

**EFFECT OF CIVIL SOCIETY ORGANIZATION
INTERVENTION ON HEALTH, NUTRITION, AND
ECONOMIC STATUS OF PEOPLE LIVING WITH HIV
AND AIDS IN BUSIA COUNTY, KENYA**

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and Economic Status of People Living with HIV and AIDS in Busia
County, Kenya**

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Philosophy in Public Health in the Jomo Kenyatta University of
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DECLARATION

This thesis is my original work and has not been presented for a degree in any other University.

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DEDICATION

I dedicate this work to my lovely family, the source of my inspiration. Their support, patience and love contributed to the completion of this work. The entire Pastor Gari's and The Nandilis' family: Dan, Daisy, Darius, Vivian and Linda, May God reward you richly for the immense support and silent prayers.

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LIST OF ABBREVIATIONS AND ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
AMPATH	Academic Model Providing Access to Healthcare
AMREF	African Medical and Research Foundation
ARV	Anti Retro Viral
BMI	Body Mass Index
CBO	Community Based Organizations
CCC	Comprehensive Care Centers
CSO	Civil Society Organizations
DDP	District Development Plan
DTC	Diagnostic Testing and Counseling
ELISA	Enzyme Linked Immune Sorbent Assay
FANTA	Food and Nutrition Technical Assistant
FBO	Faith Based Organization
FGD	Focus Group Discussion
GFATM	Global Fund to fight HIV/AIDS, TB and Malaria
GOK	Government of Kenya
GPA	Global Program on AIDS
HIV	Human Immune Deficiency Virus
HTC	HIV Testing and Counseling
IDU	Injecting Drug Use
IGA	Income Generating Activities

ITROMID	Institute of Tropical Medicine and Infectious Disease
KAIS	Kenya AIDS Indicator Survey
KEMRI	Kenya Medical Research Institute
KES	Kenya Shillings
KNASP	Kenya National HIV and AIDS Strategic Plan
MDGs	Millennium Development Goal
MTCT	Mother to Child Transmission
NACC	National AIDS Control Council
NEI	Net Effect of Intervention
NGO	Non-Governmental Organization
OI	Opportunistic Infections
PEPFAR	President's Emergency Plan for AIDS Relief
PITC	Provider Initiated Testing and Counseling
PLWHA	People Living with HIV and AIDS
PMTCT	Prevention of Mother to Child Transmission
PWID	People Who Inject Drugs
SACCO	Savings and Credit Co-Operative
SSA	Sub-Saharan Africa
SW	Sex Workers
UNAIDS	United Nations Program on HIV/AIDS
VCT	Voluntary Counseling and Testing
WHO	World Health Organization

DEFINITION OF TERMS

- Absolute Poverty:** Refers to being unable to afford basic human needs such as clean and fresh water, nutrition, health care, education, clothing and shelter
- AIDS:** Acquired Immunodeficiency Syndrome; the most advanced stage of Human Immune Deficiency Virus.
- Civil Society Organization (CSO):** World Bank defines it as a wide array of organizations that have a presence in public life, expressing interests and values of members or others, based on ethical, cultural, political, scientific, religious or philanthropic considerations.
- Deficiency:** Inability to protect against illness
- Epidemic:** A disease affecting many individuals within a population, community or region at the same time.
- Food Security:** Refers to physical and economic access to food that meets people's dietary needs as well as their food preferences.
- Home Based Care:** The provision of treatment and care at home
- Human Immune Deficiency Virus (HIV):** Human Immune Deficiency Virus (HIV) is a retrovirus that infects cells of the immune system, destroying or impairing their function and causing AIDS and affects only humans.

Intervention:	An action or strategy performed by various supporting organizations to solve problems identified
Non-Governmental Organizations (NGOs):	World Bank defines NGOs as private organizations that pursue activities to relieve suffering, promote interests of the poor, protect environment, or undertake community development.
Nutrition Security:	Access adequate and safe food with possession of sufficient knowledge and skills to acquire, prepare and consume a nutritionally adequate diet.
Nutritional Well Being:	Besides food security include, health, sanitation, adequate supplies of safe water, parents' education, time to prepare food, and care of vulnerable individuals within the household.
Opportunistic Infection:	A disease caused by a microorganism that does not normally cause illness in a person with a healthy immune system, but may cause serious disease when the immune system is weakened as in the case of HIV/AIDS
Poverty:	Low income extending to inability to acquire basic goods and services necessary for survival with dignity
SACCO:	Savings and Credit Co-operative, is a type of co-operative whose objective is to pool savings for the members and in turn provide them with credit facilities
Syndrome:	A group of symptoms or illnesses that occur because of the HIV Infection.

Virus: An organism that infects and replicates inside of cells

Western Blot: A laboratory test of high specificity used to confirm reactive results on the HIV ELISA test

ABSTRACT

Civil Society Organizations (CSO) have played a major role in the fight of HIV and AIDs since its discovery in Kenya in early 1980s. Despite their massive effort to provide proper health care, adequate nutrition and suitable economic empowerment to people living with HIV and AIDS, documented data on the impact and value of their interventions remains very scanty. The main objective of this study was to determine the effect of CSO interventions on health, nutrition, and economic status on people living with HIV and AIDS as the target population in Busia County. A quasi-experimental study design of two hundred and twenty (220) participants from four Sub-Counties of Busia County (Kenya) was used. A structured and semi-structured questionnaire was administered to collect baseline and end line data. Qualitative in-depth data were obtained using focus group discussions (FGDs) and key informant interviews. Quantitative data analysis was carried out using Statistical Package for Social Scientists (SPSS) software, version 17. Frequency distributions and percentages were computed to enable univariable data presentation. In bivariable computations, the Chi-square test was computed to test for categorical variables associations. In addition, Odds Ratio (OR) was computed for two by two tables. Net Effect of Intervention (NEI) analysis was used to determine the impact of interventions at 95% confidence level. Apparent NVIVO (QSR International Pty Ltd) qualitative software was used to analyze qualitative data. Text, audio, and video recordings were transcribed verbatim and data categorized into various themes. Line by line coding was used to manage discrete units of text. Quotes were used to illustrate perspectives of respondents relating to the different themes. There was no significant difference in gender, household size, and education level recorded in intervention and non-intervention sites between baseline and end line. Majority of the respondents (50%, 42.5% Vs 49.6%, and 39.9%) in intervention and non-intervention sites at baseline and end line respectively, indicated to have attained primary level of education. However, a significant difference among those formally employed was reported at baseline ($P=0.03$) and end line ($P=0.01$). The proportion of respondents recorded as self-employed were high in intervention (75.4% vs 66.1%) and non-intervention sites (62.9% vs 75.4%) at baseline and end line respectively. However, there was no significant difference recorded at baseline ($p=0.83$), with a significant difference recorded at end line ($P=0.01$). A large proportion of respondents in intervention (83.1% vs 89.5%) and non-intervention (87.4% vs 73.2%) sites at baseline and end line respectively accessed HIV/AIDS information. However, Net Effect of Intervention (NEI) increase (20.6%) was not statistically significant ($P=0.16$). Main source of HIV and AIDS information was from MoH in intervention (62.3%) and non-intervention sites (57.5%) at baseline. It was also the main source of HIV and AIDS information, although others sourced from key opinion leaders, private sector, PLWHA

and line-Ministries. Respondents recorded use of contaminated sharps as a risk factor to HIV transmission in intervention and non-intervention sites (68.5% vs 62.9%) at baseline. With 65.7% and 65.2% in intervention and non-intervention at sites at end line. There was no significant difference in the awareness of HIV risk factors in intervention and non-intervention sites at baseline and end line ($P>0.05$). Approximately 16.3% of respondents reported they smoked and indulged in alcohol despite being aware of the risks associated with HIV and AIDS. Overall, the differences in change in prevalence of clinical signs and symptoms were not statistically significant ($P>0.05$). However, the 5.9% NEI reduction in periodontal diseases illustrated significant difference ($P=0.05$). Prevalence of candidiasis dropped at end-line in intervention sites, with 0.7% fewer cases reported in comparison to the non-intervention sites. No notable significant difference between intervention arm and non-intervention arm in access to health care services ($P>0.05$). Government facilities were the main providers of voluntary counseling and testing services in both sites. A statistical significant difference was observed in respondents sourcing ARVs from private facilities in intervention and non-intervention sites at baseline and end line ($P=0.05$). A large proportion of respondents in intervention sites (91.5%, 93.7%) and non-intervention sites (88.2%, 80.4%) at baseline and end line respectively, accessed Anti Retro Viral (ARV) drugs. However, the NEI increase (10.0%) was not statistically significant ($P=0.48$) across study sites. Most respondents in intervention (59.2%, 60.1%) and non-intervention sites (56.7%, 44.2%) at baseline and end line, accessed health care services from government hospitals. Despite the NEI (13.4%) increase no significant difference recorded ($P=0.24$) in all the study sites. The government was the most common source of Anti Retro Viral in the intervention sites (42.0%) at baseline. Most respondents at baseline (58.5%, 54.3%) and at end line (53.8%, 57.9%) in the intervention and non-intervention sites had normal weight with Body Mass Index (BMI) range of ≥ 18.5 to 24.9. The NEI (8.3%) decrease among respondents with normal weight was observed to be statistically insignificant ($P=0.56$). More respondents (NEI, 4.8%) in intervention and non-intervention sites at baseline and end line were recorded as malnourished, and not statistically significant ($P=0.58$). There was no significant difference in food intake in intervention sites in comparison to non-intervention sites between baseline and end line. Respondents did not take breakfast in the morning in intervention (30.8%) and non-intervention sites (37.0%,) at baseline. Similarly, at end line in intervention (31.5%) and non-intervention (34.8%) sites, respondents did not take breakfast in the morning. Ugali or rice accompanied with green vegetables were the most common foods consumed at lunch (34.6%) in intervention sites and non-intervention sites 37.0% at baseline. With similar trend of foods consumed applied for supper at end line. The impact of CSOs on economic and income generation activities in the study sites was not statistically significant ($P>0.05$). Respondents benefited economically from the *Chama* support

(formal registered group), *Merry go round* scheme (informal registered group) and SACCOs initiated by CSOs through regular dialogue with PLWHA. These were the most common types of economic support for economic growth and development that supported PLWHA.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

In the early 1980s, HIV and AIDS prevalence rose rapidly worldwide to become a public health problem of great concern. The capacity of public sector to deliver adequate essential services to those affected by the pandemic proved limited. In response to the Primary Health Care (PHC) guidelines launched by World Health Organization (WHO) in the Alma Ata meeting, the goal of improving health care services for all (Stephen, 2008) were set. With the guidelines in place, CSOs introduced programmes that supported the government in providing quality health care, adequate nutritional balance and suitable economic empowerment. At the said meeting, policies were introduced that shifted focus of health care services from the biomedical model to engaging the community in the promotion of primary health care activities (Matthias and Green, 1997). The WHO (2015) reports that health has been affected by social determinants such as poverty, illiteracy, and economic factors. The report further demonstrated that health can greatly be improved through socioeconomic and cultural activities including community intervention measures. The approach is more successful in reaching the poor through multi-sectorial programmes.

In Busia County (Kenya), civil society organizations (CSOs) remain focused in advocating for better health care. They also play a major role in supporting the implementation of government health policies and strategies. Many of the CSOs do participate in government plans, and on delivering the “Three Ones” Principles; one Strategic plan, one National HIV and AIDS Coordinating Authority, and one Monitoring and Evaluation framework mechanism (NASCO, 2015); UNAIDS (2002) and UNICEF (2013).

Documented data by the time of baseline survey showed the HIV prevalence in Busia County was at 12% among adults (Busia District Development Plan, 2009), twice as high as the national (6%) rate (KDHS, 2014). The County has about 300 registered CSOs (Registration and nongovernmental organizations coordination Board, Rev 2014), that play prominent roles in the fight against the epidemic. They offer diverse interventions stretching from providing basic health care and nutritional services to economic support through health education programmes. Besides, they also provide medical commodities, drugs, nutrition services, and consistently promote health education programmes. Other CSOs have also implemented home based care activities to support the implementation of health care in homes. Small-time income generation projects have exclusively been initiated in rural areas of Busia County aimed to improve sources of income for People Living with HIV and AIDS (PLWHA). Majority of the CSOs mainly depend on donor support, and in most cases the programmes they implement are primarily skewed towards donor interest. However, the end line survey determined change attributed to CSOs intervention on improved health, nutrition and economic status for PLWHA by demonstrating benefit and overall efficacy of the intervention.

Globally, people infected with HIV and AIDS increased from 29.8 million in 2001, to 36.9 million in 2014 (UNAIDS, 1998). At least 1.2 million people died of AIDS in 2014, a 42% decrease since 2004. The report by UNAIDS cites decrease in people dying of AIDS-related causes was associated to antiretroviral treatment (ART) scale-up (KFF/UNAIDS, 2015). Likewise, Sub-Saharan Africa (SSA) faces serious HIV/AIDS challenges with roughly 25 million people living with HIV/AIDS. South Africa has the highest number of people living with HIV/AIDS (6.8 million) worldwide, with Swaziland holding the highest prevalence of 27.7%.

Kenya just like other sub-Saharan Countries faces serious epidemic challenges with the national average (6%) reported, prompting a global response for combating its escalation (Kaiser, 2015; Singal & Rogers, 2003). They further cited the pandemic not only affects the health of an individual, but impacts negatively on households' health, development

and economic status leaving those affected suffer from infectious diseases, food insecurity, neglect and stigmatization.

The fight for HIV/AIDS prevention, management and mitigation has incorporated several players from different countries across the globe. Local and International organizations collaboratively contribute to HIV prevention using diverse strategies (Mercer, 1991). The magnitude of epidemic in Africa especially sub-Saharan Africa, prompted governments from the region to respond in various ways towards combating this escalating pandemic. Bilateral HIV research funding was introduced to support the fight against HIV/AIDS. In 2000, all nations agreed to global HIV targets to halt and reverse the spread of HIV by 2015, as part of the UN Millennium Development Goals (MDGs).

The World Bank also launched its Multi-Country AIDS Program (MAP). In 2001, a United Nations General Assembly Special Session on HIV/AIDS (UNGASS) was convened and the Global Fund created (Bill & Melinda Gates Foundation, 2015). World Health Organization launched Primary Health Care (PHC) in the Alma Ata declaration to secure health gains and reach the poor through a multi-sectorial approach (Stephen, 2008). Non-Governmental Organizations defined by World Bank as “private organisations that pursue activities to relieve suffering, promote interests of the poor, protect environment, or undertake community development” (World Bank, 1998; Mercer, 1991).

Some writers also specified that CSOs pursue activities to relieve suffering, promote interests of the poor, protect the environment furthermore undertake community development activities. Most CSOs, Community Based Organizations (CBOs) together with formal and informal support groups and associations have been abundantly engaged in the fight against the pandemic. In addition, alleviate poverty, improve health, and foremost relieve continuous suffering among individuals infected with HIV/AIDS. These organizations fill in gaps that governments themselves may not have been able to address. The CSOs being an integral part of the Global HIV response, and that their

roles have been recognized in many conventional Countries. This includes especially the role of spearheading community response against HIV/AIDS, as clearly stipulated in the National Multi-Sectorial Strategic Framework (2003-2007 & 2008-2012). They, among others can mobilize, empower and support communities to respond effectively to the HIV/AIDS epidemic. Several research studies have demonstrated the effectiveness of health interventions offered by organizations such as the reproductive health initiatives (Mercer *et al.*, 2004).

Some studies (Edwards & Hulme, 1996), have shown lack of evidence from which to establish impact of CSOs intervention. While some indicated that most organizations provide cheaper services than those offered by the government (Kelly *et al.*, 2004). A study conducted in Mexico established that government provision of cervical screening cost 26% more than screenings provided by private organizations. In terms of service provision and coverage, organizations in Africa were found to operate on a relatively small budget and with few staff, but they can reach large segments of communities especially in rural settings (Benotsch *et al.*, 2004). However, other studies have also reported that these organizations often fail to monitor and evaluate projects they initiate and thus are unable to demonstrate the impact of their work (Johnson, 2009). Some studies have also revealed that CSOs lack adequate documentation to support their capability, importantly take accountability over projects initiated. Researchers investigating the contribution of CSO on health interventions are faced with challenges such as lack of a comprehensive database as well as reliable and consistent data with which to measure performance. Duplication of health-related services by most implementing partners remains a challenge. Most interventions done by CSOs especially those that are aimed at improving the wellbeing of HIV vulnerable persons have not been adequately documented. This study therefore was aimed at determining change attributed to CSO intervention on improved health, nutrition and economic status for PLWHA.

1.2 Problem Statement

By the time of this study in 2012, the HIV/AIDS prevalence among adults for Busia County had remained relatively high at 12% (UNICEF, 2013). The report is contrary to the Busia County plan (2013) which showed HIV/AIDS prevalence at 6.4%. Despite the difference in reporting, the prevalence remains high and especially if compared with the National prevalence. The high prevalence is partly linked to high risk lifestyles and sexual practices associated with the two border towns (Busia Kenya and Busia Uganda). Such practices include cross border commercial sex mostly targeting truck drivers and other businessmen. These practices are aggravated by high level of poverty (66%) and unemployment (68%) as indicated in the Kenya Demographic Health Survey (2014). Women and children were more affected by the epidemic with high numbers of orphans and school dropouts observed (Busia County Government, 2013).

Although the County government plays a major role in spearheading HIV/AIDS management and control, other players (CSOs) have also come to play. CSOs engaged in HIV/AIDS response to tackle social determinants affecting the health of PLWHA. Consequently, to respond to the alarming problems, about three hundred (300) registered CSOs support in the prevention and control of HIV and AIDS in the County. Therefore, CSOs have a prominent role in the fight against HIV/AIDS in Busia County. Participate in providing support to improve the health, nutrition, and economic status for people infected with HIV. Most CSO support health care, focus on advocacy and training, while FBOs predominantly provide health care services in rural settings. In addition, pay attention on procuring, supply and distribution of ARV and other medicines. Under nutrition, CSOs offer nutrition counselling, encourage PLWHA to start kitchen gardens, and occasionally distribute food supplements to those affected by HIV. CSOs have been noted to support groups of PLWHA start IGAs through small scale businesses. Several donor agencies channel funds through these CSOs to support projects aimed at supplementing various government efforts.

Usually, the projects initiated by CSOs to backing alleviation of suffering, have never been sustainable. By the time CSOs wind up their projects, most recipients remain unable to manage and uphold the creativity, and justify the impact from the efforts.

Despite the widespread of CSO effort to improve health status, nutritional status and support economic opportunities in Busia County, effect of their intervention has not been exhaustively established. In addition, there is very limited documented information in respect to the impact of CSO interventions. Reports on prior assessments to intervention and assessments after intervention to determine change are unavailable. Which means that, implementing partners hardly monitor or even make followups on the projects implemented. However, it makes it difficult to establish impact of CSO intervention once records are not in order and when the projects are unmaintainable.

1.3 Justification of the Study

This study addressed an area of major public health significance in Busia County by determining the effect of Civil Society Organizations (CSOs) intervention on the health, nutrition and economic status for people living with HIV and AIDS (PLWHA). The Evidence on impact of CSO intervention will guide the government in developing and revising existing policies related to HIV/AIDS prevention and control. In addition, aimed at attaining Millennium Development Goal (MDG, 2015) number six, specifically halting and reversing the spread of HIV and AIDS towards attaining Vision 2030 (KDHS, 2014). The results will also enhance collaboration between County governments and CSOs in areas related to HIV/AIDS prevention, as well as in policy implementation and service provision. The evidence will further demonstrate the contribution of CSO interventions on improved health status, nutritional status and economic status among people living with HIV and AIDS. A leeway will be created for evaluating CSO interventions regularly.

The government, line ministries, and implementing partners in general will be able to base their projected plans on this evidence, alter their strategies towards improving the livelihood and health status of PLWHA. Economic state of PLWHA will be considered especially when the national budget is being deliberated by multiple stakeholders. Finally, data from this study is expected to broaden the knowledge of scientists, government officials, and the populace on the impact of CSO intervention on HIV/AIDS burden in rural endemic areas.

1.4 Research Questions

The following research questions were used in displaying the study:

1. What is the effect of CSO intervention on access to HIV and AIDS information among PLWHA of Busia County?
2. What is the effect of CSO intervention on access to Health care services among PLWHA of Busia County?
3. What is the effect of CSO intervention on morbidity patterns of PLWHA of Busia County?
4. What is the effect of CSO intervention on food intake and nutrition status among PLWHA in Busia County?
5. What is the effect of CSO intervention on economic and income generation activities among PLWHA in Busia County?

1.5 Null Hypotheses

Ho₁ Interventions by CSO have no effect on health, nutrition, and economic status on

People living with HIV/AIDS in Busia County

1.6 Objectives of the Study

The objectives of the study were as presented in the following sections:

1.6.1 Broad Objective

The study determined the effect of CSO interventions on health, nutrition, and economic status on PLWHA in Busia County.

1.6.2 Specific Objectives

The specific objectives of this study were:

1. To determine the effect of CSO intervention on access to HIV and AIDS information in Busia County.
2. To determine the effect of CSO intervention on access to health care services among PLWHA in Busia County.
3. To determine the effect of CSO intervention on morbidity patterns of PLWHA in Busia County.
4. To determine the effect of CSO intervention on food intake and nutrition status among PLWHA in Busia County.
5. To determine the effect of CSO intervention on economic and income generation activities among PLWHA in Busia County.

CHAPTER TWO

LITERATURE REVIEW

2.1 Global HIV/ AIDS Statistics

Human Immune Deficiency Virus (HIV) is a virus that causes Acquired Immune Deficiency Syndrome (AIDS) and affects only humans. It is transmitted through exposure to semen, vaginal fluids, and blood or breast milk. The most common form of HIV transmission is through heterosexuality where unprotected sexual intercourse is practiced (Mercer *et al.*, 2004). It can also be transmitted through contaminated needles and sharps. The unborn babies can sometimes get the infection laterally from HIV infected mothers (Mother to Child Transmission) if proper care is not observed during pregnancy and delivery. By end of 2001, the Joint United Nations Program on HIV and AIDS (UNAIDS) estimated that 40 million people worldwide were infected with HIV/AIDS (KNACC, 2009). Other related literature estimated new HIV infections in the same year at 5 million (KDHS, 2014).

Documented reports indicate that at the end of 2002, there were 42 million people living with HIV/AIDS. The fluctuating trend demonstrates a global public health concern with Sub-Saharan Africa facing the greatest challenges (Singal & Rogers, 2003). A study was done in some African Countries (Kenya, Malawi, and Senegal) by the Kenya Modes of Transmission (2008). The findings from the study in the three Countries determined that high incidence rates existed among Men who have Sex with Men (MSM) and among commercial sex workers (CSW). The burden of HIV has also been shown to be higher among other populations such as truck drivers, male prisoners and fisher folks especially in Busia County (BCG, 2013). Nonetheless; boarder points and urban towns have been reported to be having higher prevalence rates as compared to other areas.

The study also explored Kenya's generalized human immunodeficiency virus (HIV) epidemic; noting that Malawi's generalized HIV epidemic was previously understood to

be driven exclusively by heterosexual and vertical transmission. And that Senegal experienced a limited HIV epidemic in the general population, secondary to early adoption of evidence based HIV prevention and treatment strategies. In Malawi evidence is emerging of significant HIV risk and prevalence among MSM, who report low levels of HIV related knowledge and high levels of bisexual concurrent (BC) partnerships. In Senegal, recent arrests of MSM and stigma have curtailed provision and uptake of previously effective HIV care services. Interventions to address the economic causes and consequences of HIV/AIDS were discussed in the KAIS, (2014) report. Although much progress has been made, 37 million people across the Globe were living with HIV/AIDS by the end of 2014. Evidence generated over the past 10 years from the PopPov Research Initiative, and other findings from sub-Saharan Africa provide insight on the connections between HIV and household and national economics.

This policy brief highlights research on financial and educational interventions that can help reduce new HIV infections. Ever since the first cases of AIDS were reported in 1981, substantial gains have been recognized in larger communities through partnership support. Civil Society Organizations have also intervened in policy issues on health systems. This is particularly around the negative impacts of market reforms and in support of primary health care and of equity in health and state health services. They have continuously lobbied for the rights of communities with specific health needs, including people with disability and people living with HIV/AIDS (Hakkinen & Ollila, 2000). Many individuals now understand how HIV is transmitted, its effects, and impact on psychosocial, socio-economic, and growth and development in societies.

Unfortunately, despite high level of awareness (98%), families have remained devastated, increasing the burden of poverty, food security, and therefore leading to poor socioeconomic status (Mercer, 1991). AIDS was first reported in 1981 in New York and California. The first AIDS cases reported in U.S. were mostly among homosexuals and Intravenous Drug Users (IDUs). The HIV and AIDS grew into epidemic in Africa around 1980 and has impacted on demographic, household, health sector, education,

enterprises and workplace as well as on macroeconomic (UNAIDS, 2001). The magnitude of the impact prompted government authorities to develop universal strategies to fight the disease (Haselgrave, 1988; Morna and PANOS, 1991). Because of these challenges faced, various organizations emerged to respond to the global crisis following their support by Global Program on AIDS (GPA).

In 1989 a resolution by World Health Assembly (WHA) supported NGOs effort in global strategy for prevention and control of AIDS by acknowledging their commitment.

The number of NGOs providing services to HIV/AIDS infected individuals has been increasing over the years (Mercer, 1991) because of emerging new cases of infections. The primary concepts have resulted in appropriate patient involvement in health care and shaping of the way providers function. This is to the extent that in this 21st Century people can now express their wishes and demands to the providers (Population Council and Health Systems Trust, 2006). Medicine is not just a question of technique; it involves providing guidance and emotional support to the patient, to help them decide on what the best solution of dealing with existing problem (Gustafsson, 1989). The writer further cited that it is not feasible if doctors think they know it all. They need to learn to listen to patients, and involve them in the decisions regarding their health.

Writers, Laine and Davidoff (1996) state that listening is a technique that can be learnt, but learning the technique is not enough if the conflicts of interest are not addressed to achieve a reasonable balance between the user's interests and that of the provider. In addition, the writers stated that people should participate in an informed way in the decisions about their treatment; they need information on the relevant options. Many things can be done to help people communicate effectively with health professionals. These may affect compliance and sense of control, with consequent effects on well-being and recovery; satisfaction with care; organization of services; and patterns of litigation. Researchers such as Entwistle *et al.*, (1998) shared in their document that individuals cannot rely on professional organizations and bureaucracies to help them if there is limited evidence. If one looks at the information provided by health care

organizations themselves or by other authorities, one notes that hardly do they provide relevant information. Most efforts seem directed at making patients comply rather than helping them choose the right service provider or care.

2.2 HIV and AIDS in Kenya

HIV epidemic in Kenya is described at a prevalence rate of 5.6% among the general population of ages 15 to 64 years (NAS COP, 2015). In contrast, KAIS (2012) reports National HIV prevalence at 6% with HIV prevalence among males and females aged 15 to 24 years at 5.6% and 7.6% respectively. Notably young women in this age group account for 21% of all new HIV infections in Kenya. The high burden of HIV and AIDS in Kenya accounts for an estimated 29% of annual adult deaths, 20% of maternal mortality, and 15% of deaths among children under the age of five years. Further, the document also cites HIV in some geographical regions as having even higher prevalence than the national prevalence (Nyanza 15.1% and Western 4.7%).

The KAIS (2014) report confirms that there were approximately 88,620 new HIV infections that occurred among adults and 12,940 among children in 2013. Five counties: Homabay (12,280), Kisumu (10,350), Siaya (9,870), Migori (6,790) and Kisii (4,890) contributed about 50% of the total new adult infections and 75% of the new infections that occurred among children nationally. Counties with the highest adult HIV prevalence in 2013 included: Homa Bay 25.7%; Siaya 23.7%; Kisumu 19.3%; Migori 14.7%; Kisii 8%; Nairobi 8%; Turkana 7.6%; and Mombasa 7.4%. The document further highlights that awareness of AIDS is universal in Kenya. The report also presents evidence that only 56% of women and 66% of men have comprehensive knowledge about HIV and AIDS prevention and transmission. Most Kenyans know that condom use can prevent HIV and that a healthy-looking person can also be infected although may not show signs. Most common misconceptions about HIV were; HIV can be transmitted by mosquitoes, by sharing food, by getting in touch with individuals infected by HIV and AIDS and through sharing beddings.

The evidence further showed about 72% of women and 62% of men know that HIV can be transmitted through breast feeding and that the risk of mother to child transmission can be reduced by taking special drugs during pregnancy. Among those who had more than one sexual partner in the past 12 months, 40% of women and 44% of men reported using a condom during their last sexual intercourse. Since 2008 and 2009 there has been an increase in the percentage of both women (from 29 % to 53%) and men (from 23% to 46%) who were tested for HIV in the past 12 months and received their results (KDHS, 2014). Sixty eight percent of women who gave birth in the two years before the survey, received HIV counseling during antenatal care. The KAIS and KDHS document confirms seven out of ten women (69%) were tested for HIV during antenatal care.

And at the same time received the test results as well as post-test counseling. About 23% of those tested received results but did not receive post-test counseling. The article for Kenya Modes of Transmission (2008) study done in Kenya, Malawi, and Senegal Countries; the Global HIV Epidemics among Men who have Sex with Men (MSM) demonstrated high incidence rates among stable heterosexual couples. Including key populations such as people who inject drugs (PWID) and sex workers (SW). The burden of HIV has also been shown to be higher among other populations such as truck drivers, male prisoners and fisher folks. Nonetheless; boarder points and urban towns have been reported to be having higher prevalence rates as compared to other areas (Beyer *et al.*, 2011).

Kenya has seen a decline in HIV incidence rates among adults aged 15 to 49 from 0.62% in 2000 to 0.44% in 2013. The decline was associated with scale up of various prevention and treatment programmes initiated.

In terms of absolute numbers, the new HIV infections among all adults of 15 years and above declined by 15% nationally from 105,000, in 2000 to 88,620, in 2013. Among the children a decline was noted from 44,000, in 2000 to 12,940, in 2013. An estimated 30% to 40% of all infants delivered by HIV positive mothers become infected with the HIV virus. New infections in infants and children are estimated at 34,000 per year with

44,000 children needing antiretroviral therapy with 15,000 receiving the treatment (Busia County Government, 2013).

2.2.1 HIV and AIDS in Busia

The HIV and AIDS prevalence rate in Busia County was estimated at 7.4% (KDHS, 2014) in 2012 against a national average of 6.4%. According to available statistics, Bunyala Sub County leads in AIDS prevalence with 8.2%, Samia was second with 7.4%, Butula came in third with 6.3% while Teso North was placed fourth with 4.2%; Matayos and Teso South tie on fifth place at 3.2% with Nambale having the least prevalence of 3.1%. Teso North Sub-County had HIV/AIDS prevalence of 16%, a decade ago but reduced significantly by 75%. The decline has been because of specific implemented programs which target key populations: sex workers, truck drivers, discordant couples, young and vulnerable youths. Cross border issues were noted as major challenges facing the fight against HIV/AIDS in Busia.

In Busia County, the prevalence and mortality rate from HIV/AIDS infection remains alarming with poverty and low agricultural productivity increasing spread of the infection commonly through prostitution and exchange of sex for food. High incidence of HIV among young women was largely linked to cultural practices that endorse gender based violence, inter-generational sex and multiple concurrent partners (Busia County Government, 2013). Truck drivers and *boda boda* riders at the border point of Busia Kenya and Busia Uganda have multiple partners.

