of the respondents were of the opinion that supervisory visits were useful.

4.6.1 Training of the CHWs

The study sought information on whether the CHWs found that they were well trained for their roles.

Table 4.14 Level of CHWs training

Response	Frequency	Percentage
Yes	59	45%
No	49	38%
Don't Know	22	17%
TOTAL	**130**	**100%**

From the Table 4.14, majority (45%; 59) of the CHWs indicated that they were well trained to handle the roles of the CHW. This was confirmed by the KIs (80%; 4) that a prior training was offered to the CHWs before assuming their roles and regular on-job trainings offered by the CHEWs reinforced the skills of the CHWs. However, as indicated by 53% of CHWs, there was inadequate support for the CHEW to offer technical support or assistance to the CHW.

4.6.2 Regularity of Supportive supervision of CHWs by CHEWs

The study sought to establish the interaction of CHWs with the CHEWs in reviewing the indicators for purposes of technical assistance. The CHWs were asked to rate the number of times that they had met with the CHEWs, if any, in the last 6 months. The findings were as follows.

Table 4.15 Frequency of meetings with CHEWs

Response	Frequency	Percentage
Once	41	31.54%
Twice	36	27.65%
Thrice	15	12%
Four times	5	3.81%
>4times	9	7%
Never met	24	18%
TOTAL	**130**	**100**

Majority (31.54%; 41) of the CHWs had met their respective CHEWs once. 27.65% had met them twice, 12% (15) had met the CHEWs thrice, 3.81% indicated to have met the CHEWs four times while only 7% had met the CHEWs more than 4 times. Finally, 24 (18%) CHWs had not met the CHEWs at all. Perhaps corroborating this finding was the submission by all the KIs that supportive supervision could not be offered as was envisaged because some of the CHEWs double up as facility-based service providers who then could not leave the facility for off-site activities like supervision. Further, all KIs were in agreement that resource challenges made it difficult to reach out to all CHWs.

4.6.3 Usefulness of the supervisory visits with CHEWs.

The CHWs were asked to indicate how useful the supervisory visits were to effectiveness of Kenya's community health strategy as applied to the fight against HIV/AIDS. The results are shown below

Table 4.16 Usefulness of supportive supervisory meetings

Indicator	Frequency	percentage
Extremely useful	10	8.26%
Very Useful	49	37.49%
Useful	58	44.46%
Neutral	10	7.49%
Useless	3	2.30%
Very Useless	0	0%
Extremely Useless	**0**	**0%**
Total	**130**	**100**

According to the findings, 44.46% (58) of the CHWs indicated that the supervisory meetings were useful. 7.49% (10) were of the neutral opinion about the supervisory meetings. At 37.49% (49), the CHWs indicated that the supportive supervisory meetings were very useful, while 8.26% (10) found the meetings to be extremely useful. While only 2 in 100 CHWs found the meetings useless, none of them was of the opinion that the supervisory meetings were very useless or extremely useless.

4.6.4 Extensiveness of the supportive supervisory visits by the CHEWs.

As envisaged in the establishing framework, community strategy's supportive supervision needed to be regular and extensive in its coverage of indicators. However, arising from competing tasks compounded by a possible inadequate and inconsistent funding, it was possible that such visits could not be extensive. To find out this, the study asked the CHWs to indicate whether the visits were extensive.

The Table 4.17 below shows how the elements of supportive supervision were rated by the CHWs.

Table 4.17 Indicator coverage during supportive supervisory meetings

No. of Health Components/indicators covered per visit (Percent, %)	Frequency	Percentage
0 – 25	1	0.80%
25 – 50	5	3.80%
50 – 75	16	12.30%
75 – 100	108	83.10%
TOTAL	**130**	**100%**

From the findings above, 95 out of 100 CHWs (124 out of 130) reported that a coverage of more than 50% indicators was achieved every time such supportive visits were made. This is juxtaposed with 5 out of 100 who reported a less than 50% coverage. Asked to comment on the coverage of the checklist during supervisions, 4 out of 5 KIs indicated that the coverage was extensive enough to cover HIV/AIDS component.

Further, the level of influence that regularity and extent of coverage of indicators had on community strategy was also looked into. The table 4.18 summarizes.

Table 4.18 Influence of regularity of visits and Extent of coverage of indicators on CS

Factor	Range	Mean	Std. Deviation
Regular support supervision	4	3.032	0.893
Extensive coverage of indicators during supervision	4	3.078	0.675

Regular support supervision was rated as moderately influential at a mean of 3.032 and a standard deviation of 0.893 just as extensive coverage of indicators during supervision was rated at a mean of 3.078 and a standard deviation of 0.675 as moderately influential.

In conclusion, the study found out that supportive supervision and effectiveness of community health strategy correlated positively (correlation coefficient was 0.921 and a p-value of 0.000). This represented a significant influence on the dependent variable (effectiveness of community health strategy) because the p-value in the relationship was 0.000 (<0.01).

4.7 Referrals, linkages and networks

The study sought to determine the extent to which existing referral, linkages and networks influenced effectiveness of community health strategy in the fight against HIV/AIDS in Transmara West. The CHWs were asked to indicate whether there were any referrals of the HIV/AIDs clients to the next level of care. The findings were as shown in Table 4.19:

Table 4.19 Were there any referrals made by the CHWs?

Response	Frequency	Percentage
YES	93	72%
NO	37	28%
Total	**130**	**100**

As indicated above, 72 out of 100 CHWs (93) conceded that referrals to the next level of care took place. Realizing the possibility that there could be missed referral opportunities in this system, the 93 CHWs who reported to have referred were, in addition, asked to indicate whether their referral was complete or not. The findings were as tabulated below.

