



CIVIL SOCIETY FUND

**Strengthening civil society for
improved HIV&AIDS and OVC service delivery
in Uganda**



Final Report

**FACTORS ASSOCIATED WITH ADOPTION OF SAFER SEXUAL BEHAVIOR AMONG
PLHIV IN CARE IN SELECTED CIVIL SOCIETY ORGANIZATIONS– IMPLICATIONS
FOR POSITIVE PREVENTION (PP) PROGRAMS IN UGANDA**

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List of operational definitions

Behavior disinhibition: This means increase in unsafe sexual practices that occur as communities become aware that; HIV is a manageable chronic illness and those receiving ART (or their partners) having a perception that they are no longer infectious, especially when the viral load is undetectable (Luchters et al 2007)

Casual sexual partner: A person with whom the respondent is not married to or does not live with but has infrequent sexual intercourse

Consistent condom use: A practice of always using condoms during every sex act in the past twelve months

Depression: A state of low mood and aversion to activity that can affect an individual's thoughts behavior, feeling and physical wellbeing and this will be based on the Patient Health Questionnaire-2 (PHQ-2) screening test for depression

Prevention with positives: HIV prevention activities directed at improving the health of persons living with HIV and AIDS to prevent further transmission

Regular sexual partner: A spouse or cohabiting sexual partner.

Safer sex: Sexual practices or behaviors that reduce the risk of contracting and transmitting sexually transmitted infections, including HIV (Pan American Health Organization, World Health Organization - 2000).

Safer sexual behavior: People Living with HIV were classified as practicing safer sexual behavior if they consistently used a condom during every sexual act or abstained from sex.

Risky sexual behavior: Unprotected sexual intercourse with a person who one is neither married to, nor living with and is HIV positive/or whose HIV status is not known.

Un-protected sex: Condoms not used at last sex or inconsistent condom use in the last twelve months

Acronyms and Abbreviations

AIC	AIDS Information Centre
AIDS	Acquired Immune deficiency Syndrome
ART	Antiretroviral Treatment
BCC	Behavior Change Communications
CSF	Civil Society Fund
CSOs	Civil Society Organizations
FGDs	Focus Group Discussions
FMA	Financial Management Agent
HCT	HIV Counseling and Testing
HIV	Human Immune –deficiency Virus
IDI	Infectious Disease Institute
IDIs	In-Depth Interviews
JCRC	Joint Clinical Research Centre
KIIs	Key Informant Interviews
MEA	Monitoring and Evaluation Agent
NPS	Uganda National HIV Prevention Strategy
NSP	National Strategic Plan for HIV & AIDS
NSPPI	National Strategic Program Plan for Intervention
OVC	Orphans and other Vulnerable Children

PEP	HIV Post exposure prophylaxis
PLHIV	People living with HIV
PreEP	Pre Exposure Prophylaxis
PwP	Prevention with Positives
PP	Positive Prevention
STI	Sexually Transmitted Infections
TASO	The AIDS Information Centre
UAC	Uganda AIDS Commission
UAIS	Uganda AIDS Indicator Survey
WHO	World Health Organization

Executive summary

Introduction: In 2010, about 34 million people in the world were living with HIV of whom 2.7 million were new annual infections. More strategies are needed to reduce new HIV infections especially in Sub-Saharan Africa that shoulders 60% of the global HIV burden. One such strategy being promoted by the Uganda National Prevention Strategy (NPS) 2011-2015 and the National Strategic Plan for HIV/AIDS 2011/12-2014/15 is prevention with positives (PwP) where HIV prevention is targeted to persons living with HIV (PLHIV) to prevent further transmission.

The Civil Society Fund (CSF) was established under the Uganda AIDS Commission to support the objectives of the National Strategic Plan for HIV/AIDS and Orphans and Other Vulnerable Children (OVC). The goal of the CSF is to ensure that civil society provision of prevention, care, treatment, and support services in HIV/AIDS and OVC are harmonized, streamlined, effective, and in support of the GOU National Strategic Plan, National Priority Action Plan, and other national plans and policies. Currently USAID, DFID, Irish Aid, DANIDA, Italian Cooperation and SIDA have made contributions to the Fund. Grants have been disbursed for civil society activities in the areas of HIV prevention, AIDS care and support, HIV/AIDS treatment, and OVC.

To generate evidence based information that be used to improve program implementation, the Civil Society Fund commissioned the study to assess the factors associated with adoption of safer sexual behavior among PLHIV in care in selected civil Society Organizations.

CSF commissioned this study in order to generate reliable information that could contribute to evidence base that would guide CSF in its efforts to improve the performance of prevention with positives programs.

Study objective: The main objective of this study was to document positive prevention services offered to PLHIV and identify factors associated with adoption of safer sexual behaviors among PLHIV served by the CSF funded organizations in Uganda.

Methods: To conduct this study, a cross sectional study design utilizing both quantitative and qualitative explorative approaches was employed. The quantitative approaches used semi structured questionnaire to gather information on: social demographic variables of the respondents who were PLHIV in care; risky sexual practices; adoption characteristics of the recommended safer sexual behaviors for PLHIV; and reasons for adoption. The explorative qualitative approach utilized 8 focus group discussions (FGDs), 16 In-depth interviews (IDIs) and 16 key informant interviews (KIIs); and

factors associated with adoption of recommended safer sexual behaviors among PHLIV were explored. The range of positive prevention services provided by CSF supported sub-grantees were documented using checklists and KIs and the findings compared with national standards to assess adherence to national guidelines. Qualitative data was analyzed using manifest content analysis while quantitative data was analyzed using Stata® software.

Results

Nine hundred and sixty participants were recruited for this study. Majority of the study participants attended TASO (55.4%). The females constituted the biggest percentage (56.5%), the mean age (SD) and median age (IQR) were 38.1 (9.9) and 38.0 (31-44) years respectively. Males earned more money than females [median (IQR) average monthly income was 90,000/= (30,000 - 200,000) versus 50,000 (20,000 - 100,000) respectively. Desiring to have more children, being employed, having higher monthly income, having 2 or more sex partners in past 12 months, self disclosure of HIV status to sexual partner, having condoms at home, and being married were significantly higher among males than females. Average number of life time marital partners was mean (SD)= 2.1 (2.9) and median(IQR) = 2 (1-2); the mean was significantly higher for males than females (2.76 vs 1.74, $p < 0.0001$).

The prevalence of abstinence was 22.1% (208/939), implying that 77.9% of the studied population were sexually active. It was significantly higher in females [30.6(161/526) . $P = < 0.0001$] compared to males [11.4% (47/413)]. The prevalence of consistent condom use was 35.5% (301/847). It was significantly higher in males [42.6(166/390)] than in females [29.5 % (135/457). $P = < 0.0001$]. The overall prevalence of safer sexual behaviors (consistent condom use or abstinence) in the 12 months preceding the survey was 53.1% (509/959)] and did not differ by gender (51.0% in males versus 54.7% in females, $p = 0.245$).

Majority of the respondents were knowledgeable about safer sexual behaviors which they defined as abstinence, consistent and correct condom use and faithfulness among others. The major factors associated with adoption of safer sexual behaviors: fear of getting infections such as STIs and re-infections; duration of knowing ones HIV status; condom availability and accessibility; desire not to infect others; fear of pregnancy; continuous access to safer sexual behavior information; gender and education. This study also enlisted barriers to adoption of safer sexual behaviors. The factors inhibiting adoption were found to include; alcohol consumption, marital status, poverty, gender imbalance, perceptions of mistrust when couples use condoms, desire for children, complacency and behavior

disinhibition. This study further revealed that 38% of the studied population said that the responsibility for not getting infected with HIV should rest with HIV negative people.

The study described the positive prevention services provided by CSO and their level of adherence to guidelines. The results show that CSOs are providing PwP services as indicated in the national HIV prevention strategy.

Conclusions

1. This study reveals that about a half of PLHIV in care in Uganda are practicing safer sexual behaviors (abstinence or consistent condom use).
2. Nearly thirty six percent of sexually active PLHIV are consistent users of condoms
3. Twenty two percent are abstaining.
4. Abstinence is more likely in those aged 40years and above and is less likely among married and cohabiting people. Furthermore, abstinence increases with duration of knowing HIV status.
5. Consistent condom use is more common among men who are not married and among people who have known their HIV status for more than two years.
6. More than one third of the PLHIV desire more children. More than two thirds of pregnancies among PLHIV are intended.
7. Being on ARVs or not does not predict safer sexual behaviors. It is indeed worrying that most of the people not on ART are having unprotected sex.
8. Most of the CSOs are adhering to guidelines, despite of the reported difficulties in terms of staffing, turnover of guidelines, and the huge clientele.
9. Alcohol, complacency and stigma inhibit adoption of safer sexual behavior

Recommendations

In view of the complexities of promoting PwP programs and the fact that PLHIV are practicing unsafe sexual behaviors, new approaches that enhance prevention with positive programs are called for. Key stake holders including the Ministry of Health of Uganda, the Civil Society fund and the civil society

organizations should promote and implement continuous education and counseling to boost safer sexual behaviors as opposed to one off interventions.

These data show that one in three PLHIV desire to have more children and this is associated with low levels of abstinence. It might be good to prioritize putting PLHIV on ART as soon as they become eligible to avert transmission that may occur as a result of unprotected sex due to the desire to have more children.

To reduce the risk of HIV transmission, test and treat policy may provide far rewarding outcomes given the known benefits of ART for HIV prevention.

Empowerment of women e.g. through use of female controlled HIV prevention strategies (female condom, microbicides) and through improving financial/economic independence should be given priority. PwP programs should embrace or encourage PLHIV to join Savings and credit cooperative organization (SACCOs) so as to access money for startup income generating activities. With regard to gender disparities, women should be helped to form groups that advocate for women empowerment and men should be continuously sensitized on pros of women empowerment. Cultural and religious institutions should be explored as possible avenues for advocating gender and sexuality in the context of HIV/AIDS.

Health education should emphasize the importance of PwP roles in prevention of HIV transmission. The thinking – preventing HIV lies in the hands of those who are HIV negative should be tackled.

Innovative care approaches such as task shifting, longer refill schedules, use of expert clients or use of group counseling where appropriate should be embraced to reduce workload on clinic staff, and extend services to rural areas where transportation is a key challenge to clients.

1.0 Introduction and Background

1.1 Global AIDS situation

Human Immunodeficiency Virus (HIV)/Acquired Immunodeficiency Syndrome (AIDS) remains a global public health challenge. It is a major contributor to the global burden of disease. In 2010, WHO estimated that 34 million people were infected with HIV of which 2.7 million were new infections and 1.8 million deaths were registered in the same year (WHO, 2011). Sub-Saharan Africa is hit hardest and hosts majority (60%) of the HIV/AIDS cases. Despite more than three decades of the epidemic, no cure or vaccine is available. Current efforts in HIV prevention include: behavior change communication for reduction in risky sexual behavior, condom use, prevention/elimination of mother-to-child transmission of HIV, testing and counseling for HIV and STIs, pre-exposure prophylaxis (PrEP) for HIV-negative partner in serodiscordant relationships, post-exposure prophylaxis for HIV (PEP), safe male circumcision, Antiretroviral treatment (ART), harm reduction for injecting drug users, blood safety, infection control in health care settings, structural interventions and prevention with positives interventions (UAC, 2011, UAC, 2010, Kennedy et. al, 2010). With the advent of ARVs that prolong life and improve the quality of life, behavior change communication strategies are suffering setbacks. There is increasing complacency and laxity in practicing some recommended safer sexual behaviors and yet the unmet need remains high for ARVs in most sub-Saharan African countries (Asante 2007). For example, it is estimated that only 50% of those in need of ARVS are receiving them in Uganda (MOH, 2011, NSP 2011/12-2014/15).

1.2 HIV/AIDS in Uganda

Uganda has an estimated 1.2 million people living with HIV, with 75% of these acquiring it through heterosexual transmission (UAC, The National HIV Prevention Strategy for Uganda: 2011-15). The prevalence of HIV declined steadfastly from an estimated 17% in the early 1990s to 6.4% in 2004/05 (Asiimwe-Okiror et al., 1997; Kirungi et al., 2006). However, recent data from the Uganda AIDS Indicator Survey (UAIS) done in 2011 suggests that the national HIV prevalence has increased to 7.3% (MoH 2012). Latest evidence even indicates that the number of new infections is rising on an annual basis (NPS 2011). This is a worrying situation given that a lot of resources have been committed to HIV prevention for over three decades. Hence, there is an urgent and critical need to redesign and refocus the current HIV prevention strategies for the infection trends to be reversed. One of the prevention strategies that the global community is advocating for is the prevention with positives

approach to prevent HIV transmission. This is because the HIV epidemic is only sustained and propagated by new cases of infection which result from transmission from infected persons to uninfected susceptible individuals. Given the natural history of HIV, many of the infected persons are not aware of their status until they have tested for HIV but even after testing, they play a critical role in prevention if they adopt safer sexual behaviors. In Uganda, out of the 1.2 million HIV positives, 525,000 are enrolled in chronic HIV care, with 290,000 of these on anti-retroviral therapy (UAC, 2010).

1.3 Positive Prevention Programs

HIV prevention interventions that proactively engage PLHIV, often called positive health, dignity and prevention (PHDP) (prevention with positives), are becoming an increasingly important focus for HIV prevention programs globally (Kennedy et al, 2010). With increased access to treatment for PLHIV, there has been a consequent decrease in mortality among PLHIV in care, improved wellbeing and subsequent increase in normal functioning including sexual activity (UNAIDS 2009). Therefore PLHIV in care continue to be at risk of acquiring new strains of HIV and transmitting HIV to others. About 50% of people infected with HIV in Uganda are in chronic HIV care programs. Many of them start care when HIV is in an advanced stage and infectiousness is high (Lawn SD 2008). Despite many PLHIV taking steps to reduce their risk for transmitting the virus, high-risk sexual behaviors continue to be reported. Three studies conducted in Uganda among PLHIV in care between 2009 and 2011 showed that the majority of PLHIV in care are sexually active, and high risk sex is highly prevalent at between 35 to 54.5% (Tumukunde et al, 2010; Wandera et al, 2010). It is worth noting that this increase could be attributed to the findings of the Modes of Transmission survey that found that there was a funding gap for prevention with positives. Although a lot of money was being channeled into the secondary and tertiary prevention of the HIV epidemic, it was rather focused on ART other than prevention with positives (Wabwire et al, 2009). Given this situation, interventions to address HIV prevention among PLHIV in care are critical to overall prevention efforts and such interventions have the potential to contribute to the reduction of new transmission and prevention of resistant strains.

Prevention with positives interventions vary, and can include increasing capacity to negotiate sexual relationships, increasing availability of condoms, promoting disclosure to partners, preventing transmission to partners or unborn children, preventing behavior disinhibition due to availability of ART (Cohen 2005 and Casell et al, 2006), and dealing with the stigma of HIV infection which poses a challenge to developing effective interventions (Kennedy et al 2010). In Uganda, integration of PwP services into the standard of care in HIV care settings is one of the objectives of the National HIV

Prevention Strategy. However, the level of attainment of this objective and degree of adherence to the nationally recommended PwP standards by service providers is not well documented.

The Civil Society Fund (CSF) was established in 2007 as a mechanism under which the Uganda AIDS Commission would bring together multiple donor funds and disburse grants to civil society organizations that are aligned with national plans and policies. The management and operations of the CSF are carried out by the three management agents: Technical Management Agent (TMA), Finance Management Agent (FMA) and Monitoring and Evaluation Agent (MEA). The goal of CSF is to ensure that civil society provision of orphans and other vulnerable children (OVC) and HIV prevention, care and treatment and support services are harmonized, streamlined, and effectively contribute to the goals of the government of Uganda National Strategic Plan (NSP), National Strategic Program Plan of interventions (NSPPI), and other relevant national plans and policies. CSF support CSOs to implement programs aimed at increasing access and utilization of HIV and OVC services. Between 2007 and March 2012, CSF has supported CSOs that have provided counseling, testing and given results to 813,347 individuals. In addition, CSF supported CSOs have provided clinical care and social services to 66,946 people living with HIV, distributed 32,788,315 condoms and distributed 13,517,185 information, education and communication materials (www.csf.org).

This study proposed to generate relevant information to guide interventions that would increase adoption of safer sexual behavior among PLHIV in care in civil society organizations (CSOs).