They engage in risky sex behaviors, impregnate young girls and sometimes infecting them with HIV/AIDS. In addition, men in Busia have been urged to get circumcised to stop the spread of HIV and AIDS and other genital related diseases. The rate of infection in Budalangi Sub County population remains high because most of the men were not circumcised (Busia County HIV/AIDS Strategic Plan, 2016; Busia County Government, 2013). Busia records 100% of women and men aged 15 to 49 having knowledge on HIV and AIDS prevention. This affects virtually all the aspects of the Human Development

Index (HDI). The KDHS, (2014) and Busia County development plan (2013) indicate high knowledge existed among many residents regarding HIV/AIDS transmission. Most writers reported sexual contact as most at risk factor for HIV/AIDS transmission (Ali, 2013).

Out of the total population in Busia County (570,221), 141,134 people are currently tested for HIV while those living with HIV and on antiretroviral treatment sum up to 8,456. The prevalence rate in women is higher than that of men. In Busia County, women and the men have a prevalence rate of 13.9% and 5.6% respectively. Since this number is based on the available statistics, it can be argued that men are afraid to seek health care services, collect ARV drugs as well as make visits to voluntary counseling and testing (VCT) sites and or visit comprehensive care centers (CCC).

The KAIS (2012) and the Kenya HIV Estimates (2014) shows in most Counties, HIV prevalence rate is higher in women than that of male counter parts. As this number is based on the available statistics, it can be argued that men are afraid to seek help, collect ARV drugs as well as make visits to comprehensive care center (CCC). Anti RetroViral Therapy (ART) coverage per county according to UNAIDS Gap report, shows that as people find out their HIV positive status they will seek life saving treatment.

In sub-Saharan Africa, almost 90% of people who tested positive for HIV went on to access antiretroviral therapy (ART). The report further shows that in sub-Saharan Africa, 76% of people on ART have achieved viral suppression, whereby they are unlikely to transmit the virus to their sexual multiple partners. In addition, the document points a 1% decrease has been noted on new HIV infections resulting from every 10% ARV coverage. The National Aids Control Council, in their report has ensured the supply of antiretroviral drugs is able to cover beyond the number of people in need of the drugs. Statistics show ARV coverage in Busia County is above 180 percent. Notably, it is only in Uasin Gishu, Kisumu and Busia where more adults receive ARV drugs than expected (KDHS, 2014; Kenya HIV Estimates Report, 2014; NACC, 2009).

Antiretroviral (ARV) uptake in Children shows that the distribution of new infections as expected; more adults than children contribute to the number of HIV infections. Nonetheless, one is left to question the causes of infections on children. However, the number of new infections among adults is higher than in children in Busia.

2.3 HIV/AIDS Management

Kenya has implemented several protective and management protocols with Anti-Retroviral Therapy (ART) as its mainstay and as an effort to lower incidence and counter the negative effects of HIV that have been witnessed over the years. Anti-Retro Viral (ARV) therapy has been noted to improve people's health by interfering with ability of HIV virus to reproduce in the body (Kao & Kim, 1999; Kapur, 1991). Adherence to therapy reduces quantity of virus (viral load) in the body and so reducing ability of the virus to damage body's defense system (immune system). Preventing Mother to Child Transmission (PMTCT) as a proper management measure and care of HIV, has been recommended for preventing transmission of HIV infection (Myo, 1999).

The large commitment by governments and international organizations, bilateral and non-governmental agencies in providing access to ART requires the formation of clinical teams at multiple HIV care/ART sites. Equally important, is the creation of a working system to support this care administratively through training, supervision, clinical mentoring as well as other correlated quality assurance inputs. In such a case, a patient monitoring system forms the backbone of clinical care, treatment and prevention (Gustafson, 1989); Kenya National AIDS Control Council (2009) and KASF (2010). Kenya provides two approaches for HIV testing; Client Initiated Testing and Counseling (CITC) and Provider Initiated Testing and Counseling (PITC).

Both approaches are premised on the need to expand options available to clients while seizing presenting opportunities to accelerate HIV testing coverage. Client initiated testing and counseling (CITC) entail the client seeking and initiating the HIV Testing and Counseling (HTC) service either in the community or health facility settings based

on own volition. Provider initiated testing and counseling (PITC) is when a service provider offers HIV testing to clients within a facility, regardless of the reason for the visit. Provider Initiated Testing and Counseling service is offered with an “opt-out” option based on informed choice. The HTC services are delivered in two broad settings; community and facility based settings. It is acknowledged that different populations may access HTC services in different settings. Therefore, counties took shape to offer a mix of HTC service delivery models (NASCOP, 2010).

Referring to the (KAIS, 2012) report, 72% of adults aged 15-64 years have ever been tested for HIV; 56% of whom had been tested in the past 12 months. In addition, the report showed that 67% of those tested had tested more than once while 35% were tested for HIV with a sexual partner. Only 47% of HIV positive individuals were familiar about their status prior to the study. The HIV data as stated was inclusive of CSO and faith based organization (FBO) health facility data. Generally, testing of HIV in Kenya has been recorded high at 86.6% (Musyoki, *et al.*, (2015). In 2008, Kenya implemented the Voluntary Medical Male Circumcision (VMMC) for HIV prevention programme. Areas with the highest HIV prevalence among uncircumcised men were prioritized (CDC, 2012). By 2015, the programme had circumcised 860,000 males aged 15 to 49 years and met its universal coverage target of 80% (UNAIDS, 2016). In 2013, an estimated 69% of men who have sex with men reported using a condom the last time they had anal sex, up from 55% in 2011 (NACC, 2014). Condom use as a preventive measure among men who have sex with men in Busia County was low (NASCOP, 2010).

In 2012, Kenya introduced needle and syringe programmes and opioid substitution therapy to help reduce HIV transmission among people who inject drugs. In 2015, results from a survey showed nearly 90% of people access injections from a clean syringe and needle, compared to 51.6% who did not in 2012 (Wandera, & Tumwesigye, 2015). However, female sex workers are reported to be more protective from HIV transmission compared to other vulnerable groups such as men who have sex with men. A study by Musyoki *et al.* (2015), found that 86.9% of those who participated in the

study reported using a condom with their last client and almost two thirds (62.6%) stated always using a condom with clients as a preventive measure. This exhibits that most people are aware of the modes of HIV transmission. The advocacy offered by most CSOs has improved HIV management using condoms with most actors acknowledging the method.

2.4 Role of Civil Society Organizations

Generally, civil society organization (CSO) provide a range of services that includes basic health services; provision of medical or health supplies; health promotion and advocacy; as well as improving the wellbeing for vulnerable population through introduction to income generation projects (Clayton *et al.*, 2007). The presence of CSO has increased significantly since AIDS was first discovered in early 1980s and now considered significant players in improving health concerns (Halfan, 2008). Civil societies have a long history of involvement in public health concerns since Primary health care (PHC) was launched by WHO in 1987 at the Alma Ata declaration conference (Stephen, 2008). Even as evidence by Stephen (2008) demonstrated that organizations perform better than governments, there is very little prove to support the statement. However, many organizations have ties to the national governments of countries in which they work with. They receive funding from various supporting partners and work in conjunction with government agencies (Martens, 2002).

A report by (Kristina & Anders, 2003), shows CSO contribute to improving health, consequently advocate for the wellbeing of vulnerable populations across the world. Despite the credibility by some scholars on CSOs, many studies have also shown there are no supporting documents to determine impact of CSO intervention. A study (Hashemi, 1992) supports results from studies by Stephen (2008) regarding positivity in CSO's performance. In contrast, a study in Bangladesh disapproves Hashemi's statement and ascertains, CSO strive to reach only the poorest of the population who cannot raise concerns when left unsatisfied. According to the writer (Jareg *et al.*, 1998), organizations in third world mainly work towards empowering vulnerable populations in

rural settings through economic driven initiative. Other scholars (Holmen and Jirstrim, 1996; Michener, 1998), including Botchway, (2001) challenged the findings and instead provided evidence that CSOs are a weak entity in empowering vulnerable groups. Further, these writers cited CSOs hardly document reports from subsequent assessments done.

A report by Godenker and Weiss (1995) showed Countries with weak governance and leadership have let CSOs implement projects without applying existing national government policies. Writers (Fruttero & Gauri, 2005) criticizes CSO interventions, stating they were not related to community needs, and therefore resulting to paramount and uncontrolled duplication of effort. The writer further expressed that duplication of work by most CSO has led to fundamental projects often overlooked. A researcher, Dambisa Moyo, discovered CSOs experience gaps and more so related to donor funding. The report indicates most CSO activities were heavily influenced by donors and had negative consequence impacting on project sustainability. Studies (Mebrahtu, 2002) discovered organizations are often criticized for possessing weak accountability mechanisms and this is likely because projects are fully supported by donors.

Activities offered by CSO are heavily skewed towards donor agenda and keep shifting priorities to suit donor objectives. Another writer (Logister, 2007) demonstrates organizations have been criticized for scandals and misdeeds concerning use of donor funds and charged with possessing hidden plans. Studies by Edwards and Hulme (1996) and Kelly *et al.* (2004) revealed CSO lack evidence from which to establish the impact of their intervention. The results displayed organizations fail to monitor and evaluate programs, and thus have so far nothing substantial as tangible reports to share with stakeholders. Scholars (Riddell *et al.*, 1997) discovered CSOs barely network with governments or other organizations on service provision immensely resulting to duplication of services. The statement contradicts what has been reported by Hashemi (1992) who found out organizations perform better than governments. A scholar (Kelly, *et al.*, 2004) expressed there is lack of evidence from which to establish facts on CSO intervention.

The report discovered organizations have no tangible evidence to show their performance on improved wellbeing for vulnerable groups as most of them lack documentations. Further the report showed most organizations fail to conduct substantial baseline before intervening programs. And therefore, lack of assessment reports limits the determination of effect of their intervention. This is also most likely because organizations possess a weak accountability mechanism that makes it difficult to measure the impact.

In some studies, organizations have been observed as a system that is not comprehensive in determining rightful information (Kao & Kim, 1999). A study (Pfeiffer, 2003) points out that CSOs have remained key players in promoting health care. It was noted organizations supplement government plans especially on health care service provision. Their plans are less hampered by bureaucratic constraints and inefficiencies (Gilson *et al.*, 1994). Organizations have extremely diverse plans in terms of their origins, motivations, and overall contribution to health. These studies done (Gilson *et al.*, 1994; Jareg *et al.*, 1998) showed organizations have enabled access to health care services for poorest communities. Business trainings have been offered by CSOs to aid management of small scale business. From what has been gathered, CSO have implemented activities that supports improved wellbeing for vulnerable groups. Most CSO initiated project were hardly monitored or either evaluated. This has also contributed to lacking evidence to determine impact and performance of interventions.

Studies have criticized implementing organizations for possessing weak accountability mechanisms that lead to inability to determine impact of their implementation. Limited proper documentation was also observed by various writers as a major challenge to access to information.

There has been increased demand from CSO on the United Nations to provide information regarding patient rights. The demand particularly focused on rights of people with HIV/AIDS and primary health care, humanitarian relief and food quality and safety (Randell & Whitehead, 1997; Gostelow, 1999). Some writers (Hakkinen &

Ollila, 2000) describe CSO as possessing significant roles in supporting health care services operations. They lobby for the rights of communities aiming at specific health needs for people with disability as well as PLWHA. Mostly promote information during outreach services, advocate business management and legal action services. Apart from health-related services, CSO also focus on supporting gender based violence act affecting mostly rural as well as Urban-rural communities.

Organizations such as Faith Based Organization (FBO) provide outreach services on; health education, Immunizations, Nutrition and economic generation related developments. In addition, Hakkinen and Ollila (2000) also documented CSO influence large advocacy coalitions, supported by information access and exchange. For HIV/AIDS individuals, CSO pay much attention on issues attracting baby foods, pharmaceuticals and campaigns on successful vaccination, hygiene and health related actions.

2.5 Nutrition and HIV and AIDS

Adequate nutrition is necessary to maintain the immune system, manage opportunistic infections, optimize response to medical treatment, sustain healthy levels of physical activity, and support optimal quality of life for people living with HIV and AIDS (PLWHA). Good nutrition may contribute to slowing the progression of the disease (Castleman *et al.*, 2004). Nutrition interventions can also help to optimize the benefits of antiretroviral drugs (ARVs) and may increase compliance with treatment regimens, both of which are essential to prolonging the lives of PLWHA and to preventing the transmission of HIV from mother to child (Mark, 1992).

Evidence show important links existed between improved HIV and AIDS outcomes and nutrition. Nutrition and HIV are strongly related to each other, any immune impairment resulting from HIV/AIDS leads to malnutrition. Malnutrition often leads to immune impairment worsening the effect of HIV further contributing to rapid progression to AIDS. A malnourished person who acquires HIV is more likely to progress faster to

AIDS, because his/her body is already weak and cannot fight infection (Johnson, 2009; WFP, 2004). An article by Castleman *et al.* (2004) reports nutrition interventions help to optimize the benefits of antiretroviral drugs (ARVs). Proper food uptake also increases compliance with treatment regimens, both of which are essential to prolonging the lives of PLWHA and preventing the transmission of HIV from mother to child. A well-nourished person has a stronger body for coping with HIV and fighting illness (UNAIDS, 2001). While people with HIV and AIDS have special nutritional needs, it is therefore important to note that all people irrespective of their HIV status will benefit from adequate nutrition.

Good nutrition increases resistance to infection and disease, improves energy, and thus makes a person generally stronger and more productive (FANTA, 2001). Most PLWHA acknowledge the trilogy of poverty, gender inequality and food insecurity as key drivers in the spread of HIV and AIDS. It has been noted that if nutrition is addressed appropriately, it would improve livelihood and health status of those affected by HIV (Population Council and Health Systems Trust, 2006).

Directing CSO efforts only at providing food stuffs, among other essentials would leave the structural root causes of HIV/AIDS un-addressed (FANTA, 2001). It has also been stated that, improving agriculture should be a prerequisite to poverty alleviation (FANTA, 2001). In concurrence with the statement, CSO have been noted to consolidate various projects during implementation to achieve improved livelihood for PLWHA. The article by Mark (1992) cites lack of adherence to proper care and treatment alongside substantial psychosocial support to families affected with HIV/AIDS, would lead to escalation of the epidemic. There is limitation in the link between implementing CSOs, persons affected and infected by HIV/AIDS with the health facility personnel. Especially in addressing health matters affecting the vulnerable persons (Andrew *et al.*, 2007). Adequate nutrition is necessary to maintain the immune system, manage opportunistic infections, optimize response to medical treatment, sustain healthy levels of physical activity, and support optimal quality of life for people living with HIV and AIDS (PLWHA). Good nutrition may therefore, contribute to slowing the progression of

the disease (Castleman, Seumo-Fosso, & Cogill, 2004). Nutrition interventions can also help to optimize the benefits of antiretroviral drugs (ARVs) and may increase compliance with treatment regimens, both of which are essential to prolonging the lives of PLWHA and to preventing the transmission of HIV from mother to child.

As adequate food and micronutrient intake contribute to improved nutritional status, treatment together with support programs often provide food supplements according to defined protocols (Piwoz, 2004a). Food and micronutrient intake contribute greatly to improved nutritional status. In addition, some support programs often provide food supplements to PLWHA in PMTCT. Most of the programs involved in providing food supplements to people affected with HIV base on socio-economic and or biological criteria (UNICEF, 2009). Most PLWHA that do not have sufficient food intake due to food insecurity, and should be provided with food supplements to help cover their diet deficit (Piwoz, 2004a; Uganda, 2003; WFP, 2004). In 2006, a study conducted by EQUINET, KEMRI Welcome Trust, (2011) indicates 60% of people in Western Province leave below the poverty line.

The 2005-2006 Kenya Integrated Household Budget Survey (KIHBS) shows marginal increases since 2003 in stunting (33%), wasting (6.1%) and underweight children (20.2%). The United Nations defines food security as "all people at all times having both physical and economic access to basic food they need". World Food Summit of 1996 defined food security as "the concept that includes both physical and economic access to food that meets people's dietary needs as well as their food preferences".

Food security is built on three pillars:

- Food availability: sufficient quantities of food available on a consistent basis.
- Food access: having sufficient resources to obtain appropriate foods for a nutritious diet.
- Food use: appropriate use based on knowledge of basic nutrition and care, as well as adequate water and sanitation.

Food security is a complex sustainable development issue, linked to health through malnutrition, but also to sustainable economic development, environment, and trade. Food insecurity results from climate change, urban development, population growth and oil price shifts that are interconnected and rarely confined by borders (Hamelin *et al.*, 1999). As epidemic continues to inflate, every sector of society is required to respond and combat its spread.

A proportion of HIV infected individuals have survived for over 10 years without developing AIDS. This may be because of high immune effect to the virus, changes in sexual behaviour often promoted by abstinence and attempts to maintain healthy status through improved balanced nutrition (Barnett & Whiteside, 2002; Janeway & Travers, 1997; UNAIDS, 2002; Unnikrishna, Kaslow, McNicholl, & Hill, 2008).

The three pillars for food security are quite critical for all HIV/AIDS persons no matter the level of CD4 count. Essentially, PLWHA do not often conform to the three pillars for food security.

2.5.1 Protein Requirements for PLWHA

Protein requirements increase with age from early childhood to adolescence. An optimum protein intake is about 1 gram of protein per kilogram (g/kg) of body weight. Pregnant and lactating women require more protein. A high protein diet for adults (not pregnant and not lactating) is 1.2 to 1.5 g/kg body weight; for children is 2.5 to 3 g/kg body weight. Proteins are made up of amino acids. Amino acids are broken down in the body and provide the basis for building blocks of protein synthesis inside the cell (Castleman *et al.*, 2004). There are 20 different types of amino acids that help the body make the hundreds of types of proteins. There are eight types of amino acids that are critical to take in through dietary sources. The essential amino acids are found most completely in animal food sources (milk, eggs, and meat) and to a lesser extent in plant sources.

Consumption of large amounts of protein rich foods, which generally are more expensive than staple foods, is not necessary for balancing nutritional requirements. Excess protein is treated as a source of energy and stored as fat in the body (KDHS, 2014; (Kenya National AIDS Control Council, 2009); (UNAIDS, 2001); (Kenya HIV Estimates Report, 2014). The writers similarly reported protein rich foods also referred to as body building foods, include animal and plant source foods (UNAIDS, 2002; WFP, 2004).

Common sources of animal proteins in Kenya include milk and milk products, beef, poultry, chicken, eggs, fillet, dried small fish (sardines, omena) and edible insects such as termites (KHER, 2014; FANTA, 2001).

Common sources of plant proteins in Kenya are pulses and legumes which include beans, pigeon peas, cow peas, green grams, lentils, soya beans and groundnuts. Plant source foods are often deficient in one or more amino acids. These deficiencies can be overcome by consuming a wide variety of plant foods (Kenya HIV Estimates Report, 2014; FANTA, 2001). Micronutrients play a significant role in immune system functions. Some vitamins are water soluble such as vitamin C and B group vitamins. The body does not store water soluble vitamins, excreting the excess, thus these vitamins are consumed regularly and in adequate amounts. Other vitamins, such as vitamin A, D, E and K, are fat-soluble. They are stored for longer periods in the body, but regular optimum intake is still required. Important minerals include iron, selenium, zinc, iodine, magnesium and calcium (UNAIDS, 2016; FANTA, 2001; Kenya HIV Estimates Report, 2014).

2.6 Historical Perspective of Civil Society Organizations

Civil society organizations are formal and independent societal organizations whose primary purpose is to promote a common goal at the national or international level (Martens, 2002). USAID and the World Bank usually fund organizations that work to support the health sector from multilateral perspective. The World Bank, (2005) defines

civil society organizations as: “a wide array of organizations that have a presence in public life, expressing interests and values of members or others, based on ethical; cultural, political, scientific, religious or philanthropic considerations”. The article by Vivian (1994) states that organizations are commonly viewed as more efficient and effective service providers than government authorities especially when it comes to reaching poor people in rural settings. However, Johnson, (2009) contradicts Vivian’s statement, by criticizing CSOs over their actions especially on initiating unsustainable projects. The writer Johnson reports CSOs often wind up their projects prematurely leaving communities in more desperate situations. The report further described huge money is channeled to CSOs yet they do very little for people they offer support to. In addition, the report also enlightens about improper documentation of system that exists in CSO settings. The legitimacy of CSO has been called into question because of little existing evidence that demonstrates the effectiveness and impact of their intervention (Kapur, 1991; Dejong, 2001; Mebrahtu, 2002).

Reports by Acharya and Thomas (2001) cites the impact of CSO in school registration; improved literacy, immunization, increased use of oral rehydration solution, reduced child malnutrition rates and mortality rates. Another writer (Putney, 2001) cites improved HIV/AIDS interventions, access to health care services and better environmental health services achieved by in community settings. However, the aforementioned documents had no statistical evidence to support the said description. Writers such as Kristina and Anders (2003) recognized how CSOs dwell on advocating for a range of health-related problems issues. They further shared, CSO create awareness towards HIV/AIDS prevention and spread, without appropriately investing and providing needy services for respective communities.

On the other hand, Nathan *et al.* (2002) and Acharya and Thomas (1999) commend CSOs for informing and organizing formal community groups as well as associations. In addition, they reported CSO provided services that respond to community values and cultural norms. The same writers also gave the negative aspect of implementing CSOs, specifying that CSOs were known to possess internal weaknesses that preclude pro-poor

work. The areas of weakness as quoted were; inadequate capacities, complex internal politics, unclear legal status, unstable funding and donor dependency. Inclusive was, weak mechanisms for monitoring and insufficient clout to ensure adequate scale up of local experiences. The document by Nathan *et al.* (2002) and Acharya and Thomas (1999) further indicate CSOs support to ameliorate the situation of the poor communities they serve.

The scholar Etemadi (2000) showed in his document that CSOs were less restricted to sectorial boundaries than state bureaucracies. This makes them more responsive to the wider range of employment, production, credit, and environment and service inputs needed by deprived communities. The report further informs readers to note that not all CSO reports provide positive information when it comes to pro-poor impacts. Their coverage of poor communities is patchy, and services they provide have neither resolved the bias against access in the poor, nor have they been more effective in coverage and equity than state services.

In Tanzania and Zambia, benefit incidence analysis indicates that the economic level of people served through the non-governmental health sector is higher than that of patients in government facilities (Gwatkin and Deveshwar-Bahl, 2002). Generally, CSOs provide a range of services that includes basic health services; provision of medical or health supplies; health promotion and advocacy; as well as improving the wellbeing for vulnerable populations through introduction to income generation projects (GOK, 2009).

Organizations and registered associations serve as vehicles for ordinary citizens to voice their interests and be more directly and significantly involved in public life and provide the infrastructure for direct democracy (Tismaneanu, 2001). The presence of CSOs has increased significantly since HIV/AIDS was first discovered in early 1980s and are now considered significant players in improving health affairs among PLWHA (Halfan, 2008). The writer also acknowledged government's efforts.

Civil societies have a long history of involvement in public health concerns since Primary Health Care (PHC) was launched by WHO in 1987 at the Alma Ata declaration conference (Stephen, 2008). Kristina and Anders (2003) reports about CSO's contributions towards improving health alongside playing the advocacy role and targeting the vulnerable groups. Besides, Johnson (2009) does not accord to the two writers. Instead Johnson supports a neoliberal view that the task of caring for the poor and marginalized must be assumed by the state and other organs of civil society such as faith-based organizations, private social service agencies, citizens' organizations, voluntary associations and other entities outside the state. Edwards *et al.* (2001) states that civil society can carry out public and quasi-public functions with minimal or no involvement of the state.

Sewpaul (2005) shared that CSOs were actively involved in the formulation and implementation of policies and programs that are rooted in the principles of social justice and human rights. Furthermore, a vibrant civil society articulates what Howell and Pearce (2001) have described as a critical approach to the global economy. Poverty most significantly affects rural households, female-headed families, children and the elderly (World Bank, 2005). Despite the credit given to CSO by some scholars, many studies still maintain that there are limited documents to support and determine the impact of CSO intervention on PLWHA.

The study by Hashemi (1992) ties up with results from Stephen (2008) regarding positivity in CSO's performance. In contrast, a study done in Bangladesh disapproves Hashemi (1992) who ascertains CSO strive to reach only the poorest of the population who cannot raise a voice when left unsatisfied. According to Jareg, Kaseje, and Dan (1998), organizations in third world mainly work towards empowering vulnerable populations in rural setting through economic driven initiatives.

Many scholars (Holmen & Jirstrim, 1996; Michener, 1998; Botchway, 2001) challenged the findings and instead provided evidence that CSOs are a weak entity especially in empowering vulnerable groups. Further, these writers stated that CSOs hardly document

reports from subsequent assessments done. Godenker and Weiss (1995) indicate that, countries with weak governance and leadership usually find themselves letting CSOs implement projects of their interest without applying existing national government policies. This indeed has led to poor monitoring and evaluation interventions especially by government authorities, limiting credible reports required for reference.

Fruttero and Gauri (2005) criticize CSO interventions showing activities provided are not often related to community needs, which has resulted in uncontrolled duplication of efforts. The writers further expressed that duplication of work by most CSOs has led to more fundamental projects being overlooked. A researcher, Dambisa Moyo (1991) discovered that CSOs experience gaps, more so related to donor funding. His report indicates that activities heavily influenced by donors usually have negative consequences, and cannot demonstrate project sustainability. The report was noted to be in line with findings from Mebrahtu (2002) who criticizes organizations for possessing weak accountability mechanisms, likely because the projects are fully supported by donors. Activities offered by CSO are heavily skewed towards donor agenda therefore shifting priorities to suit donor objectives. Another writer (Logister, 2007) reports that organizations are often criticized for scandals and misdeeds concerning use of donor funds and are charged with possessing hidden agenda. Other studies (Edwards & Hulme, 1996; Kelly *et al.*, 2004) illustrate that CSOs, lack evidence from which to establish the impact of their intervention.

The results detail how organizations fail to monitor and evaluate programs, and thus have so far nothing substantial as tangible reports to disseminate to key stakeholders. A scholar (Riddell, 1997) discovered CSOs barely network with governments or other organizations on service provision immensely resulting to duplication of services. The statement contradicts what has been reported by a researcher (Hashemi, 1992) who found out organizations perform better than governments. Other researches have discovered that organizations have no tangible evidence to show their performance on improved wellbeing for vulnerable groups as most of them lack documentations. Same scholar further showed most organizations fail to conduct substantial baseline studies

before intervening programs and therefore reports are never in existence to determine effect of their intervention. This is most likely because organizations possess a weak accountability mechanism that makes it difficult to measure impact. In some studies, organizations have been observed as a system that is not comprehensive in determining rightful information (Kao & Kim, 1999).

Most CSOs have remained key players in promoting health care especially in developing countries since the discovery of HIV in early 1980s. Some scholars have acknowledged the effort by CSOs in supplementing government agendas especially, on health care service provision. Also considered, less hampered by bureaucratic constraints and inefficiency.

Organizations have been recognized as extremely diverse in terms of their origins, motivations, and overall contribution to health. They are also well known to serve communities with consideration to promoting positive cultural values, religion and political trials. Some studies have praised the efforts of CSOs especially in health care service, treatment, advocacy and capacity building. While indeed others have criticized their interventions on implementing unsustainable projects (Gilson *et al.*, 1994).

2.7 Economic Status in Busia Kenya

Economic performance is usually interlinked with many factors for better health outcomes (Myo, 1999). Health financing tools that should impact on health equity may not reach CSOs serving poor communities or protect the poor from the burden of fees. State subsidies channeled to private providers have been found, for example, to be inadequately used by CSO serving the poorest communities. This is due to weak demand from these communities, weak management capacities in the CSO that service them and flaws in the design of the subsidies (Mudyarabikwa, 2000). Writers such as Castro-Leal *et al.* (2000) exhibit that health challenges cannot be solved simply by adjusting the subsidy allocations, but other barriers in poor people's use of health services are measures to call for. Poor people have been singled by Castro-Leal, *et al.*, as; "people

believed to be typically marginalized from society and have little representation or voice in public and political debates, making them more vulnerable to poverty”. Analysis of equity impacts of community financing in Benin, Kenya and Zambia found that financing schemes in all countries failed to protect the poorest from the burden of payment for health care. Castro-Leal *et al.* (2000) mentions that failures noted by different scholars were; the views of poor communities are never heard in decision making, because of the absence of local participation.

As a result, CSOs in most cases voice the needs of the poorest communities (Gilson *et al.*, 2001). Etemadi (2000) shared in a write up that, information CSOs offer to communities usually promotes positive values and cultural norms. In addition, help ameliorates the situation in combating poverty through formal and informal but organized community groups. Usually HIV drives infected individuals and their families into poverty. In most circumstances, family savings are often consumed by the cost of health care among other expenses (BCG, 2013; UNICEF, 2013). In Busia, women bear the burden as workers and are burdened as caregivers. Women have lesser opportunities in the society as they are not empowered economically. In most cases exposed to greater vulnerable situations as legal, social, and political status. Women are quite disadvantaged and less empowered economically in Busia County. They are usually excluded from decision making forums yet they carry the bulk of the burden in the householders. Food security is a complex sustainable development subject, linked to health through malnutrition but also greatly associated to a sustainable economic development, environment, and trade (Mark, 1992; UNICEF, 2009).

Busia County has endeavored to strengthen economic systems by involving CSOs in improving the economic status especially for PLWHA through poverty reduction strategies. Poor economic status has an adverse effect on vulnerable individual’s wellbeing. Three interrelated factors determine socio economic status for any vulnerable individual; Education provides many individuals with skills and knowledge necessary to acquire any occupations that provide substantial income to subsequently maintain better wellbeing. HIV infected individuals in Busia face financial difficulties and are not able

to afford education to place them in better employments. Many children have dropped out of schools contributing towards a long term unsustainable and financially unstable society.

Health concerns do not just depend on health systems performance for improvement, but also require improved standards of living mostly through better economic standards. The social, cultural, and political factors have left PLWHA more vulnerable especially the women and children (Hamelin *et al.*, 1999). Low levels of education and poverty levels affects the economic growth of any given society. This means the society may remain retrogressively sound rather than progressing. Because of economic constraints experienced in Busia County, commercial sex remains highly practiced as a cross boarder income generation activity. This study determined the effect of CSOs intervention on economic status among PLWHA in Busia County.

CHAPTER THREE

MATERIALS AND METHODS

3.1 Study Site

The study site was Busia County in the former Western Province of Kenya. The county covers an area of 1,695 square kilometers, and has a population density of 439 people per square kilometer, with high poverty level of 66% (KDHS, 2014). According to the 2009 population census, the County had a total population of 816,452 people out of which 425,622 were females (53.13%) and 390,830 (47.87%) males. The County experiences high levels of unemployment (KDHS, 2014). Most residents of Busia are involved in various economic activities. Trade is with the neighboring Uganda and sister counties such as Siaya to the South and Bungoma to the North. Residents also rely on fishing from Lake Victoria, small scale farming of crops such as millet, cassava, groundnuts, maize, and sweet potatoes among others. Most residents and especially women and young girls, get involved in small scale business such as the sale of harvested farm crops like green vegetables, millet, cassava, groundnuts, dried and green maize, sweet potatoes, ripe and green bananas, sugar cane including fresh as well as dried fish.

In addition to the high prevalence of parasitic diseases such as malaria and respiratory infections, HIV remains a major challenge with 12 per cent prevalence rate recorded. Significantly, the prevalence rate recorded is higher than the reported national average of 6.4%. Being a border town, there are high risk sex practices including cross border commercial sex targeting truck drivers and businessmen. High rate of hospital bed occupancy by HIV/AIDS patients has been reported in Busia County (HIV/AIDS guidelines 2014/2015). There are also relatively high numbers of orphaned children, many of who drop out of school (BCG 2013; UNICEF, 2013). The magnitude of these problems contributed to CSO engagement in supporting people living with HIV and AIDS (PLWHA) in the county.