Table 4.20 Nature of referrals

Response	Frequency	Percentage
Complete	68	73.10%
Incomplete	17	18.30%
Don't Know	8	8.60%
TOTAL	**93**	**100%**

Majority (73.1%; 68) of CHWs who reported ever referring clients to the next level of care conceded that such referrals were complete while a minority (18.3%; 17) indicated that they were incomplete. Eight (8.6%) reported having no idea whether such referral cases were complete or not. This finding was consistent with what 4 out of 5 KIs submitted – that it had helped in reducing defaulting cases and LTFUs.

When asked to compare same period last year with current period, all KIs reported to have had an increase in the proportion of patients currently on care or treatment to those ever enrolled on care or treatment.

Appreciating that almost every system has its own challenges, the CHWs were asked to rate some aspects that were thought to be hindrances to complete referral. The findings were as illustrated in Table 4.21:

Table 4.21 Determinants of complete referral

Hindrances	Range	Mean	Std. Deviation
Finances	4	2.409	0.972
Long distance to care centers	3	3.126	0.902
Stigma and discrimination	4	3	0.894
Cultural practices, traditions beliefs etc	3	1.903	0.717

From the findings, stigma and discrimination was rated moderate as one of the hindrances to complete referral at a mean of 3.00 and a standard deviation of 0.894. Cultural practices, traditions and beliefs were rated at a mean of 1.903 to be very high hindrances to complete referral. At a mean of 2.409 and a standard deviation of 0.972, the CHWs rated finances as high hindrance to complete referral. Lastly, long distances to care centers at a mean of 3.126

and standard deviation of 0.902, was rated as a moderate hindrance to complete referral. The CHWs further conceded with a mean of 2.993 and a standard deviation of 1.777 that completeness of referral process was a high determinant of effectiveness of the community health strategy in the fight against HIV/AIDS. This was particularly supported by the KIs who indicated that for all community-based HIV interventions to be effective, referral and linkage of those that tested positive needed to be complete in order to rid against LTFU, defaulting, treatment failure and adherence failure.

Finally, the study found out that referrals, networks and linkages and effectiveness of community health strategy correlated positively (correlation coefficient was 0.914 and a p-value of 0.000). Referral, therefore, as an independent variable had a significant positive influence on the dependent variable (effectiveness of community health strategy) because the p-value in the relationship was 0.000 (<0.01).

4.8 Effectiveness of Community Strategy in the fight against HIV/AIDS

There was a marked improvement in retention of PLWHIV in care and support centers from the period the strategy was rolled out to the period under study. According to KIs, retention levels had constantly increased over the three years when the strategy was rolled out. Adherence to treatment was also reported to have significantly improved as seen in increased numbers of clients attending clinics who had their viral loads suppressed.

> *"….. CS has influenced retention as seen in the increase in retention levels after implementation as compared to before implementation. The CHVs are able to easily follow-up defaulters in the community, there is less stigma in CHVs home visits as compared to health worker visits"- KI*

According to the interviewed KIs, disclosure of status to significant others by the PLWHIV had risen up, thanks to reduced stigma and discrimination cases.

> *"PLWHIV disclose their status to a large extent, and more often than not, to the spouse, sibling, friend, child, but to less extent to a neighbor" - KI*

It was through this that family members and/or spouse became treatment buddies, further improving adherence. This is what one had to say:

> *''Due to reducing stigma levels, disclosure of status to significant others among HIV positive clients has gone up. The family members or spouse then act as treatment buddies to the clients further improving adherence, community now views HIV as a less threatening epidemic and easier to manage as compared to diabetes and cancer as an example'' - KI*

4.9 Correlation Analysis

A correlation is a number between -1 and +1 that measures the degree of association between two variables. A positive value for the correlation implies a positive correlation where an increase in the independent variable leads to an increase in the dependent variable. A negative value for the correlation implies a negative or inverse association.

The data presented on resource allocation, cultural practices, supportive supervision and referral networks/linkages were computed into a single variable per factor (each of the 4 independent variables) by obtaining the average of each factor. Pearson's correlations analysis was then conducted at 99% confidence interval and 1% confidence level 2-tailed.

The Table 4.22 indicates the correlation matrix between the variables (resource allocation, cultural practices, supportive supervision and referral networks/linkages) and effectiveness of Kenya's community health strategy in the fight against HIV/AIDS.

Table 4.22 Correlation table

		Effectiveness of community health strategy	Resource allocation	Cultural practises	Supportive supervision	Referral networks/linkages
Effectiveness of community health strategy	Pearson Correlation	1	.945**	.935**	.921**	.914**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	130	130	130	130	130
Resource allocation	Pearson Correlation	.945**	1	.979**	.977**	.945**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	130	130	130	130	130
Cultural practises	Pearson Correlation	.935**	.979**	1	.980**	.968**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	130	130	130	130	130
Supportive supervision	Pearson Correlation	.921**	.977**	.980**	1	.953**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	130	130	130	130	130
Referral networks/linkages	Pearson Correlation	.914**	.945**	.968**	.953**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	130	130	130	130	130

**. Correlation is significant at the 0.01 level (2-tailed).

From the correlation analysis, the study found that there is a positive relationship between resource allocation and effectiveness of community health strategy, where the correlation coefficient was 0.945 and a p-value of 0.000. The study also found out that Cultural practices and effectiveness of community health strategy correlate positively with correlation coefficients of 0.935 and p-value of 0.000. The study further established that there was a positive relationship between Supportive supervision and effectiveness of community health strategy with a correlation coefficient of 0.921 and p-value of 0.000. Lastly, the study found that there was a positive relationship between referral networks/linkages and effectiveness of community health strategy with a correlation coefficient of 0.914 and a p-value of 0.000.