2.0 Literature Review

2.1 Prevalence of high risk sexual behavior among PLHIV

Antiretroviral therapy and prophylactic treatment of people living with HIV dramatically declines morbidity and mortality from HIV disease and improves well-being, including sexual health and function (Quin, 2006). In India, a study on prevalence and contexts of inconsistent condom use among heterosexual men and women living with HIV showed that one third of men and one fourth of women reported inconsistent condom use with regular sexual partners. The reported prevalence of inconsistent condom use was attributed to the beliefs that condoms were unnecessary in HIV-positive sero-concordant relationships; lack of sexual satisfaction with condoms; the desire to have children; husbands using alcohol; depression and anxiety; fear that disclosure of HIV status would bring marital discord and family shame and inadequate counseling by health care providers (Chakrapani et.al, 2010). In the high income settings, Stolte et al, 2001 and Chen et al 2002 documented a rise in un-protected sexual behavior and increased incidence of sexually transmitted diseases. Additionally, Sheer et al, 2001 found that heterosexual PLHIV in care were at increased risk of acquiring sexually transmitted diseases. Meanwhile, a few studies in Africa showed that some risky sexual behaviors decreased with ART and a substantial proportion of PLHIV on ART continued to have unsafe sex, even with partners known to be HIV negative (cf Sarna et al, 2011). A Côte d'Ivoire study reported a short-term increase in unsafe sexual behaviors after ART initiation (Diabate et al, 2008).

In Uganda, high risk sexual behavior persists among PLHIV in care despite the heightened HIV prevention awareness campaigns (Nkurayija, et al, 2012). The factors associated with the high risk sexual behavior among PLHIV in care in Uganda are known and have been found to include alcohol consumption; desire for producing children; being married and believing that condoms reduce pleasure (Tumukunde et al 2009).

2.2 Safer sexual behaviors among PLHIV

Safer sexual behaviors among PLHIV in care programs are increasingly being recognized and advocated for to reduce transmission of HIV. Intervention packages in care programs include: promoting and increasing availability of condoms; empowering PLHIV to negotiate sexual relationships; promoting disclosure to partners; preventing transmission of HIV to partners or unborn children; preventing behavior disinhibition and dealing with stigma (Cohen, 2005 and Mbonye et al 2011).

In Kenya, Luchters et al (2007) conducted a study titled '*Safer Sexual Behaviors after 12 Months of ART in Mombasa, Kenya: A Prospective Cohort*'. They found that there was a decrease in safer sexual behavior. In India, safer sexual practices of consistent condom use were attributed to the feeling of personal responsibility to protect the health of the partner, desire to prevent acquisition and/or transmission of sexually transmitted infections, and the belief that condoms are needed for antiretroviral therapy to be effective (Chakrapani et al, 2010). Studies documenting the prevalence of safer sexual practices among PLHIV in care are scarce. Understanding positive prevention practices among people living with HIV (PLHIV) can provide useful insights to guide efforts in preventing further HIV transmission, and helps to enable PLHIVs to lead healthy and responsible lives (Manjunatha, 2011).

2.3 Factors associated with adoption of safer sexual behavior

The existing body of literature on prevention with positives focuses on individuals with little inclusion of broader contextual or societal factors influencing transmission (Cheever et al, 2004). Reviews of prevention interventions with people living with HIV concentrate on a few behavior outcomes amongst which include condom use and individualized interventions (Crepaz et al. 2006; Kennedy et al. 2010). People receiving ART are adjusting their relationships and sexual behavior to their evolving life prospects, including increasing health and longevity (Russell and Seeley 2010).

Sarna et al, (2009) investigated the changes in sexual risk taking with antiretroviral treatment in Mombasa Kenya and the influence of context and gender norms. They found that proceeding HIV testing, PLHIV reduced the numbers of sexual partners and monogamous relationships began to predominate. Receipt of ART strengthened these changes, while improving sexual health. Disclosure of HIV status appeared to support condom use. On the contrary, concurrent sexual partnerships continued within polygamous marriage and unprotected sex occurred with regular partners, even those who were HIV-negative. Their study further found that perceptions about condom's effect on intimacy and trust, traditional gender roles, misconceptions about potential harm from condoms and fertility desires hindered condom use.

In Uganda, Tumukunde et al (2009) found that ART experienced patients were significantly less likely than the naïve to engage in risky sexual behavior [OR=0.57, 95% CI: 0.37-0.90]. The reasons for this discrepancy are not well explained but it can be hypothesized that the rigorous and continuing counseling as well as peer group support provided by ART care service organizations seem to result

into adoption of safer sexual behaviors which in turn may reduce the risk of potential HIV transmission in addition to the biological effect of reduced HIV viral load.

2.4 National guidelines for positive prevention services

The roll out of HIV/AIDS care and treatment and HCT services avails increased opportunities for the health system to interact with PLHIV and offer risk reduction counseling. Provision of comprehensive HIV prevention, care, and treatment services to HIV-positive individuals is a proven effective HIV prevention initiative. Initiatives for “Prevention with HIV-infected people” empower HIV-infected individuals to avoid onward transmission of HIV. Prevention with positives (PwP) delivery platforms are facility and community based, and require coordinated provision of a core package of HIV prevention services. Prevention with positives core messages emphasizes risk reduction and the limitations of ART (The National HIV Prevention Strategy for Uganda - NPS: 2011-15). The percentage of HIV/AIDS care facilities in Uganda that have integrated HIV prevention and offer a comprehensive package of prevention with positives has not been assessed to date despite the set target of 80% by 2015 (UAC, NPS: 2011-15).

As one of its objectives, this study therefore set out to assess the extent to which CSOs adhere to the nationally recommended PwP guidelines.

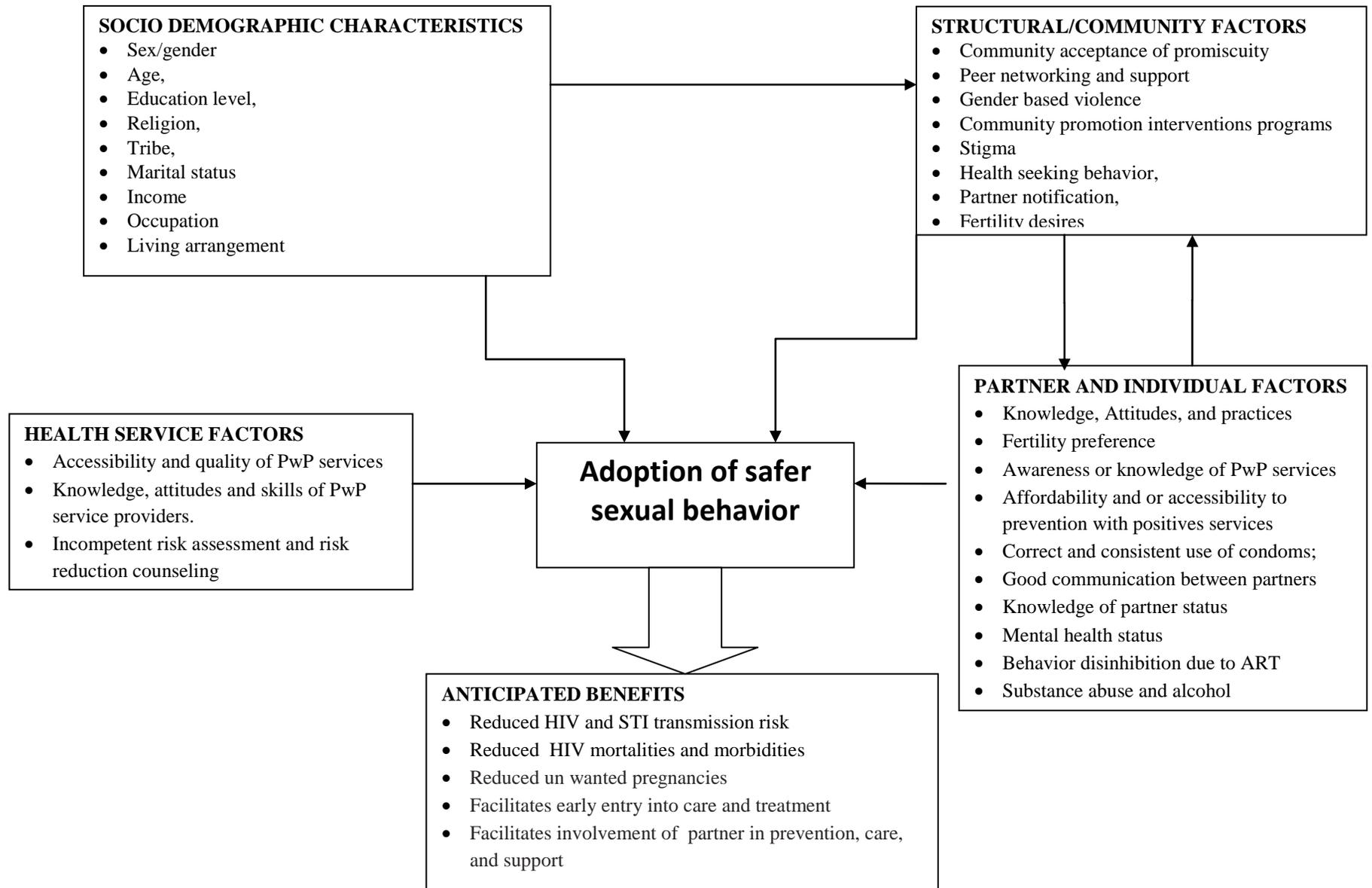
3.0 Problem Statement

The prevalence of risky sexual behavior remains high in Uganda among PLHIV in care. Studies conducted in Uganda among PLHIV in care between 2009 and 2011 showed that the majority of PLHIV in care are sexually active, and risky sexual behaviors were highly prevalent - varying between 35 and 54.5%. This is in spite of the many interventions that were in place over years to reduce risk transmission of HIV by people in care including repetitive comprehensive counseling. The reasons for the persistent high risk behaviors were not fully known. Past studies had largely focused on individual demographic factors associated with unsafe sex underscoring the importance of structural, health services and community factors. In addition, there was a knowledge gap with regard to the degree to which different care providers had incorporated nationally recommended best practices in their PwP programs. This study therefore assessed the factors associated with adoption of safer sexual behavior beyond the individual among PLHIV in care and information for programmatic improvements to reduce transmission of HIV.

3.1 Justification/anticipated benefit of the study

Prevention with positives has gained global attention and is highly being advocated for to enhance existing HIV prevention efforts to reduce HIV transmissions. Uganda lacks sufficient information to inform programmatic improvement of PwP programs. Therefore, this study investigated the individual, community and structural factors including health system related factors in order to generate information that would promote adoption of safer sexual practices among PLHIV in care. The information generated from this study is crucial and will inform the design and implementation of appropriate PwP interventions for PLHIV in care in Uganda. This study has also generated information about the extent of adherence to national guidelines by CSF supported sub-grantees. This data will be used to benchmark future assessments and hence progress monitoring.

3.2 The conceptual framework for the factors affecting sexual behavior among PLHIV in care



3.3 Research questions

This study undertook to measure the following research questions.

1. What is the prevalence of safer sexual behavior among PLHIV in care among CSF supported sub grantees?
2. What are the safer sexual behaviors that are adopted by the CSF supported PLHIV in care?
3. What are the factors that promote adoption of safer sexual behavior among the PLHIV in care?
4. What is the degree of adherence to nationally recommended PwP standards by supported sub grantees?

3.4 Overall Objectives

The overall objective of this study was to document positive prevention services offered to PLHIV and identify factors associated with adoption of safer sexual behaviors among PLHIV served by CSF sub grantees in Uganda.

3.4.1 Specific Objectives

1. To determine the prevalence of safer sexual behavior among PLHIV in care among CSF supported sub grantees.
2. To describe the safer sexual behaviors that are adopted by the CSF supported PLHIV in care.
3. To identify the factors associated with adoption of safer sexual practices among PLHIV in care.
4. To document positive prevention services and degree of adherence to guidelines for prevention with positives among CSF supported sub-grantees.

4.0 Study Methods

4.1 Study Area

This study was conducted in 8 districts of Uganda at CSO health facilities/organizations that are supported by CSF and provide care to people living with HIV in Uganda.

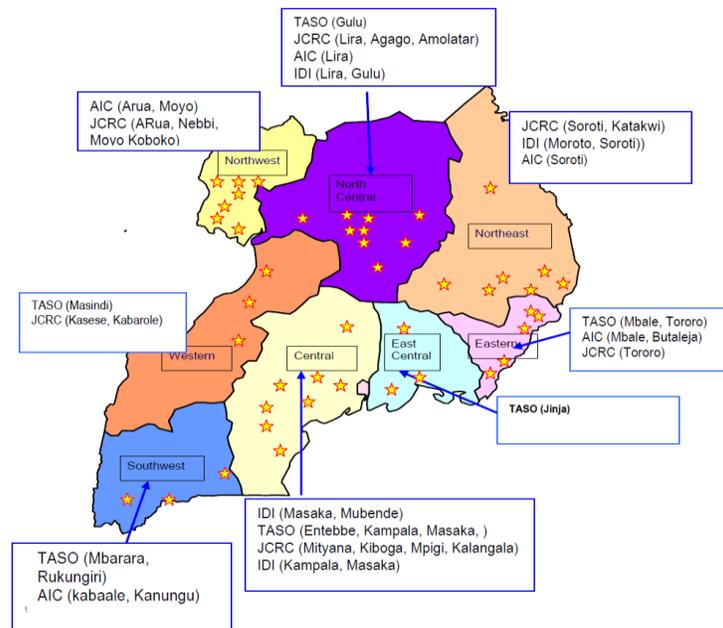
4.2 Study design

This was a descriptive and analytical cross sectional study in which both quantitative and qualitative methods of data collection and analysis were employed. The quantitative approaches utilized semi structured questionnaire to gather information on: socio-demographic characteristics of respondent PLHIV in care; adoption characteristics of the recommended safer sexual behaviors for PLHIV; and reasons for adopting the recommended safer sexual behaviors. The qualitative approach utilized key informant interviews (KIs), In-depth interviews (IDIs) and focus group discussions (FGDs) to understand the factors that influenced adoption of safer sexual behaviors among PHLIV. A key informant interview guide and a checklist was utilized to document the range of positive prevention services that were provided by CSF supported sub-grantees and the findings were compared with the national guidelines to assess the extent to which sub-grantees were adhering.

4.3 Study sites

The map below shows the zonal distribution of CSF sub grantees in the various regions of Uganda that provide care for people living with HIV. These include TASO, JCRC, IDI and AIC. The areas of operation are as stipulated in the map below. TASO operates in 10 districts, JCRC in 16 districts, AIC in 8 districts and IDI in 6 districts.

Zonal Distribution of CSF sub grantees as of July 2010



4.4 Sampling of CSOs

A multistage purposive sampling strategy was employed to sample the CSOs for enrollment into the study. Each CSO in the 8 regions was ordered to belong to one of the four main regions of the country - Northern, Western, Eastern and central region. The North region constituted Northwestern and North Central; East constituted North East and East, Central was ordered into Central and East Central and Western into West and South West.

4.5 Selection of CSOs

To account for contextual differences due to regional variations and service provider, a total of 8 districts were included in this study. The CSOs selected per district are as illustrated in the table 4.1 below.

Table 4.1 shows the CSOs that were included in this study.

No	Region	District	CSO
1	North	Arua	JCRC and AIC
		Lira	AIC and IDI
2	East	Soroti	IDI and TASO
		Tororo	JCRC and TASO
3	Central	Mubende	IDI
		Masaka	TASO
4	West	Mbarara	TASO
		Masindi	TASO

4.6 Study population

The study population for the quantitative survey, IDIs and FGDs were adult HIV clients attending HIV care at the selected CSF supported sites. The key informants included the care providers and PLHIV representative in supported CSF facilities.

Inclusion criteria

Individuals who were ≥ 18 years and were willing and capable of providing written informed consent were included in the study

Exclusion criteria

Individuals who were very sick to respond to interviews were excluded from the study.

4.7 Selection of study participants

Quantitative participants

The table 4.2 below shows the number of participants per district that we enrolled for participation in this study.

District	Number of study participants	%
Soroti	120	12.50
Tororo	119	12.40
Masaka	123	12.81
Mbarara	121	12.60
Mubende	120	12.50
Masindi	120	12.50
Lira	120	12.5
Arua	117	12.19
Total	960	100

We recruited about 44% of men and 56% of females in the study. This provided us with enough numbers of men to perform a stratified analysis. From each of the male and female sex category, we aimed at enrolling an equal number of ART experienced and ART naïve respondents. The participants were recruited using a combination of simple random and consecutive selection. Simple random selection was applied at facilities with huge clientele and consecutive selection was used at facilities with a small number of clientele.