Four Sub-Counties of Busia County were selected for the study. Samia and Teso South Sub-Counties were selected as non-intervention sites. For reasons that CSOs had not intervened for the past one year and did not intend to initiate any activities at a time the study was being initiated. While Butula and Matayos Sub-Counties were selected as intervention sites. This was on the basis that CSOs intended to initiate activities a month prior to the baseline survey.



Figure 3.1: Map of Busia County Administrative Units

3.2 Study Design

For quasi-experimental study, at least one characteristic of a true experiment has no randomisation or the use of separate control group. A quasi-experimental study, however, always includes manipulation of the variable that serves as the intervention. One of the areas had the intervention while the other had no intervention (control area). Quasi-experimental study was used because the subjects were not assigned to the control or experimental groups on a random basis. A quasi-experimental study design was used to compare findings from intervention and non-intervention sites from baseline survey, and from the end line survey results. Among the two groups used, one group served as a control group in which no intervention took place. Both groups were observed before as well as after the intervention, to test if the intervention had made any difference. Relevant data on access to health services, nutritional status and income generation were collected from the population with CSO intervention, and those without CSO intervention.

The baseline survey was done between August to December of 2014 at a site where CSOs had not intervened for the previous one year and a site where they intended to initiate activities. After eight months thereafter, an end line survey was conducted between September to December 2015. Subsequently, the findings from baseline were compared with end line results to determine change because of CSO intervention.

3.3 Study Population

Two groups of participants were drawn from a population of two sites; where CSO intended to intervene with respect to HIV and AIDS functions, while the other two from sites with non CSO intervention. The Samia and Teso South are sites where CSOs had not intervened previously in respect to HIV and AIDS activities. Butula and Matayos are the sites where CSOs had intended to initiated HIV and AIDS activities by the time of the study. All permanent male and female residents infected with HIV and aged between 15 and 64 years qualified for the study. Participants for quantitative interviews were

people living with HIV/AIDS (PLWHA) selected from a comprehensive patient attendance list obtained from the Ministry of Health (MoH) facility units (CCC, DTC, PMTCT). While key informant participants structured for in depth interviews were selected purposively from among CSO staff, MoH, and local administration officials. Focus group discussion (FGDs) participants were purposively selected from established and registered groups and associations of PLWHA. The individuals for study were selected from a population for each site; therefore, no individuals were followed at end line.

3.3.1 Inclusion Criteria

For the quantitative study, male and female residents of Busia County aged 15 to 64 years, infected with HIV were eligible for study. For qualitative study, CSO staff and health officials together with the local administration officials were included in the study. Members registered in formal groups and associations of people living with HIV/AIDS (PLWHA) could participate in the FGDs sessions. For quantitative and qualitative participants, those who consented were given the chance to participate in the study. Those participants from CSO intervention arm and non-CSO intervention arm were included in the study.

3.3.2 Exclusion Criteria

For the quantitative study, all HIV negative individuals were excluded in the study. Participants receiving economic support from different CSOs and from other development partners within a year prior to commencement of the study were excluded in the non-intervention arm. The very weak and visibly sick patients were also excluded from participating, both at baseline and end line at intervention and non-intervention arms. Non-consenting participants were also excluded from participating in the study.

3.4 Sample Size Determination

A statistical formula by Corder, (2009)

$$n = \left\{ Z_{\alpha} \sqrt{2 P (1- P)} + Z_{\beta} \sqrt{[PE (1-PE) + PC (1-PC)]} \right\}^2 / \delta^2$$

was used to calculate sample size, n.

Where:

PC = the proportion of individuals not accessing health care services from CSO interventions at baseline, set at 80%

PE = the proportion of individuals not benefiting from income generation activities from CSOs 10 months after intervention (end line), set at 50%

δ = the difference between PE and PC

$$P = (PE+PC)/2$$

Z_{α} = 1.96 at 95% Confidence Interval (CI)

Z_{β} = 0.84 at 80% power

$$n = \left\{ 0.84 \sqrt{2 \cdot 0.6 (1- 0.6)} + 0.84 \sqrt{[0.5 (1-0.5) + 0.8 (1-0.8)]} \right\}^2 / \delta^2 \quad n = 220$$

Sample size n was determined to be 220. It was also adjusted by a factor of 20% to cover for non response considered. Therefore, a minimum sample size of 110 individuals per site (intervention and non-intervention) was targeted.

3.4.1 Sampling Technique

For quantitative data, a comprehensive patient attendance list of HIV infected cases from selected Ministry of Health (MoH) facilities was used to identify participants. The list contained HIV and AIDS cases randomly sampled from: Comprehensive Care Center (CCC), Maternal Child Health and Family Planning (MCH/FP), Diagnostic Testing and Counseling (DTC), and Prevention of Mother to Child Transmission (PMTCT) Units. From the general patient re-attendance list of over 2,000 names, 800 were manually selected. Thereafter, numbers were allocated against each client's name, and the Research Randomizer V4.0 (<http://www.randomizer.org/>) software used to simple random select 220 quantitative study participants. From the same list, participants were selected for clinical/physical examination including those assessed to determine the nutrition status.

Purposive sampling technique was used to select key informant participants for in depth interviews, the participants were selected from public health care facilities, CSO offices and from the local administration (chiefs, sub chiefs and village elders) offices. The staff interviewed included those in command of a unit or project. Out of the five organizations chosen, (AMPATH, APHIA-Plus, REEP, World Vision and Red Cross) one staff was interviewed in each organization in the intervention sites at end line. In the absence of an incharge, a senior staff or operational staff was interviewed. The CSOs selected for study were selected from a list of registered CSOs that offer HIV related activities in Busia County. The original list was obtained from the National Non-Governmental Organization (NGOs) board offices in Nairobi. The list that determined CSOs implementing HIV activities was got from Ministry of social services in Busia County.

Participants for focus group discussions (FGDs) were identified from established list of registered associations /groups for PLWHA and known to share common interest. Most of them chosen from intervention and non-intervention sites at baseline and at end line. Overall eight FGDs sessions were carried out. Two clusters of 12 youths and 12 adults

in CSO intervention site with similar two clusters in non-intervention site at baseline and end line. Generally, individuals selected were grouped categorically according to their status, education, sex and age, both for intervention and non-intervention sites. However, these resulted to free and fair discussions among respondents. Discussion sessions took place at PLWHA day to day meeting place. The principal investigator (PI) with selected research assistants guided the sessions to ensure participants understood purpose of the discussion before consenting. To ensure no information was missed out, the PI, assisted by research assistants audio-taped and video recorded the discussion.

The data collected was kept and locked in a cabinet under the custody of the PI with selected research assistants allowed to access the cabinet with permission from the PI. Data collected was destroyed after analysis. Each group had a moderator, note taker and time keeper to monitor time taken with an audio recorder. Video recording was done as the note taker may not capture all information conversed. Each FGDs session virtually took 1 hour and 30 minutes with time guided by moderators.

All respondents who accepted to participate in the interview were informed that participation was voluntary and that they had the liberty to withdraw from participating at any level with apparent reasons. Participants were asked to consent on the informed consent form prior to participating in the study. There were no respondents who did not consent on the informed consent form as recorded.

Principal Investigator was the sole coordinator of the process. And assigned one of the research assistants to assist in supervising, facilitate logistics, besides monitor the process.

3.4.2 Pre-Testing of Data Collection Tools

After training research assistants to ensure they all understood and able to use the tools, they were dispatched to carry out the pre-testing of the five sets of the questionnaires. Data collection exercise was done only after the tools have been pre-tested to assure

validity and sensitivity. The tools pre-tested included; structured and semi-structured questionnaires, clinical examination form, and anthropometry check list, and the focus group discussion guide. The pre-testing of the tools was done in a district (Nambale Sub-County) outside the selected study sites. After which comments and suggestions were integrated where possible.

3.5 Data Collection

This section has been sub-divided into quantitative and qualitative. Pre-coding was done in boxes already inserted against each question. Research assistants were recruited from the local community and trained adequately to assist in data collection alongside in the management of data. Research assistants included, school leavers and college graduates, together with technical staff such as; nurses, clinical officers along with nutritionists. Duties assigned to research assistants included; collecting data, ensure the questionnaires were properly filled, assisting in carrying out a physical examination and anthropometry procedures and ensuring that the findings were recorded appropriately. It is an exercise done after a pre-testing of the tools has been done with comments and suggestions incorporated and respondents have read, understood and signed the consent form. Data collection exercise was performed by research assistants after having been trained and appropriately be able to interpret the questionnaire.

3.5.1 Quantitative Data

A structured questionnaire was used to gather data at baseline and end line on health indicators for quantitative assessment (Appendix 4, English and 6, Kiswahili version). The questionnaire collected data on demographic characteristics, access to HIV/AIDS information, health care services, morbidity patterns, nutrition status and food intake, including economic and income generation activities. This procedure was performed simultaneously with the physical / clinical examination and anthropometry procedure.

3.5.1.1 Demographic Characteristics

Data on Demographic characteristics was determined by use of a structured questionnaire (Appendix four and six 6). The study focused on gender issues, household size, education level covering primary, secondary and college. Employment status for both self and formal was also covered.

3.5.1.2 Access to HIV and AIDS Information

A structured questionnaire was used to gather data on HIV and AIDS information, awareness and knowledge with respect to its spread and safe living practices. Data to support this study was quite diverse and therefore covered areas on risk factors to the infection, other aspects important for management, knowledge and awareness relating to smoking and drinking especially among people living with HIV/AIDS (PLWHA) those infected with HIV /AIDS. Access to HIV/AIDS information education and communication (IEC) materials, source of the materials, and awareness on safe sexual practices were among other relevant data gathered under this section.

3.5.1.3 Health Care Services

A structured and semi-structured questionnaire was administered to participants to gather data on the types of support received by PLWHA in accessing health care services. Information regarding access for Antiretroviral Drugs (ARV) and adherence alongside factors limiting the access to ARV was obtained. In addition, this study also determined the sources of ARV drugs. Data on voluntary counseling and testing services and information on knowledge regarding the management of opportunistic infections was also obtained during data collection. Data gathered was used to establish change in the intervention and non-intervention sites between baseline survey findings and end line study results.

3.5.1.4 Morbidity Patterns

Data on morbidity patterns was determined by clinical/physical examination form. A physical examination was carried out in a public health facility comprehensive care center unit; this was performed concurrently with face to face interview. Trained registered nurses and clinical officers as part of the research team carried out the examination. Opportunistic infections signs and symptoms that included; Tuberculosis, herpes zoster, oral thrush, emaciation/wastage, weight loss, anemia, hair loss, and skin rash were all assessed and recorded during clinical/physical examination. The findings from intervention and non-intervention sites at baseline and end line were compared to determine change.

3.5.1.5 Food Intake and Nutrition Status

Nutrition status was determined by food intake and anthropometry after administering a structured and semi-structured questionnaire to study participants. Anthropometric assessment determined nutrition status for study subjects. A Stadio-meter was used to determine height of individuals. The individuals removed their shoes, heavy clothing and hats before assessment. Weight was determined using a bathroom scale (Tanita BC 543) when the subjects had minimal clothing. The weight and height were used to determine body mass index (BMI), and classify respondents as normal, malnourished, overweight or obese. Food intake was determined by 24-hour recall and a food frequency guide.

3.5.1.6 Economic and Income Generation Activities

Data on Economic and Income Generation Activities (IGA) was determined by use of both structured and semi-structured questionnaire. Information about the types of support received from government and non-governmental organisations on economic and income generation activities (IGA) was gathered to determine change resulting from civil society organization intervention.

3.5.2 Qualitative Data

Under this section, a semi-structured questionnaire was used to gather in depth data from key informants at baseline and end line for qualitative assessment (Appendix 5, 7, 8 and 9). A guide in form of checklist (11 and 13), was used on FGDs to establish data from groups and associations for PLWHA regarding the change associated with CSO intervention. All participants were asked to consent (10 and 12) prior to participating in FGD discussions.

3.5.2.1 Key Informants

In-depth interviews with key informants were conducted to obtain qualitative data. Civil society organizations, Ministry of Health and Local administrative offices were visited and objectives of this study explained to all the relevant officers. Health staff from public health facilities provided in depth information on HIV morbidity and mortality, access to health information on HIV and AIDS, ARV therapy, nutritional counseling and nutritious diet, psychological counseling, traumatic stress, and management for Opportunistic Infections (OI) including the utilization of funding received from various supporting CSOs. Health data was also gathered on HIV and AIDS related health functions, duration of infection, plus exposure to the infections, feeding habits, and utilization of resources received from CSO. In addition, data on indicators under OI, HIV counseling and testing, HIV/AIDS home and facility care, and ARV management was gathered. What was gathered from CSO staff also covered areas around financial and income generation activity support. Data was also gathered on food security and farm inputs distribution, nutrition supplements, counseling and agricultural aid. In addition, data was gathered on the benefits and challenges associated with the interventions, monitoring as well as the reporting measures including accountability of the CSO interventions.

3.5.2.2 Focus Group Discussion (FGD)

The focus group discussions (FGDs) were guided by a checklist. Overall eight FGDs sessions were carried out in intervention and non-intervention sites at baseline and end line. These included two clusters of 12 youths (males and females) and 12 adults (males and females). Respondents were obtained from various associations and groups of members for PLWHA. The groups comprised known HIV infected individuals. Discussion sessions took place at PLWHA association's meeting place. The principal investigator guided and moderated the FGDs sessions, ensuring participants understood the purpose of the discussion before consenting. To guarantee that no information was missed out during sessions, the discussion was audio-taped and video recorded. A note book was used to take note during the proceedings. Participants discussed and expressed their views on the effects of CSO support basing on set objectives on: HIV and AIDS information, access to health care services, morbidity patterns, food intake and nutrition status, as well as economic and income generation activities.

3.6 Data Management and Analysis

All questionnaires were verified to assure accuracy and completion by the principal investigator. They were cross checked to ensure that all questions were filled in correctly. All practical errors were amended to increase validity and sensitivity on the data. Pre-coding was done in boxes already inserted against each question.

A database based on Access software was used for data entry after which data was stored in to the computer according to different categories. After entry, cleaning was performed by means of Epi info software.

All variables programmed into computer appeared in short form names but in a manner, one could easily understand. Data for HIV infected individuals was gathered then compared between two groups residing in CSO intervention population with similar

groups of individuals in non CSO intervention population. Thereafter baseline findings were compared with the end line results. Statistical Package for Social Scientists (SPSS Version 17) was used to analyze quantitative data. Frequency distributions and percentages were computed to enable univariate data presentation. In bivariate computations, the Chi square test computed to test for categorical variables association. In addition, Odds Ratio was computed for two by two tables.

Net Effect of Intervention (NEI) analysis was used to determine the impact of interventions at 95% confidence level. This was achieved by \pm the change in percentage obtained from intervention sites compared with the change obtained from non-intervention sites. Qualitative data was analyzed using NVIVO (QSR International Pty Ltd) qualitative analysis. Text, audio, and video recordings including the notes taken were transcribed verbatim and data categorized into various themes. Quotes were used to illustrate perspectives of respondents relating to the different themes. Body Mass Index (BMI) was calculated weight in over height squared to measure the nutritional value of respondents.

3.7 Ethical Consideration

All mandatory ethical approvals from Kenya Medical Research Institute (KEMRI), Centre for Scientific Committee (CSC), Scientific Steering Committee (SSC), and Ethical Review Committee (ERC) were sought before commencement of the study (Appendix 18). The Principal Investigator (PI) obtained authority letter to conduct the study in Busia County from the office of the County Secretary. International NGO (AMPATH) offered a letter to authorize interview of their staff, as well as access to organizational information (Appendix 16 and 17). Respondents were informed that participation was voluntary, and a written informed consent form guaranteed participation of all respondents.

For confidentiality, no identifiable details of participants such as name and identification number were disclosed on the questionnaire during and after the study, and/or during dissemination of findings. All questionnaires were serialized with participants identified through numbers. Interviews were done in discrete manner in a private room where no unauthorized persons were allowed into the room during the process. All the data recorded including the list that contained full contacts of participants was kept and locked in a cabinet by the Principal Investigator (PI) and only accessed by authorized persons. Research assistants involved in moderating FGD sessions were allowed by the PI to access the cabinet. Participants were informed not to leak out and or share any information discussed during the sessions with other persons outside the meeting.

CHAPTER FOUR

RESULTS

4.1 Study Sites

This section explains on the four Sub-Counties of Busia County selected for study. These include; Teso South, Samia, Butula, and Matayos Sub-Counties. The intervention site was selected basing on CSO intervention schedule of project initiation. While non-intervention sites were considered where CSOs had not intervened for the previous one year.

4.1.1 Intervention Sites

Intervention sites were Sub Counties in Matayos and Butula constituencies in Busia County. In Butula 67 and 74 respondents were recruited at baseline and end-line respectively. In Matayos, 63 and 69 respondents were recruited during the two durations.

4.1.2 Non-Intervention Sites

Non-intervention sites were Sub Counties in Samia and South Teso in Busia County. In Samia 84 and 88 respondents were recruited at baseline and end-line respectively. In South Teso, 43 and 50 respondents were recruited at baseline and end-line.

4.2 Demographic Data

Two hundred and fifty-seven (257) participants (50.6% in the intervention sites and 49.4% in non-intervention sites) were interviewed at baseline. A total of 281 participants (50.9% in intervention sites and 49.1% in non-intervention sites) were interviewed at end line. There was no significant difference regarding gender, household size, and education level recorded in intervention and non-intervention sites at baseline and end line. Most of the respondents (50% in intervention with 42.5% in non-intervention sites) at baseline attained primary level of education. Whereas a similar proportion (49.6%,

intervention and 39.9% in non-intervention sites) at end line indicated to have also attained primary level of Education.

Those who reported to have at least attained secondary level of education were indeed fewer (18.5%, intervention with 15% in non-intervention sites) at baseline. At end line, 19.6% in intervention and 20.3% in the non-intervention sites reported to have attained secondary level of education.

The employment status among respondents in both the intervention and non-intervention sites at baseline and end line was observed to be statistically significant. However, a significant difference in formally employed was reported (5.4%) in intervention and (15.7%) non-intervention sites ($P \leq 0.03$) at baseline. A similar trend was reported at end line, with significantly more respondents (11.9%) in intervention with (16.7%) in non-intervention sites ($P < 0.01$). Although the proportion of those self-employed respondents was high, variation was insignificant (75.4%) in intervention and (66.1%) non-intervention sites at baseline ($p = 0.83$). Similarly, more respondents (62.9%) in the intervention and (74.6%) non-intervention sites recorded they were self-employed significantly ($p < 0.01$). (Table 4.1).

Table 4.1: Socio Demographic Characteristics of Study Respondents, Busia, Kenya, 2017

Demographics	Baseline, N (%)			End-line, N (%)		
	Intervention, n=130	Non-Intervention, n=127	P value	Intervention, n=143	Non-Intervention, n=138	P value
Male	43 (33.1)	35 (27.6)	0.34	64 (44.8)	60 (43.5)	0.83
Female	87 (66.9)	92 (72.4)	0.34	79 (55.2)	78 (56.5)	0.83
Household Size						
≤3	20 (15.4)	26 (20.5)	0.43	29 (20.3)	23 (16.7)	0.72
4	27 (20.7)	28 (22.1)	0.57	31 (21.7)	35 (25.4)	0.34
5	30 (23.1)	22 (17.3)	0.16	29 (20.3)	28 (20.3)	0.61
6	20 (15.4)	20 (15.7)	0.56	15 (10.5)	24 (17.4)	0.10
7	13 (10.0)	12 (9.4)	0.69	14 (9.8)	14 (10.1)	0.62
≥8	20 (15.4)	19 (15.0)	0.47	25 (17.5)	14 (10.1)	0.42
Highest Education						
No Formal Education	18 (13.8)	20 (15.7)	0.45	18 (12.6)	19 (13.8)	0.44
Primary	65 (50.0)	54 (42.5)	0.44	71 (49.6)	55 (39.9)	0.41
Secondary	24 (18.5)	19 (15.0)	0.45	28 (19.6)	28 (20.3)	0.89
Tertiary	15 (11.5)	16 (12.6)	0.93	13 (9.1)	20 (14.4)	0.44
University	8 (6.2)	18 (14.2)	0.18	13 (9.1)	16 (11.6)	0.75
Employment Status						
Not Employed	25 (19.2)	23 (18.1)	0.84	36 (25.2)	12 (8.7)	0.25
Formally Employed	7 (5.4)	20 (15.7)	0.03	17 (11.9)	23 (16.7)	0.01
Self Employed	98 (75.4)	84 (66.1)	0.83	90 (62.9)	103 (74.6)	0.01

4.3 Access to HIV and AIDS Information

Access to HIV/AIDS information was high in intervention (83.1%) and non-intervention sites (87.4%) at baseline, with no significant difference between the two sites. Access to HIV and AIDS information was higher in intervention sites (89.5%) in comparison to the non-intervention (73.2%) sites at end line. However, the 20.6% Net Effect of Intervention (NEI) in intervention sites was not statistically significant (OR = 1.3 (95% CI = 1.0- 1.9), $p=0.16$). The main source of HIV and AIDS information was from Ministry of Health in intervention (62.3%) and non-intervention sites (57.5%) at baseline. About 7.3% (NEI) more subjects in intervention sites accessed HIV/AIDS information from the Ministry of Health ($P=0.55$) at end line. Approximately 6.1% more respondents in intervention sites sought information from key leaders in PLWHA groups and the local administration at endline ($P=0.07$). Access to information from the private sector remained unchanged with the 0.1% NEI reported in intervention sites being insignificant ($P=0.96$). Many respondents in intervention (82.3%) and non-intervention sites (86.6%) found the information received quite useful. However, even though a 5.8% increase in access to information was reported in intervention site at end line, 14.4% less respondents in non-intervention sites found the information useful over the same duration. The 20.7% net effect reported in intervention sites was, however, not significant (OR = 1.3 (95% CI = 1.0- 1.9), $p=0.16$) (Table 4.2).

Table 4.2: Access and source of Human Immune Deficiency Virus and Acquired Immune Deficiency Syndrome Information among Study Respondents, Busia, Kenya, 2017

	Intervention Site, N (%)			Non-Intervention Site, N (%)			NEI %	OR (95% CI)	P value
	Baseline n=130	End line n=143	% Change	Baseline n=127	End line n=138	% Change			
Accessed information	108 (83.1)	128 (89.5)	6.4	111 (87.4)	101(73.2)	-14.2	20.6	1.3 (1.0- 1.9)	0.16
Found information useful	107 (82.3)	126 (88.1)	5.8	110 (86.6)	99 (71.7)	-14.9	20.7	1.3 (1.0- 1.9)	0.16
Source of Information*									
Ministry of Health	81 (62.3)	94 (65.7)	3.4	73 (57.5)	74 (53.6)	-3.9	7.3	1.1 (0.74-1.8)	0.55
Ministry of Social Services	4 (3.1)	5 (3.5)	0.4	4 (3.1)	9 (6.5)	3.4	-3.0	0.6 (0.095-3.2)	0.51
Private Sector	5 (3.8)	4 (2.8)	-1.0	6 (4.7)	5 (3.6)	-1.1	0.1	0.9 (0.16-5.6)	0.96
Key Opinion Leaders	2 (1.5)	8 (5.6)	4.1	9 (7.1)	7 (5.1)	-2.0	6.1	5.1 (0.82-32)	0.07

4.3.1 Awareness of HIV Risk Factors

There was no significant change in awareness of HIV risk factors after the intervention of CSOs (Table 3). Overall, awareness of risk factors for HIV was modest in both sites. An average of 68.5% of respondents in intervention sites and 62.9% in non-intervention sites at baseline identified contaminated sharps such as needles, broken bottles, among other equipment as a risk factor for HIV/AIDS transmission. Approximately 11.5% identified breastfeeding as a risk factor, while 23.8% identified unprotected sex and a similar proportion identified childbirth as risk factors to HIV transmission in intervention sites.

Awareness of contact with infected body fluids as a risk factor for HIV increased marginally (2.2%) in the intervention sites while a 1.6% drop in awareness was reported in non-intervention sites. Approximately 3.8% more respondents in intervention sites compared to the non-intervention sites identified contact with fluids as a risk factor at end line ($p=0.67$). Awareness of childbirth and unprotected sex as risk factors for HIV increased by 1.3% each (NEI) in intervention sites ($p=0.89$). A proportion of 0.3% more respondents talked of breastfeeding as a risk factor to HIV at end-line ($P=0.98$) (Table 4.3). The observations were therefore not statistically significant.

Table 4.3: Awareness of HIV Risk Factors among Study Respondents, Busia, Kenya, 2017

Risk Factors*	Intervention Site, N (%)			Non-Intervention Site, N (%)			NEI (%)	OR (95% CI)	P value
	Baseline n=130	End line n=143	% Change	Baseline n=127	End line n=138	% Change			
Contact with fluids	40 (30.7)	47 (32.9)	2.2	35 (27.6)	36 (26.0)	-1.6	3.8	1.1 (0.61-2.1)	0.67
Breastfeeding	15 (11.5)	21 (14.7)	3.2	12 (9.4)	17 (12.3)	2.9	0.3	0.9 (0.37-2.7)	0.98
Child Birth	31 (23.8)	37 (25.9)	2.1	22 (17.3)	25 (18.1)	0.8	1.3	1.1 (0.50-2.2)	0.89
Unprotected Sex	31 (23.8)	37 (25.9)	2.1	22 (17.3)	25 (18.1)	0.8	1.3	1.1 (0.50-2.2)	0.89
Contaminated sharps	89 (68.5)	94 (65.7)	-2.8	80 (62.9)	90 (65.2)	2.3	-0.5	0.9 (0.62-1.4)	0.79

* Multiple answers

4.4 Effect of CSOs on Morbidity Patterns and Access to Health Care

This section assessed clinical symptoms of respondents through clinical/physical examination to determine the health status of PLWHA. Opportunistic infections signs that included; herpes zoster, oral thrush, emaciation/wastage, weight loss, anemia, hair loss, and skin rash were all assessed and recorded during the checkup.

4.4.1 Morbidity Patterns

There was no significant difference in clinical symptoms among the respondents in intervention and non-intervention sites at baseline and end line. Marginal proportion of skin rash and tuberculosis (TB) among respondents was observed to be higher than other clinical symptoms in intervention and non-intervention at at end line. The study also observed NEI (12.4%) increase in TB, though not statistically significant ($p=0.15$). Skin rash prevalence was 16.9% in intervention sites and 14.9% in non-intervention sites was not statistically significant. The prevalence of fungal infections was reported as 3.1% in intervention sites and 0.8% in non-intervention sites at baseline. Periodontal diseases were not significant in intervention and non-intervention sites at baseline and at end line. However, the NEI decline (-5.9%) illustrated statistical significant ($P<0.05$). Candidiasis clinical symptoms in intervention site (0.8%) and in non-intervention sites (0.8%) were less common among respondents in both sites.

At end-line, the prevalence of skin rash and periodontal diseases reduced in intervention sites with 7.7% and 5.9% less respondents presenting with the diseases respectively in comparison to non-intervention sites. The prevalence of opportunistic infections such as candidiasis also dropped marginally at end-line in intervention sites, with 0.7% fewer cases reported at end line in comparison to the non-intervention sites.

There was a higher overall decrease in TB prevalence among the respondents in the non-intervention site, in comparison to those in the intervention site from baseline to end line. Overall, the differences in change in prevalence of clinical signs and symptoms were not statistically significant (Table 4.4).

Table 4.4: Morbidity Patterns - Clinical Symptoms of Respondents among Study Respondents, Busia, Kenya, 2017

	Intervention, N (%)			Non-intervention, N (%)			NEI (%)	OR (95% CI)	P value
	Baseline n=130	End line n=143	% change	Baseline n=127	End line n=138	% change			
Clinical Symptoms*									
Skin rash	22 (16.9)	21 (14.6)	-2.3	19 (14.9)	28 (20.3)	5.4	-7.7	0.7 (0.28-1.5)	0.31
TB	18 (13.8)	21 (14.6)	0.8	36 (28.3)	23 (16.7)	-11.6	12.4	1.8 (0.81-4.1)	0.15
Hair Loss	8 (6.2)	8 (5.6)	-0.6	6 (4.7)	11 (7.9)	3.2	-3.8	0.6 (0.13-2.2)	0.39
Herpes Zoster	5 (3.8)	7 (4.9)	1.1	4 (3.1)	5 (3.6)	0.5	0.6	1.1 (0.20-6.4)	0.89
Fungal Infection	4 (3.1)	1 (0.7)	-2.4	1 (0.8)	4 (2.9)	2.1	-4.5	0.3 (0.0073-8.6)	0.43
Candidiasis	1 (0.8)	1 (0.7)	-0.1	1 (0.8)	2 (1.4)	0.6	-0.7	0.5 (0.013-20)	0.71
Periodontal Diseases	3 (2.3)	1 (0.7)	-1.6	1 (0.8)	7 (5.1)	4.3	-5.9	0.1 (0.0022-1.0)	0.05

* Multiple answers

4.4.2 Access to Health Care Services

There was no significant difference in access to health care services in intervention and non-intervention sites at baseline and end line (Table 4.5). A large proportion of respondents in intervention (59.2%) and non-intervention sites (56.7%) at baseline showed they accessed health care services from government facilities. Similarly, a large proportion of respondents at end line in intervention (60.1%) and non-intervention sites (44.2%) accessed health care services from government facilities. However, the NEI increase (13.4%) was not significant in intervention and non-intervention sites at baseline and end line. Minimal proportion of respondents also accessed health care services from other private facilities. Main provider of voluntary counseling and testing (VCT) services in intervention and non-intervention sites at baseline and end line was the government.

There was no significant difference ($P=0.48$) recorded regarding access to Anti-Retro Viral (ARV) drugs. A large proportion of respondents in the intervention site (91.5%) and non-intervention site (93.7%) at baseline reported to accessed ARV drugs. With also majority of respondents in the intervention (88.2%) and non-intervention (80.4%) accessing ARV drugs at end line. However, the 10% NEI increase was not statistically significant ($OR = 1.1$ (95% $CI = 0.79-1.6$), $p=0.48$). Both the intervention and non-intervention sites attained universal anti retro viral (ARV) coverage of above 80% in the intervention and non-intervention sites at baseline and end line.

The government was reported as the most common source of ARVs in the intervention and non-intervention sites (42.0% and 16.9%) at baseline. This was similarly reported at end line in the intervention (32.1%) and non-intervention sites (25.2%). The negative 18.2% NEI change reported after CSO intervention was not significant ($OR= 0.6$ (95% $CI=0.29-1.2$), $P=0.14$).

A 9.9% reduction in the number of respondents attaining ARVs from government facilities was reported in intervention sites compared to the 8.3% increase reported in non-intervention sites. There was a statistical significant ($P < 0.05$) reported among respondents sourcing ARVs from private facilities despite the decrease in the NEI (23.8%).