These findings clearly show that all the four independent variables (resource allocation, cultural practices, supportive supervision and referral networks/linkages) had a significant influence on the dependent variable (effectiveness of community health strategy). This was

because the p-value in all the relationships was 0.000 which is less than the alpha value (level of significance) 0.01.

From these findings we can infer that resource allocation and cultural practices had the most significant influence on program's performance followed by supportive supervision and referral networks and linkages.

CHAPTER FIVE
SUMMARY OF FINDINGS, DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the discussion of key data findings, conclusions drawn from the findings highlighted and recommendations made. The conclusions and recommendations drawn were focused on addressing the objectives of the study.

5.2 Summary of Findings

The study sought to examine the influence of resource allocation, referral networks/linkages, supportive supervision and cultural practices of polygyny and wife sharing, on the effectiveness of the Kenya's community health strategy in the fight against HIV/AIDS.

5.2.1 Resource Allocation

According to the findings, resource allocation was rated as the most significant determinant of the effectiveness of the Kenya's community health strategy in the fight against HIV/AIDS. Resource allocation was rated on a range of elements that ranged between human resource and financial resources.

There was inadequate financial support to both the CHEWs and the CHWs. The findings indicated that 67% of the CHWs cited inadequate financial support to the CHEWs as one of the major challenges that influenced effectiveness of the community health strategy. The findings also indicated, in agreement with Khaemba et al., (2009), Koech, Maithya and Muange, (2003) and Wafula and Ndirangu, (2009), that there was inconsistency in funding which was agreed by both the CHEWs (100%) sampled and the CHWs at a mean of 69% indicating that there was inconsistent financial support which posed a major setback to their efforts. 77 out of 100 CHWs indicated that logistics and materials like IEC, CHW kit and bicycles which were pertinent to their work performance were regularly in short supply. This finding was consistent with UNICEF's (2010) and AMREF's (2010) study finding that resources to the strategy implementation were limited and in fact not dedicated to community strategy alone.

The low staffing levels at health facilities have also been brought out by the study. While disagreeing that the health facilities were very understaffed, the CHWs strongly disagreed that they were adequately staffed and agreed that they were fairly staffed. Further, the KIs indicated that staffing of the health facilities was one of the challenges that community health strategy

faced. The KIs also brought out the inadequate training of the CHWs, which can be seen from the finding that majority (45.39%) of the CHWs only have secondary education and may not necessarily have the necessary skills to support the community health strategy within the community against HIV/AIDs. Complicating the issue even more was the finding that CHEWs could not offer regular supportive supervision to the CHWs owing to the inadequate financial and logistical support. Further complicating this was also the finding that majority of the CHEWs were deployed other functions other than Community Strategy hence shared level of effort at the expense of the strategy. This was a departure from the findings by Wafula and Ndirangu (2009) which had indicated that CHWs were well trained but faced a high turnover due to lack of remuneration. This

At a mean of 1.262, amounts of funds allocated to CS was rated very high as a key determinant of the effectiveness of the community health strategy in the fight against HIV/AIDs. Yet, from the findings, 67% of CHWs reached for responses indicated that funding was inadequate while 73% of them further reported that such funding when available was inconsistent. From the KIs it also came out clearly that the allocation of funding to CS was not sufficient to cater for the vast community health needs especially those of HIV/AIDs.

In congruence with the findings and recommendations by the Wafula and Ndirangu (2009), UNICEF (2010) and AMREF (2010) reports, all the KIs did, in fact, indicate that it would be helpful if the government ensured a dedicated budget vote for community strategy in its annual health budget allocation in order to afford the strategy the ability to plan and project its activities well.

From the findings, one can confidently infer that resource allocation – financial and human- is one of the factors that influence the community health strategy implementation in the fight against HIV/AIDs. In the case of Transmara West Sub County, resource allocation comes out as a major setback for the effectiveness of the community health strategies.

5.2.2 Cultural Attitudes and Practices

The findings also rated cultural attitudes and practices as one of the significant determinant of the effectiveness of the Kenya's community health strategy in the fight against HIV/AIDS. Cultural attitudes and practices like polygyny and wife sharing among age mates, among others are the elements that were studied. Apart from the indication from the CHWs that the practice of polygyny and wife sharing was one of the major drawbacks to their efforts, the interviews

with the key informants also indicated the same. This finding was consistent with earlier studies done by Akaranga and Ongong'a, (2013), Clavence (2004) and (Nayree, 2009).

The community was characterized by quite a significant number practicing polygyny and wife sharing which has evidently become a major determining factor in the effectiveness of the community health efforts set in the fight against HIV/AIDS. CHWs indicated that it was a great challenge for them to talk to people of the opposite sex about HIV/AIDS. This was not consistent with Koech et al. (2003) and NACC (2013) which had reported widespread knowledge and appreciation of the scourge in terms of its epidemiology. There was a barrier where the women CHWs could not engage male clients and discuss on HIV/AIDS and vice versa. All these findings were consistent with what Maina (2011) reported from her study of factors influencing effectiveness of social programs and with Gao et. al. (2002) where social programs deemed to be at variance with local cultural practices was bound to perform dismally or meet a lot of resistance.