Qualitative participants

The qualitative respondents (IDIs, FGDs, service providers, representatives of clients/patients, and HIV focal personnel) were purposively sampled depending on their ability to provide insightful information on the study topic (Dawson et al. 1993; Marshall 1996).

4.8 Sample size for the quantitative sample

We used the Kish (1965) formula below to determine the sample size with α of 0.05, $p=0.5$, and $d=0.05$ (5%),

$$\begin{aligned}n &= Z^2 \cdot p \cdot q / d^2 \\ &= (1.96^2 \cdot 0.5 \cdot 0.5) / 0.05^2 \\ &= 384\end{aligned}$$

We applied a non-response rate of 15% and a design effect of 2, and estimated the sample size

$$n = 904$$

n = Estimated sample size. The following assumptions were made during the sample size estimations.

z = Value on standardized normal distribution curve corresponding to a level of significance. The level is usually 5% and the corresponding z value is 1.96

p = probability of outcome of interest, in this case the estimated prevalence of adoption of safer sexual behavior among PLHIV in Uganda was not known. Therefore, we used 50% which provided the maximum variation to calculate the sample size for this study

$q=1-p$; $q = 100\% - p$ (100-50= 50%)

d = acceptable error; required precision of the estimate which is 5%

Substituting into the formula, and factoring in a non response of 15% and a design effect of 2 our sample size was estimated to be 904 respondents. To ensure that the final sample size did not fall below the estimated number ($n=904$), we revised the expected sample per district upwards from 113 to 120 which helped us to generate a total sample size of 960 distributed as shown in table 4.2 above.

4.9 Data collection methods

The study employed quantitative as well as qualitative methods of data collection.

4.9.1 Quantitative data

A questionnaire eliciting socio-demographic characteristics (age, sex, marital status, education level, religion, occupation, and socio economic status), health service variables (accessibility),

structural variables (socioeconomic status, level of education, living arrangement, level of stigma as perceived by PLHIV, health seeking behavior, partner notification, acceptance of multiple partnerships, fertility desires, access of PwP services) and history of gender based violence among others was developed with both open and closed ended questions. The questionnaire was pretested to ensure clarity and logical sequence. The quantitative data was collected by trained research assistants with a track record and at least two years experiences of collecting quantitative data on HIV.

4.9.2 Qualitative data

Selection of participants for qualitative

Key informant interviews

A Key informant interview guide for representatives of PLHIV and service providers was developed to obtain information on a range of services provided with regard to prevention with positives. Service providers enrolled into this study included; counselors, nurses, medical doctors, Clinical Officers and the district HIV focal personnel while the representatives of clients (PLHIV) enrolled were both female and male expert clients. The data collected included information on education for prevention with positives, HCT, condom use, counseling, and negotiation building skills workshops, disclosure, and PMTCT. 16 Key informant interviews were conducted.

Focus Group Discussion (FGDs)

A FGD guide was used to facilitate the discussions of PLHIV in care in the selected sub-grantee facilities in all regions in Uganda. Topics discussed included: understanding of safer sexual behaviors, influences of adoption of safer sexual behaviors, challenges and supports of adopting safer sexual behaviors and views on what could be done to improve adoption of safer sexual behaviors. The moderated discussion was tape recorded. The different FGDs included, those for ART experienced men; ART experienced females; ART naïve females ART naïve males. Further stratification was made based on age – young people (18-24), middle aged (25-40) and older people (40+). A total of 6 FGDs were conducted instead of 8 – because some groups couldn't be composed based on the set criteria as shown in table 4.3 below.

The table 4.3 below shows the composition of study participants for the qualitative IDI and FGDs.

Soroti	Tororo	Masaka	Mbarara	Mubende	Masindi	Lira	Arua
Female ART experience d faithfulness (18-24)	Female ART Naïve Abstainer (18-24)	Female ART experience d disclosed (40+)	Female ART experience d Consistent condom user (18-24)	Female ART experience d faithfulness (18-24)	Female ART experience d abstainer (25-40)	Female ART experience d disclosed (18-24)	Female ART Naïve consistent condom user (25-40)
Male ART experience d faithfulness (18-24)	Male ART naïve abstainer (18-24)	Male ART experience d Abstainer (40+)	Male ART experience d consistent condom user (25-40)	Male ART experience d faithfulness (18-24)	Male ART experience d Abstainer (25-40)	Male ART experience d Abstainer (18-24)	Male ART naïve consistent condom user (25-40)
ART experience d Females (18-24) (FGD)	ART experience d Males (25-40) (FGD)	ART experience d Females (40+) (FGD)	ART experience d Males (25-40) (FGD)	Female ART Naïve faithfulness (18-24)	Female ART Naïve Abstainer (25-40)	Female ART experience d disclosed (25-40)	Female ART Naïve Consistent condom use (40+)
ART Naïve Males (18-24) (FGD)	ART Naïve Females (25-40) (FGD)	ART Naïve Males (40+) (FGD)	ART Naïve Females (25-40) (FGD)	Male ART naïve faithfulness (18-24-40)	Male ART naïve Abstainer (25-40)	Male ART experience d disclosed (25-40)	Male ART Naïve Consistent condom use (40+)

*Except for items labeled FGD, the rest are IDI respondents.

4.10 Study variables

Outcome variable:

PHLIV were classified as practicing safer sexual behavior if they consistently used a condom or abstained from sexual intercourse within the last 12 months.

Predictor variables:

- Socio demographic variables (age, sex, marital status, education level, religion, occupation, and socio economic status)
- Health Service variables (accessibility, knowledge, attitudes and skills of PwP service providers, and incompetent risk assessment and risk reduction counseling)
- Partner and individual factors (knowledge, attitudes, and practices, fertility preference, awareness or knowledge of PwP services, affordability and or accessibility to prevention with positives services, correct and consistent use of condoms, and good communication between partners, knowledge of partner status, mental health status, behavior disinhibition due to ART and substance abuse and alcohol)
- Community factors (community acceptance of promiscuity, peer networking and support, gender based violence community promotion interventions programs)
- Structural variables (socioeconomic status, living arrangement, level of stigma as perceived by PLHIV, health seeking behavior, partner notification, acceptance of multiple partnerships, fertility desires, access of PwP services)

4.11 Data management**4.11.1 Quantitative data management and analysis**

Completed data tools were reviewed by the field data editor and all were collected and compiled by the field team supervisor, logged through counting and locating them into transportation boxes. No names were used as identifiers on the data collection tools. Data capture screens with in-built checks for consistency, logical flow, range and accuracy of data were designed in Epi-data version 3.1 and were used for electronic data capture (data entry). Data entry was conducted at a secure office at the School of Public Health and all data were double entered. All electronic data was saved on a pass-word protected external drive, and also a protected directory on a School of Public Health server. All the hardcopies of the completed data collection tools were secured under lock and key, and was only accessed by key data management team members.

4.11.2 Statistical Analysis strategy or plan

Electronic data was transferred from EPIDATA to Stata® version 12 ([StataCorp, College Station, TX](#)) software for statistical analyses. Exploratory data analyses were conducted to check the consistency and cleanliness of data and data was cleaned and assembled into analytic datasets. Quantitative analyses involved summarizing data using frequency tables, measures of central tendency [mean (SD), median (IQR)] as well as graphical approaches like whisker and box plots, histograms and or line graphs. Comparisons of variables across each other and by sub-categories of the outcome/dependent variable were conducted by t-tests and ANOVA for continuous variables and chi-square and Fisher's exact test for categorical variables. The bivariate analysis helped to assess any unadjusted statistical associations. Prevalence risk ratios (PRRs) were used as a measure of association – because the outcome prevalence was >10%. Odds Ratios were not used in this analysis because they would overestimate the “risk”.

Adjusted PRRs were calculated through log-binomial regression models and where convergence of log-binomial model could not be attained, a “modified” Poisson model was used. Both unadjusted and PRRs were estimated with associated 95% confidence intervals. Multivariable models were adjusted for potential confounders which were added to models based on biological plausibility as well as pre-determined statistical significance of 0.15 at bivariate analysis. Interaction terms were also tested for and when found, stratified results were presented; most parsimonious models were reported. In order to adjust for clustering at CSO level, we used robust standard errors and cluster option in the STATA software.

4.11.3 Qualitative data management and analysis

All qualitative data was transcribed verbatim, translated into English (for non English versions), read through line by line and a coding frame work developed using Microsoft Excel 2007. The content was constantly compared to generated comparisons and contrasts based on properties and those with similarities were categorized (Graneheim and Lundman 2004). Categorized content was condensed to form meaning units following which themes and sub-themes were generated.

4.12 Quality control

Good clinical practice guidelines were followed throughout the study. Research assistants (RAs) were recruited from a well-established network of RAs that had worked for the School of Public

Health on various research and consultancy protocols. All RAs were well trained on the research ethics and about this specific protocol as a way of ensuring quality in data collection for five days. A pre-test was conducted as part of training in the field setting in each of the 8 districts. A data quality control system was included and it entailed review of every form by the field data editors to ensure data completeness. A quality control (QC) team conducted a sample of re-interviews to ensure consistency and accuracy of the data. The data collection team was supervised on a daily basis by a field supervisor, and all the logistics were planned and implemented by field coordinators. The senior investigative team made regular field supervision and provided technical support on all aspects of the study. Double data entry was conducted and data cleaning before analyzing the data.

4.13 Ethical considerations

Ethical approval was sought from the Makerere University School of Public Health Higher Degrees, and Ethics Committee. Also, a final ethical approval was sought from the Uganda National council of Science and Technology. All participating CSOs were asked for permission to have their organizations participants. The study participants were provided with written informed consents detailing the study, the risks and benefits, and protection of confidentiality was emphasized.

5.0 Results

This report presents the major findings of the study conducted among PLHIV receiving care from Civil Society Organizations that are supported by the Civil Society Fund. The results are presented according to the study objectives with the first section showing characteristics of the study participants.

5.1 Characteristics of the study respondents

Table 5.1 shows the description of selected characteristics of 960 study participants that were enrolled from 4 CSOs in 8 districts namely Soroti, Tororo, Masaka, Mbarara, Mubende, Masindi, Lira, and Arua. Of the 960 participants, majority attended TASO (55.4%) and IDI (30.4%) CSOs, 56.5% were females, and the mean age (SD) and median age (IQR) were 38.1 (9.9) and 38.0 (31-44) years respectively. About 80% were aged 30 years and above, 29.3% completed secondary school education and above, majority (61.8%) reside in rural areas, with 44.1% having some form of employment or occupation. The median monthly average income was 60,000 Uganda shillings. Majority of participants (58.3%) were married or living together, 66.3% had known their HIV status for over 2 years. Of those married or living together, 9% were aged 18-29 years while 91% were aged 30 or more years. Among participants aged 18-24 yr-olds, 44.1% were married/living together, 20.6% divorced, none (0%) widowed, and 35.3% were never married (not shown).

Fifteen percent (15.2%) had known their HIV status for less than a year before the study time, 44.3% for 1-5 years, while 40.5% had known their HIV results for a period of over 5 years. The overall time since knowing one's HIV status was mean(SD) = 5.2 (4.5) years and median (IQR)= 4 (1.7-7.2) years. Both the mean and median times were significantly higher among females than males (5.52 vs 4.74 years, $p=0.008$) and [5 (2 - 8) vs 4 (1.1 - 7), $p=0.017$, respectively (not shown).

About 31.1% were desirous of having more children, 77.9% were sexually active, 62.3% had one partner and 15.6% had 2 or more partners. Consistent condom use in the 12 months preceding the study was reported by 35.5% of participants but 43.7% reported having condoms at home at study time. Regarding disclosure of HIV status to sexual partners 67.7% of those who disclosed did it themselves while 29% of disclosure was done by health care providers.

Table 5. 1: Selected Characteristics of the study population (n=960)

Characteristics	n	(%)
District		
Soroti	120	(12.5%)
Tororo	119	(12.4%)
Masaka	123	(12.8%)
Mbarara	121	(12.6%)
Mubende	120	(12.5%)
Masindi	120	(12.5%)
Lira	120	(12.5%)
Arua	117	(12.2%)
Civil Society Organization		
AIC	78	(8.1%)
IDI	292	(30.4%)
JCRC	58	(6.0%)
TASO	532	(55.4%)
Sex		
Male	418	(43.5%)
Female	542	(56.5%)
Age (years)		
Mean (SD)	38.1 (9.9)	
Median (IQR)	38.0 (31-44)	
18-24	67	(7.0%)
25-29	124	(12.9%)
30-39	358	(37.3%)
40-49	286	(29.8%)
50+	124	(12.9%)
Highest Education level*		
None	96	(10.0%)
Primary	582	(60.7%)
Secondary	217	(22.6%)
University/Tertiary	64	(6.7%)

Info on some variables was missing or not applicable, some totals may be less than 960

Table 5. 1 continued: Selected Characteristics of the study population (n=960)

Characteristics	n	(%)
Religion		
Roman Catholic	443	(46.2%)
Protestant/Anglican	359	(37.4%)
Islam	67	(7.0%)
Pentecostal/Born-Again	72	(7.5%)
Other [¶]	5	(0.5%)
Residence		
Urban	367	(38.2%)
Rural	593	(61.8%)
Employment		
Yes	420	(44.1%)
No	533	(55.9%)
Average monthly income (UgShs)		
Mean (SD)	121,421 (240,653)	
Median (IQR)	60,000 (67,000 - 150,000)	
Marital status		
Married/living_together	559	(58.3%)
Divorced/separated	168	(17.5%)
Widowed/widower	177	(18.5%)
Never_married/lived_together	55	(5.7%)
Duration since knowing		
One's HIV results		
<1year	145	(15.2%)
1 - 2 years	177	(18.5%)
2.1 - 5 years	246	(25.8%)
> 5 years	386	(40.5%)
On ARVs currently		
Yes	569	(59.6%)
No	386	(40.4%)
Desire for more children		
Yes	295	(31.1%)
No	653	(68.9%)

Info on some variables was missing or not applicable, some totals may be less than 960

Table 5. 1 continued: Selected Characteristics of the study population (n=960)

Characteristics	n	(%)
Number of sexual partners in past 12 months		
0	208	(22.1%)
1	585	(62.3%)
2+	146	(15.6%)
Disclosure of HIV status to sexual partner		
Self	368	(67.7%)
Health care provider	158	(29.0%)
Other	18	(3.3%)
Condoms use in past 12 months		
Inconsistent/none users	546	(64.5%)
Consistent user	301	(35.5%)
Condoms use practices in past 12 months		
Consistent	301	(41.1%)
Inconsistent	267	(36.4%)
Never	165	(22.5%)
Having condoms at home		
Yes	528	(56.3%)
No	409	(43.7%)
Persons clients live with*		
Mother	133	(14.0%)
Father	74	(7.8%)
Guardian	39	(4.1%)
Husband	202	(21.3%)
Wife	311	(32.8%)
Children	741	(78.0%)
Relative	77	(8.1%)
Alone	47	(4.9%)
Others	155	(16.4%)

Info on some variables was missing or not applicable, some totals may be less than 960

*Multiple responses allowed, total percentage exceeds 100, others mainly in-laws.

Table 5.2 indicates comparisons of study participant characteristics by gender. The mean and median age were significantly higher among males than females [mean (SD) 40.7 versus 36.2 years, and median (IQR) 40 (33-46) versus 36 (29-42), respectively]. Males earned more money than females [median (IQR) average monthly income was 90,000/= (30,000 - 200,000) versus

50,000 (20,000 - 100,000) respectively. Desiring to have more children, being employed, having higher monthly income, having 2 or more sex partners in past 12 months, self disclosure of HIV status to sexual partner, having condoms at home, and being married were significantly higher among males than females. Also a higher proportion of males were aged 40+ years while more females were aged less than 30 years. Abstaining (no sex partner in past 12 months), being widowed/divorced/separated and knowing one's HIV status for >5 years were higher among females than males.

Average number of life time marital partners was mean (sd)= 2.1 (2.9) and median(IQR) = 2 (1-2); the mean was significantly higher for males than females (2.76 vs 1.74, $p<0.0001$). About half (54.6%) of participants had ever been divorced, but the proportion of ever divorced was slightly higher among males than females (57.7% vs 52.2%) although the difference was not statistically significant, $p=0.094$ (not shown).