Table 4.5: Access to health care services and Source of Anti Retro Viral (ARVs) among Study Respondents, Busia, Kenya, 2017

	Intervention Sites, N (%)			Non-Intervention Sites, N (%)			NEI (%)	OR (95% CI)	P value
	Baseline	End line	% Change	Baseline	End line	% Change			
Access to Health care services	n=130	n=143		n=127	n=138				
Private Sector	35 (26.9)	30 (20.9)	-6.0	28 (22.0)	39 (28.3)	6.2	-12.2	0.6 (0.31-1.2)	0.17
CSOs	12 (9.2)	24 (16.8)	7.6	20 (15.7)	29 (21.0)	5.3	2.3	1.4 (0.56-3.4)	0.48
Govt. Hospital	77 (59.2)	86 (60.1)	0.9	72 (56.7)	61 (44.2)	-12.5	13.4	1.3 (0.83-2.1)	0.24
Other	2 (1.6)	4 (2.8)	1.2	7 (5.5)	9 (6.5)	1.0	0.2	1.6 (0.22-11)	0.67
Accessed ARVs	119 (91.5)	134 (93.7)	2.2	112 (88.2)	111 (80.4)	-7.8	10.0	1.1 (0.79-1.6)	0.48
Source of ARVs	n=119	n=134		n=112	n=111				
Private facility	30 (25.2)	25 (18.7)	-6.5	28 (25.0)	47 (42.3)	17.3	-23.8	0.5 (0.24-1.0)	0.05
Govt. Facility	50 (42.0)	43 (32.1)	-9.9	19 (16.9)	28 (25.2)	8.3	-18.2	0.6 (0.29-1.2)	0.14
Other	8 (6.7)	7 (5.2)	-1.5	13 (11.6)	11 (9.9)	-1.7	0.2	1.0 (0.28-3.8)	0.96

4.5 Nutrition Status and Food Intake

Nutrition status was determined by anthropometry. The weight and height measurements were used to determine the body mass index (BMI) and classify respondents as normal, malnourished, overweight and obese. Food intake was assessed using 24-hour recall and a food frequency guide

4.5.1 Nutrition Status - Body Mass Index Results

Most respondents at baseline (58.5% versus 54.3%) in intervention and non-intervention sites had normal weight (BMI 18.5-24.9). While at end line 53.8% in the intervention and 57.9% in non-intervention arms were recorded having normal weight (BMI 18.5-24.9). However, normal weight reduction in NEI (8.3%) was not significant (OR=0.9 (95% CI=0.56-1.4), P=0.56). Around 14.6% in the intervention and 15.7% in non-intervention arms at baseline were found to be obese. At end line, 16.1% and 13.8% of respondents in intervention and non-intervention sites respectively were also distinguished as obese. The NEI (3.6%) increase recorded was not significant.

More respondents (26.9%) in intervention and (29.9%) in non-intervention sites at baseline were recorded as malnourished (BMI \leq 18.4). An average of 30.1% and 28.3% in intervention and non-intervention sites respectively were reported as malnourished (BMI \leq 18.4) at end line. Although more respondents (NEI, 4.8%) were malnourished, there was no significant difference reported. However, the NEI changes among the respondents in various BMI categories were not statistically significant (Table 4.6).

Table 4.6: Body Mass Index (BMI) of respondents among Study Respondents, Busia, Kenya, 2017

BMI Range	Intervention Site, N (%)			Non-Intervention Sites, N (%)				OR (95% CI)	P value
	Baseline n=130	End line n=143	% change	Baseline n=127	End line n=138	% change	NEI (%)		
Overweight/obese (BMI ≥ 25)	19 (14.6)	23 (16.1)	1.5	20 (15.7)	19 (13.8)	-1.9	3.6	1.3 (0.53-3.1)	0.59
Normal (BMI 18.5-24.9)	76 (58.5)	77 (53.8)	-4.7	69 (54.3)	80 (57.9)	3.6	-8.3	0.9 (0.56-1.4)	0.56
Malnourished (BMI ≤ 18.4)	35 (26.9)	43 (30.1)	3.2	38 (29.9)	39 (28.3)	-1.6	4.8	1.2 (0.64-2.3)	0.58

4.5.2 Food Intake of Respondents

There was no significant difference in food intake among respondents in the intervention and non-intervention sites at baseline and end line. Most of the respondents (30.8%) in intervention and (37.0%) non-intervention arms reported they did not take breakfast in the morning at baseline. Almost a similar proportion (31.5%) in intervention and (34.8%) non-intervention sites did not also take breakfast in the morning at end line. Out of the proportion of respondents who took breakfast in the morning, 24.6% in intervention and 22.0% in non-intervention drank porridge at baseline. While 25.8% in intervention and 18.1% in non-intervention drank porridge in the morning at end line. However, an increase in the NEI (5.1%) among those who took porridge in the morning showed there was no insignificant difference ($p=0.48$). A minimal proportion (Table 7) ate maize and wheat products.

A minimal proportion of respondents (16.1%) in intervention and in non-intervention arms (18.1%) at baseline reported they did not eat lunch. A similar trend was reported (15.4%) in intervention and (15.2%) in non-intervention sites at end line. Despite that fact, the NEI (2.2%) increase reported was insignificant ($p=0.75$). Ugali or rice was the most common foods consumed at lunch (34.6%) in intervention sites and (37.0%) in non-intervention sites at baseline. In intervention (35.7%) and non-intervention (37.0%) sites, most respondents also consumed Ugali or rice accompanied with green vegetables for lunch, at end line. The same trend of foods consumed at lunch was applied for supper. Whereby 36.2% and 34.6% respondents in intervention and non-intervention sites respectively at baseline consumed Ugali or rice accompanied with green vegetables. There was no significant difference in food intake in intervention sites in comparison to non-intervention sites at baseline and at end line (Table 4.7).

Table 4.7: Food Intake during the previous 24 hours of respondents* among Study Respondents, Busia, Kenya, 2017

		Intervention, N (%)			Non-Intervention, N (%)			NEI (%)	OR (95% CI)	P value
		Baseline n=130	End-line n=143	% change	Baseline n=127	End-line n=138	% change			
Breakfast	No breakfast	40 (30.8)	45 (31.5)	0.7	47 (37.0)	48 (34.8)	-2.2	2.9	1.1 (0.61-2.0)	0.75
	Tea	23 (17.7)	27 (18.9)	1.2	18 (14.2)	23 (16.7)	2.5	-1.3	0.9 (0.40-2.1)	0.84
	Wheat products	4 (3.1)	6 (4.2)	1.1	10 (7.9)	9 (6.5)	-1.4	2.5	1.7 (0.35-7.9)	0.52
	Porridge	32 (24.6)	37 (25.8)	1.2	28 (22.0)	25 (18.1)	-3.9	5.1	1.3 (0.63-2.7)	0.48
	Maize	7 (5.4)	7 (4.9)	-0.5	7 (5.5)	9 (6.5)	1.0	-1.5	0.8 (0.18-3.3)	0.73
	Others	11 (8.5)	12 (8.4)	-0.1	5 (3.9)	7 (5.1)	1.2	-1.3	0.8 (0.19-3.2)	0.73
Lunch	No lunch	21 (16.1)	22 (15.4)	-0.7	23 (18.1)	21 (15.2)	-2.9	2.2	1.1 (0.49-2.7)	0.75
	Ugali/Rice	45 (34.6)	51 (35.7)	1.1	47 (37.0)	51 (37.0)	0.0	1.1	1.0 (0.59-1.8)	0.88
	Vegetables	19 (14.6)	24 (16.8)	2.2	31 (24.4)	30 (21.7)	-2.7	4.9	1.3 (0.60-2.9)	0.50
	Meat/Fish	21 (16.2)	24 (16.8)	0.6	16 (12.6)	16 (11.6)	-1.0	1.6	1.1 (0.46-2.8)	0.77
	Others	5 (3.8)	9 (6.3)	2.5	10 (7.9)	7 (5.1)	-2.8	5.3	2.6 (0.60-11)	0.20
Snack	No snack	96 (73.8)	92 (64.3)	-9.5	93 (73.2)	88 (63.8)	-9.4	-0.1	1.0 (0.67-1.5)	0.95
	Uji	6 (4.6)	9 (6.3)	1.7	15 (11.8)	21 (15.2)	3.4	-1.7	1.1 (0.31-3.7)	0.91
	Tea	5 (3.8)	5 (3.5)	-0.3	4 (3.2)	5 (3.6)	0.4	-0.7	0.8 (0.13-4.9)	0.81
	Others	5 (3.8)	9 (6.3)	2.5	10 (7.9)	7 (5.1)	-2.8	5.3	2.6 (0.60-11)	0.20
Supper	Ugali/Rice	47 (36.2)	51 (35.7)	-0.5	44 (34.6)	53 (38.4)	3.8	-4.3	0.9 (0.51-1.6)	0.71
	Vegetables	44 (33.8)	44 (30.8)	-3.0	31 (24.4)	30 (21.7)	-2.7	-0.3	1.0 (0.54-2.0)	0.92
	Meat/Fish	26 (20.0)	35 (24.5)	4.5	42 (33.1)	43 (31.2)	-1.9	6.4	1.3 (0.68-2.5)	0.42
	Maize & beans	3 (2.3)	4 (2.8)	0.5	7 (5.5)	7 (5.1)	-0.4	0.9	1.3 (0.21-8.3)	0.76
	Others	11 (8.5)	12 (8.4)	-0.1	5 (3.9)	7 (5.1)	1.2	-1.3	0.8 (0.19-3.2)	0.73
	No supper	5 (3.8)	7 (4.9)	1.1	4 (3.1)	2 (1.4)	-1.7	2.8	2.8 (0.36-22)	0.32

* Multiple answers

4.5.3 Meal Frequency per Day

Civil society organizations (CSO) interventions did not influence meal frequency per day in intervention sites compared to non-intervention sites at baseline and end line (Table 4.8). Most respondents in intervention sites (56.2%) and non-intervention sites (49.6%) at baseline consumed three meals per day. In addition, 58.1% of the respondents in intervention and 48.5% in non-intervention arms at endline also consumed three meals per day. A 3.0% NEI rise among those who ate three meals per day was not significant (OR=1.1 (95% CI=0.67-1.7), P=0.79. At baseline, approximately 33.1% and 40.2% in intervention and non-intervention groups respectively, displayed to consume two meals per day. With 34.9% and 46.4% of the respondents in the intervention and non-intervention sites respectively at end line also indicating they consumed two meals per day. Though there was change in non-intervention sites (6.2%), a decrease in the NEI (4.4%) among those consuming two meals per day was insignificant. While a 10.0% and 10.2% in intervention and non-intervention sites distinctly had one meal per day at baseline. A minimal proportion of respondents at end line (6.3%) in intervention and non-intervention sites (5.1%) consuming one meal per day.

A negligible proportion of respondents (0.8%) and (0.0%) in intervention and non-intervention arms at baseline reported consumed no meal in a day at baseline. With about 0.7% and 0.0% in intervention and non-intervention arms at end line also indicating they consumed nothing in a day. There was no change and significance observed among those who consumed nothing per day.

Table 4.8: Meal frequency per day among Study Respondents, Busia, Kenya, 2017

	Intervention N (%)			Non-Intervention N (%)			NEI	OR (95% CI)	P value
	Baseline n=130	End-line n=143	% Change	Baseline n=127	End-line n=138	% Change			
No meal	1 (0.8)	1 (0.7)	-0.1	0 (0.0)	0 (0.0)	0.0	-0.1	1.0 (0.01-92.5)	1.00
One Meal	13 (10.0)	9 (6.3)	-3.7	13 (10.2)	7 (5.1)	-5.1	1.4	1.3 (0.37-4.5)	0.69
Two Meals	43 (33.1)	50 (34.9)	1.8	51 (40.2)	64 (46.4)	6.2	-4.4	0.9 (0.54-1.6)	0.79
Three Meals	73 (56.2)	83 (58.1)	1.9	63 (49.6)	67 (48.5)	-1.1	3.0	1.1 (0.67-1.7)	0.79

4.6 Economic and Income Generation Activities

This section provides results on economic status based on CSO interventions compared between baseline survey and end line findings.

4.6.1 Economic Status

There was no significant difference in economic support among respondents in intervention and non-intervention sites at baseline and end line. An average of 39.2% and 20.5% respondents in intervention and non-intervention sites respectively indicated to have received economic support for income generating activities (IGA) at baseline. While at end line, about 37.1% versus 24.6% of the respondents in intervention and non-intervention sites, stated to have received economic support to their economic status. There was a reduction among respondents receiving economic support for IGAs which was evidently insignificant. The negative 6.2% NEI reported was, however, not significant (OR=0.98 (95% CI=0.42-1.5), P=0.48).

A large proportion of respondents (66.7%) in intervention and (61.5%) non-intervention at baseline specified *Chama* support as the most common type of economic support. Similarly, at end line, 64.2% of the respondents in intervention sites and 55.9% in non-intervention sites also specified *Chama* support as the most common type of economic support. There was a reduction in change revealed in intervention and non-intervention arms and the NEI (3.1%) increase was not statistically significant P=0.68. Most respondents (21.6% and 42.3%) in intervention and non-intervention arms respectively at baseline confirmed to receiving economic support to practice poultry farming. More respondents at end line (20.8% and 26.5%) in intervention and non-intervention sites respectively reported to have been supported economically to practice poultry farming. However, a reduction in change was noted from both arms, the NEI increase (14.9%) was not statistically significant (OR=0.1.22 (95% CI=0.36-4.12), P=0.74).

Most respondents at baseline (23.5% and 11.5%) in intervention and non-intervention sites respectively accessed motorbikes as a source of income generation activity. Likewise, more respondents at end line (18.9% and 11.8%) in intervention and non-intervention sites respectively also accessed motorbikes as a source of income generation. A reduction in the NEI (4.9%) among respondents who accessed motorbikes as a source of income generation was insignificant ($P=0.64$). “*Merry go Round*” is an informal gathering where women meet and visit each member’s home once a month to contribute utensils, clothing, or furniture. Most respondents in intervention sites (21.6% and 26.9%) compared to non-intervention sites were registered in *Merry ground* schemes at baseline. Another proportion of respondents at end line (18.9% and 11.8%) in intervention and non-intervention sites similarly were registered in *Merry ground* schemes. Overall, the impact of CSOs on economic and income generation activities in intervention and non-intervention sites was not statistically significant in any aspect (Table4.9).

Table4.9: Economic and income generation activities (IGA) among Study Respondents, Busia, Kenya, 2017

	Intervention Site, N (%)			Non-Intervention Site, N (%)			NEI	OR (95% CI)	P value
	Baseline n=130	End line n=143	% Change	Baseline n=127	End line n=138	% Change			
Economic Support for Iga	51 (39.2)	53 (37.1)	-2.1	26(20.5)	34 (24.6)	4.1	-6.2	0.98 (0.42-1.5)	0.48
Type of Support Received*	n=51	n=53		n=26	n=34				
Poultry farm	11 (21.6)	11 (20.8)	-0.9	11 (42.3)	9 (26.5)	-15.8	14.9	1.22 (0.36-4.12)	0.74
Chama support	34 (66.7)	34 (64.2)	-2.5	16 (61.5)	19 (55.9)	-5.6	3.1	0.84 (0.37-1.91)	0.68
Merry go round schemes	11 (21.6)	12 (22.6)	1.0	7 (26.9)	5 (14.7)	-12.2	13.2	1.53 (0.37-6.25)	0.55
Got motorbike	12 (23.5)	10 (18.9)	-4.6	3 (11.5)	4 (11.8)	0.3	-4.9	0.74 (0.21-2.64)	0.64

*Multiple answers

4.7 Qualitative Data

4.7.1 Introduction

Qualitative data was obtained from focus group discussions and key informants. The key informants included staff from Ministry of Health (MoH), civil society organization (CSO), including leaders belonging to PLWHA in formal and informal groups, as well as the local authority staff (chief, Sub-chief and village elders). In every study site, the in-charge managing selected units (CCC, PMTCT, MCH/FP and OPD) in MoH public health facilities, provided in depth information required for the study. Key informants from the CSO wing and working for AMPATH, APHIA PLUS, and MSF, international organizations were purposively selected and subjected to in-depth interviews. The chiefs, sub-chiefs as well as village elders were also purposively selected and interviewed to obtain in-depth data. Eight FGD sessions were carried out over the duration of the study. The FGD consisted of 12 adults; six males and six females, between 30 to 64 years of age. On the other hand, 12 youths; six males and six females, between 18 to below 30 years of age were also grouped to undertake the sessions. Most of the participants were; people living with HIV/AIDS (PLWHA) who were self-employed and had lived in Busia County since birth.

4.7.2 Socio Demographic Characteristics

The discussion under this section included; gender issues, household size and employment status. More females than males were interviewed, however, there was no statistical significant difference observed. A number on household size generated a lot of debate. Participants were probed on the number of children in each household. A good number of members said they preferred having as many children as they would wish to. According to most of them, it is a normal practice to have many children named after members of the family.

Some group members from Matayos and Butula intervention sites expressed their concern claiming their husbands often would bring in a second wife if they did not bear them more than four children. Some participants from the FGD adult group expressed that, with fewer children, they can provide full attention to them as well as better care as expected. The expressions by FGD adult participants concurred with CSOs and MoH staff concerns. *“Having served the community for some time, we quite understand about their cultural practices related to the number of children required for most households”*, CSO and MoH staff narrated. Key informants also affirmed that, the community they often served had great value for families with many number of children. In contrast, there were also some members in the group who were against the practice and preferred having lesser than four children. A participant from the adult FGD said; *“health comes first but the choice regarding the number of children remains to an individual”*. The youths were in-agreement with having many children stating, they would prefer to follow their parent’s trend. Chiefs, sub chiefs and village elders also expressed that their culture mandates a woman to bear as many children as possible; otherwise the man will proceed to marry another wife. Members with more than 10 children turned out to be shy and contributed to very little during the discussion session. Despite the reality of poverty, the trend of bearing many children for Busia people remains in practice. A key informant from the CSO wing confirmed family planning topics were frequently addressed during dialogue with PLWHA.

Some participants during discussion groups stated that low level of education in the area driven by high poverty level has not only affected health seeking behavior, but greatly hindered PLWHA with employment opportunities. A few participants declared they would prefer to seek health care services from herbalist. Members alleged the services offered by herbalist were often cheaper, accessible and affordable to most of them.

Individual choices for either contemporary and conservative medicine in market, lead most PLWHA to opt for a more cheap and affordable intervention. Participants narrated how they are not able to even afford a match box, not speaking of taking a ride to hospital and even pay for the health services offered. Some participants stated they

prefer to seek for medical services from a traditional herbalist because it saved them the time, cost of travel, and the task of giving direct cash.

One participant clearly said; *“the money to pay for medicines is never available not speaking of even enough to serve our daily needs”*. In exchange for money especially for those who did not have, the herbalist allowed instead the offer of perhaps a chicken, goat or foodstuff such as a bunch of banana, sweet potatoes or even Cassava. Some members had different perspective; they preferred health care services offered from government hospitals regardless of the existing poverty. Some participants from the adult FGD groups were eager to know what went wrong with the free health care services. Many of them shared they were being indirectly charged for supplies yet the state declared health services as free services, including maternity services. *“This gives a good reason why we seek for health services from herbalists”*, as put by participant from the adult FGD.

Youths said, because of poverty, they are forced to seek help from the same herbalist. Key informants from the local administration prefer to combine the services (modern and traditional medicine). A participant from the local administration (Chief) quoted; *“most of these youngsters of nowadays especially from government hospitals are rather in a hurry and not keen in handling the sick. The attitude of staff in public health hospitals has driven most of us to seek for health care elsewhere and rely on traditional medicine”*.

This concurred with the statement from some village elders who declared they have been relying on traditional herbalists for most ailments for long.

Some participants during the discussion sessions lamented that they could not afford primary level of education for their children to enable them read, write and communicate basic information. Consequently, their children could not be offered formal employment that is better paying especially by organizations implementing projects within the area. In addition, their children could get better employment opportunities if they were better educated, and take up the role of supporting other family members.

Focus group discussion (FGD) youth participant narrated; *“We are not happy with the type of shoddy jobs we end up in, due to lack of formal education”*. Participants further reported that they have not been able to afford education because of the poverty that has inflicted most households. The youths further indicated that their parents cannot afford to pay school fees for them, considering the limited financial status in most households. This has therefore made it difficult for them to acquire better and well-paying jobs.

Youths have been left with no other option but to venture into small scale businesses. From the youth groups, one participant said, *“we the orphaned children were more disadvantaged in terms of going through education and this resulted in many of us missing good employment opportunities, and even quite impossible affording small-scale business.”*

Some youths shared that a few of their colleagues had got sponsors who supported their education through high school. Members expressed that in spite of the fact that CSOs support some children through high school education, acquiring proper academic and professional credentials remains a challenge because of poverty.

With the current developments in the Country, education upto fourth form still, is not adequate to enable anyone access better paying jobs or rather attain better earnings. *“Formal employment has been affected greatly by poor education level with poverty mounting as the leading factor that is hindering development in the area”*, as cited by an adult participant from FGD group. The statement was unanimously supported by key informants from both the local administration, CSO and MoH; they affirmed poverty was a major barrier to education and hence formal employment to growth and development in the society. Key informants from the local administration, CSO and MoH reported they hardly get suitable employees when positions have been advertised within or outside the County. This makes it impossible even if you would wish to assist, engage somebody with no appropriate required skills for the position. Further, MoH staff similarly explained that people from study sites certainly fail to secure advertised government opportunities both for employment and professional training. The reason

being, low education level and poor access to essential information may be contributing to the challenge. A key informant from the CSO side emphasized that, they promote health related matters and not information linked to employment and professional training. The answer linked to a probe on how they can assist the residents acquire casual work within their organization. Indeed, we noted that, a few organizations hire casuals to assist them at functional sites and lay them off at the end of project. According to participants, the negligible support offered by CSOs, usually weighs no impact for most family members.

4.7.3 Access to HIV Information

During discussions, most participants confirmed that they had adequate access to HIV and AIDS information with most individuals finding the information provided as quite helpful. At end line, access to HIV and AIDS information was recorded higher in intervention sites in comparison to the non-intervention sites. This is expected since CSOs commonly major their interventions in advocating for better health. Some members from adult FGD admitted regularly accessing health related information through the local leaders. They demonstrated to have full confidence over any information delivered to them by the Chief, sub chief together with respected village elders including politicians. A participant from adult FGD narrated; *“Usually, information on health-related matters and urgent government matters reach us timely through allies of the chief, sub-chief and village elders. We trust and take up whatever information given to us by our leaders”*. It is indeed possible because these are people close to them as leaders, whom they trust, and any information they transmit is usually taken in seriously. Participants from both adult and youth groups stated that they had gained trust over the local administration in disseminating HIV/AIDS information because of the simplification of information. Perhaps, they have confidence over local leaders because they often use native language to deliver stated information which deeply sinks better in them. Ideally, to initiate a project in any given site, local leaders should be the leeway to the community.

Participants from youth groups confirmed that they usually access health information from their fellow mates, including during campaigns that directly involve their participation. Several members choose Ministry of health (MoH) as a better entity to HIV/AIDS information access. Their fear came about on sharing sensitive information with village elders as well as the local administration because of the stigma factor involved. A few others mentioned they preferred accessing the information from all implementing partners; CSO, MoH, PLWHA, village elders and politicians as well as the local administration. They do not mind, so long as the information provided is useful regardless of the source. However, use of English language exclusively to disseminate the information was criticised by both the adult and youth groups.

This was stated as one of the major reasons for low uptake of HIV and AIDS and health related information. Limited education also imperfect the uptake to HIV/AIDS information especially if disseminated in English language. The data revealed that civil society organizations engaged influential leaders (Chiefs, sub chief and village elders) within the community in the dissemination of HIV and AIDS information because of their influence in community. *“Ignoring influential leaders in the community as is the case currently will only work against this noble project”*, a participant in adult FGD session narrated. The local leaders play a key role in advocating health related information in most societies.

The CSOs on the ground said they engage influential leaders such as the local administration in equipping them with information ahead of dissemination. The staff from MoH reported that they play a major role of providing health education at public health facility Units. Some members acknowledged they acquired health information and messages mainly from government public health facilities. According to the participants, the information in form of health talks was offered on daily basis at the CCC units. However, most participants suggested that use of pictures may be more effective in understanding given information since most of them are limited in education. Realistically, multiple use of disseminating information would be ideal if apply considering the different levels of individual understanding.

Key informants from the MoH and CSO staff admitted using multiple means of disseminating health related information, in addition making sure that HIV/AIDS materials were accessed appropriately. For example, apart from oral talks, use of pictures, citation of poems, sharing songs and application of role plays gives assurance that information is not only delivered but also understood as intended. A participant shared that National AIDS Control Council (NACC) has used similar measures in promoting behaviour change among PLWHA. *“most of us hardly take our time to read the writings on the materials given to us. But information on the materials printed in form of pictures are easily absorbed”*, an adult participant from FGD narrated.

Key informant participant from CSO also ascertain PLWHA members have better understanding of HIV and AIDS modes of transmission, spread as well as prevention measures to be applied. The PLWHA are also quite able to interpret most information in picture form since reading is a challenge due to their low level of education attainment. This statement was like what was expressed by the local administration (Chief and sub chief) and village elders. *“Civil society organizations have indeed played a great role in ensuring that PLWHA access HIV/AIDS and related information from every level of the community”*.

4.7.4 Awareness of HIV

There is a high presence of CSOs collaborating with government authorities in combating HIV in Busia County. The level of HIV/AIDS awareness has been noted to have greatly been enhanced. Several participants were very much aware of the meaning of HIV and AIDS; the spread, and the prevention measures. Unfortunately, during discussion sessions, some members expressed a level of ignorance on the same with very misleading information about the ways of its spread. Negative misconceptions on HIV transmission, for instance was rampant, nevertheless positive ideas also emerged noticeably. There were numerous examples of the usefulness of civil society involvement in building up of a pool of knowledge, creating awareness, as well as build capacity for the community and the vulnerable groups especially PLWHA.

Participants confessed receiving a lot of information on the care and prevention of HIV/AIDS during subsequent meetings with CSOs. Despite that fact, some of the information trickles down to the ground negatively. The Ministry of health and civil society organizations often pioneer HIV/AIDS awareness using local leaders through community mobilization campaigns. *“Eating, and sleeping on one bed with a person infected with HIV is a frustrating affair that I do not like engaging in, because I will also contract the disease”* – as indicated by a participant from youth FGD. However, there were other participants with more positive perspectives who disputed the sentiment. They instead informed their colleagues that HIV/AIDS can only be transmitted through multiple uses of needles and direct contact with infected blood. Some participants were well informed of heterosexual contact as the main cause to HIV/AIDS transmission and spread. Members were asked if they can avoid physical and direct contact with infected persons, *“. Why not”*, a youth participant from FGD replies.

Such misconceptions have been addressed in several intervention functions in Busia County, in general, the information seemed not to reach residents of rural villages, which leads to stigmatization of individuals living with HIV and AIDS. Civil society organizations (CSO) and PLWHA have repeatedly talked to us about this fallacy, *“As the youths of Busia County; we should also take the initiative to campaign against the negative misconceptions”*, a youth group participant from focus group discussion (FGD) expressed. Some of the members from the groups mentioned they understand that HIV/AIDS was widely spread through sexual contact. Key informants from the Ministry of health pointed out that PLWHA still engage in unprotected sex although they fully understood how HIV/AIDS is spread.

Similarly, the local administration (chiefs, sub chiefs and the village elders) also disclosed that several participants within the study sites were aware of the factors that contribute to HIV/AIDS, spread, noting it was as a result from various health promotion acts by ministry of health and other implementing partners (CSO). During the discussion, participants pointed out unprotected sex and childbirth as risk factors to HIV especially in intervention sites. Further, most participants in intervention and non-

intervention sites were also aware that contaminated sharps such as used needles, syringes as well as sharp objects and contact with any kind of body fluid such as blood and pus including breast milk were risk factors for HIV/AIDS transmission. Participants acknowledged the advocacy role played by CSOs as to have improved access to HIV/AIDS information. This is to the extent that there has been noticeable reduction in stigma and discrimination observed not only among PLWHA but the community at large. A few members claimed the language usually used on available materials such as pamphlets, brochure, booklets and posters, was at times unclear to them. The youths specified they would prefer most of the materials be printed in various local languages.

On the other hand, key informants from the CSO study site reported that they were offering health education on regular basis to PLWHA in subsequent gatherings. According to some of the participants, the gatherings have enhanced their awareness on HIV/AIDS prevention and control. The CSO further confirmed they categorize participants in groups of economic status, age and education level during each gathering. This has always created an atmosphere for better understanding as well as acceptance of individual status. CSOs stated they occasionally visit groups of PLWHA and dialogue on issues affecting their health status, including economic and income generation and nutrition status. From the discussion, they also gathered information on the level of awareness and the level of knowledge among those affected by the epidemic.

To some extent, typical videos on affected individuals are displayed with participants being encouraged to interact and discuss freely. Participants were also advised to freely ask the moderator all questions related to the subject. According to some CSO staff, they were convinced their intervention in Busia has enhanced awareness of HIV/AIDS specifically on PLWHA.

4.7.5 Access to Health Care Services

During discussions, some key informants (MoH, local administration, village elders and PLWHA) observed that access to health and HIV and AIDS services had improved over the years. Most of them recounted how they could not in the past years access ARV drugs from the local rural health facilities. Participants said they can now access ARV drugs from all public health facilities unlike in previous years. People living with HIV/AIDS recalled commonly visiting faith based organizations (FBOs) and private facilities to access their ARV drugs, but appealed their visit to government facilities was limited unlike nowadays. Youth and adult participants expressed their gratitude to implementing partner (AMPATH), for enabling them access ARV drugs from less than five kilometer distance to rural health facilities. They acknowledged the effort by CSOs regarding access for ARV and OI drugs, health care services and improved health status.

In the discussion, participants complained of frequent episodes of diarrhea experienced by most of them. They believed the condition was caused by ARV drugs especially when taken on an empty stomach. *“We thank AMPATH, APHIA Plus, MSF and other supplying agencies for supplying ARV drugs plus other medicines to all our rural public health facilities”*. *“we also thank the GOK for bringing health services closer to us (PLWHA).*

For instance, people no longer walk long distances to access health care services or get ARV drugs, this has improved the wellbeing for most of us including our children”, a participant from adult FGD narrated.

A CSO key informant (CSO) was definite they regularly supply public health facilities with medicines to support HIV/AIDS related challenges. There was also consensus that access to ARV medication is nearly universal with the government health facilities and CSOs as major players in the supply and distribution. *“we acknowledge the effort by our government, civil society organizations, alongside other donors to bring HIV/AIDS services closer”, said a participant from youth FGD.* Generally, the members expressed

their appreciation regarding HIV/AIDS services offered at hand by various implementing organizations within study sites. *“Before the services were brought closer, most of us literally lost close relatives, colleagues and friends from even very simple illnesses such as persistent cough, persistent diarrhoea and headache”*- as put by a participant from adult FGD.

Most members appreciated CSO contribution in the support to enhance health care services. But some found the staff unapproachable; claiming they had poor public relations. *“CSOs employees are harsh and do not answer our questions well”*- a participant from youth FGD said. The local administrative staff accused CSO staff of possessing negative attitude towards the status of community groups they serve. They lamented that, CSOs look down upon the people they serve. And the reason being most of the people served were uneducated and of low class level. The unhappy local leaders criticized CSOs for not hiring the local people, but instead come with their own staff. A participant from the youth group strongly said, *“this people (CSO) do not employ locals from here to work with them, they always come with their own staff”*.

Some participants from the adult FGDs also criticized CSOs stating they do not provide long term benefits, and therefore they were not of much help to the community.