Another observation would be the age of the majority of the CHWs which was 40 years and below, the community gives more respect to the elderly who are the minority of the CHWs. There is a gap since reaching to older generation and talking to them about HIV/AIDS, becomes a huge challenge.

Cultural attitudes and practices have also been blamed for the low level of complete referral. This finding compares to what Hahn (1995) emphasized as the role of culture and society in relation to sickness and healing, and Brody's (1987) position that one's cultural belief system influenced one's social roles and relationships when one was ill. From the KIs, there was a finding that clients would fail to move to the next level for treatment or professional assistance, due to their attitudes and their traditional practices. At a mean of 2.465, cultural attitudes and practices were established as a major setback to the community health strategy as applied in the fight against HIV/AIDS.

5.2.3 Supportive supervision and community health strategy

On supportive supervision, the study established that it was one of the major determinants of effectiveness of community health strategy in the fight against HIV/AIDS. From the CHWs, CHEWs and KIs, there was an indication that minimal supervision was being offered to the CHWs. Substantially, this was tied to the challenge of inadequate of resources. The DHMT /IPs indicated that they were not adequately funded to be able to offer adequate support to the

CHWs. Another indication was that there was no pre-planning of supervision to the CHWs since the DMHT/IPs offered the supervision only when the resources were available. While this was a complete negation of the policy directions as established in the framework (Ministry of Health, 2006), it actually agreed and mirrored what UNICEF (2010) in their Tearfund End of NPI Project Evaluation report, reported - that regular supervision and follow-on activities were not always done regularly, nor detailed enough to strengthen the skills acquired at the centralized training sessions.

The CHEWs also indicated that they had minimal contact with CHWs since they did not have enough facilitation to closely work with the CHWs. In 6 months the CHWs indicated that 59.19% had met the CHEWs once or twice, 18% of the CHWs had actually not met the CHEWs to review the indicators get on-job training. This contradicted the policy paper setting out the strategy, as espoused in Ministry of Health (2005), in the sense that the strategy envisaged regular pre-planned supportive supervision. According to KIs, lack of or inadequacy of funds to support such field visits made it almost impossible for such visits to be implemented. The result has been to leave such important function to the respective CHEWs who are also under-resourced despite the challenges occasioned by vastness and rugged terrains of the areas. Where such visits were made, it was often rushed in order to cover as many CUs and partners as possible, ultimately losing detail. This finding agreed entirely with UNICEF (2010), Wafula and Ndirangu (2009) and AMREF (2010) reports.

5.2.4 Referral networks and linkages

The study also established that referrals, networks and linkages was another major determinant of effectiveness of community health strategy in the fight against HIV/AIDS. From the study, 71.54% of the CHWs indicated that they do refer their clients to health centers. Of the ones that were referred, not all of them ended up in the next level of care. 53.67% of the CHWs indicated that there was incomplete referral of the client where the client did not go to the health centers when referred by the CHWs. Yet many studies by several scholars (Kalembo and Zgambo, 2012; Hurtig, Emmelin, and Kasenga, 2007; Heckman et al., 1998; Tearfund, 2010; UNICEF, 2010 & Raburu, 2004), all agree that there in deed existed ‘missed opportunities’ in the referral system, the reasons for these incomplete referrals were varied from setting to setting; for Transmara, finances, distance to the health facilities, lack of proper follow up, cultural practices and beliefs, stigma and discrimination among others influenced the more. Greatly, at the instigation of unresponsive cultural practices, traditions and attitudes, and financial challenges, referred cases failed to reach the next level. This finding mirrored what Wafula and Ndirangu (2009) found out in their study of Maanisha Project.

Health facilities in Transmara, just as UNICEF (2010) reported, were sparsely located in an expansive environment. Distance to health facilities was also long for some community members leading to defaulting or incomplete referral. It was in this infrastructural challenge that innovative processes such as use of phone calls by the CHWs to remind PLWHIV of their next clinic visits to rid against defaulting cases.

In disagreement with UNICEF (2010), but in agreement with Wafula and Ndirangu (2009) and World Bank (2012), when asked to compare same period last year with period under study, all KIs reported to have had an increase in the proportion of patients currently on care or treatment to those ever enrolled on care or treatment. This indicated that there was increased retention as a result of reduced defaulting or LTFU cases. This pointed to a more effective referral system that was majorly complete.

5.2.5 Effectiveness of community health strategy in the fight against HIV/AIDS

Since the establishment of community strategy in 2013 in Transmara, adherence has improved. Giving credence to KIs submission, DHIS (2015) indicate that up to 88% of clients in the clinics have achieved viral suppression compared to 12% who are failing treatment. This is attributable to support groups led by CHVs and family support that has increased, thanks to improved disclosure and reduced stigmatization.

Upon implementation of the strategy through establishment of Community Units, there have been reduced defaulting cases reported. This assertion by the KIs reached was in agreement with raw data as captured in the DHIS (2015), which indicate that during the period October 2013 through September 2014, a total of 448 clients had been traced back to the clinic, compared to an average of 162 in the previous year. This had raised the retention levels from 70% in 2012/13 to 82% in 2013/14 (DHIS, 2015).

Community strategy implementation had also improved referral and linkage of seropositive clients to relevant points of care and treatment. Out of the 1972, according to DHIS (2015), clients received through referral and linkage using index clients, 1297 were offered HIV testing and counseling at Transmara District Hospital.