Table5. 2: Comparison of characteristics of the study population by gender (n=960)

Characteristics	n(%)	Male	Female	P value
Age (years)				
Mean (SD) [¶]	38.1 (9.9)	40.7 (9.7)	36.2 (9.5)	<0.0001
Median (IQR)*	38.0 (31-44)	40 (33- 46)	36 (29-42)	<0.0001
18-24	67 (7.0%)	11 (2.6%)	56 (10.3%)	
25-29	124 (12.9%)	36 (8.6%)	88 (16.3%)	
30-39	358 (37.3%)	154 (36.8%)	204 (37.7%)	
40-49	286 (29.8%)	144 (34.4%)	142 (26.2%)	
50+	124 (12.9%)	73 (17.5%)	51 (9.4%)	<0.0001
Highest Education level*				
None	96 (10.0%)	20 (4.8%)	76 (14.0%)	
Primary	582 (60.7%)	273 (65.3%)	309 (57.1%)	
Secondary	217 (22.6%)	87 (20.8%)	130 (24.0%)	
University/Tertiary	64 (6.7%)	38 (9.1%)	26 (4.8%)	<0.0001

*Levin's median test, [¶] Student *t*-test

Table 5. 2 continued: Comparison of characteristics of the study population by gender (n=960)

Characteristics	n(%)	Male	Female	P value
Residence				
Urban	367 (38.2%)	144 (34.4%)	223 (41.2%)	0.032
Rural	593 (61.8%)	274 (65.5%)	318 (58.8%)	
Employment				
Yes	420 (44.1%)	216 (52.2%)	204 (37.9%)	<0.0001
No	533 (55.9%)	198 (47.8%)	334 (62.1%)	
Average monthly income *				
in 1000s (UgShs)				
Median (IQR)	60 (67 - 150)	90 (30 - 200)	50 (20 - 100)	<0.0001
Marital status				
Married/living_together	559 (58.3%)	326 (78.0%)	233 (43.1%)	<0.0001
Divorced/separated	168 (17.5%)	50 (12.0%)	118 (21.8%)	
Widowed/widower	177 (18.5%)	23 (5.5%)	154 (28.5%)	
Never_married/lived_together	55 (5.7%)	19 (4.5%)	35 (6.5%)	

*Levin's median test, [†] Student *t*-test

Table 5. 2 continued: Comparison of characteristics of the study population by gender (n=960)

Characteristics	n(%)	Male	Female	P value
Duration since knowing one's HIV results				
<1year	145 (15.2%)	74 (17.8%)	71 (13.2%)	
1 - 2 years	177 (18.5%)	88 (21.1%)	89 (16.5%)	
2.1 - 5 years	246 (25.8%)	107 (25.7%)	139 (25.8%)	
> 5 years	386 (40.5%)	147 (35.3%)	239 (44.4%)	0.013
On ARVs currently				
Yes	569 (59.6%)	262 (63.3%)	307 (56.8%)	
No	386 (40.4%)	152 (36.7%)	234 (43.2%)	0.041
Desire for more children				
Yes	295 (31.1%)	145 (34.9%)	150 (28.1%)	
No	653 (68.9%)	270 (65.1%)	383 (71.9%)	0.025

*Levin's median test, [†] Student *t*-test

Table 5.2 continued: Comparison of characteristics of the study population by gender (n=960)

Characteristics	n(%)	Male	Female	P value
Number of sexual partners in past 12 months				
0	208 (22.1%)	47 (11.4%)	161 (30.6%)	
1	585 (62.3%)	259 (62.7%)	326 (62.0%)	
2+	146 (15.6%)	107 (25.9%)	39 (7.4%)	<0.0001
Disclosure of HIV status to regular partner				
Self	368 (52.6%)	190 (57.4%)	178 (48.4%)	
Health care provider	158 (22.6%)	96 (29.0%)	62 (16.8%)	
Other	18 (2.6%)	9 (2.7%)	9 (2.4%)	
Not Applicable	155 (22.2%)	36 (10.9%)	119 (32.3%)	<0.0001
Having condoms at home				
Yes	528 (56.3 %)	277 (66.7%)	251 (40.1%)	
No	409 (43.7%)	138 (33.2%)	271 (51.9%)	<0.0001

*Levin's median test, [†] Student *t*-test

5.2 Prevalence of safer sexual behaviors

We assessed the individual prevalence of abstinence and consistent condom use. By definition, an individual could practice only one method of safer sexual behavior in the last 12 months – either consistent condom use or abstinence. To measure the overall prevalence of safer sexual behavior among PLHIV in care in CSOs supported by the CSF, a composite end point (abstinence or consistent condom use) was constructed and is reported in section 5.2.3 below.

5.2.1 Prevalence of abstinence

We determined the prevalence of abstinence (defined as no sexual intercourse in the 12 months preceding the study) and the results are shown in table 5.3 below. The overall prevalence of abstinence (un-weighted) was 22.1% (208/939). It was significantly higher in females [30.6(161/526). $P < 0.0001$]. The proportion of abstinence increased with age from 9.4% in 18-24 year-olds to 40.5% among those aged 50 years or more, was higher among females, those with no education, those who did not desire to have more children, who did not take alcohol in past 12 months, those who knew their HIV status for more than 5 years, and those who did not attend discussion/support groups for HIV prevention.

Table 5.3 continued: Prevalence, unadjusted and adjusted prevalence risk ratios (PRRs) of factors associated with abstinence in past 12 months among HIV positive clients attending CSO facilities in Uganda.

Characteristics	Abstinence % (n/N)	Unadjusted PRRs (95% CI)	P value	Adjusted PRRs (95% CI)	P value
All	22.1% (208/939)				
Age (years)					
18-24	9.4% (6/64)	1 (ref)		1 (ref)	
25-29	14.2% (17/120)	1.51 (0.63, 3.64)	0.36	1.70 (0.64, 4.47)	0.283
30-39	18.9% (67/354)	2.02 (0.91, 4.45)	0.08	2.41 (0.98, 5.95)	0.055 [†]
40-49	24.6% (69/280)	2.68 (1.19, 5.78)	0.016	2.73 (1.09, 6.87)	0.032 ^{††}
50+	40.5% (49/121)	4.32 (1.96, 9.53)	<0.0001	4.14 (1.62, 10.57)	0.003 ^{††}
Sex					
Male	11.4% (47/413)	1 (ref)		1 (ref)	
Female	30.6 % (161/526)	2.69 (1.99, 3.62)	<0.0001	1.09 (0.76, 1.56)	0.640
Highest education level					
University/tertiary	12.7% (8/63)	1 (ref)		1 (ref)	
Secondary	15.0% (32/213)	1.18 (0.54, 2.57)	0.671	1.32 (0.60, 2.90)	0.482
Primary	22.5% (128/570)	1.77 (0.86, 3.61)	0.118	1.55 (0.75, 3.20)	0.238
None	43.0% (40/93)	3.39 (1.58, 7.23)	0.002	2.19 (1.01, 4.76)	0.048

^{††} Statistically significant at p<0.05, [†] Borderline significant at p<0.05, *Includes Born-Again, SDA, traditional

Table 5.3 continued: Prevalence, unadjusted and adjusted prevalence risk ratios (PRRs) of factors associated with abstinence in past 12 months among HIV positive clients attending CSO facilities in Uganda.

Characteristic	Abstinence % (n/N)	Unadjusted PRRs (95% CI)	P value	Adjusted PRRs (95% CI)	P value
Religion*					
Protestant/Anglican	19.5% (69/353)	1 (ref)		-	
Roman Catholic	25.8% (112/434)	1.32 (1.01, 1.72)	0.04	-	
Islam	21.5% (14/65)	1.10 (0.66, 1.83)	0.71	-	
Other*	14.9% (13/87)	0.76 (0.44, 1.32)	0.33	-	
Desire for more children					
Yes	11.7% (34/291)	1 (ref)		-	
No	27.0% (173/640)	2.31 (1.65, 3.25)	<0.0001	-	
Marital status					
Married/Living together	2.5% (14/555)	1 (ref)		1 (ref)	
Divorced/Separated	40.1% (67/167)	15.9 (9.18, 27.5)	<0.0001	16.7 (9.08, 30.6)	<0.0001 ^{††}
Widowed/Widower	65.4% (108/165)	25.9 (15.3, 44.0)	<0.0001	20.1 (10.9, 36.9)	<0.0001 ^{††}
Never Married	35.3% (18/51)	14.0 (7.40, 26.4)	<0.0001	24.5 (11.4, 52.4)	<0.0001 ^{††}
Alcohol in past 12 months					
Yes	12.2% (33/271)	1 (ref)		-	
No	26.2% (175/668)	2.15 (1.52, 3.03)	<0.0001	-	

^{††} Statistically significant at p<0.05, [†] Borderline significant at p<0.05, *Includes Born-Again, SDA, traditional

Table 5.3 continued: Prevalence, unadjusted and adjusted prevalence risk ratios (PRRs) of factors associated with abstinence in past 12 months among HIV positive clients attending CSO facilities in Uganda.

Characteristic	Abstinence % (n/N)	Unadjusted PRRs (95% CI)	P value	Adjusted PRRs (95% CI)	P value
Duration since knowing one's HIV results					
<1year	11.9 % (17/143)	1 (ref)		1 (ref)	
1 - 2 years	19.9% (35/176)	1.67 (0.94, 2.98)	0.082	1.67 (0.92, 3.03)	0.093
2.1 - 5 years	21.1% (51/242)	1.77 (1.02, 3.07)	0.041	1.62 (0.92, 2.86)	0.095
> 5 years	27.9% (104/373)	2.34 (1.40, 3.92)	0.001	1.76 (1.02, 3.06)	0.043 ^{††}
On ARVs					
No	17.6% (68 /387)	1 (ref)		-	
Yes	25.4% (140/552)	1.44 (1.11, 1.87)	0.005	-	
Attendance of HIV Prevention discussion/support group					
Yes	19.0% (94 /494)	1 (ref)		1 (ref)	
No	25.6% (112/445)	1.35 (1.06, 1.71)	0.016	1.32 (0.99, 1.76)	0.058 [†]
Education and/or counseling on risk reduction					
Yes	21.4% (179 /837)	1 (ref)		-	
No	28.7% (29/101)	1.34 (0.96, 1.87)		-	

^{††} Statistically significant at p<0.05, [†] Borderline significant at p<0.05, *Includes Born-Again, SDA, traditional

5.2.2 Prevalence of consistent condom use

The overall prevalence of consistent condom was computed as a binary outcome. Participants were grouped as either consistent condom users or never/inconsistent users. Thus the overall population prevalence of consistent condom use Table 5.4 (defined as a practice of always using condoms during every sex act in the past twelve months) was 35.5% (301/847). It was significantly higher in males [42.6(166/390)] than in females [29.5 % (135/457) $P < 0.0001$]. The prevalence of consistent condom use among condom users was 41.1% (301/733). It was significantly higher in males [55.2(166/368)] than in females [44.8 % (135/365). $P < 0.0001$].

Relative to those married/living together, the widowed were 46% less likely to use condoms consistently [adj.PRR = 0.54 (95% CI; 0.36, 0.83), $p = 0.004$]. The adjusted PRRs were 1.70 (95% CI; 1.09, 2.65) among those who knew their HIV status for 1-2 years and 1.83 (95% CI; 1.21, 2.76) for >5 years relative to those with less than 1 year. There was an increase adjusted PRR of 1.47 (95% CI; 0.95, 2.26) for those who knew their HIV results for 2.1-5 years compared to their <1 year counterparts but that association was of borderline statistical significance, $p = 0.084$. The prevalence of consistent condom use was 1.97 times higher among participants who reported attendance of health education talks/counseling sessions on protecting oneself against infection with another HIV strain relative to those who did not attend such sessions adjusted PRR=1.97 (95% CI; 1.19, 3.27, $p = 0.009$. Attendance of skills building workshops [adj.PRR = 1.27 (95% CI; 0.99, 1.62), $p = 0.056$] and none use of alcohol [adjusted PRR=1.26 (95% CI; 0.97, 1.66), $p = 0.087$] were associated with increase PRRs of consistent condom use but the association were of borderline statistical significance.

Table 5.4: Prevalence, unadjusted and adjusted prevalence risk ratios (PRRs) of factors associated with consistent condom use in past 12 months among HIV positive clients attending CSO facilities in Uganda

Characteristic	Consistent condom use % (n/N)	Unadjusted PRRs (95% CI)	P value	Adjusted PRRs (95% CI)	P value
All	35.5% (301/847)				
Age (years)					
18-24	31.1% (19/61)	1 (ref)		-	
25-29	28.1% (32/114)	0.90 (0.51, 1.58)	0.719	-	
30-39	33.1% (107/323)	1.06 (0.65, 1.73)	0.805	-	
40-49	43.5% (108/248)	1.40 (0.86, 2.27)	0.178	-	
50+	34.6% (35/101)	1.11 (0.64, 1.94)	0.708	-	
Sex					
Female	44.8% (135/365)	1 (ref)		1 (ref)	
Male	55.2% (166/368)	1.44 (1.15, 1.80)	0.002	1.29 (1.01, 1.65)	0.043 ^{††}
Highest education level					
None	35.5% (27/76)	1 (ref)		-	
Primary	34.2% (177/517)	0.96 (0.64, 1.44)	0.858	-	
Secondary	35.7% (69/193)	1.00 (0.64, 1.57)	0.980	-	
University/tertiary	45.9% (28/61)	1.29 (0.76, 2.19)	0.342	-	

^{††} Statistically significant at p<0.05, [†] Borderline significant at p<0.05, *Includes Born-Again, SDA, traditional

Table 5.4 continued: Prevalence, unadjusted and adjusted prevalence risk ratios (PRRs) of factors associated with consistent condom use in past 12 months among HIV positive clients attending CSO facilities in Uganda.

Characteristic	Consistent condom use % (n/N)	Unadjusted PRRs (95% CI)	P value	Adjusted PRRs (95% CI)	P value
Religion*					
Protestant/Anglican	38.4% (122/318)	1 (ref)		-	
Roman Catholic	33.9% (132/389)	0.88 (0.69, 1.13)	0.382	-	
Islam	37.5% (21/56)	0.98 (0.61, 1.55)	0.923	-	
Other*	30.9% (26/84)	0.81 (0.53, 1.23)	0.320	-	
Desire for more children					
Yes	31.9% (88/276)	1 (ref)		-	
No	37.4% (211/564)	1.17 (0.91, 1.50)	0.208	-	
Marital status					
Married/Living together	41.1% (226/550)	1 (ref)		1 (ref)	
Divorced/Separated	27.4% (37/135)	0.67 (0.47, 0.94)	0.022	0.78 (0.55, 1.12)	0.178
Widowed/Widower	22.5% (27/120)	0.55 (0.37, 0.82)	0.003	0.54 (0.36, 0.83)	0.004 ^{††}
Never Married	26.8% (11/41)	0.67 (0.36, 1.19)	0.167	0.71 (0.39, 1.33)	0.301
Alcohol in past 12 months					
Yes	30.0% (76/253)	1 (ref)		1 (ref)	
No	37.8% (225/594)	1.26 (1.02, 1.56)	0.034	1.26 (0.97, 1.66)	0.087 [†]

^{††} Statistically significant at p<0.05, [†] Borderline significant at p<0.05, *Includes Born-Again, SDA, traditional

Table 5.4 continued: Prevalence, unadjusted and adjusted prevalence risk ratios (PRRs) of factors associated with consistent condom use in past 12 months among HIV positive clients attending CSO facilities in Uganda.