On the contrary, some participants certainly distinguished CSO efforts as exemplary and developed trust in them. Others acknowledged they had benefited from CSO interventions and especially through the formation of the associations and community groups, an idea that had never occurred in them. *“Indeed, we appreciate the support CSO/NGOs offer, especially on matters related to health”*. *“The benefits have immensely been recognized by a few of us, we recognize that CSOs introduced to us the idea of forming self-help groups”*, a participant from adult FGD explained. Although some participants maintained that the government remains the best health service provider as their services were incessant”, a participant from the adult FGD said.

A few participants from the youth FGD reported that CSOs start projects that hardly last long, contributing to minimal impact. Further they said, apart from the government being the main entity in providing opportunistic infections (OI), they also noted CSO playing a major role in supplying the medicines. Asked if CSOs also address the issue of opportunistic infections, a participant in the adult FGD emphatically replied *“No...! Only the government offers such services, we are told by our Chiefs that CSOs only provide simple medicines to public health facilities. Despite that fact, we are happy with the health support they provide”*. Some participants reported; *“as long as the drugs given cure, we are happy and acknowledge the effort of those supplying, as well as offer services to us”*.

The MoH staff reported they have observed a significant improvement in PLWHA sourcing ARVs from both the private facility and the GOK health facilities in the last few years.

The MoH attested that, CSOs usually procure, supply and even distribute essential drugs and particularly HIV/AIDS related and OI medicines to public health facilities. The staff (MoH) also confirmed most PLWHA preferred accessing ARV drugs from the private sector to avoid being discriminated. The reasons behind this were that participants proved to have more confidence with the private sector than the public sector. And that the private sector facilities in most cases maintain confidentiality of clients as compared to the public health facilities. Key informants from the local administration as well as village elders also confirmed they have full confidence over faith based organizations when it comes to maintaining client’s confidentiality.

4.7.6 Nutrition and Food Intake

All respondents observed that nutritional support is virtually non-existent and that they eat whatever they come across without considering the nutritional value. A staff from MoH reported that, poor uptake of nutritious diet affected antiretroviral therapy (ART) management and adherence for PLWHA. Participants, collectively alleged they

experience general weakness of the entire body which they believed to be because of improper feeding habits.

Youths and adult groups revealed qualitatively that they consumed unhealthy foods. They hardly have any planning measures in place for what should be eaten at meal time. In fact, one participant in FGD said, *“planning on foods to eat is an act done by people who reside in urban cities (Nairobi)”*. Both those in the intervention and non-intervention sites said they do not take breakfast in the morning. Among those who consumed breakfast in the morning it was in most cases taken from Ten o'clock onwards. Key informants from MoH side shared that a large percent of respondents drank porridge and ate starchy related foods such as maize, cassava, sweet potatoes, and rice. Certainly, the foods do not have adequate nutritional value.

“Most of us live on one meal per day, it becomes difficult to take drugs on an empty stomach, we react badly leading to recurrent episodes of diarrhoea, giving tangible reason for why we sometime skip taking ARV drugs”, said by a participant from the adult and youth FGD. Key informants from MoH, CSO, and the local administration confirmed participants had regular poor feeding habits exercised widely by many families. A participant narrates; *“as majority of us (PLWHA) shared our grievances we discovered that episodes of diarrhoea and vomiting were common factors amongst us. As we discussed further, we agreed that regular running stomach was often brought about by taking ARV drugs regularly on an empty stomach”*.

“Though we need adequate nutritious food, we do not receive nutritional support from CSOs,” and not even from government authorities, most of us are poor to the degree we take one meal in a day”, a participant from the adult FGD narrated. However, most participants were unhappy about their lives because of the state in which they were, and particularly taking drugs without proper food. *“Yes, we plant fruits but we hardly eat them; in most times, they are sold in the market in exchange for flour for posho, ‘Ugali’ which is our regular stable food”*, a participant from the adult FGD said. From the study findings, participants seemed not to understand the value of fruits, yet again; those who

knew their value did not to take it seriously. *“We are poor people and poverty has contributed to our children’s lack of education leading to them taking up any type of shoddy jobs, thus restraining better living standards”* a participant in the adult FGD lamented. *“Yes, all we can afford are staples such as Ugali and porridge, known as a contributing factor to malnutrition, poor growth and development especially to our children”*, a participant in the adult FGD. *“At times, we go hungry without any food the whole day, this often leads to drug uptake interruption”*, a participant from youth discussion groups indicated.

Most respondents reported they go hungry in the morning because they start their day to day activities by visiting the farm if they are in good health. Some of the participants said that if there is anything to be taken in the morning, probably white porridge or at times black tea which is usually taken without any accompanying snack. Participants shared how they at times chew sugarcane for the rest of the morning till when a meal is available. They were also asked whether they received any support to enhance their food security. Several of them acknowledged the Ministry of Agriculture and CSOs for giving them some form of support agricultural support. Some PLWHA claimed the support was inconsistently offered with no follow up and documentation to determine changes. For example, the Ministry of Agriculture irregularly provided them farm seeds (Cassava) to plant. But none of the officers from the Ministry of Agriculture followed up to know if indeed the seeds had been planted or if harvested. Participants in discussion session appealed for nutritional support from both the government and development partners to enable them contain ARV uptake. In addition, believed this would improve on their general health conditions.

A participant in the youth FGD expressed that, *“usually, supporting CSOs provide us with food supplements, but unfortunately they do not follow up the initiated activities to assess or know the progress of the aftermath”*. *“In most cases food supplements supplied to us was unspecified and inconsistent”*, another participant from the youth FGD reported. once in a a participant in the youth FGD. In addition, the study found out that there were no documents to support the process. Other respondents declare they used to

receive food supplements on quarterly basis but 15 years ago. This was from both the government and implementing partners (CSOs). *“We used to get food supplements for our children from the government during former President Moi’s error, and the entire family benefited greatly from the supplies”*, a participant from the adult FGD stated. *“The government of Kenya by then also used to supply us with flour for porridge traditionally called ‘Uji’. We wonder why this is not happening nowadays”*, *“the health of most of us keeps deteriorating because we lack balanced diet, the food supply used to sustain us quite a lot”*, a participant from the adult FGD lamented. A good proportion of members in the group insisted the supply never brought significant changes to their livelihoods. *“Apart from nutritional education and counselling services we are offered with, there has been limited support from CSOs especially on supply of nutritional feeds”*, a participant from the adult FGD narrated. Key informants, the chief and village elders said that poverty, over dependence on rain fed agriculture, and erratic food prices contribute to erratic feeding behaviors among PLWHA. They again shared, why most PLWHA do not value nutritious diet, mostly they look at the volume of food served. And rely much on ‘Ugali’/ posho accompanied with either green vegetables or animal plants at all meals.

4.7.7 Economic and Income Generation Activities

Albeit marginal, the impact of CSO on economic and income generation activities was appreciated by most respondents. Participants during a FGD grumbled that, *“CSO always bring happiness to most of the members, but when they wind up their projects, people start again to see poverty knocking”*. Another participant from the adult FGD complained, *“CSOs come to talk to us about income generation projects, for example, they guide us on how to manage kitchen gardens and leave us to continue. They do not even come back later to see what has been achieved or what has not been done or even give further directions”*. *“We can say that most of us have not benefited from CSO interventions, if there are any members, then quite few”*, most participants during a FGD stated. When probed about CSO interventions; participants narrated they have indeed gained from regular round table discussions.

In addition, they have also gained economically from their guidance, especially in the formation of formal groups. *“Frequent discussions with CSOs has greatly improved our thinking and that we are knowledgeable enough to the extent, we can manage small scale bussiness”*, a youth participant from FGDs appreciated. Another participant from adult FGD appreciated CSOs expressing, *“we have also been able to form and register groups and start tree planting, dairy farming, and support funeral activities, this has partly empowered most of us who are living with HIV/AIDS”*. The subject regarding schemes introduced to PLWHA members by CSOs was subsequently discussed during meetings. *“Regular meetings with CSOs enhanced us economically in the sense that some of us are now empowered to manage some of the properties left behind by our departed loved ones”*, a participant from adult FGD appreciated.

It was noted that, apart from adjusting to positive cultural practices, leadership would also immensely affect the economic empowerment in communities. *“To improve economically and have a say in the community, we need good local leaders who are ready to bring change in nurturing our children to grow up with positive attitude towards women”* FGD adult group participant recounted. But some participants from adult FGD further criticised their culture *“we are not empowered economically because the society does not support us as women in many circumstances”*. *“We have suffered in the hands of our own people, they disregard us as if we do not belong to any society”*, a participant from adult FGD complained. *“Because of this, we have and still, continue to languish in poverty as long as we the women of Busia and children are not economically empowered in this society”*. Some key informants from the CSO wing confirmed that they did not offer cash to individual members, but encouraged PLWHA to organize themselves and form groups and or associations to start SACCO and schemes.

In addition, the CSO staff made it clear that, to some extent they offer finances but to formal groups of PLWHA to start small scale business. Instead they provided guidance and education on how their clients can make a living through self-initiated income generation projects. Some participants confirmed they have never received adequate liquid cash from CSOs. According to participants, they have been assisted by CSOs to

form formal associations and groups for PLWHA. The formation of these groups fascinated collaboration between PLWHA and other members of the society to the extent that they feel less stigmatized. In some way, it has broken a gap that existed between PLWHA with other members in the community. *“With the help of CSOs, we formed and registered PLWHA groups and associations to support each other, especially those who are rather limited with essentials”*, a FGD adult participant specified. *“As active members of PLWHA groups, we have formed, shared and introduced the idea of schemes to most of our members to engage them in generating some income to support family desires”* (merry go round, chama, and schemes), a participant from adult FGD shared. CSOs said the purpose of introducing these initiatives was to commit PLWHA to be proactive, self reliant and can support each other psychologically as well as economically. All this is aimed at improving standards of living, particularly for families belonging to various formal and informal groups of PLWHA, key informant from CSO side specified.

Under ‘chama support, CSO said each member registered in the group makes a monthly cash collection to the treasurer of the team. Thereafter, the monies are shared equally after every four months to only active members in the groups. A fraction of the cash is deposited into the bank as a saving to cater for any emerging emergencies. The cash collected together, assists individual members in funding for hospital care, schools’ fees, purchase of drugs and household items. In addition, supports weddings and catering for funeral expenses.

“My relatives with some friends known to us have received some economic support from CSOs to start small scale poultry farming, and others have been assisted to start ‘boda boda’ business”, in fact they are doing quite well financially”, a participant from FGD youth group confirmed.

A participant from the adult and youth FGD excitedly said, *“since the appearance of CSO in the area, our economic status has lately improved”*. *“Especially through small scale income generation projects such as poultry, zero-grazing of cows, and knitting of*

marts as well as making clay pots". From each initiated small-scale income generation projects, the profit is shared amongst active participating members. CSOs narrated that their effort of introducing income generation projects through the various established schemes and SACCOs, improved the economic situation for members of PLWHA. "The merry go round system" involves agreed monthly cash collection made by individual member belonging to each group. Afterwards the cash is converted to household items (utensils, furniture, beddings and domestic animals), offered to respective members during the subsequent monthly household visits.

Some members acknowledged that, through this small-scale business their living standards have improved. In addition, they are also able to feed and educate their siblings unlike before when they were not in any registered scheme. Widows remain distressed the moment their loved ones depart. Usually the in laws takeover the only property left leaving them and their children to languish in poverty. This often happens exclusively when they refuse to abide to the in-laws demands of wife inheritance or accept to perform certain family rites.

Most participants spoke with sympathy, blaming their paternal relatives for confiscating the only poverty they were left with after their parent's departure. *"after losing almost everything, we were left isolated, neglected and become stigmatized with no sense of belonging in the society"*, said an adult participant from the FGD.

"When we lost our dad, the property we owned such as; land, cars, cows and household items were all taken away by paternal uncles, I have been very upset with the existing culture", a participant from youth FGD narrated.

Poverty and retrospective cultural practices were commonly mentioned as major cause for rampant school dropout and low enrollment in both primary and secondary schools. *"Most of our children drop out of schools and end up loitering in urban streets, roaming looking for shoddy jobs"*, a participant from adult FGD lamented. Most participants of adult FGD, appealed implementing organizations to assist orphaned children further

their education, particularly those who have dropped out of school. Participants were pessimistic that their living standards may never be uplifted now that their children have no source of education. MoH staff also wished-for development partners to intervene and address existing gaps in the education of Busia inhabitants. According to MoH, these would not only improve the education status, economic status for purpose of improving living conditions, but broaden knowledge through exposure.

Inadequacy of appropriate skills such as financial, managerial and leadership was reported as major reasons contributing to poor management towards sustainable self-initiated projects. *“Most of us lack planning, financial and management skills and possess limited knowledge in budgeting; this has contributed to premature termination for most projects we initiate”*, a participant from adult FGDs explained. Key informants from CSO affirmed PLWHA embrace limited skills that cannot contribute effectively to the management and sustainability of initiated projects. The MoH staff, suggested members belonging in groups /associations for PLWHA should be trained to breach related gaps to enhance sustainability of initiated small-scale business projects.

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Discussion

Civil society organizations play an important role in supporting the implementation of interventions that mitigate HIV and AIDS concerns. However, multi-sectoral and dimensional approach would be necessary since HIV is not only a health concern, but involves various sectors of other line ministries. Despite CSOs efforts, some areas of concern have not been adequately addressed, these include; economic development and empowerment including nutrition status.

5.1.1 Demographic Characteristics

The study interviewed more females than males in the intervention and non-intervention sites both at baseline and end line. This should be expected as women tend to have better health seeking practices than men (KDHS, 2014). The highest proportion of respondents had a household size of four to five members. This is often common for families to have a household size equal or greater than four members especially in African settings (Mahmud and Johnston, 1994). From the qualitative data, it emerged that most participants preferred having more than five children. They lamented that their husbands often married a second wife especially, if the woman restrained from giving birth to many children. The consequence to such marriages increases the number of children in households and over burdens many grandmothers with the care for children orphaned by HIV/AIDS. Some participants with higher status in education preferred a small number of less than three children.

Most (84.5%) of the respondents had attained at least primary level education as compared to 81% recorded from the Busia County Government (2013) document. These results presented appeared higher than the National figure (77%) as indicated in the Kenya Demographic Health Survey (2014) data.

The study illustrated that enrollment in secondary schools was as equal to or lower than 20%. Most of the individuals enrolled in schools were aged between 14 to 17 years old, a figure comparable to (20%) the Busia County Government (2013) data. Putney's (2001) report was contrary to the findings from this study regarding improved school enrollment. Generally, the education levels are quite low in Busia, yet it is one of the factors that determine socio-economic status of any given society. The relatively low education level recorded especially, in secondary schools, tertiary and university has adversely affected employment opportunities. To some extent, recruiting agency interested in hiring employees have lacked personnel to employ when opportunities arise. Affordability for education that would place the community in better employment status remains a major constraint. Increased illiteracy level certainly, has driven most communities to small scale businesses, which hardly and insufficiently sustains entire family needs. It is also driving most individuals to self employment options which do not secure better livelihoods.

A relatively minimal proportion of the respondents were in formal employment with a significant difference recorded in the intervention and non-intervention sites. Poor quality of education has notably threatened formal employment sector in Busia County. Hersi, (2013) reported that acquiring technical or professional skills increased chances of obtaining decent and better paying jobs. This is in contrast of the respondents in intervention and nonintervention sites of who, majority had not acquired any technical or professional skills. Similar observations were also made by Benotsch *et al.*, (2004), who reported that most communities served by CSOs have limited employment skills resulted from low recorded education level.

From the qualitative data, poverty was distinguished as an impediment to achieving formal education alongside acquiring formal employment. These observations are linked with those from the County Government.

In which poverty and inadequate physical infrastructure were identified as factors that contribute to low transition from primary to secondary levels of education (Busia

County Government, 2013). Similarly, key informant data along with that from FGDs also exposed poverty as retarding progress in the society. In most cases CSOs target to work in the extreme rural and poverty-stricken areas of any given country (Vivian, 1994; Brodhead and O'Malley, 1989; Mercer, 1991; UNAIDS, 2002). Hence, CSOs in Busia County also deal with people mainly from poor backgrounds that mostly have low education level. Their activities are more concentrated in rural parts of Busia County. Similarly, Green and Mathias, (1997) have described how CSOs are quite effective in reaching the poorest communities and in most cases support populations with low education levels.

The government usually addresses issues regarding health in a multi Sectoral manner, thus engages other implementing partners such as civil society organizations and faith based organizations (FBO) to support the services in every segment of rural populations. A joint effort has successfully enabled CSOs/NGOs to use several strategies simultaneously. These included different types of HIV/AIDS programs that appropriately respond to challenges affecting various individuals and especially, PLWHA (Stephen, 2008; Ebrahim, 2003). Bill a& Melinda Gates, (1997) report confirms developing Countries address issues of social inequity and poverty through income generation activity (IGA) and economic support. The Low level of education in Busia County has led to most implementing partners interested in hiring professionals to barely find suitable persons for employment.

As a result, it would be necessary to engage several stakeholders including the political will to spread the significance for education in Busia County. The writer mentioned improvements had been noted in school attendance levels, literacy, immunization, reduced child malnutrition rates, and improved HIV/AIDS interventions, health services access and environmental health.

The results of this study only conform to a fragment of Putney's writeup in which he reported that there was improved HIV/AIDS interventions and health care services access. But on the contrary, results from this study do not entirely agree with Putney that

there is improved school attendance levels and reduction in malnutrition. Putney (2001) stated that there have been instances in which the impact of CSOs has at least been tentatively documented. Overall the writers article had no scientific data to support the evidence on documented CSO positive impact as alleged by Putney.

5.1.2 Effect of CSO Intervention on Health Care Service among PLWHA

5.1.2.1 Access to HIV and AIDS Information

Access to HIV/AIDS information was higher than 85% in intervention and non-intervention sites both at baseline and end line. However, results showed no significant difference between the two comparative sites. Qualitative data revealed participants appreciated the kind of information disseminated to them by CSOs and the local leaders. It was notable that, a variety of health data relating to HIV/AIDS was being disseminated by various implementing partners. These included; MoH, line-Ministries, the private sector, CSOs and key opinion leaders. Some of the information disseminated included; care for opportunistic infections, counselling and testing, prevention and spread of HIV and AIDs, mode and uptake of ARV drugs, food uptake and nutritious diet as well as psychological support.

Stephen (2008) and Hashemi (1992) report was in line with the study findings, they affirmed CSOs play a major role in disseminating diverse health related information particularly to PLWHA.

Though their roles in promoting health related information has been valued by most of the respondents, some proclaim gaps still existed especially in maintaining and utilizing given information. Use of English and Kiswahili languages to disseminate the information was criticised and mentioned as one of the major reasons for low uptake of health information. Key informants both from MoH and CSO wing related poor uptake of HIV/AIDS information to low education levels both in intervention and non-intervention study sites. Participants from both the adult and youth groups claimed; the

information should at least be disseminated using local languages. In addition, they suggested that use of pictures to disseminate the information may be more effective especially for easier understanding and interpretation. Some participants from the two FGDs (adult and youth) also recommended use of role plays, designed concerts and songs related to the theme as other best measures to broadcast HIV/AIDS related information. The MoH staff correspondingly respected CSO in the contribution towards disseminating information not only on health affairs but also about HIV and AIDS. The study further demonstrated that CSOs concentrate more on raising awareness.

Additionally, the article by Stephen (2008) and Hashemi (1992) cited that whatever means applied, CSO have indeed achieved in relaying necessary health information to PLWHA. The contribution of CSOs in access to HIV/AIDS information is in line with their significant advocacy role observed in this study. To some extent FGDs suggested that the use of local leaders and village elders to disseminate health related information may be received more positively by most of them. Overall, the CSO intervention did not result in a significant difference in the rate of awareness of risk factors for HIV and AIDS in intervention and non-intervention sites. Awareness was noted as high among both the intervention and non-intervention groups at baseline and end line. This is in line with the observation (KDHS, 2014; KAIS, 2014) that the public health facilities under MoH, were the main sources of information about HIV and AIDS.

The rate of awareness on the use of ARV in AIDs management was also high. Participants from adult FGD expressed their happiness that they have been diversely educated by MoH hospital staff on when to start and discontinue ARV drugs. Writers like Andersen *et al.* (2003) and Moatti *et al.* (2000) had findings which were in line with those from this report regarding promotion of health services by CSO. They reported a high rate of utilization of HIV management services linked with massive advocacy as well as the involvement of PLWHA in advocating for adherence. The high rate of awareness of HIV and AIDS risk factors may also have been contributed to by the advocacy work of the CSO that had worked in Busia County earlier (MMIS, 2009).

However, despite the relatively high awareness of HIV and AIDS risk factors, there were still practices associated with increased risks. Of concern was the consumption of alcohol and smoking reported among respondents despite vast knowledge acquired about risk factors associated with HIV transmission. Other studies, including that of Wandera and Tumwesigye (2015) reported a worrying trend of alcohol consumption among PLWHA. The alcohol use among PLWHA was associated with self reported medication, non-adherence, non-disclosure of HIV positive status to sexual partner (s), and risky sexual behaviors among male subjects. A few study participants qualitatively admitted indulging in smoking and drinking. The entertainment was out of frustration despite knowing risks associated with the act. Study sites without CSO intervention reported comparatively high access to HIV/AIDS information, indicating that CSOs were not the main source of the information. This was indeed confirmed by the results of this study, which showed main source of most information was from MoH.

5.1.2.2 Effect of CSO Intervention on Access to Health Care Services

The respondents in the intervention group had a significant improvement in sourcing ARVs from private facilities in comparison to those in non-intervention facilities. This may reflect the fact that other facilities not run by the MoH also offered care and support to people living with HIV/AIDS. Faith based organizations plays an important part in offering treatment, care and support services. A report by a Paris Based Treatment Rights Group (2004) indicates CSO/ NGOs were still main providers of health care in many African countries where the burden of HIV is heaviest.

Busia County has several registered CSOs providing HIV/AIDS related health care services (Registration & NGOs coordination Board Rev., 2014). Results from the study illustrated that the respondents within CSO intervention arms had better access to HIV/AIDS information. Although the results displayed were not statistically significant.

The CSOs also play an important advocacy role in promoting health care services in Busia County. This has been proved by other writers (Halfan, 2008; Kristina & Anders, 2003; UNAIDS, 1998) who acknowledge CSO effort in promoting health care services in African Countries.

Similarly, Loewenson (2003) also confirmed that CSOs were major players in providing health care in developing and transitional countries with much concentration in rural communities. It has been reported they also target hard to reach rural communities. The same writer identified that, CSOs have other diverse roles relevant to health, ranging from providing basic health care services, to nutrition services and economic growth.

Other studies have also recommended that there is no strong evidence to determine the impact of CSO intervention on health services (Johnson, 2009; Edwards & Hulme, 1996). Same writer's report points out, CSOs had failed to monitor and evaluate most projects, however, making it hard to assess the successes of their interventions. On the contrary, Putney's report said, CSO impact on health and education sectors, had been supported through documentation.

Busia based CSOs (AMPATH, APHIA Plus and MSF) constantly supply ARV drugs to public health facilities. The move has attributed to significant improvement in accessing ARV drugs for PLWHA. A report by a University College in London, Department of Epidemiology and Public Health, shows 60% of NGOs certainly have the capacity to deliver ARV in rural settings. The report demonstrated high adherence is achievable only if ARV drugs are provided by community based programmes. This is in contrary to the findings from the study that revealed HIV treatment, care and support was mostly offered in public health facilities. But implementing partners provided ARV supplies and services from public health facilities.

Qualitatively, there were also negative misconceptions on ARV; participants said drugs taken on an empty stomach would lead to diarrhoea that may end up fatal. Based on some of the above assumptions, most clients opted to skip taking the drugs rather than

endup with more serious outcomes. However, there were other participants with more positive standpoint who believed that all drugs taken as prescribed would cure and improve one's health.

Participants in FGDs expressed their satisfaction regarding the consistency in ARV drugs supply. They further said the availability of ARV drugs aided maintainance in adherence. A report by the European AIDS Treatment Group (2003) shared Medicine Sans Frontiers (MSF), Medicus Mundi with Red Crossare CSO agencies, said they deliver ARVs using a successful model that has been able to reach vulnerable populations beyond urban rural settings. The Paris survey showed ARV therapy was being managed by 182 CSOs, of who 141 provided direct treatment for opportunistic infections, while 156 of them provide psychco-social follow-up for people on therapy (MSF, 2010). In contrast, very few CSO mostly those of international level (AMPATH, MSF and APHIA Plus) alongside some FBOs were mandated to support the County of Busia in managing HIV and AIDS. The CSOs could work with, and in MoH facility units (CCC, PMTCT, DTC and VCT). Their focus was to provide services related especially to service provision in HIV/AIDS field. Some of the CSOs were permitted to procure, supply and distribute ARV drugs alongside simple medicines especially to rural health facilities. The report equally affirms AIDS funding had risen by 11%, and the number of people receiving antiretroviral therapy also increased by 60% (Kenya National AIDS Control Council, 2009). Previously most Countries were dependent on external AID to support especially the procurement of ARV as well as OI drugs (MSF, 2010). The government of Swaziland leads its national AIDS response and assumes responsibility for procuring antiretroviral medicines. While well funded CSOs such as AMPATH, MSF have taken the lead in procuring and distribution of ARV drugs including simple medicines especially to rural health facilities of Busia County. According to one of their staff, they are not allowed to provide the services independently, but work under the umbrella of MoH in comprehensive care centers (CCC).

A report by UNAIDS/PCB (2015) specify universal access for ARV drugs alongside HIV care and treatment had greatly improved the consistency in the uptake. This report agrees with the study which confirmed the availability of ARV drugs in Busia that has widely improved the uptake. This declaration has been proven in such a way that most of the respondents in both intervention and non-intervention arms reported they accessed ARV drugs timely and from the nearest public health facility. The study affirmed there was change, though no significant effect observed on the access to ARV drugs. Key organizations such as AMPATH, APHIA Plus, and MSF, functioned within government facilities. The paragraph above did mention that the CSO do not operate independly, but provide support at public facilities on the areas of ARV service provision (KDHS, 2014; Wim, 2002).

The CSOs not only procured and distributed ARV and other medicines to the facilities, but also acted as service providers within MoH facility environment they supported (KDHS, 2014; Wim, 2002).

Key informants from the Ministry of Health confirmed that CSOs have put a lot of effort in ensuring ARV drugs were available in most public health facilities. The MoH staff further acknowledged they regularly receive various forms of supplies (non-pharmaceutical and medicines) from CSO to support care and treatment for PLWHA. Many documents (Busia District Development Plan, 2009; Medicines Sans Frontieres, 2010) reported that 40 per cent of PLWHA in Kenya were still unable to access ARV therapy. On the contrary writers (Benotsch *et al.*, 2004; Edwards & Hulme, 1996) related improved health status for PLWHA resulted from universal access to ARV. Most respondents appreciated the effort made by CSOs in ensuring ARV drugs were easily accessible and in closer health facilities. Civil society organizations have been recognized to play an important part in scaling up Anti retro viral therapy (ART), although they have not been able to reach each segment of Busia County. Some CSOs have gone beyond supporting the health sector to environment, water, education and settlement sectors. Similar observations were also made by some scholars (Jareg, Kaseje, & Dan, 1998; Godenker & Weiss, 1995). They reported CSO introduced

projects aimed to empower vulnerable populations. Most of the projects target rural settings and are economic development driven. Other studies equally supported the contribution of civil societies in making significant roles towards the development and implementation of primary health care (People's Health Movement, 2000; Cueto, 2004; Litsios, 2004). At the Alma Ata Declaration meeting of 1978, an agreement was reached to tackle health inequalities worldwide through the political, social, and economic approach. The outcome of this meeting as reported by WHO (2002) recognized the need of engaging health services to support marginalized groups, strengthen primary health care (PHC) and introduce home-based care (HBC) for PLWHA in respective Countries.

Respondents say the dissemination of HIV and AIDS information attempt made by CSOs, has led to minimal stigma reduction and resulted to those individuals living with the disease be realized in the society. Mainly, CSO are exceptionally involved in supporting health care and in addressing some of the concerns for PLWHA, mostly through mentorship and dialogue. From Asia, a study (Kao & Kim, 1999) in Cambodia documented that 70% of CSOs engage in health and support for PLWHA. This study did not determine the proportion of CSO engaged in providing health care services, but used existing data owned by NGO board to distinguish those engaged in related activities. Similarly, in Haiti and Ethiopia, CSOs were reported to offer ARV therapy and promote coordinated action to scale up treatment (Mebrahtu, 2002). The CSOs also play an advocacy role for greater access to HIV and AIDS management in other countries (Kristina & Anders, 2003; Myo, 1999). Such CSOs also help to monitor the role of governments and other CSOs in making sure PLWHA access proper health care. Countries such as Mexico and Guatemala have CSOs that promote quality of life, networks, empowers and provides health care together with managing concerns for PLWHA (UNAIDS, 1998).

5.1.2.3 Effect of CSO Intervention on Morbidity Patterns

Clinically there was no significant difference in the intervention and non-intervention sites at baseline and end line. However, a reduction in periodontal diseases was noted as significant. There was a positive effect of CSO interventions on some opportunistic infections, whose prevalence reduced. These included herpes zoster and candidiasis. Further, morbidity patterns also showed a reduction on infections such as skin rash, hair loss, fungal infection and tuberculosis. Food and Nutrition Technical Assistant (FANTA), (2001) cites opportunistic infections were common among PLWHA, the report further said this could be due to reduced immunity system resulting from improper food intake.

Reduced prevalence of some opportunistic infections may be associated with high access to proper OI care. In addition, closer health facilities and excellent functional advocacy measures by various CSOs also contributed greatly to reduced clinical symptoms. The reduction may also have been because of a few additional services such as; counseling and testing, promoting nutritious status, home based care services, provision for prophylaxis drugs among other simple medicines, all brought closer to the people. Some participants from the adult FGD stated they were rarely confronted by clinical symptoms regularly as used to happen previously. This was also associated with improved health care services observed in many public health facilities. Negative misconceptions on HIV/AIDS transmission were rampant, although there were also some participants who gave positive information on the same.

5.1.3 Effect of CSO Intervention on Food intake and Nutrition Status

There was no significant difference in the food intake patterns among the intervention vs. the non-intervention respondents. This could likely be because very few CSOs assist in these areas (nutrition status), most of them concentrate on health care. The few who played part, preferred to mentor PLWHA on nutritional counselling, in most cases incorporated this service during health education session. Realistically, this may be quite

inadequate information offered to the needy groups. There was also a possibility that many players had ignored this crucial area of nutrition. And that the MoH has assumed it's role of engaging respective partners. Many studies, have observed that good nutrition practices may contribute to slowing the progression of HIV/AIDS (Castleman, *et. al.*, 2004; Corder, 2009; Dejong, 2001; Halfan, 2008). Overall all the respondents consumed diets high in carbohydrate but lacking in fruits, and low in animal protein sources. Such a diet is likely to be deficient in some micronutrients such as iron, as the iron from plant sources has poor absorption and bioavailability. And therefore, unlikely to assist the PLWHA in fighting HIV/AIDS and opportunistic infections.

Dejong (2001) and Halfan (2008) stated a balanced supply of nutrients is necessary to maintain the immune system, manage opportunistic infections, optimize response to medical treatment, sustain healthy levels of physical activity, and support optimal quality of life for PLWHA. In intervention and non-intervention sites, a high proportion of respondents did not take breakfast in the morning at baseline. Most respondents reported to consume only one meal per day, likely providing inadequate energy and nutrients. In most cases this feeding pattern would weaken and lower immunity system besides, increase the viral load. Later, increase re-occurrence of OI among other emerging diseases. The trend of poor feeding by most respondents was observed across intervention and non-intervention study sites. The focused group discussions confirmed that poor feeding habits were applied because of the inability to afford nutritious foods. In addition, widespread poverty has distinctly affected PLWHA in many community.