Courtesy of community strategy, community now views HIV as one of the common ailments with less stigma and discrimination cases being reported. Family support has improved as seen

in many clients indicating that their family members were their treatment buddies; pointing also to greater or improved rate of disclosure as a result of reduced HIV diagnosis-related stigma and discrimination. Health educations, conducted by CHVs, during clinic visits as well as community support groups had improved the understanding of the disease and thus its management.

All these were consistent with findings by Wafula and Ndirangu (2009) in their study of AMREF's Maanisha project. According to their report, there was statistically significant increase in attendance of at least four antenatal care visits (39% to 62%), deliveries by skilled birth attendants (31% to 57%), receiving intermittent preventive treatment (23% to 57%), testing for HIV during pregnancy (73% to 90%) and exclusive breastfeeding (20% to 52%).

5.3 Discussion of findings

The objective of this research was to determine if and how the variables (resource allocation, cultural practices, supportive supervision and referral networks/linkages) have an influence on the effectiveness of Kenya's community health strategy in the fight against HIV/AIDS. The research sought to establish the effects that the different factors/variables had on effectiveness of Kenya's community health in the fight against HIV/AIDS. The study results are discussed in terms of the objectives and their direct and indirect influence on effectiveness of the Kenya's community health strategy as applied against HIV/AIDs.

Financial and material facilitation, inconsistency in funding, and competing health staff roles play an important role in the successful implementation of community health strategy in anti-HIV/AIDS interventions. Be it to the CHWs or to the CHEWs the factors play an important role to determine whether there will be effective supportive supervision or not. Just as Richard (2005) outlined, supervision is important as it incorporates teaching of new skills, evaluation while also providing an environment that encourages growth and development. There is evidently need for effective supervision to be able to support the efforts of the strategies put across by Kenya's community health in the fight against HIV/AIDS specifically as per this study in Transmara Sub County. There is minimal supervision of the CHWs and also the CHEWs making it difficult to evaluate the indicators that would show the progress of such efforts.

Increased resource allocation would positively impact on the effectiveness of the community health strategy as applied against HIV/AIDS. And as Odden (2001) and World Bank (2012) indicated, it is proven that when resources are increased towards a programme or project

positive results are manifest. The region which the study was undertaken has numerous economic challenges that include accessibility of health centers, infrastructure among others. These are factors that indirectly affect the effectiveness of the strategies that are put in place to fight HIV/AIDS. Human resources as indicated in the findings are another hindrance that is being faced in the region. In congruence with the findings by Wafula and Ndirangu (2009) and UNICEF (2010), the health facilities were understaffed and also the CHWs and CHEWs were not adequately trained to support the community health strategies set out to support the fight against HIV/AIDS.

Cultural practices and beliefs have a significant effect on the effectiveness of the community health strategy in the fight against HIV/AIDS in Transmara Sub County. Culture acts as a template for the organization of social and psychological processes, much as genetic systems provide such a template for the organization of organic processes. The culture and beliefs of a community thus largely determines their receptiveness to services including health services. A society may hold on to cultures that are detrimental to the efforts put across to fight HIV/AIDS. Practices like polygamy, gender discrimination, resistance to modern methods of treatment are among the observed cultural practices that influence the effectiveness of the community health strategies that are applied in the fight against HIV/AIDS. When a community is conservative then they are more likely to resist the efforts.

CHWs and CHEWs offer basic support and assistance to the clients. As indicated in the findings, majority of the CHWs find themselves referring clients to health centers for specialized care and treatment. Whether the client actually goes to the health centre or not is not in the control of the CHWs. The CHWs offer the necessary and available support to facilitate the clients to visit the centers but in many cases many do not go to the centers. Cultural factors, distance to the health centers, financial constraints among others are indeed some of the reasons that keep the clients from seeking further help from the centers. It is also important to note that from the findings the centers are reported to be understaffed which also poses as a challenge to the availability of the specialized care and treatment even when clients go to the health centers. CHWs agreed at an average of 85% that escorting clients to the health facilities and also follow ups with clients through home visits would help mitigate the challenge of incomplete referral.

Community strategy implementation had led to improved HIV outcomes. It had led to increased adherence to treatment, reduced stigmatization and discrimination, increased retention, better linkage and referral network.

5.4 Conclusion

The aim of this research was to explore factors influencing effectiveness of Kenya's community health strategy as applied in the fight against HIV/AIDS in Transmara West sub county, Narok County. Specifically the objectives were to establish the influence of resource allocation, cultural practices, supportive supervision and existing referral systems and linkages/networks on effectiveness of community health strategy in the fight against HIV/AIDS in Transmara West sub-county.

The study established that the effectiveness of community health strategy in the fight against HIV/AIDS is influenced by all the four factors, which were tested by this study, albeit on varying scales. Levels and consistency of financial resources together with levels of staffing in the facilities influenced the strategy's performance the most. This was closely followed by cultural practices. Finally, supportive supervision and referral, linkages and networks influenced effectives of the strategy to a lesser extent compared to resource allocation and cultural practices.

As a result of the strategy implementation, enrolment of clients into community support groups has improved adherence to treatment with each member striving to be a good example of treatment success outcomes. This has further increased disclosure levels and reduced defaulting instances.

A proper support system is a key enabler of the effectiveness of the community health strategy in the fight against HIV/AIDS. Kenya has the fourth-largest HIV epidemic in the world. In 2012, an estimated 1.6 million people were living with HIV, and roughly 57,000 people died from AIDS-related illnesses (UNAIDS, Kenya 2013). Various local and international organizations have set up programs in the effort to fight the HIV/AIDS epidemic in Kenya.