Characteristic	Consistent condom use % (n/N)	Unadjusted PRRs (95% CI)	P value	Adjusted PRRs (95% CI)	P value
Duration since knowing one's HIV results					
<1year	21.5% (29/135)	1 (ref)		1 (ref)	
1 - 2 years	38.2% (60/157)	1.78 (1.14, 2.77)	0.011	1.70 (1.09, 2.65)	0.020 ^{††}
2.1 - 5 years	32.6% (73/224)	1.52 (0.99, 2.33)	0.058	1.47 (0.95, 2.26)	0.084 [†]
> 5 years	42.2% (138/327)	1.96 (1.32, 2.93)	0.001	1.83 (1.21, 2.76)	0.004 ^{††}
On ARVs					
No	29.7% (105 /354)	1 (ref)		-	
Yes	39.8% (196/493)	1.34 (1.06, 1.70)	0.015	-	
Attendance of HIV Prevention Discussion /support group					
No	25.6% (112/388)	1 (ref)		-	
Yes	41.2% (189 /459)	1.43 (1.13, 1.80)	0.003	-	
Education and/or counseling on risk reduction					
No	26.2% (22/84)	1 (ref)		-	
Yes	36.6% (279 /762)	1.34 (0.96, 1.87)	0.083	-	

^{††} Statistically significant at p<0.05, [†] Borderline significant at p<0.05, *Includes Born-Again, SDA, traditional

Table 5.4 continued: Prevalence, unadjusted and adjusted prevalence risk ratios (PRRs) of factors associated with consistent condom use in past 12 months among HIV positive clients attending CSO facilities in Uganda.

Characteristic	Consistent condom use % (n/N)	Unadjusted PRRs (95% CI)	P value	Adjusted PRRs (95% CI)	P value
Education and/or counseling on protecting self from another HIV strain					
No	16.2% (17/105)	1 (ref)		-	
Yes	38.3% (284 /742)	2.36 (1.44, 3.86)	0.001	1.97 (1.19, 3.27)	0.009 ^{††}
Skills' building workshops on safer sex behaviors such as (condom use, negotiation skills)					
No	27.9% (117/420)	1 (ref)		-	
Yes	43.2% (184 /426)	1.55 (1.23, 1.95)	<0.0001	1.27 (0.99, 1.62)	0.056 [†]

^{††} Statistically significant at p<0.05, [†] Borderline significant at p<0.05, *Includes Born-Again, SDA, traditional

5.2.3 Prevalence of safer sexual Behavior – composite endpoint (Consistent condom use or abstinence)

Following individual assessments of abstinence and consistent condom use, we determined the prevalence and factors associated with safer sexual practices as a composite endpoint of either abstinence or consistent condom use. The overall prevalence (Table 5.5) of safer sexual behaviors in the 12 months preceding the survey was 53.1% (509/959)] and did not differ by gender (51.0% in males versus 54.7% in females, $p=0.245$). Compared to the married/living together, the prevalence of safer sexual practices was 1.6 times higher among the divorced/separated and 1.7 times higher among the widowed (Table 5.5).

Table 5.5: Safer sexual practices (abstinence or consistent condom use as a composite covariate): Prevalence, unadjusted and adjusted prevalence risk ratios (PRRs) of factors associated with safer sexual practices in past 12 months among HIV positive clients attending CSO facilities in Uganda

Characteristic	Safer sexual Practice % (n/N)	Unadjusted PRRs (95% CI)	P value	Adjusted PRRs (95% CI)	P value
All	53.1% (509/959)				
Sex					
Female	54.7% (296/541)	1 (ref)		-	
Male	51.0% (213/413)	0.93 (0.78, 1.11)	0.429	1.21 (0.99, 1.48)	0.057 [†]
Marital status					
Married/Living together	42.9% (240/559)	1 (ref)		1 (ref)	
Divorced/Separated	61.9% (104/169)	1.44 (1.14, 1.81)	0.002	1.60 (1.26, 2.04)	<0.0001 ^{††}
Widowed/Widower	76.3% (135/177)	1.78 (1.44, 2.19)	<0.0001	1.70 (1.36, 2.17)	<0.0001 ^{††}
Never Married	53.7% (29/54)	1.25 (0.85, 1.84)	0.225	1.32 (0.89, 1.95)	0.164
Alcohol in past 12 months					
Yes	39.8% (109/274)	1 (ref)		1 (ref)	
No	58.4% (400/685)	1.47 (1.19, 1.81)	<0.0001	1.39 (1.11, 1.73)	0.004 ^{††}

^{††} Statistically significant at p<0.05, [†] Borderline significant at p<0.05, *Includes Born-Again, SDA, traditional

Table 5.5 continued: Safer sexual practices (abstinence or consistent condom use as a composite covariate): Prevalence, unadjusted and adjusted prevalence risk ratios (PRRs) of factors associated with safer sexual practices in past 12 months among HIV positive clients attending CSO facilities in Uganda.

Characteristic	Safer sexual Practice % (n/N)	Unadjusted PRRs (95% CI)	P value	Adjusted PRRs (95% CI)	P value
Duration since knowing one's HIV results					
<1year	31.7% (46/145)	1 (ref)		1 (ref)	
1 - 2 years	53.7% (95/177)	1.69 (1.19, 2.40)	0.003	1.58 (1.10, 2.26)	0.013 ^{††}
2.1 - 5 years	50.4% (124/246)	1.59 (1.13, 2.23)	0.007	1.46 (1.03, 2.06)	0.035 ^{††}
> 5 years	62.7% (242/368)	1.98 (1.44, 2.71)	<0.0001	1.66 (1.19, 2.33)	0.004 ^{††}
On ARVs					
No	44.4% (173/390)	1 (ref)		1 (ref)	
Yes	59.1% (336/569)	1.33 (1.11, 1.60)	0.002	1.09 (0.90, 1.33)	0.371
Education and/or counseling on protecting self from another HIV strain					
No	39.8% (51/128)	1 (ref)		-	
Yes	55.2% (458/830)	1.38 (1.04, 1.85)	0.027	1.35 (1.01, 1.81)	0.045 ^{††}

^{††} Statistically significant at p<0.05, [†] Borderline significant at p<0.05, *Includes Born-Again, SDA, traditional

5.3 Understanding and description of safer sexual behaviors

Understanding of safer sexual behavior in this study was measured qualitatively by asking the respondents to define the terminology. The findings show that majority of the respondents were knowledgeable about safer sexual behaviors which they defined as abstinence, consistent and correct condom use and faithfulness. Other behaviors defined included masturbation, PMTCT, ARV use, family planning, circumcision, washing for men after having sexual intercourse, avoiding sharing sharps, exclusive breast feeding, and disclosure. Definitions of safer sexual behavior were age specific, where by the young aged 18-24 mainly defined safe sexual behavior in terms of abstinence and condom use while the older respondents mainly defined it in terms of faithfulness and condom use.

In the quantitative survey, 93% of people living with HIV/AIDS said that HIV+ have an important role in helping to stop the spread of HIV and only 38% said that the responsibility for not getting infected with HIV should rest with HIV negative people. 96% of PLHIV said that it is possible to re-infect someone who is already HIV positive or become co-infected with other illnesses, especially sexually transmitted infections. Furthermore, only 4% of the respondents said that people living with HIV/AIDS need not to use condoms.

5.4 Factors associated with adoption of safer sexual practices

The factors associated with adoption of safer sexual behavior were measured using both quantitative and qualitative methodologies. Below we present the most important factors associated with the composite end point as well as with the individual outcome variables.

5.4.1 Fear of getting infections and re-infections

Fear of getting infections such as STIs and re-infections with other strains of HIV was a predictor of practicing safer sex. Multivariable analysis (table 5.5) revealed that attending counseling on protecting oneself against infection with another HIV strain was associated with 1.35 times higher prevalence of safer sexual practice in past 12 months before the survey. The association was controlled for sex, marital status, alcohol consumption, duration since knowing one's HIV results and being on ARVs. This finding is compatible with the qualitative data

where respondents reported that fear of getting infections (STIs and new strains of HIV) drives PLHIVs into practicing safer sexual behaviors particularly abstinence and consistent condom use. This response was echoed by majority of qualitative respondents in the all the 8 districts. *“I imagine that he will pick other STIs like syphilis and bring to me. I also hear that there are also different types of HIV virus, he will pick other strains from other women and bring to me. It is better I stay with the strain of the virus in me already”* (Female ART experienced abstainer-39, Lira District). *“What really compelled me (to use condoms) first and foremost was, I did not want to get re infected* (Male ART naïve consistent condom user-37, Arua District). *“ I must keep myself from spreading this virus and not to contract other diseases”* (ART experienced females-20 years abstaining – Mubende District). *“I did not want to get other aggressive strains of HIV* (FGD, ART experienced females – 40+, Masaka District).

5.4.2 Duration of knowing ones HIV status

The length of time one has known their HIV sero status predicts adoption of safer sexual practices. After controlling for sex, marital status, alcohol consumption in the past 12 months, being on ARVs and having received education and or counseling on protecting self from another HIV strain at multivariable analysis, the study participants who had known their HIV status for more than a year were associated with a ~1.55 times higher prevalence of safer sexual practices (consistent condom use or abstinence) relative to those who had known their HIV status for less than a year (Table 5.5).

With regards to consistent condom use alone (table 5.4), the adjusted PRRs were 1.70 (95% CI; 1.09, 2.65) among those who knew their HIV status for 1-2 years and 1.83 (95% CI; 1.21, 2.76) for >5 years relative to those with less than 1 year. There was an increase adjusted PRR of 1.47 (95% CI; 0.95, 2.26) for those who knew their HIV results for 2.1-5 years compared to their <1 year counterparts but that association was of borderline statistical significance, $p=0.084$.

Meanwhile, analysis for abstinence (table 5.3) showered that the adjusted PRR was 1.76 (1.02, 3.06) among those who knew their HIV status for >5 years relative to those with less than 1 year. It is also important to note that compared to participants aged 18-24 years, the unadjusted prevalence of abstinence was 2.7 times higher among those aged 40-49 years [2.68 (95% CI; 1.19, 5.78)], and 4.3 times higher in those aged 50 or more years [4.32 (95% CI; 1.96, 9.53)].

5.4.3 Availability and access to condoms

Consistent condom use was reported to be facilitated by their availability and accessibility. Distribution of free condoms through access points such as the hospitals enable PLHIV to utilize condoms consistently according to the quantitative data. Respondents indicated that during the time when condoms were being sold, it wasn't possible to use them consistently since people were poor. They also appreciated the introduction of the female condoms that made it easier for women to use condoms consistently even when their partners were unwilling to use condoms as noted in the following responses. *“What people have adopted is mainly correct and consistent use of condoms and especially now that there are female condoms in plenty...whether their partners refuse to use condoms or not they can decide to use their condoms” (ART male, Arua). “...at least now in the hospital we can be given condoms freely, at least when they are available, its not like buying; by then they were expensive so you don't decide like let me do like this(use condoms) (FGD ART -18-24, Soroti District). “The availability of condoms is important, because if they (PLHIV) come and you tell them that the condoms are not there and yet they have no money to go and buy condoms (Medical Doctor, KI Masindi).* Despite of this evidence from the qualitative data, it is sad to note that only 56 % of the respondents had a supply of condoms at home (Table 5.2).

5.4.4 Living for children/parenting

Purposing to stay alive so as to be able to raise their children has motivated PLHIVs with children to either abstain, or be faithful or to consistently use condoms. Some said they postponed having partners to take care of their children till they attain a certain age and achievements in life. *“I want to stay alive and keep my children. For him (partner) he is still having sex with other women. I made this decision for my children” (ART experienced females-39, Lira District). “ I felt its (faithfulness) one way of living longer I have children to look after...I actually have two in university right now so I have to keep alive I do not have to be reckless with my behavior I have to be faithful to one partner and use condoms” (ART naïve Male, Arua District). “If I get another woman, I have to support her also and this is very expensive, so I would rather spend the money on my children without other women” (ART experienced male-37, Masaka District). As for me I still want to keep this baby until he makes*

two years then I can think of getting another man” (ART experienced female -20, Lira District). “Personally I decided to abstain because of my children; I really wanted to see my children grow so I decided to abstain” (Female ART experienced – 40+, Masaka District).

5.4.5 Personal resolution/desire not to infect others

Evidence from the qualitative data showed that PLHIV who made a personal resolution not to infect others with HIV were likely to practice safer sexual behaviors such as condom use, being faithful to their partners, abstinence and HIV status disclosure than those who did not care. A married man with two wives who reported using condoms consistently in a discordant relationship noted that *“I use condoms consistently to avoid infecting other people, for example my second wife who is HIV negative” (ART experienced male, Mbarara District)*, likewise a young abstaining female retaliated *“...so as not to spread it to the others who do not have it {HIV}. ... I must keep myself from spreading this virus (ART experienced female-20, Mubende District)*. A nursing officer working with TASO observed that male clients give various reasons for using condoms such as *“I must keep myself from spreading this virus, I need to use condoms so that my wife lives longer and negative so that she keep the children in case I die” (Nursing officer, Mubende District)*. In Tororo, women noted that *“people use condoms to prevent the spread of HIV, and they also want to avoid re-infections” (FGD for women, Tororo District)*.

On the other hand, evidence from the quantitative survey did not show any significant statistical association with desire not to infect others. Rather, protecting self was strongly evident even after controlling for potential confounders at multivariable analysis.

5.4.6 Fear of pregnancy

Some respondents used condoms because they feared occurrence of pregnancies which would negatively affect the health of the HIV positive pregnant females. Other respondents felt that they had enough children so they preferred to use condoms as a birth control method. A 37 year old male who reported consistent condom use said that, *“when I felt that we did not need any more children, I told my wife that we have to use the condoms for family planning which she accepted, so I did not find it hard to use them even after testing positive for HIV” (ART experienced male-37, Masaka District)*. A 20 year old abstaining female who had a two year old

child reported that she stopped having sex to avoid getting pregnant again, *“If I continue having sexual intercourse I will get pregnant again” (ART female 20, Iira District).*

5.4.7 Continuous access to sexual health information

Based on the qualitative data, respondents who accessed sexual health information through counseling and mass sensitization practiced safer sexual behaviors like abstinence, consistent condom use, faithfulness and disclosure. A 39 year old female decided to abstain after being informed about the dangers involved in having sex so often, *“We are told that we should have sex once in a while because having sex everyday can weaken you. My husband was seeing that having it (sex) was the only work we can do.... Ahh.... I saw that I should be strong to look after my children” (ART experienced female- 39, Iira District).* *“Many (PLHIV) disclose because when we go for HCT, they tell us to tell the men or bring them to the centre, if the men refuse, you part ways” (ART female- 40 Masaka District).* *“Those who have tested and have been counseled and empowered adopt safer sexual practices and are living positive lives” (ART EXP male Mbarara District).* *“We are counseled to disclose especially in the villages” (ART Exp Female FGD Masaka).*

Evidence from the quantitative data (Table 5.4) also revealed that the prevalence of consistent condom use was 1.97 and 1.27 times higher among participants who reported attendance of education/counseling and attendance of skills building workshops [adjusted PRR = 1.27 (95% CI; 0.99, 1.62), $p=0.056$] respectively. On the contrary, quantitative outcomes predicted otherwise with respect to abstinence. Those who did not attend HIV prevention discussion/support groups had significantly higher unadjusted PRR of abstinence than those who attended, 1.35 (95% CI; 1.06, 1.71).

5.4.8 Female gender

In the quantitative survey (Table 5.3), unadjusted analysis showed that the female gender was a significant predictor of prevalence of abstinence compared to males [PRR =2.69 (1.99, 3.62) <0.0001]. Similarly, qualitative data showed that women had self control over sexual desires as opposed to their male counterparts. Women were also said to be more likely to disclose their positive HIV status and to live more faithfully to their sexual partners compared to males.

“Gender also matters; it is mainly the women who abstain unlike the men who find it hard to give up on women” (Counselor, Masaka).

5.4.9 Male gender

As opposed to the female gender which is reported to predict abstinence, the male gender in this study was associated with consistent condom use. The unadjusted PRR of consistent condom use was significantly associated with male gender [PRR=1.44 (95% CI 1.15, 1.80) 0.002]. Even after adjusting for potential confounders (age, attendance of risk reduction education/counseling, alcohol consumption in past 12 months), male gender remained statistically significantly associated with consistent condom use [PRR=1.29 (95% CI 1.01, 1.65) 0.043].

NB. The overall prevalence of safer sexual practices (composite consistent condom use or abstinence) in the 12 months preceding the survey did not differ by gender (51.0% in males versus 54.7% in females, $p=0.245$).