Improving HIV and AIDS outcomes through nutrition has been supported by various articles (Piwoz, 2004a; Uganda, 2003; WFP, 2004). It binds the conclusion by Castleman *et al.* (2004) on the necessity for adequate food and micronutrient intake as contributing to improved nutritional status, care and treatment. Other studies have similarly reported that many PLWHA in developing countries do not have sufficient food intake due to poor food insecurity. And therefore, should be provided with food supplements to help cover the deficit in the diet consumed (Piwoz, 2004; WFP, 2004; FANTA, 2001). All the statements ties with the findings in which respondents reported

to consume only one meal per day. Most meals taken per day, still did not comply with the required balanced diet. Inadequate dietary intake in most sites resulted in relatively high prevalence of malnutrition among PLWHA in intervention and non-intervention sites. The study also observed that limited balanced diet diversity among the respondents resulted from poverty. The staple food consumed by most Busia residents for lunch and dinner was Ugali, accompanied with traditional green vegetables.

Due to the poor dietary patterns and the widespread poverty, the stunting rates among adults in Busia was reported to be higher than the national average (Busia County Government 2013; UNICEF, 2013). Similarly this report found out that malnutrition among most respondents was also outrageous. This could clearly be associated with poor balanced diet uptake by PLWHA. More respondents were below measurable normal nutritious status, with a body mass index (BMI) below 18.4. And therefore, categorized as malnourished. This informs studies by Dejong (2001); Halfan (2008) and Castleman *et al.* (2004).

The results agree with a study that reported very low dietary diversity was being practiced in Busia County (Alessandra, 2015). The writer explained foods rich in protein, vitamins and minerals were often underutilized as illustrated. Further Alessandra (2015) described how Busia residents prefer to sell milk and 'kunde' (cowpea leaves) [or other African leafy vegetables] at the market to buy mandazi (fried dough).

Studies by Woods (1999); James and Shofield (1990); and WHO, (1985) points out an active non-HIV infected adult requires energy needs of approximately 2070 kcal/day. An adult infected with HIV and AIDS requires approximately 10 to 15 percent more energy per day than a normal person (or approximately 400 additional kcal for men and 300 kcal for women). Participants disclosed they often roast maize, roast cassava and or sweat potatoes, chew sugar cane, and take wild fruits, ripe banana, a mixture of beans and maize and roasted ground nuts for snacks in the morning hours as breakfast or lunch. This could be the possible cause why respondents skip taking drugs. Taking

medications without having a proper meal would be harmful. This study has uncovered some of the dangers PLWHA go through. Certainly, it could be practically why some take drugs irregularly. Hamelin *et al.* (2004) established that there was need to combine medical treatment with good nutrition to improve the immune system to pro-long lives for PLWHA. From qualitative data, most respondents remain convinced that medicines are taken for cure, but food is typically eaten to gain energy. Food and Nutrition Technical Assistance (FANTA) project document provides details about proper uptake of the right foods. Further, the report narrates that proper foods usually play a very big role in reducing infections, especially opportunistic infections for PLWHA. participants Hamelin's statement can be applied in various forums for PLWHA and havethose affected understand main purposes for good nutritious diets.

Alessandra's document clearly points out how Busia residents were unaware of the right and healthy foods required for the body. The report expressed that participants cannot afford educating their children let alone acquire right nutritious foods. The report is in line with the findings from the study in which respondents indeed sell most protein products such as milk, beans and green vegetables for carbohydrates. From the statement, we can perceive some high level of ignorance among PLWHA on balanced diets. Kendall *et al.* (1996) and Hamelin *et al.* (1999) describe food security as "lack of physical and economic access to food of sufficient quality or quantity". The document further explains food insecurity as a risk factor for both HIV transmission and worse HIV clinical outcomes especially for PLWHA. The statement bonds with qualitative findings, participants quoted to experience severe symptoms of diarrhea and vomiting when they take medicines without consuming proper food.

Qualitative data of adult and youth focus group discussion showed some level of unawareness on correct nutritious diet taken among most respondents. Their health status was deprived by odd feeding habits endured, and that this had affected ARV adherence. Participants also accepted having knowledge of proper nutrition uptake but maintained they were limited financially to maintain the right and nutritious diet. In their

discussions, they acknowledged the fact that foods consumed lacked sufficient energy to support ARV drugs uptake and in most cases interfered with ARV adherence.

CSO staff used to distribute food supplements to PLWHA ten years ago, but suddenly halted the project. Key informants from MOH admitted having distributed food nutrients in form of flour to HIV/AIDS patients ten years back but the project also relapsed. The lesson learned however was; the community abandoned their responsibilities and instead started being reliant on food supplements which should not have been the case. However, it seemed respondents forgot about the project and have adapted to their own means of managing diet. Instead, they benefit from nutrition counseling and education basing on the types of foods required and available within the locality. Apparently, nutrition counseling and education has enhanced knowledge currently practiced. Engaging PLWHA in explaining how the food should be cooked to maintain its nutrients has contributed to minimal change. The practice is being applied by some members of PLWHA.

CSO confirmed they would continue providing food supplements when funds will be available, since many patients with HIV/AIDS are currently deprived of food quality and quantity. It would a good idea which should not be applied as they are likely to be dependant and perhaps shift from their major roles. Participants further disclosed the disease has made them weak and insufficient to work, therefore they have become dependent and a burden to their own people. Weakness should be expected in such cases where proper nutrition diet is never taken seriously. And maybe link the weakness of the body to improper feeding pattern. The incapacitation was largely attributed to poor and irregular feeding habits by some PLWHA. Poverty and inadequate education could be connected to poor feeding habits endured by the members.

Alessandra (2015); Botchway (2001); and Gilson *et al.* (1994) revealed in their report that poverty, over dependence on rain fed agriculture, and erratic food prices contribute to such erratic feeding behaviors. The statement binds with the report in which chiefs and village elders revealed poverty as a factor to poor feeding habits. Similar concerns

were discussed during the focus group discussion sessions for both adult and youth groups. To get food on the table appeared a struggle for all groups. This has led to poor feeding habits with individuals considering the quantity of food rather than the quality. Participants in discussion session appealed for nutritional support from both the government and development partners to enable proper ARV uptake, and to improve on the general health conditions. It would be quite important to request for assistance from development partners to support those individuals who are at weak state. Since the weak individuals are not productive and in most cases, dependent on relatives, there should be need for them to be assisted. The case of Busia seemed different in the sense that most of the respondents did not value foods containing proper nutritious diet. Many of them consumed food just for filling the stomach.

5.1.4 Effect of CSO Intervention on Economic and Income Generation Activities

The section discusses interventions that have improved on the economic status of PLWHA, one site supported by CSOs interventions and another not introduced by CSOs. Subsequent gatherings organized by CSOs enabled PLWHA form financial schemes that thrived their livelihood. These includes the people initiated projects through Merry go round scheme and Chama support. Through the initiatives, most of the respondents were engaged in self employment activities such as small-scale farming and small-scale businesses such as mainly; 'boda boda' (bicycle or motorbike taxi services) for the youths. Those that have progressed, have successfully managed individually to set up small but portable shops called "Kiosk", and start up car wash sites. While the women including young girls on the other hand, got involved in trading food commodities like; Sweet Potatoes, Cassava, Fish, Groundnuts, Sugar cane, and Bananas including green vegetables.

Low levels of education and lack of academic as well as professional qualifications shifted most respondents for self employment. The involvement of these women and young girls in small scale business could be because of low levels of education that could not permit them to obtain formal employment. And probably some of them

avoided engaging in sexual acts as an income earning entity. In addition, getting involved in business perhaps prohibited most of them from acquiring finances through dubious ways. From the quantitative data, there was no significant difference in the economic activities between the intervention and non-intervention groups of respondents. This could be because of the low levels of education and lack of professionalism. Hence, CSO may not actually support them with such a background. However, the appreciation towards economic support offered by CSOs was indeed acknowledged by respondents. Although from my view seemed inadequate and short termed and would also not better the lives for PLWHA. Considering that most PLWHA stayed weak, on the other hand are fully dependent, making it difficult to coup with the offers provided to them. The best way would be to engage them in such kind of small scale income generation activities.

Busia County is trying to strengthen economic systems by involving CSOs in improving the economic status especially for PLWHA through poverty reduction strategy (Busia District Development Plan, 2009). Poverty reduction indeed needs to be addressed basing on priority areas. From the findings, most respondents attained primary level. With this kind of education levels, getting formal and well-paying jobs is not easy. Therefore, to address poverty, the County should also focus on promoting education for all age groups.

The self-employment is not sustaining as most respondents reported to earn from their business at most less than 200 KES per day. The (KDHS, (2014); Ali (2013); and the Busia District Development Plan (2009) also affirmed most residents of Busia were self-employed because of low level of education. The issue of education has affected employment status for Busia inhabitants, to the extent one can hardly get a suitable candidate for specific jobs. Writers (Jareg, Kaseje and Dan, 1998) report states that organizations in third world mainly work towards empowering vulnerable populations in rural settings through various economic driven initiatives. From the perspective of this study, CSOs have not directly involved PLWHA in IGA initiatives. Instead engage them in discussions and trainings on how to start and benefit from their own initiated small-

scale business. This is in line with the study findings from FGD whereby PLWHA have been engaged in income generation projects that are self driven by PLWHA.

Members confirmed they had benefited from CSO intervention economically through dialogue and training, but not through direct cash. In Rwanda, PLWHA alongside the vulnerable persons have equally benefited economically from similar CSOs initiatives. In contrast some studies (Holmen & Jirstrim, 1996; Michener, 1998; Botchway, 2001) challenged the findings and instead provided evidence that CSOs are a weak entity especially in empowering vulnerable groups. The findings from this study revealed CSO empowered PLWHA but not to a level they could entirely be independent.

The article by Holmen and Jirstrim (1996) further reports the 300USD given to groups or an association to start income generation activity (IGA) projects was not logical. Further, same scholars established the required skills in business and or financial management for management of projects are often not offered by most implementing organizations. Contrary to their reporting, Godenker and Weiss (1995) gave a positive view that international organizations provided the technical and financial assistance to organizations who implement initiated projects on ground. When participants during the FGD were asked if they ever received technical and financial skills from CSOs or MoH staff, they all denied. Instead participants commended that they were happy with the poultry farming, tree planting projects and motorbikes supplied to their young boys. The problem as they pointed out during FGD was, they lacked necessary skills and guidance to manage and sustain instigated projects. With the existing gaps, there is a likelihood for the projects to flop because of limited skills in planning, management and financial. However, if implementing CSO must support PLWHA, then they should address the necessary issues comprehensively.

The members emphasized on financial management as priority skills they require for the management of said IGA projects. Most participants said they have never handled much money and therefore managing more than 10,000 KES was certainly a big challenge. Through civil society organization guidance, PLWHA confirmed they have established

income generation initiative called “Chama”. The initiative has certainly benefited most of the PLWHA. They can voice and join different community supportive forums unlike before when they had neither say nor participation in any gathering. Cash contributions they make have partially improved on their status to the extent they can afford a meal and cater for other necessities. From the contributions members make, youths have purchased bicycles or moto-bikes by paying the first installment and offset the loan gradually through *Chama*. Some members have put up houses, continued to pay school fees for their children successfully. One challenge was on how to raise the initial membership *chama* fee. Through discussion and knowing the benefits, many struggled to sell their chickens and raised the membership fee. Others were also assisted by their colleagues to the membership.

Another form of income generation initiative formed by PLWHA members but ideas assisted by CSOs was the ‘Merry go Round’ scheme. Those registered under this membership have been able to acquire essential household stuffs. Initially some had no credible items such as bedding, cartillery, and even clothing. Most of those who are in membership are now able to afford household items. Part of the savings usually helps to support other emergencies such as funeral arrangements, hospital bills and even weddings. Through the same membership, PLWHA can record benefits from poultry, dairy farming, knitting marts as well as making clay pots. If indeed supported on how to manage especially their finances, these groups of people can remain dependent. Nevertheless, the issue of culture may hinder empowerment especially for women if not properly addressed. It is well known in Busia that women do not own property and therefore what they acquire might be confiscated by family members. The proportion of PLWHA that had directly benefited financially from CSO interventions could not be determined because they supported groups and not individuals.

In addition, the subsidy offered was never substantial to enable direct payment to individual PLWHA. Therefore, the idea of supporting individuals through groups was far much better than making direct cash flow to individuals. From the guidance and educative information provided to groups, better management was applied for some

groups on how to use and share profits generated. While for others the initiative flopped immediately.

The liquid cash amounting to twenty thousand Kenya shillings (30,000KES) offered to a group by CSO, may not have been sufficient to address their needs. Indeed, they used the cash to purchase one cow. One can wonder how long it took for the group members to start earning from the one cow purchased. Groups that are well established are sustained through their monthly collection shares. What Godenker and Weiss (1995) presented tie with the findings from this study. Certainly, established and well funded CSOs are supposed to continue funding and supporting community groups of PLWHA. It is unlikely they fund these groups with substantial amount of cash. This is the reason why some PLWHA complained of CSO as not being genuine in providing IGA aimed to empower PLWHA. Mostly they come with considerate mind to assist vulnerable groups, but end up leaving without concrete aid provided to the community they came to serve.

While Holmen and Jirstrim (1996); Michener (1998); Botchway (2001) gave contrasting information to other writer above, they cited CSOs being a weak entity that is not able to empower vulnerable groups. While Godenker and Weiss (1995) claims well established CSO continue funding community groups. Both writer's presentation tie with the findings obtained from this study. If you can not sustain funding for the established groups of PLWHA, you do not then expect them to be empowered. Their report also specified CSO provide limited and unsustainable financial support to vulnerable groups.

Giving PLWHA twenty thousand shilling only (20,000 KES) to share amongst over fifty people may be an abuse to the group. But the move to invest the cash on a project and later share the profit was perfect idea. Aligned with the study, the global AIDS epidemic report on essential role of civil society organizations (2006) explained that CSOs empower individuals through dialogue but hardly gives out liquid cash. Just as mentioned earlier, dialogue has been applied to enlighten and enable sharing of ideas towards achievement. In addition, brought unity, and reduced stigma as well as discrimination among PLWHA. Authors (Hamelin *et al.*, 1999) expressed that social,

culture, and political status has significantly left vulnerable populations more at risk to HIV. The statement can be allied to the qualitative data. The FGDs of adult and youth participants expressed furiously how culture had destroyed their wellbeing and rendered them vulnerable. The cultural beliefs encountered by most PLWHA members gestured poverty in many homesteads. It is well known in the society that, women are not allowed by the society to control even their own resources after losing a spouse. With such patent culture imbedded among PLWHA, poverty tends to prevail and continue to constrain the affected individuals. Ideally, when you improve economically, there is a high likelihood of being respected by majority of people. Leadership was mentioned to affect economic empowerment in the community. This may only be possible if the community nurtures focused leaders (chief, sub chief and politicians) with integrity.

Generally, there was high likelihood for long-term unsustainable and financially unstable society in the County. This could be because leaders were not ready for change even in this 21st century. Fruttero and Gauri (2005) criticized CSO interventions by stating that activities provided were often not related to community needs. Indeed, this was in line with the study findings from this study. Most CSO concentrated more on health and HIV/AIDS information. Yet, nutrition, economic growth, cultural issues, among others, were overlooked. Usually, ARVs taken after the right quantity and quality of foods, works rather effectively.

Myo (1999) explains that for better health outcomes, economic and nutrition activities should be interlinked. This study has indeed investigated on the three areas mentioned by the writer Myo. Some respondents confirmed they earned less than 1,000 KES per month through small-scale businesses. Realistically, the earnings appeared inadequate to maintain more or equal to five household members. Women remain quite disadvantaged and less empowered economically and in decision-making, yet they carry the burden of care within the society. Women empowerment agenda should be considered by CSOs when drawing up their implementation plans. As cited earlier, the society does not recognize PLWHA especially women and children nor allow them to keep or manage any property. Because of such actions, most women are forced out of their marital

homes when spouses depart, placing them at more vulnerable situation. When they desert their marital homes, mostly end up practicing commercial sex to earn a living. Most of them engage in cross boarder commercial sex coupling with small scale businesses as income generation activities. Families that lived happily and stable, later end up losing their fame and rendered useless in the society. Key informants (CSO) participants confirmed they do not provide farm inputs and or provide direct substantial financial support to respondents. Key partners (Bill and Melinda Gates Foundation, 2015) offer cash contributions to CSOs for advocacy and fundraising efforts to support HIV/AIDS related activities but confirmed not supporting income generation activities (IGA). However, the statements allied with the study findings from this study.

CSOs dwell on health-related problems and hardly support IGA activities. On the other hand, barely was direct financial support provided to individual people, instead insufficient funding would be directed to groups for PLWHA. Some respondents reported to receive some form of economic support in the intervention and non-intervention sites at baseline. Holmen and Jirstrim (1996) also report CSO provide minimal cash to support the weak and poor patients. Qualitatively, participants cited the subsidy often provided by implementing partners as inadequate to sustain their livelihood. This is because the cash is placed into business for some time to generate profit before it is shared equally amongst PLWHA members. During discussions, members voiced CSOs that provide financial support for IGA, hardly made follow up visits to assess intervention outcome, a concern that was expressed by Holmen and Jirstrim (1996).

A minimal percent of respondents reported improvement in their living conditions, improved housing, and access to new motorbikes. Mostly, these were a few of those supported to start IGA through groups, but managed to make considerable profits. While some participants revealed there has been no significant change in the living conditions and particularly in widowed homesteads. These two statements reveal the improvement was because of CSO efforts. It seemed, respondents got accustomed to discussions by CSOs during the regular meetings. While some respondents assumed that improved

livelihood was as a result from CSO interventions. The findings from this study disregards the assumption. Participants livelihood was sustained by the monthly collection fee from their established groups and associations for PLWHA (*chama*). Most participants appeared to have benefited from the knowledge offered to them by CSO officials during mutual round table discussions on economic growth and development. Claiming they are now able to put up better plans and at least manage their finances fairly.

The round table discussions, seemed to have partly contributed to the establishment of IGA schemes as well as manage projects appropriately. The regular discussions and training conducted for PLWHA and facilitated by CSOs also pleased most respondents. It was like the discussions, empowered respondents in ideologies, knowledge and practices related to initiated projects.

Civil society organization staff during a key informant interview explained how they concentrate on dialogue much more than providing the related service. The statement relates to Anderson *et al.* (2003); Kristina and Anders (2003) and Moatti *et al.* (2000), who attested a high rate of utilization of HIV management services was linked with massive advocacy. Qualitatively, participants recognized the aid offered by government as having a significant sustainable effect.

Indeed, CSOs initiate projects just for a period based on the availability of funding received from their sponsors. In most cases, that is why initiated projects hardly last and sustainable. While government projects have no limited period after it has been initiated. CSOs have good history in supporting PLWHA though, not to the expectation of people being served. The CSO intervention had no significant change in economic status for PLWHA. Although, through regular discussions and encouragement, PLWHA managed to form groups and associations with schemes and SACCOs that have enhanced their economic status.

5.2 Conclusions

From the quantitative data, CSO intervention did not have a significant effect on access to HIV and AIDS information. This may be partly because most respondents in both intervention and non-intervention sites accessed information through the public health facilities. Key informant for in depth information (opinion leaders and PLWHA) reported that access to health care services has improved and has been noticeable over the years.

They recognize that health services were now closer to the people. And that they no longer walk long distance to access health care services or obtain antiretroviral (ARV) drugs. The attainment of ARV drugs has been reported to improve adherence and the wellbeing of PLWHA. Qualitatively it was observed that it is only government health facilities that offered health care services that addressed opportunistic infections with perhaps, CSOs noted to provide drugs to the health facilities.

There was no significant change in awareness of HIV risk factors after the intervention of CSOs. However, there were other participants with more positive perspectives that shared their experience candidly. Participants acknowledged the advocacy role provided by CSOs on HIV/AIDS information although, some claimed the language used at times was unclear. On the other hand, key informants from CSO reported that they offer health education of which to them, they believed it was a success. The respondents in the intervention group had a significant improvement in sourcing ARVs from private facilities in comparison to those in non-intervention facilities. Qualitatively, there was consensus that access to ARV medication is nearly universal, with government health facilities and CSOs as major players in the distribution. Both the intervention sites and non-intervention sites had attained ARV coverage, with majority of respondents in intervention and non-intervention sites having access to ARV drugs at baseline and end line.

Bringing health services closer to the people and especially enabling PLWHA access ARV among other simple medicines greatly improved the wellbeing of most PLWHA. Although a Net Effect of Intervention (NEI) increased in access to HIV testing services in the intervention sites compared to the non-intervention sites at endline, the 10% NEI reported was not statistically significant.

There was no significant difference in access to health care services between the respondents in the intervention and non-intervention sites at baseline and end line. Government facilities were the main providers of voluntary counseling and testing services both in intervention and non-intervention sites at baseline and end line. Overall, the differences in change on prevalence of clinical signs and symptoms on morbidity patterns were not statistically significant. The prevalence of opportunistic infections such as candidiasis, skin rash and periodontal diseases dropped marginally at end line in intervention sites. There was a higher overall decrease in TB prevalence among the respondents in the non-intervention site, in comparison to those in the intervention site from baseline to end line. However, the NEI (12.4%) was not significant.

There was no significant difference in food intake in intervention sites in comparison to non-intervention sites at end-line. Respondents did not take breakfast in the morning at baseline and at end line in intervention and non-intervention sites. Ugali/rice and vegetables were the most common foods consumed at lunch with the same trend applied for supper in intervention sites and in non-intervention sites. Overall diet high in carbohydrate (CHOs) but lacking in fruits, and low in animal protein sources was mostly consumed. Civil society organization (CSO) interventions did not influence meal frequency per day in all study sites. Most of the respondents, who consumed three meals per day, ate diet with inadequate energy and nutrients. Qualitatively, nutritional support was virtually non-existent and respondents ate whatever they came across without bearing in mind the nutritional value. Inconsistent feeding among respondents lead to skipping ARV drugs uptake and therefore, affecting ARV management.

Participants from the adult FGD group revealed they do not receive nutritional support from any of the implementing partners. Poverty has led to low level of education and ignorance in terms of proper feeding habits.

A staple food as preferred by most participants was porridge for breakfast, and Ugali accompanied with green traditional vegetables for lunch as well as at supper. All foods consumed as stated above by respondents had little nutritional value especially for persons living with HIV and AIDS. The Ministry for Agriculture and CSOs, did enhance food security but the support has not been sustainable. At every clinic visits, PLWHA regularly received food supplements supplied by the government to assist in boosting immunity, unfortunately, the project replaced over ten years ago. The CSOs that provide support hardly make followup visits to the progress of the intervention. In addition, not even the GOK nor donor agencies participated in monitoring initiated projects.

Overall, the impact of CSOs on economic and income generation activities in the study areas was not statistically significant in any aspect. The number of respondents receiving support for IGAs was less than 30% in the intervention and non-intervention sites at end line. '*Chama*' (formal registered group/associations) support was the most common type of economic initiative applied in both intervention and non-intervention sites. '*Chama*' includes each member's monthly collection fee, set to support the day-to-day running of the association/Group. Part of the collection fee, as chama regulation abides was used to start IGA projects; the profits eventually shared every month amongst members. Access to motorbikes including poultry farming, were some of the IGA initiated projects reported in intervention sites at end line.

Respondents also benefited from merry go round schemes, an informal gathering initiated by PLWHA to support their members acquire household items. Qualitatively, although the impact of CSO on economic and income generation activities was not significant, the respondents still acknowledged CSO efforts. Status of most PLWHA had improved through small scale income generation projects, such as poultry, different types of established SACCO, zero-grazing of cows, and knitting marts as well as making

clay pots. Profits were shared every six months amongst active participating members. In general, the proportion of PLWHA that had directly benefited financially from CSO interventions could not be determined because of instability in memberships.

It was difficult to establish number of existing and sustainable projects offering health, nutrition and economic support because most of the activities offered were overlapping. Some partners changed their priority activities basing on their financial stability. Civil society organizations (CSOs) in Busia County continue to develop interventions aimed at improving the overall livelihood of PLWHA, although the impact has not been determined. However, because of the instability of donor support, most CSOs/NGOs tend to implement projects tilted towards donor interest leaving out community needs fully unattended. Civil society organizations hardly monitor and evaluate or even followup initiated project activities. This has led to unsustainability of most implement projects.

5.3 Recommendations

From the findings of the baseline survey and end line results, a few recommendations in relation to the set objectives were made. Based on the results of this study, the following recommendations may be supportive for consideration.

- It would be essential to engage development partners as well as the political will to spread the significance for education, as this would enhance poverty levels through acquisition of formal employment geared towards empowerment
- Civil society organizations should be encouraged to continue supporting people living with HIV and AIDS to access antiretroviral drugs from the nearest health facility and impact on income generating activities to reduce suffering especially from opportunistic infections
- It would be imperative to engage various partners to have implemented programs in place that will enhance the nutritional status of people living with HIV and AIDS, integrate programs involving local leaders and existing communities to

support agricultural interventions, as well as food distributions, as a safety net to vulnerable households and provide training to improve skills on agricultural production

- Civil society organizations should work collaboratively with the government to develop sustainable interventions aimed at empowering PLWHA in improving their livelihood not only in Busia County but also across the Country.
- Regular assessment and proper reporting and dissemination of the outputs should be encouraged to enhance continuity of implemented projects by all implementing players.
- More studies of this nature ought to be encouraged that will determine impact of civil society organizations intervention, not only on PLWHA but also on the entire community to benefit.
- The government should put proper measures to improve equity in gender to reduce existing disparities among PLWHA for the benefit, especially towards poverty reduction since the success for HIV/AIDS prevention lies upon multi sectorial approach.

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APPENDICES

Appendix 1: Role of Principal Investigator

Principal Investigator (PI) did oversee the entire process of this study by coordinating research activities, ensured all instruments were under proper custody, supervised and provided guidance to research assistants. She also watched over data collection exercise and managed the analysis of data including preparing the report. The Principal Investigator (PI) further planned for and organized logistics required for study. In addition, provided guidance to research assistants and made sure data was properly managed in a confidential manner. The PI ensured all respondents understood the purpose of this study subsequent to signing informed consent form. Two research assistants with medical background, one per study site were assigned to assist the PI in supervising data collection. Their major role included cross-checking data collection instruments to ensure they were properly filled. In addition, the team counted all used instruments after data collection to confirm a complete set. The instruments were sorted out and cross-checked for minor errors before concluding field work. The research team also spotted areas that required attention and promptly notified the PI for her intervention.

Appendix 2: Informed Consent Form

My names are Mary Ishepe Nandili, a student from JKUAT. I am working on this study project that is considering HIV and AIDS issues.

I kindly request you to consent on this form to enable you to participate in the study only if you are above 18 years.

Title of the Research Study: Effect of Civil Society Organizations on Health, Nutrition, and Economic status of People Living with HIV and AIDS in Busia County, Kenya

Principal Investigator: Mary Ishepe Nandili, MOH/JKUAT

Co-Investigator: Dr. P. Wanzala, KEMRI

Co-Investigator: Prof. A. Makokha, JKUAT

Study Location: Busia County

Purpose of the Research Study:

This study will help to detect the challenges resulting from the disease you are suffering from. In addition, it will enable investigators determine gaps regarding the care offered to you by registered groups/associations that provide services at community setting (civil society organizations) other-than the government. The gaps will be assessed on health status, food uptake and income generation. The findings will guide policy makers amend government policies; help to strengthen the approach to ease community involvement into projects to be and or initiated by CSOs. Individuals as well as the community will gain knowledge on how to manage HIV/AIDS infection and deal with stigma and discrimination especially in community setting. In the long run after CSO term expires, the community will remain in control and ensure that projects are sustainable. The study

will help build up collaboration between government, the community and implementing community groups (CSOs).

Introduction:

I am sure that you have heard about HIV/AIDS and the disaster it has caused to many residents of Busia County. You can guess the number of people that have died from this disease. You can live a normal life if you happen to get good care.

The government together with other registered groups providing services to the community (CSOs) are supposed to provide assistance to those individuals infected with HIV. I am here to assess the change resulting from government as well as CSO support aimed at improving your wellbeing.

I am working with a team and wish to conduct a few procedures on you. You will answer questions asked about your health, type of foods you eat and your livelihood. A clinical examination will be performed on you to assess any abnormalities resulting from HIV infection. Blood pressure, temperature and pulse will be checked including measures of taking weight and height. We will interview you at public health facility individually.

Focus group discussion sessions was performed on participants whom we obtain from a list of registered associations/groups of people living with HIV/AIDS. The list of CSOs was obtained from NGO board Centre in Nairobi and narrowed to the list obtained from Ministry of social services Busia County. Sessions for PLWHA were conducted at their usual meeting site. Audio and video recording of all sessions were done so that information shared can be captured without missing some statements.

Your participation in this exercise is quite important as it will give us results that can enable respective authorities to re-examine and make change on the existing government and CSO policies for your benefit. Kindly read this form and ask us questions where you are not clear.

If you understand the information on this form, you can sign at the end of this form that you have accepted to participate in the study.

Potential Harm, Injuries, Discomforts or Inconvenience

Risks:

We want you to know that as you take part in this exercise, there are no known harm/risk injuries you will come across both during and after the study. The procedures (stated below) that will be done on you are all harmless. Please feel free to answer all questions on HIV as the findings will help the authority make decisions that will help improve on the support offered to you by CSO.

Benefits to the Participant:

First this study will help you improve your knowledge and enlighten you on how to prevent HIV/AIDS transmission and the need to take right foods.

There is also no direct material benefit for participating. The outcome of this study is that it will help you improve your knowledge on the following areas; HIV prevention, right food intake, and generation of income. During interview sessions and after the results have been published, you will learn more about how implementing community groups (CSOs) operate, the services they offer, and know your rights in dealing with some of these groups. The results that will be obtained from this study in the long run will help improve on services CSOs offer to you.

Benefits to the Community:

Everybody within your community will benefit from this study either directly or indirectly. The study will have no direct material benefits to you. Your people will acquire knowledge on how to manage HIV/AIDS infection and know more about operations of implementing community groups (CSO).

In addition, the community in which you belong will get better HIV prevention services from implementing groups (CSO). From the findings, your community will gain knowledge on how to manage HIV/AIDS infection and how to deal with stigma. Your community will be able to take part in the planning, management as well as take ownership of initiated projects. The study will provide insight to you and to the entire community to work hand in hand with groups implementing projects at community level (CSOs).

Communities will also in the long run participate with confidence in implementing projects and provide precedence towards their local needs. The findings will guide policy makers to amend government policies; help strengthen the approach to ease community involvement into projects to be and or initiated by CSOs. Ministry of health and CSO may alter their strategies to realize sustainable livelihood and strengthen community involvement into initiated CSO/MOH projects.

Procedures:

There will be no harmful procedures done on you. There will be a questionnaire in which you will answer to the questions asked regarding your health, nutrition and economic status. A physical examination procedure will be done on you at health facility by trained registered Nurses and clinical officers in discrete manner and in a private room. No unauthorized persons will be allowed into the room at a time the procedure is being conducted. Your name will not be indicated on the form; you will be identified by serial numbers indicated on the form. The list that will contain your full contacts will be kept by the principal investigator (PI) and nobody else will access it. The PI together with the examiner will ensure data obtained is well kept and protected from access by unauthorized persons. You will be checked your blood pressure, temperature and pulse (simplified).