Previous studies have indicated that cultural practices and beliefs (wife inheritance, resistance to modern medical and health practices, polygamy), poverty, inadequate resources were among the factors that hindered effectiveness of the various community strategies put forward to fight HIV/AIDS. This study has established that in Transmara West Sub County, similar challenges

as noted by AMREF (2010) in its evaluation of Community Health Strategy in Kakamega, were faced by the strategy implementers.

Various gaps can clearly be seen that need to be addressed in order to support and enhance the role of community health strategy in the fight against HIV/AIDS in Transmara. There was need for increased resource allocation for CS, proper training of the CHWs and the CHEWs to understand and perform their roles better and massive public awareness to counter the backward cultural practices of polygyny and wife sharing among age mates.

Overall, positive gains were emerging and the beneficiaries were seeing hope in life, more so people living with HIV. Stopping the program would be like wiping out that hope to live. Further, all factors remaining constant, if there was increased resource allocation both human and financial, proper training of CHWs, structured supervisory support and proper systems to monitor referral networks/linkages, there would be success in community health strategy in the fight against HIV/AIDS in Transmara West Sub-County, Narok County.
The use of functional community units in defaulter tracing and standard linkage and referral tools by CHVs, was able to reduce defaulters, improve retention rates and uptake of counseling and testing among family members of registered index clients.

5.5. Recommendations for policy and practice

Evidently, the application of Community Health Strategy in the fight against HIV/AIDS promises better health outcomes, just as it is in the other health components such mother and child health (MNCH). However, a few infrastructural, policy and cultural challenges come into play to curtail its success.

This study recommends that future community-based projects will have to consult widely on how to support community volunteers, either as transport allowance or by any other name. Free, voluntary work is beset with high turnover of the volunteers that affects the tempo and quality of program implementation. Even so, this study recommends the recruitment of more CHVs, particularly PLWHIV as they were more likely to act role models to the rest.

Appreciating that supportive supervision at the Community Units increases quality of service and contribute to the uptake of community-based HIV services, there was need to ensure consistent and adequate supply of resources to the CHEWs and SCHMT to conduct this activity regularly and in a predetermined manner. Regular monitoring, guidance and

mentorship visits by program officials help boost morale and motivation of the beneficiaries. Towards this end, the government and relevant agencies, together with partners in health should ensure that IEC materials, like video to show the real HIV life, giving both situations in HIV positive and negative are available to all the CHWs in order to help educate the communities to appreciate the real behavioural risks leading to vulnerability. Perhaps, a dedicated budget to the strategy will do. Communities should be empowered and prepared to take up the responsibility of taking care of their own health through mainstreaming of community participation in all health and development projects.

Finally, for fairly observable and measurable change on indicators, project or program implementation support period should be longer, say 3-5 yrs. The government should strive to have all partners commit to funding and/or technical support for periods not less than 3 years.

5.6 Suggested areas for further Research

Future studies on the influence of Lean Six Sigma methodology towards organizations performance could be applied to evaluate effectiveness of Kenya's community health strategy in the fight against HIV/AIDS from the client's perspective, that is, to evaluate the impact of the services that the client receive and what they would want to be able to feel the impact.

This study further recommends a study into the influence of Lean Six Sigma methodology towards organizations performance in evaluating the effect of competence and training of CHWs to Kenya's Community health strategy in the fight against HIV/AIDS.

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APPENDICES

APPENDIX 1: LETTER OF TRANSMITTAL

Dear Respondent,

RE: Support on MA Project

My name is Robert. In partial fulfillment of the requirements for an award of a Master of Arts degree in Project Planning and Management, of the University of Nairobi, I'm undertaking a research to establish factors that influence effectiveness of Community Health Strategy in the fight against HIV/AIDS: the case of Transmara West Sub County, Narok County, Kenya**.**

In this regard, I'm kindly seeking your support in terms of time and information towards responding to the attached questionnaire. Your accuracy and candid response will be critical in ensuring objectivity of this research. It will not be necessary to write your name on this questionnaire and please be assured that all information received from you will be treated with utmost confidentiality.

A soft copy of the final project report may be shared with you upon your request.

Thank you for your valuable time and information.

Yours faithfully,

Kiprono Malel Robert

APPENDIX 2: CHW QUESTIONNAIRE

Kindly answer the following questions as honestly as possible. This questionnaire is for purposes of finding out the factors that influence effectiveness of Community Health Strategy in the fight against HV/AIDS. This questionnaire is anonymous and confidential, and the information you share shall be used for purposes of an academic report and to improve effectiveness of the program.

The questionnaire will take you about 30-45 minutes to fill. Your consent will be sought before you start filling in the questionnaire.

Please mark with an**[x]**or **[√]** in the box with the appropriate response**.**

Section A: Demographics

1. What is your gender?

Male	
Female	

2. What is your age category?

Below 30 years	
30-40 years	
41-50 years	
51-60 years	
61 years and over	

3. What is your highest qualification?

Primary	
Secondary	
College (Certificate & Diploma)	
Undergraduate degree & above	

4. Occupation (what you do outside of CHW work)

Farming	**Response**
Business (Buying and selling)	
Salaried (e.g. By CBO/FBO)	
CHW only	
Others	

If **Others**, kindly explain
……
……
…….