5.4.10 Age factors

Age was found to be associated with adoption of specific safer sexual practices in this study. Quantitative analysis (table 5.3) revealed that the proportion of PLHIV abstaining increased with age from 9.4% in 18-24 year-olds to 40.5% among those aged 50 years or more. Compared to participants aged 18-24 years, the unadjusted prevalence of abstinence was 2.7 times higher among those aged 40-49 years [2.68 (95% CI; 1.19, 5.78)], and 4.3 times higher in those aged 50 or more years [4.32 (95% CI; 1.96, 9.53)]. In the qualitative component, it is mainly the older women who reported practicing abstinence whereas the middle aged adults (25-40) were reporting faithfulness. *“It is mainly the elderly who abstain more than the young (Counselor, Masaka). “We do encourage children who are positive to abstain and most of them report to us that they are abstaining (Counselor, Lira). To some older respondents, condom use was mainly seen as purely a young people’s concern. A 39 year old woman noted that, “Young people can use condoms, but old people like me cannot use condoms” (ART experienced female- 39, Lira District).*

5.4.11 Couple HCT counseling

Couples who sought HIV counseling and testing reported enhanced adoption of recommended safer sexual practices. They benefited from assisted disclosure and reported ease of adopting condom use. “... he feared but accepted to come for HCT....when we got our results, we decided to use condoms consistently” (ART experienced, female-40, Masaka).

5.4.12 Sexual relationships stress factor

Some of the respondents reported that sexual relationships were stressing. As a way of relieving themselves from such stress, they adopted abstinence practices which would enable them live longer and also fulfill their other life obligations such as looking after their children and families. “Having a partner is very stressful and then the stress affects our CD4 count so you would rather stay alone” (FGD for ART experienced female -40+, Masaka). “Like me I see I am positive and we separated, so even if I get another one, he will add problems because you know when you are positive at least you don’t need stress, so I chose to abstain; I don’t want stress anymore” (FGD for women 18-24, Soroti District).

5.4.13 Mistrust among sexual partners

The perceptions of having partners who were unfaithful enabled some respondents to practice either consistent condom use or abstinence. Those who believed that their sexual partners could be cheating on them opted for abstinence or consistent condom use to prevent acquiring new infections. “...you never know the partner you are faithful to may not be faithful to you so it’s important that you always use a condom with that partner” (ART naïve male, Arua District). “So they(boys) decided not to have sex without condoms because they say most of the girls look healthy but when they are infected with this virus” (ART experienced female –20, Mubende District).

5.4.14 Education

Being in school was associated with motivating abstinence among PLHIV adolescents. The adjusted PRR was 2.19 (95% CI; 1.01, 4.76) for participants with no education at all compared to those with university/tertiary education. The young female respondents in the qualitative sample reported that school gave them an opportunity to concentrate on their books rather than boys who

would stress them and disrupt their education. *“Like when you abstain and you are at school you can easily get time of reading your books instead of having a boyfriend who is disturbing you” (FGD for ART experienced female- 18-24, Soroti, District).*

5.5.0 Barriers to adoption of safer sexual practices

5.5.1 Seeking for an income and source of livelihood

“More money is paid if one is to buy live sex from a prostitute” (Expert client, Mbarara). “Here in Malaba...there are 2 things going on either you use a condom or not, with a condom, they charge 30,000 and without a condom, it is 50,000. And you find that most of them (youth) accept unprotected sex as it brings more money” (Expert client, Tororo District), “Women are looking for partners with more money than the ones they have” (ART male 39yrs Lira District). Respondents of all age groups noted that some people especially young girls and some women engaged in risky sexual behaviors such as sleeping with multiple partners without condoms in search of money to meet their basic needs. Unfortunately, the pay depends on whether the sexual encounter is protected or not. Sex without condoms attracts a higher pay.

5.5.2 Belief that condoms are not meant for the married and HIV positive partners

The belief that condoms are not supposed to be used by the married was mentioned as a major hindrance to their use among some couples, even when one of the parties would be willing to use them. Women in an FGD had this to say, *“Like us women who are married, they tell you, you are my wife, why do I use a condom” (FGD for females 18-24, Soroti district).* Men too noted that, *“It is hard to convince married women to use condoms” (FGD for males 25-40, Mbarara District).* In the quantitative survey (Table 5.4), it was however surprising to find that the married were more likely to use condoms consistently compared to their widowed counterparts [PRR = 0.54 (95% CI; 0.36, 0.83), p= 0.004]. This significance (Table 5.5) reversed after analyzing the variable with the composite end point (consistent condom use or abstinence) [adjusted PRR =1.70 (95% CI; 1.36, 2.17) <0.0001] and also became significant for the separated category [adjusted PRR =60 (95% CI; 1.26, 2.04) <0.0001].

It was also found in the study that HIV positive people held a belief that it was useless to use condoms when both partners were HIV infected. This view was echoed in all groups as an excuse that is usually given by men not to use condoms. Females in a focus group discussion noted that, *“some of them don’t (use condoms) because the man might say, I am positive, you are also positive, why do we need to use a condom” (FGD for ART Female 18-24 yrs Soroti District). A counselor from TASO Masindi likewise reported that, “Females complain of the husbands refusing to use condoms. The men say that they are already positive so it is useless protecting themselves (Counselor Masindi District)”*. A 37 year old male noted that *“Most people ask I am already sick why should I use a condom to protect myself or someone else” (ART exp male- 37 Masaka)*. In the quantitative survey 38% of respondents said that the responsibility for not getting infected with HIV should rest with HIV negative people.

5.5.3 Belief that condoms reduce pleasure and are painful

Condom use was reported to be barred by the belief that condoms cause; pain, diseases like cancer, are cumbersome to put on, too tight, smelly and lead to loss of pleasure. An experience with condom use was viewed as having sweets in a polythene bag and not having real sex. *“The women and men in our place do not like condoms; they say that they do not like to eat sweets when they are wrapped” (FGD for females-40, Masaka)*. Other respondents mentioned that condoms are used for the first round of sex but not others due to loss of sensitivity. *“when you play sex with a condom it’s not “oba” so nice; it does not feel like you have had it (sex)...the first round they say okay we use a condom, but when you are going for the second round I didn’t feel anything; lets remove this thing (condoms), now they go live “(FGD for females 18-24 SOROTI District). “Some of the condoms are hot especially when you are using a female one ...condoms have a lot of that oil thing, so some people don’t like even the smell” (FGD for males 18-24 Soroti District)*. In the quantitative survey 51% of the respondents said that condoms reduce sexual pleasure and 45% said that condoms are not suitable for some sexual styles.

5.5.4 Associating condom use with mistrust and lack of love/intimacy

Condom use was associated with lack of trust and love for the partner by both male and female respondents which hindered their use to maintain the partners' royalty. Female respondents in a FGD observed that, “ *the girlfriend can tell him okay, we use a condom, aah, you don't trust him, is it because you have very many boyfriends that is why you don't trust me or love me*” (FGD for female 18-24 Soroti District). Men also complained that, “ *when you go to a woman for sex and you put a condom, a woman will say if you don't love me leave me alone, that's the reason why people don't use condoms*”. Being deeply in love translated into non condom use especially among the youth as noted by a female youth that, “*there is situation whereby one refuses to use condom and the other one (partner) is in deep love with him or her.... he will have live sex with her although it will not have been the intention (FGD for females 18-24, Soroti District)*. In the quantitative survey 37 % of the respondents said that Condoms can't be used in marriage or stable relationships and 28 % said that condoms are for the sexually loose/ promiscuous people.

5.5.5 Desire for children

Personal desire to have children coupled with the desire to comply with societal expectations of having a particular sex (especially males) and number of children were found to have compelled PLHIV into having unsafe sex. A male condom user in a discordant relationship related that, “*I would like to have 2 more children with my second wife who is HIV negative*” (ART experienced male -37 Mbarara District). “*The last one (child) I had it was because my husband wanted me to have another child since the one I had with him was a girl and was also HIV positive*” (ART exp female 39yrs Lira). Meanwhile, the quantitative data show 31% of the respondents said that they desire more children, 7 % of the women became pregnant in the previous twelve months, and 10% of the men caused a pregnancy in the previous twelve months. 60% of the women who became pregnant and 78% of the men who caused a pregnancy said that the pregnancy was intended.

5.5.6 Religious barriers

“Some of the Catholics and even some Muslims they say in their places of worship they are discouraged from using condoms. They say that’s not right because God said go out and multiply (ART naïve Male Arua District). “Religion is also a serious issue since Catholics do not embrace condom use” (counselor TASO Masaka District). Such responses from the study participants show that condom use is barred by religious beliefs mainly among the catholic and Muslims. In the quantitative component, religion wasn’t statistically significant.

5.5.6 Men’s authoritative power (Masculinity)

Men's position in society which gives them authority over women was found in the study to be jeopardizing the adoption of safer sexual practices among women. Women reported that men were making risky decisions without their consultation even when they had negative health implications to both parties for instance, having several women which does not favor faithfulness. *“They (men) go for more than one sexual partner like that...when you tell the husband, let’s do such and such he will tell you, no I am on top of you I know what I am doing” (ART female Soroti).* To retaliate, evidence from the quantitative survey (Table 5.2) show that men were more likely to be educated (9.1% v 4.8%) , employed (52.2% v 37.9%) earn higher income , use condoms, have more sexual partners (25.9% v 7.4%), and have more casual partners. On the other hand, men were less likely to be widowed and to abstain 23 (5.5% v 28.5%).

Wife inheritance was also reported as a barrier to practicing safer sexual behaviors such as abstinence. It was noted that, *“when someone dies for example more so the clan of the husband, when the husband dies, they just pick some other person to take over the woman” (ART female Soroti District).* Likewise a woman in Tororo noted that, *“The whole family knows am a widow, my husband has died of AIDS and you are forcing me to have sex with you (the late husband’s brother) and you become infected” (FGD for females, Tororo District).* Such statements concurred with an observation by a doctor from TASO that, *“culture is strongly embedded into people, when you listen to widows, the families in which they are married are still pestering them for relationship” (Doctor TASO Soroti District)*

Individual and societal beliefs that men cannot stay without a woman and the belief that they can have as many partners as they wish, fueled unsafe sexual behaviors among men. A 37 year old male observed that, *“Majority of us men are not able to stay without women; some when they realize that they are infected, they decide to have multiple women (ART experienced male, Masaka district).”*

5.5.7 Perceiving occasional non use of condoms as being okay

Men who occasionally proposed non use of condoms were described as understanding. This assertion was depicted by young adults in a focus group discussion – *“those who understand might say at least once in a while we do without (condom use)” (FGD for ART females 18-24, Soroti District)*. Defining men as understanding when they proposed occasional non use of condoms compromised consistent condom use.

5.5.8 Alcohol taking

Non alcohol taking predicted consistent condom use [PRR=1.26 (95% CI; 1.02, 1.56) 0.034] while alcohol taking was associated with non practice of consistent condom use (Table 5.4). *“Alcohol is a big problem here; women can get drunk and become careless; they do not want to use condoms” (FGD for ART naïve males 40+, Masaka District)*, *“Some men drink themselves silly and sleep with multiple partners while under influence of alcohol” (FGD for females 25-40, Mbarara District)*, *“they do take a lot of alcohol and by the time they do play sex, some play minus them (condoms) on” (counselor Soroti District)*. *“If somebody is drunk, he will not even use a condom, by that time they are not in the senses” (FGD for females, Tororo District)*. *“...alcoholism, whenever somebody is drunk, they lose their senses, when they are drunk, they do not even use condoms and they do not mind anything” (Expert client, Tororo District)*. All study groups (FGDs, IDIs and KIs) raised the issue of alcohol taking to be a major hindrance to practicing safer sexual behaviors affecting both females and males.

5.5.9 Lack of financial independence in the face of prevailing poverty

Safer sexual practices among some women were constrained by their lack of financial independence. Those who entirely depended on men for their survival had a low bargaining power for safer sex as noted by a clinical officer in Arua that, *“most women who cannot provide*

for themselves look on someone else, that is the husband and so they cannot bargain for safer sex”(clinical officer, Arua District)

Poverty in families is also fueling unsafe sexual behaviors among PLHIV especially the youth and women. Women in Masaka argued that, *“Poverty is a problem with so many demands at home some people are forced to have unprotected sex to get some money” (FGD for ART Experienced females 40+, Masaka)*, *“family conditions have forced young children into early sex, selling their bodies because you find that some parents don’t support their children...” (FGD for ART experienced males 18-24years, Soroti)*. A young abstainer also noted that, *“Some girls fall in love with men simply because their parents cannot afford buying for them certain things” (ART experienced female 20, Mubende district)*. In the quantitative survey (Table 5.2), women were less likely to be educated [$p < 0.0001$], be employed and when employed to earn much less than men [$p < 0.0001$] (table 5.2).

5.5.10 Complacency - comparing HIV to curable malaria

People have relaxed in taking extra precaution against catching HIV due to the emergency of ARVs that are believed by some people to be a cure to HIV. HIV has become comparable to malaria as was found in this study. *“Some people say that this (HIV) is just like another malaria... if I get infected I will get enrolled on ARVS” (ART naïve male, Arua District)*, *“when they say that this thing is no worse than malaria, people started going out.., changing partners the way they want”(clinical officer, Arua District)*, *“these days they call it malaria;...there is ... medicine ...we shall go to TASO”(FGD for ART experienced female 18-24,Soroti District),”* *right now patients say that this (ARVs)drug cures HIV/AIDS”(ART exp male-37, Masaka District)*

5.5.11 Behavior disinhibition

Safer sexual behaviors such as condom use were found in the study to be hindered by the belief that no HIV transmission occurs when someone is on ART. Women in a discussion observed that, *“Some women believe that transmission may not occur when the partner is on ARVs” (FGD for ART experience females 40+, Masaka District)*. In the quantitative survey (Table 5.9) 77.9% of the PLHIV respondents *said that* ART has enabled people to have children, 38.1% said that when

one is on ART, he/she is less likely to transmit HIV virus to the sexual partner and 43.7% said that when women are on ART, they dont transmit HIV virus to their children.

Table 5.6: Behavioral disinhibition and mental health characteristics among HIV positive clients attending CSO clinics in Uganda

Characteristic	n	(%)
<u>BEHAVIORAL DISINHIBITION</u>		
ART has enabled people to have children		
Agree	745	77.9
Disagree	61	6.4
Not sure	150	15.7
When one is on ART, he/she is less likely to transmit HIV virus to the sexual partner		
Agree	364	38.1
Disagree	469	49.0
Not sure	123	12.9
When women are on ART, they do not transmit HIV virus to their children		
Agree	418	43.7
Disagree	392	41.0
Not sure	146	15.3
<u>MENTAL HEALTH STATUS</u>		
Depression Scores		
0 - 2	848	89.3%
3 - 6	102	10.7%

Females had a significantly higher proportion of depression score 3-6 than males [13.6% (73/538) versus 7.0% (29/412), p=0.001]

5.5.13 Wrong community diagnosis of HIV

People in communities have their own diagnosis of HIV which is usually based on someone's outside appearance. PLHIV who look healthy are usually not taken seriously when they disclose to their partners their HIV status as found in this study. Young women mentioned that *"you go for sex you tell that man that put on a condom you know me I am not safe he even knows but for*

him he will be harsh he will not even put on that(condom)”(FGD for females 18-24, Soroti District). Another respondent related that, “when you tell someone aah for me I am living with HIV, a person will not accept. Number one the person will say as healthy as you are and you tell me that, you are just trying to chase me away from you” (FGD for females 18-24, Soroti District)

5.6.0 Positive prevention services and degree of adherence to guidelines

In order, to address objective four; “to document positive prevention services and degree of adherence to guidelines for prevention with positives among CSF supported sub-grantees” a total of 8 health facilities being run by three CSOs were studied. Four health facilities were under TASO (Tororo, Mbarara, Masaka and Masindi) whereas AIC and IDI had two health facilities each. The AIC facilities were from Arua and Lira) and the IDI facilities were from Soroti and Mubende). According to the Uganda 2011-2015 national HIV prevention strategy, HIV positive youth, children, women and men are supposed to receive different services/interventions to prevent HIV infection.

The youth and children are supposed to receive a minimum package having 9 services/interventions. As shown in the table 5.6 below, out of the 8 health facilities that were studied, 4 were providing all the nine services that are contained in the minimum prevention package for the HIV positive youth and children. Out of the 9 services in the minimum package, the following were being provided by all the 8 health facilities; providing STI screening and treatment among youth and providing risk reduction counseling to youth.

The only services in the minimum package that were being provided by all the 4 TASO health facilities were; providing education and counseling on ART and ART adherence for youth, providing STI screening and treatment among youth, and providing risk reduction counseling to youth. Providing premarital counseling for youth above 18 years was the least service being provided. It was being done in 5 (TASO Tororo, TASO Mbarara, IDI Soroti, AIC Arua and AIC Lira) out of the 8 health facilities. This was followed by providing psychosocial and spiritual support to youth which was being offered in 6 (TASO Tororo, TASO Mbarara, TASO Masindi, AIC Arua, AIC Lira and IDI Soroti) of the 8 health facilities.