Your weight and height will also be taken to see if you have normal weight. We will also hold discussions with established and registered groups of people living with HIV and AIDS to discover challenges they face.

The three procedures; use of questionnaire, clinical examination and anthropometry will be performed on you individually at the health facility. There will be no individuals selected or rather interviewed from homes. Research assistants will only visit the homes of selected participants who will not turn up for interview at the health facility and request them to come to the health facility to be interviewed.

Civil society organization and Ministry of health staff at the level of senior management and operational staff shall be identified from their work stations and selected as key informants for in depth interviews. Interviews will be conducted in discrete manner and at their work stations. Those of you who will participate in focus group discussion (FGDs) sessions must all be HIV infected. You shall be selected from established list of registered associations /groups for people living with HIV/AIDS (PLWHA). You will be selected from sites with CSO and non CSO intervention. We will classify you according to your age, gender and status.

Two FGDs sessions will be done as we begin the study and at the end of the study (10 months). Since all of you who will be selected share common interest, we will expect you to have a free and open discussion with us. The sessions will take place from a site where you usually meet to hold your discussions. Now that we have shared the procedures to be done on you, if you accept to continue, please sign at the end of this form. You will be given a copy of a signed consent form to keep. Parents/guardians please allow your children less than 18 years to assent on the next form to enable them to participate in the study.

Confidentiality:

You will be interviewed at the health facility in a private room, one person at a time. Nobody shall see you when you are being examined or even hear our discussion with you. For MoH and CSO senior managers and operational officers, you will be interviewed at your work stations individually. We will hold group discussion sessions with all of you who belong to established groups of people living with HIV/AIDS excluding unauthorized persons. The sessions we intend to hold with you will be done at your usual meeting site. We know that all of you have common concerns and reside in the same village hence, you are familiar to each other, therefore, we will expect free and open discussions from you. For us to ensure information does not leak out to other persons, we will not allow unauthorized persons to join the sessions.

Please allow us to record all discussions by audio and video recorder so that whoever is taking notes does not miss out important information. The PI will be responsible of ensuring that the recorders are kept and locked in a cabinet. And that only the research team access. We will ensure that the data obtained from you is well kept and protected from access by unauthorized persons. Only research assistants involved in moderating FGDs sessions shall access the cabinet. Information recorded shall be destroyed after data analysis. During all interviews, your names and contacts shall not be recorded on any form; instead identification will be made about serial numbers.

Participation:

It is voluntary for you to participate in this study. You may also choose to participate or not and may exit the interview at any time. If you want to stop in the participation, kindly inform your immediate supervisor and give reasons for refusing to continue.

Those of you who will participate during a focus group discussion (FGDs) sessions shall be selected from established and registered groups / associations of people infected with HIV. In most societies, to be a member of a group and or association one must be HIV

and AIDS infected. You all know that the criterion for joining this groups and associations is that you must be HIV infected. Most of these groups as you are aware were formed to support HIV infected individuals including orphaned children.

These groups of participants share common concerns and therefore we will expect free and open discussions from all of you. The sessions will take place at their usual meeting place. You will allow us to audio and video record the discussion session to ensure that all information shared is fully captured. Now that we have shared the procedures to be done on you, if you accept to continue, please sign at the end of this form. You will be given a copy of a signed consent form to keep. Parents/guardians please give consent for children less than 18 years to enable them to participate and the children will give assent.

Care for the Sick:

If we discover from our assessment that you require additional and specialized medical care, we shall assist you to reach the nearest hospital to receive better hospital care. We may step in to assist you with cash for transport or transport you to hospital.

Reimbursement:

Those of you who will not have come to the health facility to undertake interviews will be followed at home and requested to come at the health facility for interview. In a case whereby we notice that you lack transport to the health facility to participate in the study, we shall assist you in form of cash for transport to and from the health facility to undertake the interview.

If we also see that you require specialized hospital attention, we will go ahead to pay for your transport and ensure you safely reach a high-level hospital to receive better care. Those of you who will participate in focus group discussion sessions (FGDs) will be offered soft drinks, a bottle of soda or water.

Contacts:

You can access findings regarding the study, ask questions and or get clarification about the study by contacting the principal investigator;

Mary Ishepe Nandili (0722416987)

For matters of ethical nature, please contact;

The Director, ITROMID, Jomo Kenyatta University of Agriculture and Technology (JKUAT) Tel: 0713112853 or the Secretary KEMRI Ethical Review Committee (ERC) on Tel: 2722541 / 2713349.

Signature of respondent.....Thumb print.....

Appendix 3: Assent Document

For children under 18 years, kindly assent on this form

Parents/guardians please give consent for your children who are less than 18 years to enable them to participate in this study.

Title of the Research Study: Effect of Civil Society Organizations on Health, nutrition, and Economic status of People Living with HIV and AIDS in Busia County, Kenya

Principal Investigator: Mary Ishepe Nandili MOH/JKUAT

Co-Investigator: Dr. P. Wanzala, KEMRI

Co-Investigator: Prof. A. Makokha, JKUAT

Study Location: Busia County

Purpose of the Research Study:

This study aims to find out if you have attained change following activities provided by registered groups / associations that provide services at community setting (civil society organizations) other-than the government. The study will help change HIV/AIDS rules about service provision, build up collaboration between the government, community and CSOs. The collaboration will allow for your parents/guardian involvement in planning, being in charge and having the right over the project started within the community. You will also get to know how important civil society organizations are in terms of intervention and particularly on health and nutrition and how you will benefit as a child. You will be able to know more about how to prevent HIV and AIDS infection and share out the information with other peers. You will also get to know the benefits you get from these implementing community groups (CSOs).

Introduction:

My names are Mary Ishepe Nandili, a student from JKUAT. I am working on this study project that is considering diseases such as HIV and AIDS.

I am sure that you have heard about HIV/AIDS and the sufferings it has caused to many people. This study will take place in Busia County. You can live a normal life with HIV only if you happen to get good care. The government is usually assisted by various implementing community groups such as civil society organizations (CSOs) to provide services to HIV infected individuals and the community. I am here to assess the change you have observed and or received from the government plus CSOs and if indeed the change has improved your wellbeing.

I am also working with other staff, we will perform procedures on you and ask you a few questions using this set of questionnaires. We shall again examine your entire body to assess any abnormalities resulting from HIV infection, check your Blood Pressure, Temperature and Pulse. In addition, taking weight and height to assess if there are any abnormalities related to your feeding. This interview will be done on you at public health facility. Those of you who will not turn up at the facility for interview shall be visited at their home and requested to come to the health facility to be interviewed. We will group you (FGDs) by age and sex; hold a free discussion on matters that concern your health, food uptake, economic situation and the benefits you or your parents have received from implementing community groups (CSOs). Most of you who will participate shall be drawn from a list of registered associations/groups of people infected with HIV. Discussion sessions will be conducted at sites where PLWHA usually meet.

Your participation in this exercise is quite important as it will give us results that can enable respective authorities to re-examine and make change on the existing government and CSO policies for your benefit.

We will read this form together and if you are not clear or have difficulties in understanding it, feel free to ask us any questions. If you understand the information on this form, you can sign or thumb print on this form as prove that you have accepted to participate in the study.

Potential Harm, Injuries, Discomforts or Inconvenience, Risks:

We want you to know that as you take part in this exercise, there are no known harm/risk injuries you will come across both during and after the study. Procedures (stated below) will be done on you that are harmless. Please feel free to answer all questions on HIV as the findings will help the authority make decisions that will help improve on the support offered to you by CSO.

Benefits to the Participant:

First this study will help you improve knowledge and enlighten you on how to prevent HIV/AIDS transmission and deal with stigma and discrimination. During interview sessions and after the results have been published, you will learn more about how implementing community groups (CSOs) operate, benefits they have brought to you and the type of services they offer. The results that will be obtained from this study in the long run will help CSOs improve on services they offer to you.

Benefits to the Community:

As you participate, everybody within your community will benefit from this study either directly or indirectly. As your community benefits, your parents/guardians will also benefit further from CSOs initiated projects especially on income generation.

The findings will help government policies amended and strengthened to ease involvement of communities who include your parents, into projects initiated by CSO. You will be involved in the planning of community groups (CSO), start youth projects that can engage you in extramural activities.

As time goes by you will be able to own and manage youth projects independently especially when CSOs term of implementing projects expires. The study will provide insight to you and to the entire community to work hand in hand with groups implementing at the community level (CSOs).

Procedures:

There will be no harmful procedures done on you. There will be a questionnaire in which you will answer to the questions asked regarding your health, nutrition and economic status.

A physical examination shall be performed on you by trained medical officials to assess any abnormalities occurring because of HIV/AIDS infection. You will be checked your blood pressure, temperature and pulse (it will be simplified). Your weight and height will be taken to see if you have a normal weight. We will also hold discussions with you as youths who have registered groups/associations of people infected with HIV. We will audio and video record the discussion sessions to ensure that all information is fully captured. After which information recorded will be destroyed after analysis.

Confidentiality:

You will be interviewed individually at the health facility in a private room, one person at a time. Nobody shall see you when you are being examined or even hear our discussion with you and no intruders will be allowed during procedures. And the sessions will be done at your usual meeting place. And since you share common concerns, we request you to feel free during discussion sessions and give your input with no restriction.

We (PI) and research team will ensure that the data we obtain from you is well kept and protected from access by unauthorized person. You will allow us to audio tape and video record the discussion. Recorded data will be kept and locked by the PI in a cabinet. Nobody will access the data after we are done with you. Only research assistants

involved in moderating FGDs shall be allowed to access the data kept in the cabinet. The information we will have shared during FGDs sessions shall be destroyed after data has been analysed. During interview, your names and contact shall not be written on any forms, instead you will be identified using serial numbers. Generally, nobody else will access the data after we are done with you except the research team.

During all interviews, your names and contacts shall not be recorded on any form; instead identification will be made about serial numbers.

Participation:

It is voluntary for you to participate in this study. I believe you all know that to be a member of a group and or association, the criteria usually is one must be HIV and AIDS infected. The sessions will take place at your usual meeting place. We know most of you share common concerns and therefore we will expect free and open discussions from all of you. You may also choose to participate or not and even be allowed to even end the interview at any time. If you want to stop in the participation, kindly inform your immediate supervisor and give reasons for refusing to continue. Now that we have shared the procedures to be done on you, if you accept to continue, please sign or allow me to take your thumb print at the end of this form as prove that you have accepted to participate in the study. You will be given a copy of a signed consent form to keep.

Care for the Sick:

If we discover from our assessment that you require additional and specialized medical care, we shall assist you to reach the nearest hospital to receive better hospital care. We may step in to assist you with cash for transport or transport you to hospital.

Reimbursement:

This project study is not financially supported; we may not be able to compensate you for transport expenses and pay you incentives for participation.

Those of you who will not have come to the health facility to undertake interviews will be followed at home and requested to come at the health facility for interview. But in a case whereby we notice that you lack transport to the health facility to participate in the study, we shall assist you in form of cash for transport to and from the health facility to be interviewed. Those of you who will participate in focus group discussion sessions (FGDs) will be offered soft drinks such as soda and water.

Contacts:

You can access findings regarding the study, ask questions and or get clarification about the study by contacting the principal investigator; Mary Ishepe Nandili (0722416987)

For matters of ethical nature, please contact;

The Director, ITROMID, Jomo Kenyatta University of Agriculture and Technology (JKUAT) Tel: 0713112853 or the Secretary KEMRI Ethical Review Committee (ERC) on Tel: 2722541 / 2713349.

Signature of respondent.....Thumb print.....

Appendix 4: Quantitative Questionnaire - English Version

Title: Effect of Civil Society Organization Intervention on Health, Nutrition, and Economic status of People Living with HIV and AIDS in Busia County, Kenya

Instructions:

Complete each section as indicated. This instrument will be used on conducting face to face interviews.

Section 1: Demographic Data of Respondents (Section 1 and 2 should be applied on all Respondents)

101. District of Birth Sub Location:Village
.....

102. Health Facility

103. CSO Group

104. Gender

Male

Female

105. How old are you? (Put age in years),

106 What is your marital status? (Tick)

1 = Never married

2 = Married

3 = Separated

4= Divorced

5 = widowed

99 = not applicable (minor)

107 What is your highest education level? (Tick the correct answer)

- 1 = No school at all
- 2 = Preschool
- 3 = Lower primary (up to class 4)
- 4 = Primary complete
- 5 = Secondary school education
- 6 = Tertiary colleges
- 7 = University education
- 8 = Informal education
- 99 = Not applicable

108 Are you employed? Yes () No ()

b, if yes where is your employment status?

- 1 = Student
- 2 = Employed
- 3 = Self employed
- 4 = Casual worker
- 5 = Domestic help
- 6 = Farmer
- 7 = Other Specify
- 99 = Not applicable

Section 2: 002: knowledge related questions on HIV/AIDS

201. Do you know what is meant by the word AIDS? 1. Yes () 2. No ()

B, If yes explain what AIDS is.....

.....

202. Do you know what is meant by the word HIV? 1. Yes () 2. No ()

B, If yes explain what HIV is.....

.....

203. How is HIV/AIDS contracted? (✓ multiple)

1 = Body contact with infected

2 = Contact with body fluid

3 = Share, utensils, food

4 = Breastfeeding

5 = During child birth

6 = Unprotected sex

7 = Multiple use of injectable

8 = Any other (Specify)

204. How can HIV/AIDS transmission be prevented? (✓ multiple)

1 = Avoiding multiple use of injections

2 = Avoid breast feeding when positive

3 = Avoid contact with positive patients

4 = avoid multiple sexual partners

5 = Regular use of condoms

6 = Others specify

B, out of the above which one do you usually apply?

.....

205. How can you help infected person improve their health status?

1 = Advocate for condom use

2 = Provide nutritious diet

3 = Refer to hospital

4 = Provide psychological counselling

5 = others specify

206, Do you access information to guide you in preventing transmission of HIV/AIDS?

(IEC materials) (Ask to see) 1. Yes () 2. No ()

208, Do you think this information has been useful to you? 1. Yes () 2. No ()

B, if yes how?

209. Where do you get this information from? (Tick all that apply)?

1 = Ministry of health

2 = Ministry of social services

3 = Private sector

4 = CSO (NGO, FBO, CBO, PLWHA)

B) For no.4 please name the organization

.....

210. In what language is the information education and communication materials written (Tick)

1 = English

2 = Kiswahili

3 = Teso

4 = Luyah

5 = others (specify).....

211, In which facility was the AIDS test first done?

1= Private sector

2 = CSO (NGO, FBO, CSO)

3 = Government hospitals

4 = others specify

212. Do you get any support/assistance to help you cope with the infection?

1. Yes () 2. No ()

b) If yes what kind of support do you get to manage opportunistic infections?

(Tick multiple)

1 = Medication (ARV)

2 = Treatment of opportunistic infections (OIs)

3 = Counselling /education

4 = Food supplements

5 = Food rations

6 = Farm inputs

7 = Income generating activities

8 = other support (specify).....

Quantitative Interviews: Section 3: 003 Respondents Infected

301. Which sector supports you in improving your wellbeing? (Tick all that apply)

1 = CSO (NGO, FBO, CDF, associations etc)

2 = Ministry of health

3 = Ministry of agriculture

4 = Individuals support

5 = other specify

b) If answer is 1 above please specify:

302, Are you satisfied with the support you are offered with by CSO?

Yes () 2. No ()

B, If no why?

303, Are you happy with the support you are offered with in government facilities?

Yes () 3. No ()

B, If no why?

304, What kind of support do you receive from government health facilities?

1 = Nutrition supplement

2 = Income generation

3 = Basic health care

4 = ARV drugs

5 = Other specify

305, Has your health status improved since the introduction of CSO? Yes () No ()

306, In what ways has your health improved?

1 = Improved economically 1. Yes () 2. No ()

2 = Access basic health care 1. Yes () 2. No ()

3 = Accessing ARV drugs 1. Yes () 2. No ()

4 = Able to afford a meal 1. Yes () 2. No ()

5 = Able to care for myself & family 1. Yes () 2. No ()

6 = Other specify

307. Do you take ARV drugs? 1. Yes () 2. No ()

308. Do you take your drugs regularly? 1. Yes () 2. No ()

309. Where do you obtain the ARV drugs from?

1 = Private sector 1. Yes () 2. No ()

2 = CSO (NGO, FBO, CBO) 1. Yes () 2. No ()

3 = Government hospitals 1. Yes () 2. No ()

4 = Others specify

b) If answer is 1 above please specify.....

310, Do you easily access ARV drugs? 1. Yes () 2. No ()

311, What are some of the reasons for not accessing ARV drugs?

1 = Health facility is far

2 = Am weak

3 = No access for food

4 = No transport to facility

5 = Others (Specify).....

312, Do you receive support from CSOs? Yes () No ()

313, How many CSOs offer you support (include their names as well)?

.....

.....

314. What kind of support do you receive from CSO interventions?

1 = Income generation

2 = Nutrition supplement

3 = Health advocacy

4 = ARV drugs

5 = Agricultural inputs

6 = Other specify

315, Do you believe CSO interventions have improved your health status?

Yes () No ()

If yes how?

316, Which sectors provide you with satisfactory HIV/AIDS services?

1 = Government health facilities

2 = CSO (NGO, CBO, FBO)

3 = Private health facilities

4 = others specify

318, Have you been supported by CSO economically? Yes () No ()

319, What areas have you been supported that has improved your wellbeing?

1 = Poultry farm

2 = Association of PLWHA member

3 = Feel empowered

4 = Afford nutritious diet

5 = others specify

320. Has your economic status improved since CSO intervened Yes () No ()

321. Was your economic status better before CSO intervened? Yes () No ()

322. Do you think your living conditions have been improved by CSO interventions?

Yes () 2. No ()

323. Which areas in your household has been improved?

1 = Children go to school Yes () No ()

2 = Build a house Yes () No ()

3 = Married another wife Yes () No ()

4 = Bought boda boda Yes () No ()

5 = Others specify

324. Do you believe CSO have supported in improving your nutrition status?

1. Yes () 2. No ()

325, What nutritional support do CSO provide you?

1 = Nutrition supplement Yes () No ()

2 = Income generation Yes () No ()

3 = Farm seeds Yes () No ()

4 = Nutrition counselling Yes () No ()

5 = Others specify

326, Are you regularly monitored and supervised by organizations after completion of projects? Yes () 2. No ()

327, Which organizations monitor the progress?

1 = Government authority Yes () No ()

2 = CSO authority Yes () No ()

3 = Community themselves Yes () No ()

4 = PLWHA Yes () No ()

5 = Other specify

328, What are some of the challenges you face with CSO interventions?

1 = No continuity of project Yes () No ()

2 = Staff is not competent Yes () No ()

3 = Leave prematurely Yes () No ()

4 = Staff not competent Yes () No ()

5 = Others specify

329, What challenges do you experience with government health facility interventions?

1 = Distance to hospital Yes () No ()

2 = Staff is un available Yes () No ()

3 = Lack of confidentiality Yes () No ()

4 = Services lack Yes () No ()

5 = Others specify

330, Are you satisfied with the support you are offered with by other partners apart from MoH? Yes () 2.No ()

B, If no: why?

332, Has your economic status improved since CSO intervention? 1. Yes () 2. No ()

333, Was your economic status better before CSO intervention? 1. Yes () 2. No ()

334, Do you think your living conditions have been improved by CSO interventions?

Yes () 2. No ()

335, Which areas in your household has been improved?

1 = Children go to school 1. Yes () 2. No ()

2 = Build a house 1. Yes () 2. No ()

3 = Married another wife 1. Yes () 2.No ()

4 = Bought boda boda 1. Yes () 2.No ()

5 = Others specify

336, Do you believe CSO have supported improve your nutrition status? Yes () No ()

337, What nutritional support do CSO provide you?

1 = Nutrition supplement 1. Yes () 1. No ()

2 = Income generation 2. Yes () 2. No ()

3 = Farm seeds 3. Yes () 3. No ()

4 = Nutrition counseling 4. Yes () 4. No ()

5 = Others specify

336, Are you regularly monitored and supervised by organizations after completion of projects? Yes () 2. No ()

337, Which organizations monitor the progress?

1 = Government authority 1. Yes () 1. No ()

2 = CSO authority 2. Yes () 2. No ()

3 = Community themselves 3. Yes () 3. No ()

4 = PLWHA 4. Yes () 4. No ()

5 = Other specify

338, What are some of the challenges you face with CSO interventions?

1= No continuity of project 1. Yes () 1. No ()

2= Staff is not competent 2. Yes () 2. No ()

3 = Leave prematurely 3. Yes () 3. No ()

4= Staff not competent 4. Yes () 4. No ()

5 = Others specify

339, What challenges do you experience with government health facility interventions?

1 = Distance to hospital 1. Yes () 1. No ()

2 = Staff is un available 2. Yes () 2. No ()

3 = Lack of confidentiality 3. Yes () 3. No ()

4 = Services lack 4. Yes () 4. No ()

5 = Others specify

Food Intake and Nutrition Status

340, Food frequency

Indicate how many times the following foods are consumed by the patient in a week

Ask and indicate how many times per week/month the following food is consumed?

Food Groups, Food type, Frequency

Cereals Maize (ugali/Githeri)

Millet (ugali)

Wheat (chapati)

Rice

Roots and tubers

English potatoes

Cassava

Sweet potatoes

Bananas (green)

Animal Products

Beef

Fish

Chicken

Eggs

Milk

Vegetables

Kale

Cabbage

Spinach

Traditional vegetables

Others (specify).....

Pulses Ndengu

Beans

Cow peas

Peas

Others (specify).....

Fruits Bananas

Oranges

Pawpaw

Mangos

Other Fruits.....

341, Indicate in the spaces below the types of food described by the interviewee as having been consumed over the last 24 hours. Start the interview by asking: “What did you eat or drink after you woke up yesterday morning? What did you have next and at what time?”

When the end of the day has been reached, go back and ask details about ingredients, preparation method and serving size.

Note: the ingredients used in the preparation of the dish and the method of preparation. Indicate the amount of the dish/product/food item consumed by the interviewee, based on appropriate household measures such as cups or other appropriate containers such as those for cooking fat, a noted size.

TIME DISH (Description of food or drink)

INGREDIENTS PREPARATION METHOD SERVING SIZE / AMOUNT

(g or ml)

Morning, Mid-morning Snack, Lunch, Afternoon snack, Supper, Late night snack

344, Was yesterday a normal days pattern

1. Yes () 2. No ()

(B), If no please explain how it was different from your normal daily patterns

.....

.....

Appendix 5: Quantitative Questionnaire for Kiswahili Version

Kiambatisho 5: Dodoso

Madhumuni ya kutahini ni kuchunguza matokeo ambayo hupatikana kutokana na mashirika yasiyo ya kiserikali kuingilia maswala ya afya, usaidizi wa fedha, pamoja na vyakula kwa watu walio na virusi vya ukimwi. Mtahini anafaa kuchukulia maswali kama mwongozo ili kupata habari inayotarajiwa; bali sio kidadisi kinachofuatwa tu. Lazima mtahini awe na sauti itakayoelekeza mazungumzo hayo kimantiki ili kupokea ujumbe unaofaa. Mtahini anafaa kumdadisi mtahiniwa ili apate majibu yenye ujumbe kwa maswali yote. Aidha mtahini anafaa kugundua ujumbe utakaomfaidi hata iwapo sio katika orodha ambayo maswali yanaulizwa. Hata hivyo, hii sio shida. Iwapo mada inajitokeza baadaye kwenye utahini huo, ni vyema kumuuliza mtahiniwa atoe maelezo kabambe.

Tuko na haja ya kupata ukweli na tathmini za mada ambazo zinahusiana na vizingiti katika kuingilia kati. Majibu mengi hufuatwa na matokeo ya ujumbe ulioongezwa au maoni. Wakati wa utahini unafaa kuhimiza mtahiniwa atumie stakabadhi husika ili kuhakikisha matokeo hayo. Hakikisha kuwa mtahiniwa ameelewa swali kwani kwa kufanya hivyo sisi pia tutafaidika. Baada ya kila sehemu mpe mtahiniwa wakati ili aongeze ujumbe iwapo anao.

Inayofuata in mifano ya jinsi ya kutanguliza utahini. Haya in mapendekezo ya jinsi ya kutumia sauti ya kawaida ili kuhakikisha mtahiniwa anaweza kuuliza iwapo hajaelewa na atoe ujumbe wote unaofaa.

KICHWA: Mashirika ya Kiraia yafanya utafiti wa athari za utekelezaji wa kutafuta suluhu kwa ugonjwa wa Ukimwi kwa watu walio athirika katika kaunti ya Busia.

Maelezo: Kamilisha kila sehemu ukifuata maagizo: Maswali haya yatatumiwa kwa mahojiano ya ana kwa ana.

SEHEMU 1: 001: (Takwimu ya idadi ya wahojiwa (Sehemu 1 na 2 inapaswa kutumika kwa wahojiwa wote)

101. Wilaya ya kuzaliwa.....Mtaa/Eneo.....Mtaa mdogo/Kijiji.....

102. Kituo cha afya.....

103. Kikundi kingine.....

104. Jinsia: Kiume..... Kike.....

105. Una miaka mingapi?

106. Eleza hali yako ya ndoa (Weka alama sahihi Kwa moja)

1. Sijawahi kuwa kwenye ndoa.....

2. Niko kwenye ndoa.....

3. Tumetengana

4. Tumetalakiana.....

5. Mimi ni mjane.....

99. Jibu lingine.....

107. Kiwango cha Elimu

1. Sijawahi kuenda shule kabisa

2. Shule ya nasari.....

3. Shule ya msingi (hadi kidato cha nne).....

4. Shule ya Msingi (kidato cha kwanza hadi cha nane).....

5. Shule ya Sekondari/Upili

6. Chuo

7. Chuo Kikuu.....

8. Elimu isiyo rasmi.....

99. Nyingine.....

108 Kuhusu Kazi: Je umeajiriwa? Ndio.....La.....

b. Kama ndio, chagua moja kati ya hizi:

1. Mwanafunzi.....

2. Nimeajiriwa kazi....

3. Nimejiajiri kazi mwenyewe....

4. Mfanyakazi wa kawaida.....

5. Msaidizi wa nyumbani....

6. Mkulima.....

7. Nyingine.....

99. Nyingine.....

SEHEMU 2: 002: Ufahamu kuhusu virusi vya Ukimwi

201. Unafahamu ukimwi ni nini? 1. Ndio () 2. La ()

b).Kama ndio, eleza.....

202. Unafahamu maana ya virusi vya ukimwi? 1. Ndio () 2. La ()

b).Kama ndio,

eleza.....

203. Je ni njia gani Virusi vya Ukimwi huambukizwa? (chagua)

1. Kugusana kimwili na aliye ambukizwa.....
2. Kupitia damu iliyo na virusi vya ukimwi.....
3. Kugawanyana viombo na chakula.....
4. Kunyonyesha.....
5. Wakati wa kuzaa.....
6. Kufanya mapenzi/ngono bila kinga.....
7. Matumizi mbalimbali ya sindano.....
8. Nyingine(eleza).....

204. Andika njia nne za kuzuia kuambukizwa virusi vya ukimwi (chagua)

1. Kuepukana na matumizi mbalimbali na sindano.....
2. Kutonyonyesha ukiwa umeathirika na ukimwi.....
3. Kutomgusa aliye na virusi vya ukimwi.....
4. Epuka kufanya mapenzi/ngono na watu wengi
5. Kutumia kondomu kila wakati
6. Nyingine....

b) Kwa hizi njia zote, wewe hutumia zipi sanasana?

.....

205. Unaweza kumsaidiaje aliyeambukizwa virusi vya ukimwi kuboresha afya yake?

1. Mshauri atumie kondomu.
2. Kumpa lishe bora
3. Kumshauri aende hospitali.

4. Kumpa ushauri wa kisaikolojia.

5. Nyingine.....

206. Je wewe hupata maelezo ya kukufahamisha jinsi ya kuzuia kuambukizwa virusi vya Ukimwi. 1. Ndio.....2. La.....

208. Je unadhania haya maelezo yamekuwa muhimu kwako? 1. Ndio.... 2. La....

b) Kama ndio, eleza vipi?

209. Je wewe hupata maelezo haya wapi? (Chagua)

1. Wizara ya afya

2. Wizara ya huduma ya jamii.

3. Sekta binafsi

4. CSO (NGO,FBO,CBO,PLWHA)

b) Kwa namba nne, tafadhali taja jina shirika.....

210. Haya maelezo (IEC) yanaandikwa kwa lugha gani. (Chagua)

1. Kiingereza.....

2. Kiswahili

3. Kiteso

4. Kiluhya

211. Ni katika kituo gani ambapo ukimwi ulipimwa mwanzo?

1. Sekta binafsi....

2. CSO(NGO,FBO,CSO)

3. Hospitali za serikali.....

4. Nyingine (taja).....

212. Je wewe hupata msaada wowote wa kukusaidia kukabiliana na maambukizi haya?

1. Ndio.....2. La.....

b) Kama ndio ni msaada gani unapata kukabiliana na magonjwa nyemelezi? (Chagua kadhaa)

1. Madawa (ARV)

2. Matibabu ya magonjwa tegemezi (nyemelezi)

3. Ushauri nasaha / elimu

4. Virutubisho/ chakula

5. Mgawo/chakula
6. Pembejeo za kilimo
7. Shughuli za uzalishaji mali
8. Nyinginezo (taja)

213. Je utawasaidiaje walioambukizwa kuboresha afya yao?

1. Kuwashauri watumie kondomu.
2. Kuwapa chakula chenye kutia nguvu mwilini
3. Kuwaelekeza hospitalini.
4. Kuwapa ushauri wa kisaikolojia.
5. Nyingine (taja).....

MAHOJIANO: SEHEMU 3: 003 Wahojiwa Walioambukiwa

301. Ni sekta ipi hukusaidia kuboresha maisha yako? (chagua)

1. CSO (NGO, FBO, CDF, vyama na kadhalika.)
 2. Wizara ya afya
 3. Wizara ya kilimo
 4. Misaada ya watu binafsi.
 5. Nyingine (taja).....
- b) Kama jibu ni 1 hapo juu, tafadhali taja.....

302. Je umeridhika na usaidizi unaopewa na CSO? 1. Ndio.....2. La.....

b) Kama la kwanini?