Section B: Supervisory Support

5. Do you think you are sufficiently trained to handle the roles of a CHW?

[ ] Yes [ ] No [ ] Don't know

6. How many health components/indicators established in the CS can you handle?

No. of Health Components (Percent, %)	**Response (mark [x]or [√])**
0 – 25	
25 – 50	
50 – 75	
75 – 100	

7. In the last 6 months, how many times have you met with your CHEW to review indicators or discuss issues arising from your work?

No. of times met	**Response (mark [x]or [√])**
Once	
Twice	
Thrice	
Four times	
>4 times	
Never met	

8. Are such visits pre-planned? (can you tell in advance that on such and such a day/week/month/quarter CHEW or supervision team will visit?)

   [ ] Yes [ ] No [ ] At times

If **No/ At times**, what could be the reason for such unpredictability?

Reasons	**Response (mark [x]or [√])**
Inadequate facilitation to the CHEW (i.e. inadequate financial/material support)	
Inconsistent funding	
Competing tasks (Under staffing)	
Connectivity (Poor road network)	

9. Where such visits were made, what was the coverage of the indicators as highlighted in the checklist?

No. of Health Components/indicators covered per visit (Percent, %)	**Response (mark [x]or [√] whichever is applicable)**
0 – 25	
25 – 50	
50 – 75	
75 – 100	

10. How useful are such supervisory visits?

Indicator	**Response (mark [x]or [√])**
Extremely useful	
Very useful	
Useful	
Neutral (Don't know)	
Useless	
Very useless	
Extremely useless	

11. To what extent would you say the following influence effectiveness of CS in HIV/AIDS fight? (VH= Very High-1; H=High-2; Mo= Moderate-3; DK=Don't know-4; L=Low-5; VL=Very Low-6)

Factors influencing effectiveness of CS	**VH**	**H**	**Mo**	**DK**	**L**	**VL**
Well trained CHWS (AIDS-competent CHWs)						
Regular support supervision						
Extensive coverage of indicators during supervision						
Staffing levels at Health Centers						
Availability of CHWs kit/IEC material and logistical support						
Consistency of funding						
Amount of funds allocated to CS						
Cultural practices/traditions of community and CHWs						
Gender (of CHW)						
Completeness of referral network/system						

12. How do you find serving as a CHW?

[ ] Easy [ ] Difficult [ ] Don't know

1. If **difficult**, what could be the reasons? (SD= Strongly disagree (1); D=Disagree (2); A=Agree (3); SA=Strongly agree (4)

Reasons	**SD**	**D**	**A**	**SA**
Not remunerated (financially)				
Not adequately supported by the CHEW/DHMT (mentorship)				
Limited material and logistical support (IEC, CHW kit and bicycle)				
Cultural barriers (e.g. being a woman you find it hard to talk to men about HIV/AIDS, and vice versa)				

Family issues (lack of support/ownership from family)				
Don't know				

Section D: Referrals/Linkages and Networks

13. Do you at times refer HIV/AIDS clients to the next level of care?

[ ] Yes [ ] No

a) How would you rate your referral process/network?

[ ] Complete (No client is lost in the process)

[ ] Incomplete (clients are, at times, lost in the process)

[ ] Don't Know

Give reason for your answer above……
……
……
……

b) What are the hindrances to accessing care services in HIV settings (Reasons for incomplete referral) (VH= Very High (1); H=High (2); Mo= Moderate (3); DK=Don't know (4); L=Low (5); VL=Very Low (6)

Hindrances	**VH**	**H**	**Mo**	**DK**	**L**	**VL**
Finances (fare, treatment cost)						
Long distance to care centers						
Stigma and discrimination						
Cultural practices, traditions, beliefs etc.						

c) What strategies do you employ to rid against such loss of clients during referral

Strategy	**Response (mark [x]or [√])**
Escorting the client to health center	
Follow-ups/ home visits	

2. What are the staffing levels at health centers you refer clients to? (SD= Strongly disagree (1); D=Disagree (2); A=Agree (3); SA=Strongly agree (4)

Levels	**SD**	**D**	**A**	**SA**
Very understaffed				
Fairly staffed				
Adequately staffed				
Don't know				

Section E: General

3. Has CS, in your opinion led to:- (SD= Strongly disagree (1); D=Disagree (2); A=Agree (3); SA=Strongly agree (4)

Levels	**SD**	**D**	**DK**	**A**	**SA**
Increased retention					
Increased adherence to treatment					
Reduced stigma and discrimination					
Improved livelihoods for PLWHIV					
Reduced LTFU/defaulting cases					
Increased disclosure					

APPENDIX 3: CHEW QUESTIONNAIRE

Kindly answer the following questions as honestly as possible. This questionnaire is for purposes of finding out the factors that influence effectiveness of Community Health Strategy in the fight against HV/AIDS. This questionnaire is anonymous and confidential, and the information you share shall be used for purposes of an academic report and to improve effectiveness of the program.

The questionnaire will take you about 15-25 minutes to fill. Your consent will be sought before you start filling in the questionnaire.

Please mark with an[x]or [√] in the box with the appropriate response.

Section A: Demographics

4. What is your gender?

Male	
Female	

5. What is your age category?

Below 30 years	
30-40 years	
41-50 years	
Above 50 years	

6. What is your highest education qualification?

Level	**Response**
Primary	
Secondary	
College (Certificate & Diploma)	
Undergraduate degree & above	

7. Are you a trained health worker?

   [ ] Yes [ ] No

   If yes, what background? (e.g. public health, nursing, etc.) …….