Table 5.7: Positive prevention services provided to the youth and children by CSO (n= 8)

Service	CSO Name and number of facilities			
	AIC (n=2)	IDI (n=2)	TASO (n=4)	All (n=8)
Provide sexual education to delay sex debut and acquisition of skills about risks associated with sex among youth	2	2	3	7
Discourage unsafe sex among youth	2	2	3	7
Provide education and counseling on ART and ART adherence for youth	1	2	4	7
Provide STI screening and treatment among youth	2	2	4	8
Provide risk reduction counseling to youth	2	2	4	8
Provide psychosocial and spiritual support to youth	2	1	3	6
Facilitate support for groups for PLHIV among youth	2	2	3	7
Address issues of sexual and gender-based violence among youth	2	2	3	7
Provide premarital counseling for youth above 18 years	2	1	2	5

The minimum package for HIV prevention for women who are HIV positive has thirteen services.

Out of the 8 health facilities that were studied, 5 (TASO Tororo, TASO Mbarara, TASO Masindi, AIC Arua and IDI Soroti) were providing all the thirteen services that are contained in

the minimum prevention package for the HIV positive women as shown in table 5.7 below. Out of the 13 services in the minimum package, the following were being provided by all the 8 health facilities; providing risk reduction counseling, providing support for disclosure of HIV sero-status to partners and family members and partner testing, providing STI screening and treatment, providing psychosocial and spiritual, and providing treatment of other health conditions –TB, malaria, nutrition.

The only TASO facility that was not providing the services below; facilitating support for groups for PLHIV, supporting stigma and discrimination reduction, addressing issues of sexual and gender-based violence, and addressing socio-cultural-economic-legal factors to mitigate the effects of HIV/AIDS to HIV positive women was TASO Masaka.

Table 5.8: Positive prevention services provided to women by CSO (n= 8)

Service	CSO Name and number of health facilities			
	AIC (n=2)	IDI (n=2)	TASO (n=4)	All (n=8)
Provide IEC to increase uptake of HIV prevention interventions	2	1	4	7
Provide risk reduction counseling	2	2	4	8
Provide support for disclosure of HIV sero-status to partners and family members and partner testing	2	2	4	8
Provide family planning methods	2	1	4	7
Provide PMTCT for pregnant women	1	2	4	7
Provide education and counseling on ART and ART adherence	1	2	4	7
Provide STI screening and treatment	2	2	4	8
Provide psychosocial and spiritual.	2	2	4	8

Facilitate support for groups for PLHIV	1	2	3	6
Support stigma and discrimination reduction	2	1	3	6
Address issues of sexual and gender-based violence	2	1	3	6
Provide treatment of other health conditions –TB, malaria, nutrition	2	2	4	8
Address socio-cultural-economic-legal factors to mitigate the effects of HIV/AIDS	2	2	3	7

Out of the 8 health facilities that were studied, 4 were providing all the thirteen services that are contained in the minimum prevention package for the HIV positive men as shown in table 5.8 below. Of these facilities, 3 were for TASO (Tororo, Mbarara and Masindi), and one for AIC (Arua). Both IDI health facilities did not provide all the prevention services for HIV positive men. Out of the 13 services in the minimum package, the following were being provided to HIV positive men by all the 8 health facilities; providing risk reduction counseling, providing support for disclosure of HIV sero-status to partners, and family members and partner testing, providing STI screening and treatment, providing psychosocial and spiritual, and providing treatment of other health conditions –TB, malaria, nutrition. This is the same as it was for the HIV positive women.

Similar to services provide to women, the only TASO facility that was not providing the services below; facilitating support for groups for PLHIV, supporting stigma and discrimination reduction, addressing issues of sexual and gender-based violence, and addressing socio-cultural-economic-legal factors to mitigate the effects of HIV/AIDS to HIV positive men was TASO Masaka.

Addressing issues of sexual and gender-based violence was the least prevention service provided to HIV positive men. It was being provided in 5 (TASO Tororo, TASO Mbarara, TASO Masindi, AIC Lira and Arua) out of the 8 health facilities. None of the IDI health facilities studied was addressing issues of sexual and gender-based violence to HIV positive men.

Table 5.9: Positive prevention services provided to men by CSO (n= 8)

Service	CSO Name			
	AIC (n=2)	IDI (n=2)	TASO (n=4)	All (n=8)
Provide IEC to increase uptake of HIV prevention interventions	2	1	3	6
Provide risk reduction counseling	2	2	4	8
Provide support for disclosure of HIV sero-status to partners and family members and partner testing	2	2	4	8
Provide family planning methods	2	1	4	7
Male involvement in PMTCT	1	2	4	7
Provide education and counseling on ART and ART adherence	1	2	4	7
Provide STI screening and treatment	2	2	4	8
Provide psychosocial and spiritual.	2	2	4	8
Facilitate support for groups for PLHIV	1	2	3	6
Support stigma and discrimination reduction	2	2	3	7
Address issues of sexual and gender-based violence	2	0	3	5
Provide treatment of other health conditions –TB, malaria, nutrition	2	2	4	8
Address socio-cultural-economic-legal factors to mitigate the effects of HIV/AIDS	2	2	3	7

5.7.0 Challenges faced with promotion of prevention with positives programs

Poor communication among couples

Sex health communication among couples was found to be poor in the study. Respondents said that they hardly talked about sexual health issues as couples due to various cultural/social issues surrounding sex talk. To some, sex talk was meant to entice a partner and never to be discussed in public or talked about by people outside the medical field, lest you would be called a sex wanton/wiseacre. Men in Soroti observed that, *“the way they talk about sex is in a way that attracts a person to sex... so its not easy for people to talk about sex in the public especially in our culture”* (FGD for males 18-24, Soroti District). The females too noted that, *“it’s not easy like an ordinary person to start talking about that (sex health). People might ... tell ... you are wiseacre... People think that those topics are supposed to be only for doctors, nurses and health workers. So they just ignore you; they even start pointing at you”, “it difficult talking about sexual issues; people perceive you as a person who loves sex. So many people fear talking about sexual health issues”* (ART Female 18-24 yrs Soroti), *“Some of us fear talking to our wives about safer sexual behaviors because they may stop trusting us”* (FGD for ART naïve males 25-40, Tororo).

5.7.1 Poor/insufficient – Service provider-client communication

Respondents complained that sometimes they miss out on services pertinent to adoption of safer sexual practices such as counseling due to poor communication from the health workers. Males in Soroti reported that, *“Some people have left counseling because sometimes some counselors harass clients instead of you coming to me as counselor, you come and tell me we always tell you this and that”* (FGD for males 18-24, Soroti District), *“For instance at one of the CSOs the doctor just writes the drug prescription in our books and she tells you to go to the pharmacy for the drugs. For the drugs that are not given to you are never mentioned to you, so you go thinking you have all the drugs to clear your pain, yet you have just half of the drugs, ”*(FGD for ART naïve males 40+, Masaka District. A man in Masaka complained that, *“I have never seen my counselor...My counselor’s phone number is always off”* (FGD for ART naïve males 40+, Masaka District).

5.7.2 Condom stock outs

Condom and drug stock outs at the health facilities are limiting their use among people who cannot afford to buy them elsewhere. A man related that, *“Sometimes you come to the facility asking for condoms, they tell you condoms are out of stock, now I am a poor man, I cannot afford condoms... those private clinics, ...they will tell me, a condom one is 500/= . I want four rounds 2000/= where am I going to get that money from”* (FGD for males 18-24, Soroti District). Service providers too mentioned that, *“there are stock outs of condoms,(Counselor, Soroti District), “in hospitals you find supplies(ARV) are not there, you’ve shortages of over two months, so that destroys all the efforts of HIV prevention”(Doctor, Soroti District), “At times people come from very far away only to find the drugs out of stock. This is so frustrating (Counselor, Lira).*

5.7.3 Fear of being blamed by the HIV Care workers

Fear of being blamed by health workers was found to be the reason as to why some PLHIV in care cease to seek HIV care services in events when they do not comply with the counsel they are given at HIV care centers as regards to adoption of safe sexual practices. A clinical supervisor noted that, *“some can get pregnant and hide away from the service points and they only come when they are carrying a baby and that means they have missed the PMTCT component”(clinical supervisor, Tororo).* Similarly a doctor in Masindi noted that, *“When they are pregnant they fear coming here for treatment thinking that we are going to be blaming them”* (Doctor, Masindi District)

5.7.4 Shortage of health workers, heavy work load and delays at health facilities

The quality of health care that a PLHIV gets influences that person’s adoption of safe sexual behavior. In this study, service providers noted that, *“On our side, the work load is too much”* (Nursing officer, Lira), the clients also recognized that, *“The staffs are over loaded”* (FGD for male 25-40, Mbarara). The reported heavy work load has been linked to a shortage of health workers which has then translated into excessive delays of clients at the health facilities. This discourages some clients from accessing safer sexual services especially the men. Men noted that, *“sometimes there is a shortage of workers because you might come here and you stay up to 3pm because the counselor and the doctor are going to other centers, out reaches”* (FGD for

males 18-24, Soroti District). Women complained that, *“We spend a lot of time here at the facility, we delay a lot. Our husbands may not be able to understand especially if you left home very early in the morning and you spend the whole day at the clinic”* (FGD for ART experienced females 40+, Masaka District).

5.7.5 Transport limitations

Transportation to the health facilities was found to be a challenge to many patients which makes many to either miss their clinic appointments or reach the health centre when it is late. This has discouraged many from utilizing health services that are crucial in promoting safer sexual behavior adoption. Women noted that, *“Sometimes we fail to get money to come for our appointments at the centre due to lack of money. Sometimes we just decide to walk and by the time you reach you are very tired”* (FGD for ART experienced females 40+, Masaka District).

5.7.8 Difficulties in application of PwP service provision guidelines

Service providers in this study found a challenge in following the PwP services provision guidelines since they kept on changing. They also observed that they require a big human resource which may not be available in the health facility which is coupled with contradictions between the national guidelines based on the context of Ministry of Health structure and the donor preferred guidelines based on the context of (WHO) whose monitoring tools are quite different from the MOH tools. The guidelines were also considered to be sometimes hard to adopt in specific socio-economic settings. *“Some of the guidelines need a very large human resource especially to ensure quality...structurally we should have some specialist here, we should have certain number of clinical officers and nurse”*(Doctor, Soroti District), *“the guidelines are changing rapidly like the PMCT guideline, it has been changing very fast this causes confusion among the service providers”*(Doctor, Masindi District), *“sometimes you may not follow them(testing algorithm) in such a situation when we experience stock out”*(Counselor, Soroti District), *“The work load is too much”*(Nurse Lira), *“the donors sometimes say they follow guidelines of the country but if you see their monitoring tools they are a little more different from the ministry of health guidelines and you as an organization have to...satisfy both sides”*(Doctor, Masindi District)

5.7.9 Bringing men on board to use HIV Prevention services

Adoption of safer sexual behavior ideally would be easier if both partners in a sexual relationship sought HIV prevention services such as HCT, HIV treatment among other. Unfortunately seeking these prevention services in HIV care centers in this study, was found to be done mainly by women, very few men responded which could compromise their adoption. A clinical officer mentioned that, *“Involving the male counterparts in family planning activities is very important...very few people especially men are coming with their wives to the antenatal clinic”* (Clinical officer, Arua). A nursing officer noted that, *“Clients are very stubborn. Men do not want to use condoms”* (Nursing officer, Lira). PLHIV also expressed the importance of both partners seeking services such HCT, PMTCT among others, *“It is thus important for couples to be counseled and tested together, also come for ART together (FGD for males 25-40, Mbarara, District)*. Male respondents also noted that, *“For a patient to take their medicines faithfully, they need the support from their partners, for instance to remind them about when to take medication”* (FGD for ART naïve 40+, Masaka District). Despite such responses coming from male respondents their numbers in the HIV care facilities are still low.

5.7.10 Limited funds

Promotion of safer sexual behaviors needs adequate resources which were noted to be inadequate in the HIV care centres that were involved in this study. An expert client who is involved in prevention using the positive program in communities noted that, *“We need some substantial funding to be able to go out to the country side”* (Expert client, Arua District), a doctor also noted that, *“the biggest (PROBLEM) is funding”*

5.7.11 inadequate knowledge among volunteers

Volunteers are crucial in passing on information to communities that cannot be reached by health workers. However, the study respondents noted that they (volunteers) lack adequate knowledge to pass on to others in the community. Men in Mbarara mentioned that, *“volunteers have not been trained; they need training because they are the ones most in touch with community*

members to be able to provide appropriate feedback “(FGD for males 25-40, Mbarara, District)).

5.7.2 Stigma

PLHIV in the study reported that being stigmatized by other people was hindering their efforts in preventing HIV spread. “*It is not easy to talk to people; some stigmatize you, while others chase you away, some call us nick names like ‘ekya TASO {meaning the lousy TASO guy}’*” (FGD for males 25-40, Mbarara, District)., “*people saying aaah aaah this one is finished, now when I have taken my ARVs I have become healthy good looking, what I will do is to seduce you until I also give it to you*” (FGD for males 18-24, Soroti District)

5.8.0 Recommendations for improvement of prevention with positive programs

5.8.1 Introduction of laws against intentional HIV spreading, discrimination and mandatory HCT

Respondents recommended the Introduction of laws that prosecute those who intentionally spread HIV and those who discriminate PLHIV. They also recommended the introduction of mandatory HIV testing. An expert client mentioned that, “*Mandatory testing would help to identify positive people who have not tested but continue to spread the infection*” (Expert client, Mbarara). Women too recommended the same, “*use strict approaches on HIV testing if possible a law should be passed requiring everyone to test for HIV*” (FGD for females 40+, Masaka District). Men recommended that, “*bring laws for PLHIV that if you carry your HIV to someone intentionally, you will be prosecuted*” (FGD for males 18-24, Soroti District), “*The government needs to institute a law to prevent discrimination against PLHIV*” (FGD for males 25-40, Mbarara, District).

5.8.2 Continuous health education, sensitization and counseling of PLHIV and communities

The importance of having continuous education, counseling and sensitization of PLHIV and the communities about safer sexual practices was echoed in all study groups. A counselor suggested that “*continuous sensitization should be done, not only in the hospitals but also at schools*” (Counselor, Lira). An expert client also noted that, “*Proper counseling and advise be given to*

those who are positive” (Expert client, Lira District), a counselor in Masaka too suggested that, “Sensitization of people in groups where they feel free to discuss issues concerning them” (Counselor, Masaka District), “More and continuous HIV prevention sensitization and also if possible the use of IEC materials which can be used in health educating the community” (Expert client, Tororo District).

5.8.3 Encourage HIV disclosure among PLHIV

It was noted that people with HIV need to be encouraged to disclose their sero status to minimize being pointed fingers at (gossiping). Young women related that, *“telling people that we who are positive should disclose our HIV status to people. When you disclose to people, after disclosure it means no one will point at you” (FGD for males 18-24, Soroti District).* A doctor too observed that, *“We need to help people to disclose their sero status” (doctor, masindi).*

5.8.4 Involvement of influential leaders in sensitization

Involving influential leaders in the fight against HIV was noted by all study groups as major way of taking the safe sexual health messages home among their followers, since they respect them. Male respondents suggested that, *“The HIV issue should not be left to the PLHIV alone; also influential people should talk about it (safer sexual behaviors) in radio stations” (FGD for males 18-24, Soroti District).* A clinical officer similarly advised that, *“Using church leaders and may be the imams in the mosques – because people tend to attach so much to these religious leaders and these cultural leaders” (Clinical officer Arua).* A counselor too suggested that, *“Involving the clergy in efforts to increase adoption of safe sexual practices especially on issues to do with miracle healing and drug abandonment”.* Similarly, 39 year old related, *“Encouragement from community groups and churches” (ART male 39, Lira District).*

5.8.5 Increase the involvement of PLHIV in sensitization and counseling of fellow PLHIV

All study groups voiced a need to involve PLHIV in sensitization campaigns and to counsel others about safe sexual behaviors since they know the experience of having HIV as noted in the following responses. *“Greater involvement of PHAs because it’s the PHAs who know the experience of having HIV (ART naïve male, Arua District), “Sensitize people living with HIV to take lead in encouraging people to adopt Safer sexual behaviors” (ART male 39, Lira District)”*

“bring the people living with HIV/ AIDS, the PHA groups at the front line on the fight against the pandemic” (Expert client, Arua District).