303. Je umeridhika na usaidizi unaopata kutoka kwa vituo vya kiserikali?

1. Ndio.....2.La.....
- b) Kama jibu ni la, eleza kwanini?.....

304. Je unapata usaidizi wa aina gani kutoka kwa vituo vya afya vya kiserikali?

1. Lishe bopra
2. Mapato
3. Huduma za afya ya msingi
4. Madawa ya ARV
5. Nyingine (taja).....

305. Je afya yako imeboreka tangu mwanzo wa CSO? Ndio.... La.....

306. Je, afya yako imeboreka kwa njia gani?
1. Kuboreka kiuchumi 1. Ndio () 2. La ()
 2. Upatikanaji wa huduma za afya ya msingi 1. Ndio () 2. La ()
 3. Kupata madawa ya ARV 1. Ndio () 2. La ()
 4. Kuweza kupata chakula 1. Ndio..... 2. La.....
 5. Kuweza kujishughulikia pamoja na familia yangu. 1. Ndio..... 2. La.....
 6. Nyingine (taja).....
307. Je wewe hutumia madawa ya ARV? 1. Ndio.... 2. La....
308. Je wewe hutumia madawa ya ARV kila mara? 1. Ndio....2. La.....
309. Wewe hupata madawa haya ya ARV wapi?
1. Sekta za kibinafsi... 1. Ndio2. La....
 2. CSO (NGO, FBO, CBO) 1. Ndio.....2. La.....
 3. Hospitali za kiserikali 1.Ndio...2. La.....
 4. Nyingine (eleza).....
- b) Kama jibu ni 1, tafadhali eleza.....
310. Je wewe hupata madawa ya ARV kwa urahisi? 1. Ndio....2. La.....
311. Je ni sababu gani waweza kutoa za kutopata madawa ya ARV?
1. Kituo cha afya kiko mbali.
 2. Sina nguvu
 3. Chakula hakipatikani
 4. Hakuna usafiri hadi hospitali
 5. Sababu nyingine (eleza).....
312. Je wewe hupata usaidizi kutoka Kwa CSOs? Ndio.... La....
313. Je ni CSOs ngapi zimekusaidia? (Taja majina yao)
314. Je ni usaidizi wa aina gani unapata kutoka kwa hatua zinazochukuliwa na CSOs?
1. Mapato...
 2. Lishe bora
 3. Ushauri wa kiafya
 4. Madawa ya ARV
 5. Mazao ya kilimo

6. Nyingine (eleza).....
315. Je unaamini hatua zinazochukuliwa na CSO zimeboresha afya yako? Ndio...La.....
Kama ndio, kwa nini?
316. Ni sekta gani hukupa wewe huduma za kuridhisha kuhusu ugonjwa wa ukimwi?
1. Vituo vya afya vya kiserikali
 2. CSO (NGO, CBO, FBO)
 3. Vituo vya afya vya kibinafsi
 4. Nyingine. (Eleza)....
317. Je wewe hupata usaidizi wa aina gani kutoka kwa vituo vya afya vya kiserikali?
1. Chakula
 2. Mapato
 3. Huduma ya kiafya
 4. Madawa ya ARV
 5. Nyingine (eleza)
318. Ushawahi kusaidiwa na CSO kifedha? Ndio..... La.....
319. Umepata usaidizi katika shughuli gani?
1. Kilimo ya
 2. Kilimo ya kuku
 3. Kuwa na nguvu
 4. Naweza kununua chakula cha afya
 5. Nyingine (eleza)....
320. Je hali yako ya kiuchumi imeboreka tangu CSO kuingilia kati? Ndio..... La.....
321. Je hali yako ya kiuchumi ilikuwa bora kabla CSO kuingilia kati? Ndio..... La.....
322. Je unadhani hali zako za kimaisha zimeboreka kwa sababu ya CSO kuingilia kati?
Ndio.... La....
323. Ni mambo gani kwako ambayo yameboreshwa?
- | | |
|------------------------|-----------------------|
| 1. Watoto kwenda shule | 1. Ndio () 1. La () |
| 2. Kujenga nyumba | 2. Ndio () 2. La () |
| 3. Ameoa mke mwingine | 3. Ndio () 3. La () |
| 4. Kununua boda boda | 4. Ndio () 4. La () |

5. Nyingine(eleza).....
324. Je CSO wameboresha lishe lako? 1. Ndio... 2. La....
325. Je CSO wanakupa usaidizi wa aina gani upande wa chakula?
1. Kuongeza lishe 1. Ndio () 1. La ()
 2. Mapato 2. Ndio () 2. La ()
 3. Mbeguza kilimo 3. Ndio () 3. La ()
 4. Ushauri kuhusu lishe bora 4. Ndio () 4. La ()
 5. Nyingine (eleza).....
326. Je wewe hufuatiliwa na kusimamiwa na mashirika baada ya kumaliza miradi?
Ndio..... La.....
327. Ni mashirika gani hufuatilia maendeleo haya?
1. Mamlaka ya Serikali. Ndio () La ()
 2. Mamlaka ya CSO. Ndio () La ()
 3. Wanajamii wenyewe. Ndio () La ()
 4. PLWHA Ndio () La ()
 5. Nyingine (eleza).....
328. Je, ni changamoto gani wewe hukumbwa nazo na CSO kuingilia kati?
1. Hakuna mwendelezo wa mradi Ndio () La ()
 2. Wafanyakazi hawana uwezo Ndio () La ()
 3. Kuondoka mapema kazini Ndio () La ()
 4. Wafanyakazi wasio na uwezo Ndio () La ()
 5. Nyingine (eleza).....
329. Ni changamoto gani umepitia na vituo vya afya vya kiserikali kuingilia kati?
1. Umbali wa hospitali Ndio () La ()
 2. Mfanyakazi hayuoko Ndio () La ()
 3. Ukosefu wa usiri Ndio ()La ()
 4. Ukosefu wa huduma Ndio ()La ()
 5. Nyingine (eleza).....
330. Je umeridhika na usaidizi unaopewa na washiriki wengine mbali na wizara ya afya?

Ndio... La.....

b) Kama La, kwa nini?

331. Umepata usaidizi kwa mambo gani ambayo yameboresha maisha yako?

1. Ukulima wa kuku
2. Vyama vya PLWHA
3. Kuwa na nguvu
4. Kumudu lishe bora
5. Nyingine (eleza)....

332. Je hali yako ya kiuchumi imeboreka tangu CSO kuingilia kati? Ndio... La.....

333. Je hali yako ya kiuchumi ilikuwa bora kabla CSO kuingilia kati? Ndio... La.....

334. Je, unadhani hali ya maisha yako yameboreshwa na CSO kuingilia kati?

Ndio...La..

335. Ni maeneo gani maishani mwako yameboreshwa?

- | | |
|-------------------------|-----------------------|
| 1. Watoto kwenda shule | 1. Ndio () 1. La () |
| 2. Kujenga nyumba | 2. Ndio () 2. La () |
| 3. Ameoa mke mwingine . | 3. Ndio () 3.La () |
| 4. Kununua boda boda | 4. Ndio () 4.La () |
| 5. Nyingine (Eleza) | |

336. Je unaamini ya kwamba CSO wameboresha hali yako ya lishe bora? Ndio.... La.....

337. Ni usaidizi gani upande wa lishe bora unapata kutokana na CSO kuingilia kati?

- | | |
|--------------------------|-----------------------|
| 1. Lishe bora | 1.Ndio () 1. La () |
| 2. Mapato | 2.Ndio () 2.La () |
| 3. Mbegu za kilimo | 3. Ndio () 3. La () |
| 4. Ushauri wa lishe bora | 4. Ndio () 4. La () |
| 5. Nyingine (eleza)... | |

338, Je, ni changamoto gani wewe hukumbwa nazo na CSO kuingilia kati?

- | | |
|-------------------------------|-----------------------|
| 1. Hakuna mwendelezo wa mradi | 1. Ndio () 1. La () |
| 2. Wafanyakazi hawana uwezo | 2. Ndio () 2. La () |
| 3. Kuondoka mapema kazini | 3. Ndio () 3. La () |
| 4. Wafanyakazi wasio na uwezo | 4. Ndio () 4. La() |

5. Nyingine(eleza).....

339. Ni changamoto gani umepitia na vituo vya afya vya kiserikali kuingilia kati?

1. Umbali wa hospitali 1.Ndio () 1. La ()

2. Mfanyakazi hayuoko 2. Ndio () 2. La ()

3. Ukosefu wa usiri 3. Ndio () 3. La ()

4. Ukosefu wa huduma 4. Ndio () 4. La ()

5. Nyingine (eleza).....

340. Vipimo vya Anthropometric

Mhojiwa

Uzito katika kilo kwa Kilo.Kg

Urefu wa sentimita. Cm

Matokeo ya uzito na urefu wa kipimo

Kipimo.....1

Hawakuwa.....2

Waliokataa.....3

Nyingine.....9

341. Wingi wa chakula

Onyesha ni mara ngapi vyakula viafuatavyo vinaliwa na wagonjwa kwa wiki.

Uliza na uonyesha ni mara ngapi kwa wiki/mwezi vyakula vifuatavyo vinatumika?

Makundi ya vyakula Aina ya Chakula Vialiwa mara ngapi

Nafaka ya Mahindi (ugali/Githeri)

Mtama (ugali)

Ngano (chapati)

Mchele

Mizizi na mizizi ya viazi kiingereza

Mihogo

Viazi vitamu

Ndizi (kijani)

Bidhaa Za Wanyama (Nyama)

Samaki

Kuku
Mayai
Maziwa

Mboga

Skuma wiki
Kabichi
Mchicha
mbogaza jadi
nyingine (taja).....
Kunde Ndengu
Maharage
Mbaazi
Nyengine (taja).....

Matunda

Ndizi
Machungwa
Papai
Maembe
Matunda mengine

Vyakula vingine

1. sijakula kamwe 2 – nimekula mara chache 3 - Mara moja kwa mwezi, 4 - Mara moja kila baada ya wiki 2, 5- Mara moja kwa wiki, 6 - mara 3 kwa wiki, 7 - Mara moja kila siku, 8 - Zaidi ya mara moja kila siku, 25. kukumbuka fomu ya masaa 24.

342. Onyesha katika nafasi zilizoko hapo chini aina ya chakula ilivyoelezwa na mhojiwa kama ilivyoliwa kwa masaa 24 yaliyopita. Anza mahojiano kwa kuuliza: "je, wewe ulikula au ulikunywa nini baada ya wewe kuamka jana asubuhi? Je, ulikula nini baadaye na saa ngapi?"Siku ikiisha uliza maelezo kuhusu viungo, njia ya maandalizi na ys kuwahudumia.

Kumbuka: ujuzi naviungo vinavyotumika katika maandalizi. Onyesha idadi ya chakula kinachotumiwa na mhojiwa, kwa kuzingatia idadi na ukubwa wa vikombe au viombo vingine kama vile vya mafuta ya kupikia.

WAKATI WA MLO (Maelezo ya chakula au kinywaji)

Viungo Maandalizi Ukubwa wa mlo (g au ml)

Asubuhi

Katikati ya asubuhi Vitafunio

Chakula cha mchana

Alasiri vitafunio

Chakula cha jioni

Usiku wa manane vitafunio

343, Je jana ilikuwa mfano wa siku ya kawaida. 1.Ndio.....2. La.....

b) Kama la, eleza utofauti wa siku hiyo na siku nyinginezo

Appendix 6: Qualitative Questionnaire for Key Informants -Kiswahili Version

SEHEMU YA 4: 004: Wafanyikaziwa Vyama vya Kiraia (katika mahojiano ya kina)

344. Uliza ni asasi za kiraia/umma/vifaa vya ubinafsi muhojiwa anahudumia

.....

345. Kujua ni muda gani shirika ya muhojiwa imekuwa katika eneo hili; na kuchunguza zaidi ili kujua hasa huduma zinazotolewa kwa wale walioathirika na HIV. Kujua kama ni lazima kimsingi iweathari wa HIV/AIDS.

.....

.....

346. Kujua kama shughuli zinazotolewa na CSO hizi wana mkono kuboresha ustawi kwa watu walioambukizwa na virusi vya ukimwi; kama wana ushahidi wowote kuonyesha mabadiliko tangu kuanzishwa yao ya miradi juu ya ardhi; Kujua nini wamefanya kuboresha hali ya afya kwa ujumla kwa watu walioathirika katika suala la upatikanaji ARV, usimamuzi wa maambukizo nyemelezi; kama kweli; hali jinsi na kuomba nyaraka kuunga mkono ushahidi; kuchunguzi maeneo ambayo kuwa mahsusi kwa umebadilishwa miongoni nwa watu HIV/AIDS; kuuliza jinsi juhudi zao imekuwa kupokea jamii.

.....

.....

.....

347. Jinsi mipango ya CSO kuboresha hali ya uchumi kwa watu walioathirika; kuchunguza zaidi ili kujua aina ya shughuli za uzalishaji mali zinazotolewa, nini kubadili mipango yao imeanzisha walengwa;

kuuliza nini wamefanya kuboresha hali ya maisha kwa watu walioathirika katika suala la maendeleo ya kiuchumi. Kujua kama wana nyaraka yoyote ya kusaidia na kujua idadi ya waliolengwa.

.....
.....

348. Kuuliza shughuli ambayo asasi za kiraia hutoa kuboresha hali ya lishe kwa watu walioambukizwa na ukimwi.; kama wapo ni vipi zinazotolewa; kuuliza zaidi nini wakazi amefaidika, makundi ya watu kwa mkono; na kuchunguza zaidi mipango yao katika kuboresha maisha.

.....
.....

349. Ni mabadiliko yepi shirika hili imechangia katika kuboresha maisha ya jamii; chunguza nini CSO amefanya bora kuliko serikali kwa hali ya mikopo kutoka kwa PLWHA; Kujua thamani aliongeza na nini tofauti na serikali imefanya.

.....
.....

350. Jinsi gani waokufuatilia utekelezaji wakati na baada ya kukamilika kwa miradi, kugundua ambaye anafanya najinsi mara nyingi hii ni kosa; kuuliza kama kuna taarifa kw njia hii. Kuujuua jinsi ya kudumisha kumbukumbu wao.

.....
.....

351. Kugundua baadhi ya changamoto ya CSO katika kutoa HIV/AIDS kuhusiana na huduma ya kuboresha ustawi kwa watu walioathirika; kuchunguza juu ya maeneo ya

kiwango cha lishe; Hali ya afya; kujibu hali ya uchumi; kuuliza kuhusu kama vile msaada wa kisiasa na jamii; ushuriki wa serikali na katika ngazi ya mgonjwa binafsi.

.....
.....

SEHEMU YA 5: 005: Wafanyikazi wa Wizara ya Afya (katika mahojiano ya kina)

353. Mbali na serikali, uliza kama kuna wadau wengine wa kusaidia kituo; orodha ya washirika na kujua hasa shughuli wao.

.....
.....

354. Kuuliza kama hatua ya CSOs hulenga ustawi kwa ajili ya wagonjwa wa HIV/AIDS; kuchunguza kujua huduma zinazotolewa kwa wagonjwa walioambukizwa virusi vya ukimwi; zaidi kuamua iwapo asasi za kiraia umeleta mabadiliko kwenye kituo? Kama wao wana mkono katika kuhakikisha wagonjwa hupata na kutumia vizuri madawa ya kukabiliana na makali ya UKIMWI; kama wana mkono kituo katika kusimamia OI;

.....
.....

355. Kujifunza jinsi wagonjwa walioambukizwa virusi vya ukimwi wamekuwa na uwezo wa kumudu huduma za msingi za afya; kuuliza zaidi kile chakula virutubisho ni kawaida kusambazwa kwa wao na nani na wapi; Washiriki wa jukumu hili ni kia nani; kuchunguza kama wana kumbukumbu mabadiliko yoyote katika ngazi ya mlo.

.....
.....

356. Nani anayefuatilia au ni msimamizi wa shughuli ya asasi za kiraia na miradi? Kuchunguza kama kuna taarifa yoyote na vyama vya kiraia vilivyowekwa katika kituo na kuuliza kuzipitia; orodha ya baadhi ya faida wenye amini wamekuwa mafanikio kwa wagonjwa wa HIV/AIDS kuhusishwa na CSO kuingilia.

.....
.....

357. Ni nani huandaa vifaa vya IEC kwa utetezi wa afya? Kama asasi zakiraia kufanya, tafadhali kuuliza kwa orodha yao katika kile lugha wao ni kawaida kuchapishwa. Kujua kama wao wamekuwa wa msaada wowote kwa watu binafsi na kiasi gani;

.....
.....

358. Ni changamoto yepi hupitia vyama vya CSO. Chunguza kama CSO imeongeza thamani ya vituo; PLWHA; jamii na jamii; kuchunguza zaidi maeneo ya mabadiliko

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.....
...

Appendix 7: Qualitative Checklist for Key Informants

Section 4: 004: Civil Society Organization Staff (In depth interview)

Ask which CSOs/public/private facilities the CSO staff works for;

.....
.....

Find out how long the organization she serves has particularly served in this locality; and probe further to know activities mainly provided to those infected with HIV and should essentially be HIV/AIDS related activities;

.....
.....

Find out if activities provided by these CSO have supported/improved the wellbeing for HIV infected persons; if they have any evidence to demonstrate the change since their introduction of projects on ground; Find out what they have done to improve the general health condition for HIV infected individuals in terms of ARV access, management of Opportunistic Infections; if indeed, state how and ask for documents to support the evidence; probe which areas have specifically been changed among HIV/AIDS individuals; ask how their initiative has been received by the community.

.....
.....

How has CSO plans improved the economic status for HIV infected individuals; probe further to know type of income generation activities provided, what change their plans has introduced to the beneficiaries; ask what they have done to improve the living

conditions for individuals infected in terms of economic development. Find out if they have any supporting documents and know number of beneficiaries

.....
.....

Ask what activities CSOs provide to improve nutritional status for AIDS infected persons; if any, how are they provided; ask further how populations have benefited, groups of individuals supported; and probe their plans when they wind up the project in terms of sustainability.

.....
.....

What change this organization has contributed to in improving community livelihood; probe what CSOs has done better than the government to warrant credit from the PLWHA; find out the added value and what different from the government has done.

.....
.....

How do they monitor interventions during and after completion of the projects, discover who does and how often this is done; ask if there are reports with respect to this. How they maintain activity records and where they are kept.

.....
.....

Discover some of the challenges experienced by CSO on providing HIV/AIDS related services to improve wellbeing for HIV infected individuals; probe on areas of

Nutritional status; Health status; and Economic status; ask about political as well as community support; government involvement and at individual patient level

.....
.....

What plans do CSO have in ensuring improved services for HIV/AIDS in support of government structures? Ask if they have noted any gaps during intervention that will enable them to change their set strategies?

.....
.....

Section 5: 005: Ministry of Health Staff (In depth interview)

Apart from the government, ask if there are other partners supporting the facility; list the partners and find out activities they offer. Which service areas are supported by CSO?

.....
.....

Ask if CSO interventions are geared towards improving the wellbeing of HIV/AIDS patients; probe to know the services offered to HIV infected patients; further determine whether CSOs have brought change to the facility? If they have supported the facility in ensuring AIDS infected patients access and adhere to ARV drugs; if they have supported the facility in managing OI;

.....
.....

Learn how HIV infected patients have been able to afford basic health care services; ask further what food supplements are usually distributed to them by whom and where; Which partners play this role; explore whether they have recorded any change in malnutrition level.

.....
.....

Who monitors or supervises CSOs project activities? Where are reports kept especially following subsequent assessments and supervisions done? Probe if there are any reports by CSOs kept in the facility and ask to go through them; List some of the benefits you believe have been achieved by HIV/AIDS patients attributed to CSO intervention.

.....
.....

Who prepares job aid and information education and communication (IEC) materials for health advocacy? If CSOs do, please ask to list them in what languages they are normally printed. Find out if they have been of any help to individuals and how;

.....
.....

What are the challenges following CSO intervention? has the intervention added value to the facility; PLWHA; community and society; probe further and indicate which areas has had change; explore if HIV patients have been empowered by CSOs.

.....
.....

Appendix 8: Anthropometry Checklist

Interviewee Number	Public/CSO/ Groups	Sub location or Village	Sex	Age	Weight	Height	BMI, Wasting, Stunted

Appendix 9: Clinical Examination Form

701, History of patient

.....

702, Vital signs

B/P

Temperature

Height

Weight

Physical General Examination:

703, HIV/AIDS test results, seen, Yes () Not seen, No ()

704, History taking

705, See ARV uptake history

.....

706, ask presence of this diseases in the family:

Tuberculosis Yes () No ()

Diabetes Yes () No ()

Hypertension Yes () No ()

Kidney disease Yes () No ()

Medication history, Yes () No ()

707, Assess status on the following:

Mental history

Social history

Sexual history

708, Sexual partners; Yes () No ()

709, Drug allergies (Sulpha), Yes () No ()

710, Use of alcohol, Yes () No ()

711, Potential Impact of treatment

712, General health; Mood:

Good: Yes () No ()

Anxiety: Yes () No ()
 Depression: Yes () No ()
 Blood Pressure: Normal Yes () No ()
 Temperature: Normal Yes () No ()
 Respiratory rate: Normal Yes () No ()
 Weight: Normal Yes () No (); Record findings
 Height: Normal Yes () No (); Record findings

713, Skin infections:

Skin rash; Yes () No ()
 Skin lesions (PPE); Yes () No () Fungal infections; Yes () No ()
 Herpes zoster scar; Yes () No () Kaposi sarcoma; Yes () No ()

714, Oral examination:

Candidacies; Yes () No () Gum disease; Yes () No ()
 Kaposi sarcoma; Yes () No () Oral hairy; Yes () No ()
 Lymph nodes: Asymmetric enlarged lymph nodes; Yes () No ()
 Genital and anus: Ulcers; Yes () No () Sores; Yes () No ()
 Urethral discharge; Yes () No () Condylomata (genital warts); Yes () No ()
 Speculum examination; Yes () No ()
 Abnormality; Yes () No () Discharge; Yes () No ()

Appendix 8: Focus Group Discussion Guide, English Version

Focus group discussion guide for 12 individuals (youths and adults) infected by HIV

Title: Effect of Civil Society Organization Intervention on HIV Infected Individuals in
 Busia County, Kenya

Date (day/month/year)/...../..... Time FGD session began:

Name of Moderator: Time FGD session ended:

Name of recorder::

Gender of group: male: female: Status: Youth: Adult:

Appendix 10: Focus Group Discussion Consent Form – English Version

Introduction

Please identify a private setting for the FGDs. Ask/assist each of the participants to complete the background information form.

I would like to thank each of you for agreeing to be a part of this focus group discussion. My names are I will be leading the discussion session.

My colleague here is called; will help by taking notes about the discussion.

Our time keeper is so that we don't exceed time assigned for discussion

We also request you to allow us to audio-tape and video record the sessions so that whoever is taking notes does not miss writing down any information during the discussion. Information recorded shall therefore be kept and locked in a cabinet by the PI and will be destroyed only after data analysis is done. Only research assistants involved in moderating FGDs shall be allowed access to the cabinet.

The purpose of conducting this discussion is to find out challenges resulting from the disease you are suffering from (HIV). In addition it will enable us (investigators) determine gaps regarding the care offered to you by registered groups / associations that provide services at community setting (civil society organization) a part from government. The study will help us assess how satisfied you are with the work CSOs are offering regarding health, food uptake and income generation.

The information we shall collect will be useful to guide Ministries as well as implementing CSOs to improve on their working conditions among other factors associated to your health. The findings will guide policy makers to amend government policies; help strengthen approaches to ease community involvement into projects to be and or initiated by CSOs.

You and your community will gain knowledge on how to manage HIV/AIDS infection and also deal with issues related to stigma and discrimination. In the long run after CSO

term expires, we expect you to remain in control over initiated projects by ensuring that you are able to manage the projects left behind for you.

The study will help build up collaboration between government, the community and implementing registered community groups (CSOs). We want to assure you that there are no wrong or right answers. Please be sure that your personal details or what you say as a person will not be used at any time or either shared with anybody. We will ensure that all information discussed and taped is not shared and will be destroyed after analysis. This discussion will also be anonymous – your names will not be recorded in the notes; rather we shall assign codes to the names. You are therefore encouraged to participate actively and to feel free during the discussion.

Do you have questions at this point about this discussion?

If you agree to participate in the study, please sign or Thumbprint below after you have read and understood the purpose of the stated discussion. Participation is voluntary and therefore you are free to say no and leave

.....
Signature of FGD participant and Date

.....
Thumbprint for FGD participant and

Date
.....

Signature of person obtaining consent and Date

Appendix 11: Focus Group Discussion Guide-English Version

Ask each participant to introduce him or herself in turn. After introductions, open up the discussion by asking questions below.

1. Positive things CSOs have done to change health, Nutrition and economic status

Let us start the discussion by talking about change CSO have introduced on health, nutritional status as well as in improving your economic status

What are some of the benefits you have got from CSOs that are supporting you?

Probe/discuss the following and responses to each participant's questions

Discuss and probe on ability to access basic and better health services; and by which organization (CSO and government)?

Reduction to acute and chronic malnutrition for children and adults by CSO

Improved economic status

Ability to maintain CSO initiated projects

Usefulness of CSO to this community

Benefits CSO have offered to HIV infected individuals

Availability of HIV information

Please feel free to make any other comment about the positive and negative support you receive from CSO

Limitations

What are some things that are not so good about CSOs implementation?

At the end

We would like to thank you for sharing your thoughts and opinion; the information you have provided will be used in improving CSO implementation across communities.

After the focus group

Immediately after the discussion, note-taker and/or facilitator: debrief together; look over the forms with the participants' background information; make a note of suggested changes in the way the group or interview should be conducted or in the technical aspects of the logistics; revise, edit and complete gestures and consensus notes.

Appendix 12: Focus Group Discussion Guide, Kiswahili Version

005: Maelezo na maswali

005: Maongea ina husu watu 12 (umri wa kamu na umuri kubwa) ambao wako na virusi vya HIV

Title: Effect of Civil Society Organization Intervention on HIV Infected Individuals in Busia County, Kenya

Tarehe (siku/mwezi/mwaka)...../...../..... saa ya kuwanza maongeo:

Jina Moderator: saa ya kumaliza maongeo:

Jina recorder::

Mwanaume: Mwanamuke: Vijana/wasichana: Adult: Kujitambulisha

Please identify a private setting for the FGDs. Ask/assist each of the participants to complete the background information form.

Asante sana kwa kubali kuja kwa hii mukutano la gafla; kwa majina mimi ni..... Nita endeleza mazungumuzo hii.

Mwenzangu huyu anitwa: ata chukua maandishi.

Mwenye kuchunga saa niili tusi zidi wakati

Tuna waomba mutukubalie tutumie audio-tape na video na tukamate habari wakati wa masungumuzo ili tuweze kuandika kila jambo inayo nzungumuziwa. Maelezo ndani ya video ita fungwa kwa kabati na PI ili mutu mungine azi pate hiyo habari. Sababu ya masungumuzo hii, tuna taka kujua faida gani mume pata kutokana na kazi iliyo fanywa na CSO na tena kama kweli mume tosheka na kazi yao. Tena tunge taka kujua maali mume lemewa sana kuusiana na hu ugonjwa wa virusi vya ukimwi.

Yale yata patikana katika masungumuzo, yata saidia kunyorosha maagizo ya kazi ya serikali pamoja na CSO. Muta faidika sana kwa upande wa kuendeleza kazi ya CSO waki end. Muta weza kujua jinzi ya kueneza maagizo ya kuzuia ugonjwa wa virusi, na tena watu waheshimu wenzao. Uusiano kwa upande wa kazi pia ita kuwa kati ya serekali, wakaaji wa kijiji Fulani na CSOs. Kwa hivyo hakuna majibu mbaya. Chochote itasemwa wakati wa maongeo haita julikana na mutu yeyote. Ita wekwa kama siri na PI.

Tuta tape-record maongeo yale yata semwa yote ili tusi kose kupata mazungumuzo yata semwa. Tape ita haribiwa baada ya kutumika. Majina yako haita andikwa maali popote kwa karatasi. Kwa hivyo usi ogope wala usiwe na aibu kusema chochote.

Uko na swali yeyote kuhusu haya maongeo? Ukikubali haya mazungumuzo, tuna omba uweke sahihi mwisho wa haya maandishi. Tafadhali soma maelezo na uwelewe vizuri kabla kuweka sahihi. Hii sio kwa lazima.

Kila mumoja wenu aji tabulishe kwa majina. Jibu maswali kuhusiana na afya yako, chakula na mapato.

Kazi CSOs wame wafanyia kuinua maisha yenu kuhusiana na Afaya yenu, upande wa kifedha na chakula bora.

Appendix 13: Focus Group Discussion Guide-Kiswahili Version

MASWALI

Faida kutokana na kazi ya CSO imefanya kwa wale ana virusi pamoja na wale wa saidizi wao

Uwezaji wa pata matibabu mema

Upungufu wa ugonjwa wa chakula kwa watoto na wakubwa

Kuimarish uchumi wa community na mutu binafsi

Kama CSO wame saidia hi community

Kujibu maswali kutoka kwa wateja

Faida gani umepata kutokana na kazi ile imefanywa na CSOs?

Appendix 14: Informed Consent and Advice Form for Key Informants

The study you are about to participate in, aims to obtain information on the change registered groups and associations implementing in community settings (CSOs) have introduced on HIV infected individuals in Busia County. Two groups of HIV infected individuals will be selected from CSO intervention and non CSO intervention site and compared to determine the change. Should you agree to participate in the study be ready to be asked simple questions by use of a questionnaire instrument. Harmless procedures such as clinical examination and anthropometry shall be performed on you individually in a private room by trained health personnel. In depth interviews will be performed on MoH and CSO staff selected as key informants. Focus group discussion sessions will also be conducted at sites where PLWHA meet.

Those of you who will participate in the discussion sessions will be selected from a list of registered associations and groups of individuals infected with HIV. You all know that the criterion for joining registered groups and associations is that you must be HIV infected. Most of these groups as you are aware were formed to support HIV infected individuals including orphaned children. We will audio-tape and video record the discussion so that we do not miss writing down any information during the discussion. The information we will capture shall therefore be kept and locked in a cabinet by the PI and destroyed only after data analysis is done. Only research assistants involved in moderating shall be allowed access to the cabinet. Findings will determine effect of CSO intervention on improved health, nutrition as well as economic status.

All data collected from you will have serial numbers in order to protect your identity. Only the Principal Investigator plus research assistant interviewing you will have access to the information you have given. At the end of the study, there will be no way to link your name with your data. You will be allowed to have the final study results if in any case you wish to. You are free to withdraw or refuse to answer any question at any time without any consequences. Should you agree to participate in the study, please sign your name below, indicating that you have read and understood the nature of study; your responsibilities as a study participant,

Inconvenience associated with voluntary participation in the study and that all your questions and concerns concerning the study have been answered satisfactorily. If you are interested you can get a copy of this signed consent form to take away with you.

.....

Signature of study participant and Date

.....

Thumbprint for study participant and

Date

.....

Signature of person obtaining consent and Date

.....

Signature of witness and Date

Appendix 15: Authority Letter from AMPATH



USAID
FROM THE AMERICAN PEOPLE

T..J.ampath
, I' PLUS



4th PRIL 2016

Academic Model Providing Access To Healthcare
Telephone: 254 53 4133; 71 2P 0 SOX 4606. HDORER Fax: 254 532060727

TO WHOM IT MAY CONCERN

Dear Sir/Madam

REF: MRS. MARY ANDILI

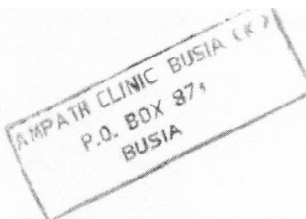
This is to let you know that the above named student undertaking a doctorate degree undertook a research at Busia AMPATH Clinic in Busia County in the month of June 2015. The research was about the effects of 50 intervention on people living with HIV/AIDS.

Am assistance accorded to her will highly be appreciated.




Thanks in advance

Your's faithfully

FRED OGADA
BUSIA CLINIC INCHARGE



Appendix 16: Letter of Authority from Busia County

	<p>REPUBLIC OF KENYA COUNTY GOVERNMENT OF BUSIA OFFICE OF THE COUNTY SECRETARY P.O. BOX PRIVATE BAG - 50400 BUSIA – KENYA.</p>	
CG/BSA/ADM/24/56		15 TH JUNE 2015
TO WHOM IT MAY CONCERN		
RE: <u>ACKNOWLEDGEMENT LETTER</u>		
This is to certify that Mrs. Mary Nandili, a P.H.D student has been allowed to collect data from the health facilities in the County towards her study "Effects of CSO's intervention in the lives of people living with HIV/AIDS in Busia County"		
Kindly accord her the necessary assistance.		
		
Nicodemus O. Mulaku <u>COUNTY SECRETARY</u>		

endix xi: Time Frame