8. Are your functions included in the basic pre-service training manual?

   [ ] Yes [ ] No [ ] Don't Know

9. Are you deployed for CS work only?

   [ ] Yes [ ] No

   If **No**, where else are you deployed? ……

Section B: Financial/ HR resource challenges

10. Do you, after training, face challenges retaining the CHWs?

    [ ] Yes [ ] No

    If **yes**, how many have you lost since establishment of the CUs?

Range	**Response** (**mark with an[x]or [√])**
0-5	
5-10	
10-20	
>20	

11. What could be the reasons for the exit? (SD= Strongly disagree (1); D=Disagree (2); A=Agree (3); SA=Strongly agree (4)

Factors for CHW attrition	**SD**	**D**	**A**	**SA**
Family reasons (marriage/family opposed to CHW work)				
Work-related reasons				
Heavy workload				
Terminated due to underperformance				
Unmet expectations (e.g. thought they'll be trained and absorbed into mainstream health profession)				

Don’t know/undisclosed reasons				

a) For those who opt out, where do you think they get employed in or go to?

Employer	**Response (mark with an[x]or [√])**
Self employment (business/farming)	
CBOs/FBOs/NGOs	
Government (National/County)	
Private sector (formal employment)	
School (pursue higher education)	
Don’t know	

12. What challenges do you face in implementing the strategy? (SD= Strongly disagree (1); D=Disagree (2); A=Agree (3); SA=Strongly agree (4))

Challenges	**SD**	**D**	**A**	**SA**
Inadequate financial and material resources (out-of-pocket allowance, fuel, airtime, etc.)				
Shortage of staff in health centers to attend to all referred cases				
Unmotivated CHWs				
Vastness and remoteness of the implementation area				
Don’t know				

Section C: Cultural attitudes/practices

13. How would you rate women participation in community campaigns against HIV/AIDS? (Women = all females of reproductive age)

Attendance levels (Audience mix)	**Response (mark with an[x]or [√])**
Very low (0-25%)	
Low (25-50%)	
High (50-75%)	
Very high (75-100%)	

1. What would you say about public debates on sexuality and HIV/AIDS? (SD= Strongly disagree (1); D=Disagree (2); A=Agree (3); SA=Strongly agree (4)

Features of public sexuality and HIV/AIDS debates	**SD**	**D**	**DK**	**A**	**SA**
Sexually explicit language is used					
Sexually explicit language elicits feelings of shame					
Cultural values prohibit explicit discussions of sexuality issues					
Anatomical terms are openly used (e.g. penis, vagina, etc.)					
Women have low social status compared to men					
Women's low social status increases vulnerability (to HIV)					

2. Can an adult Maasai engage in sexual relationship with any woman married/engaged to a man of his age set?

   [ ] Yes [ ] No [ ] Don't know

14. If yes, to what extent? (SD= Strongly disagree (1); D=Disagree (2); A=Agree (3); SA=Strongly agree (4)

Levels	**SD**	**D**	**A**	**SA**
Very high				
High				
Moderate				
Low				
Very Low				

3. Is polygyny (man marrying more than one wife) practiced in you jurisdiction?

   [ ] Yes [ ] No [ ] Don't know

15. If yes, to what extent? (SD= Strongly disagree (1); D=Disagree (2); A=Agree (3); SA=Strongly agree (4)

Levels	**SD**	**D**	**A**	**SA**
Very high				
High				
Moderate				
Low				
Very Low				
Don’t know				

APPENDIX 4: INTERVIEW SCHEDULE FOR KIs (DHMT/IPs)

This interview is for purposes of finding out the factors that influence effectiveness of Community Health Strategy in the fight against HV/AIDS. It is confidential, and the information you share shall be used for purposes of an academic report and to improve effectiveness of the program.

The interview will take us about 30-45 minutes. Your consent will be sought before you start giving the information. Kindly answer the questions as honestly as possible.

1. How often do you offer support supervision to the CHEWs and CHWs? Why?
2. Are such visits pre-planned/scheduled in advance? Or they are made irregularly? Why?
3. When made, what's the coverage of the checklist? Do you cover the HIV/AIDS component?
4. Would you say the CHWs are adequately trained to handle HIV/AIDS component?
5. To what extent would you say the existing referral network/linkage is effective in curbing LTFU/defaulting cases?
6. What, in your opinion, is the level of linkage to care for those who test sero-positive?
7. What would you say of the funding levels towards CS, from both GoK and partners? (consistency, level and sufficiency)
8. Compared to same period last year, what would you say is the proportion of pts currently in care? (i.e. patients currently in care as a proportion of those ever enrolled)
9. On average, what range of clients missed an earlier scheduled visit to the clinic in the last 6 months?
10. In your own opinion, is there an improvement in terms of retention, adherence to treatment and in cases of stigmatization and discrimination in the past one year? To what extent?
11. Has the roll out of CS influenced retention, stigma/discrimination levels, adherence to treatment, and LTFU/defaulters? How? And, to what extent?
12. To what extent do PLWHIV disclose their status? And to whom do they disclose to?
13. To what extent are the health facilities that serve the CUs staffed? (Are they adequately staffed?)

14. Are CHEWs deployed for CS work only? If not, why?
15. What do you think should be done to retain CHWs after training?
16. Do you think wife sharing among age mates is still being practiced? What is the influence of such practice on anti-HIV/AIDS community strategies?
17. Is polygyny still practiced by the community? To what extent? Do you think it complicates the fight against HIV? How?
18. Do you think strategies to respond to the HIV/AIDS crisis have consistently included cultural and gender perspectives? To what extent?
19. In your own opinion, what do you think should be done to improve the performance of CS, particularly in the fight against HIV/AIDS?