5.8.5 Facilitate Expert clients and drama groups

Respondents expressed the need to facilitate the expert clients/drama groups in their work so as to reach as many people as they can with HIV prevention messages. *“Expert clients should be better facilitated so that they can reach more people. By facilitation... meant transport, a meal, and some money to take care of their families” (Expert Client, Arua), “TASO drama team members should be facilitated equally well, if the government comes in to support” (FGD for males 18-24, Soroti District)*

5.8.6 Train and use PLHIV clubs

Training and use of PLHIV support clubs such as the discordant couple groups, men’s clubs were mentioned in the study as possible ways of widening safer sex information dissemination among the communities. A counselor from TASO retaliated that, *“Use of support groups is very important... train different clubs like the men’s club, discordant couple clubs about prevention using the positives”*

5.8.7 Design age specific sensitization messages

A doctor recommended that, *“messages that are being given need not to be limited to old people, some time when a kid expresses about HIV people get moved many times and they are very attentive” (Doctor, Masindi), A young female on ART also expressed a need to target all age groups in messages given about safe sexual behavior, “These messages (safe sexual behavior) should target both adolescents and the old people (ART female, 18-24, Soroti District)*

5.8.8 Use professional health educators and communicators

Using professional educators/communicators was identified as one way of increasing comprehension, understanding and utilization of safer sexual behavioral messages by the target population. A doctor mentioned that, *“there is need to have professional educators, communicators who are bringing issues in a manner technical that makes people to understand*

the changes they are likely to and how much harm it can cause to them” (Doctor, Masindi District)

5.8.9 Avoid stock out of condoms in all health facilities

In order for people to adopt safer sexual behaviors like consistent condom use, access to condoms must be ensured as recommended by young male adults in the study that, *“government should bring or supply condoms to every health center so that they may help...the government should provide ARVs and other drugs” (ART female, 18-24, Soroti District)*. A nurse too echoed the same thing that, *“government should also ensure constant supply of condoms. At times we run out of stock of condoms and the clients tell us they have no money to buy condoms” (Nursing officer, Lira District)*.

5.8.10 Boost the staffing levels of HIV/AIDS service providers

It was reported in the study that there was a need to boost the staffing levels of HIV/AIDS service providers to ensure that clients get quality time with the health workers. Males in Mbarara mentioned that *“staffing levels need boosting to ensure that clients get quality time with the health workers which will in return boost HIV prevention efforts (FGD for males 24-40, Mbarara District)*. A counselor in Lira reported that, *“Recruit more technical staff. At the moment AIC only has 3 staff, most of the work is being done by the volunteers” (counselor, Masindi)*

5.8.11 intensively use the media

Suggestions from the various study groups showed that the use of media would be important if all people were to receive safer sexual behavior messages as noted in the following. *“We can use the Radio, for those who can read IEC materials can work” (ART experienced female-39, Lira)*. A counselor in Masaka recommended that, *“Use of radio talk shows which are actually in place where we go to educate the listeners about HIV prevention” (counselor, Masaka)*

6.0 Discussions

In this section, we present the interpretation of results, opinion of the authors in the context of existing literature and the contextual setting in which the study was conducted. Study findings are discussed as per the objectives and the factors associated with adoption of safer sexual behaviors discussed in-line with the conceptual frame work that guided this study.

6.1 Prevalence of safer sexual behaviors

This study highlights the sexual behaviors of PLHIV in care in organizations supported by the CSF in Uganda. As portrayed by the study results the behaviors are skewed towards risky practices rather than the expected. Compared to studies conducted elsewhere (Chakrapani, Newman et al. 2009); where the prevalence of consistent condom use was 69.1% among males and 75.3% among females, our results depict significant low practices of consistent condom use among PLHIV receiving care in Uganda. Prevalence of abstinence was not any better; with only 22.1% reporting to have abstained from sexual intercourse during the last 12 month prior to the study. These findings negatively impact on prevention efforts tailored towards reducing the prevalence of HIV in the general population in Uganda. With the predominant high risky sexual activities among PLHIV as revealed by our study , it is not surprising that the prevalence of HIV transmission is rising in the country (UAIS 2011, MOH 2012). Comparing HIV to modern curable malaria is worry some given that the unmet need for ARVS stands at about 50% (Asante 2007).

In a country where the prevalence of HIV is on the rise (UAIS 2011, MOH 2012) in the face of insufficient ARVs, and increasing complacency in the general population, new innovative approaches that address the drivers of risky sexual behaviors are warranted to enhance safer sexual behaviors among PLHIVs in order to reverse the infection rate.

6.2 Factors associated with adoption of safer sexual behaviors

6.2.1 Socio-demographic variables

This study explored the probable socio-demographic predictors of safer sexual behaviors among PLHIV receiving care in CSOs supported by the CSF. Gender, age, education level, being married, and being employed were associated with adoption of safer sexual behaviors. According

to Kiirya et.al (2003), HIV-risky sexual behaviors were common and tended to vary with sex, age, level of education and marital status. As the results show, the degree of effect for each of these predictor variables varies with type of safer sexual behavior. This probably explains the variations in prediction registered in the results.

In this study, participants who were married were more likely to report consistent condom use compared to the widowed counterpart. Of interest, being widowed was common among the females compared to the males. This demographic trend could mean that – the-would be widowed men re-marry; thus creating a small pool of widowed men compared to widowed females. Unlike other studies where consistent condom use was reported to be high among the widowed compared to the married (Ukuani et.al, 2003), the results of this study indicate otherwise. The findings signal the need to intensifying advocacy and awareness creation tailored towards increasing consistent condom use among the sexually active widowed population since they engage in multiple sexual relationships with individuals whose HIV status is either negative or unknown (Lopman et.al, 2003).

6.3 Structural factors

This study shows that 31.1% of the study respondents (PLHIV in care) desire more children, 7% of the women reported being pregnant, 60% of which were intended. In addition, 10% of the men reported causing a pregnancy in the previous 12 month of which 78% of these pregnancies were reported as intended. This finding displays the complexity of promoting PwP programs (Caroline Allen 2011). When PLHIV desire more children, promoting condoms use (a contraceptive) is unpractical; thus calling for alternative options which encompasses the desires of PLHIV to have more children and at the same time limiting HIV transmission. In their study, Ncubi et.al, (2012) found that low HIV/AIDS knowledge; non-disclosure, ARV therapy and intentions to conceive were associated with inconsistent condom use.

6.4 Partner/individual factors

This study shows that transport to health facilities hindered adoption of safer sexual behaviors. This could be explained by the fact that most of our study participants were largely rural residents and yet most service points for HIV care are urban sited except for the few infrequent community outreach programs that depend largely on the inadequate human and transport

resources. Available literature show that urban dwellers compared to their rural colleagues, have higher access to condoms, information and health services (Eleanor Maticka-Tyndale, 2012)

To contend with the inadequate resources and still be able to improve services for safer sexual behaviors among PLHIV in rural areas, use of innovative care approaches like task shifting and use of cheap transport facilities such as bicycles by VHTs would provide alternatives that might enhance delivery of safer sexual behavior programs among PLHIVs. Distributing condoms at home through VHTs may improve utilization. Furthermore, embracing the innovative mobile health communication approach might be rewarding in passing on important messages to PLHIVs on safer sexual behaviors.

Similar to other studies (Tumukunde *et al.*, 2009, Mizuno *et al.*, 2007, Randolph *et al.*, 2007), close to 51% of the study participants in this study reported that using condoms during sexual intercourse reduced pleasure in addition to the qualitative data which demonstrated that condoms caused physical pain and reduced pleasure. Drawing from the qualitative data as well as the quantitative data which demonstrated that continuous counseling and education enhanced adoption of safer sexual behavior; it is in our opinion that this recommendation be given more attention, resources increased for counseling and training on condom use.

This study also reveals that close to 38% of PLHIV think that the responsibility for not getting infected with HIV should rest with HIV negative people. Given that resources for HIV are continuing to dwindle, and that general population programs are resource intensive, curtailing new infections by targeting PLHIV is probably the best way to go. Thus, there is a need to take on new and intensified strategies that deal with this perception with the aim of intensifying PwP programs so as to improve adoption of safer sexual behaviors.

Although close to 78% of the study participants did agree that ART has enabled people to have children, statistical analysis of the quantitative data did show that behavioral disinhibition did not predict prevalence of safer sexual behavior. This is similar to a study done by Luchters *et al* (2008) which showed no evidence of increased risky sexual behaviors among those receiving ART for 12 months. Other studies done in Sub-Saharan Africa had similar findings (Bateganya *et al* 2005, Moatti *et al* 2003, Sarna *et al*, 2008).

In regards to mental status, most study participants had interest or pleasure in doing things and did not feel depressed or hopeless in the two weeks preceding the study. The factors used to measure mental status were not associated with adoption of safer sexual behaviours. This may therefore not need putting in place mental health building skills program. Instead, current HIV counseling program can suffice to cover some of the mild cases of depression and anxiety that arise during routine practice.

6.5 Health service factors

Considering health service factors, non-availability of condoms was a barrier to adoption of safer sexual behavior due to condom stock outs. Condom stock outs were strongly evident in our quantitative and qualitative data. The challenge of condoms in Africa is not new. In a meta analysis by Shelton et.al, (2001), it was found that lack of adequate numbers of condoms still remains a challenge in Sub –Saharan Africa. This presents a missed opportunity which should be harnessed to improve adoption of safer sexual behavior. In the modes of transmission survey by Wabwire et.al (2009), limited resources were allocated to PwP programs; rather the biggest pool was concentrated on care and treatment. Increasing allocations to PwP programs has the potential to ensure a consistent supply of condoms at distribution points. Given that condoms are expensive as evidenced by the qualitative data, CSOs with support from CSF should provide free condoms in adequate numbers to increase adoption of consistent condom use among PLHIV in care programs.

It is also worth noting that nearly 91% of the study participants disagreed with the statement “the quality of prevention services is poor”. The CSOs and CSF should be applauded for this. The finding presents a challenge but also an opportunity that CSOs and CSF should harness to improve PwP programming.

6.6 Prevention with positive interventions and adherence to guidelines

People living with HIV in resource limited settings should have access to essential interventions/services to prevent illness and HIV transmission. These services may be provided as a package or may be individualized. This can be decided upon by a particular health facility depending on the type of patients being served, capacity of the health facility to offer the preventive services among other issues. Once ART is begun, the utility of many of these

interventions will not decrease and they should be maintained throughout the treatment course as well. In this study, the health facilities were offering PwP services and were adhering to the Uganda national guidelines for prevention with positives. This is a very encouraging finding as it suggests that the supply side knows what is supposed to be done. This differs with a study that was done in the US by Morin et al (2004) where only one service was found to be consistently provided. Compared to other health facilities, TASO clinics were performing better especially TASO Tororo and Mbarara. AIC Arua was also providing all the services.

Though the results show that the positive prevention services were being provided by the health facilities the proportion of study participants who had not adopted safer sexual behaviors was high. This could have been due to a number of reasons among them being; quality of services provided, workload by the health workers and frequency of the services being provided. It is also important to note that though these services are being provided, behavior change takes time to be effected. This could explain the finding that those clients who were in care and had known their status for longer than 2 years were more likely to engage in safe sex.

6.7 Study limitations

Our study had some limitations. Respondents were required to recall some issues such as event that happened in the past. Thus, it is possible that recall bias compromised the accuracy of information that we collected. However, as an effort to minimize this bias, we conducted methodological triangulations and trained Research Assistants on recall bias and how it is minimized.

Possibility of social desirability bias: It should be noted that our study gathered information on sexual behavior which is sensitive in the context of HIV. It is therefore possible that some respondents provided information that they presumed the researchers wanted to hear. To minimize this bias, we triangulated the methodologies, and also set check questions and probes in the quantitative and qualitative tools respectively

With regard to measuring adherence to guidelines, the checklist was administered to In-charges with limited observations. Thus some biases could have arisen.

Lastly, the study aimed at measuring factors associated with adoption of safer sexual practices. Given that this was a cross sectional study, causal inferences could not be drawn. Nevertheless, our study findings provide baseline information that can be used to inform a longitudinal study from which causal associations could be drawn in the future.

7.0 Conclusions

1. This study reveals that about a half of PLHIV in care in Uganda are practicing safer sexual behaviors (abstinence or consistent condom use).
2. Nearly thirty six percent of sexually active PLHIV are consistent users of condoms
3. Twenty two percent are abstaining.
4. Abstinence is more likely in those aged 40years and above and is less likely among married and cohabiting people. Furthermore, abstinence increases with duration of knowing HIV status.
5. Consistent condom use is more common among men who are not married and among people who have known their HIV status for more than two years.
6. More than one third of the PLHIV desire more children. More than two thirds of pregnancies among PLHIV are intended.
7. Being on ARVs or not does not predict safer sexual behaviors. It is indeed worrying that most of the people not on ART are having unprotected sex.
8. Most of the CSOs are adhering to guidelines, despite of the reported difficulties in terms of staffing, turnover of guidelines, and the huge clientele.
9. Alcohol, complacency and stigma inhibit adoption of safer sexual behavior

8.1 Recommendations

In view of the complexities of promoting PwP programs and the fact that PLHIV are practicing unsafe sexual behaviors, new approaches that enhance prevention with positive programs are called for. Key stake holders including the Ministry of Health of Uganda, the Civil Society fund and the civil society organizations should promote and implement continuous education and counseling to boost safer sexual behaviors as opposed to one of shows.

These data show that one in three PLHIV desire to have more children and this is associated with low levels of abstinence. It might be good to prioritize putting PLHIV on ART as soon as they become eligible to avert transmission that may occur as a result of unprotected sex due to the desire to have more children.

To reduce the risk of HIV transmission, test and treat policy may provide far rewarding outcomes given the known benefits of ART for HIV prevention.

Empowerment of women e.g. through use of female controlled HIV prevention strategies (female condom, microbicides) and through improving financial/economic independence should be given priority.

Health education should emphasize the importance of PwP roles in prevention of HIV transmission. The thinking – preventing HIV lies in the hands of those who are HIV negative should be tackled.

Innovative care approaches such as task shifting, longer refill schedules, use of expert clients or use of group counseling where appropriate should be embraced to reduce workload on clinic staff, and extend services to rural areas where transportation is a key challenge to clients.

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11.0 Appendices

11.1 Consent form

FACTORS ASSOCIATED WITH ADOPTION OF SAFER SEXUAL BEHAVIOR AMONG PLHIV IN CARE IN SELECTED CIVIL SOCIETY ORGANIZATIONS– IMPLICATIONS FOR POSITIVE PREVENTION (PP) PROGRAMS IN UGANDA

Introduction and written informed consent

Dear Sir/Madam, my name isand I am part of the team conducting a study on **FACTORS ASSOCIATED WITH ADOPTION OF SAFER SEXUAL BEHAVIOR AMONG PLHIV IN CARE IN SELECTED CIVIL SOCIETY ORGANIZATIONS– IMPLICATIONS FOR POSITIVE PREVENTION (PP) PROGRAMS IN UGANDA.**

Purpose of the Study: High risk sexual behavior is on the rise in Uganda. About five years ago, the Ministry of Health reported that there was resurgence of risk sexual behavior in the general public in Uganda. The risky sexual behaviors identified were: acquisition of multiple sexual partners, incorrect and inconsistency use of condoms and acquisition of STDs.

Infection with other sexually transmitted and blood borne infections have a negative impact on the health of People living with HIV. A move to healthier, safer, or less risky behaviors is a move in the right direction for people living with HIV. This move ensures that people living with HIV do not transmit infections and also do not acquire new strains as a result of risky sexual practices. This study therefore aims to investigate the factors associated with safer sexual behavior with a view of suggesting remedial measures for PwP program improvement.

Study Procedures: Because we can't study everybody due to time and resource factors, we have selected a representative sample of which you are one of those selected randomly for a directly administered questionnaire. I therefore request you to participate in this study by responding to the questions that I will ask you in the next few minutes. Some questions might be sensitive, however, I request you to be honest and truthful when responding to the questions. The information you provide will be treated with strict confidence and your name or specific identifier will not be identified in the report that will be generated. .

Benefits and Risks: Acceptance to participate in this study has both direct and indirect benefits. The direct benefit will include offering you with free information on HIV risk reduction and positive

prevention approaches. In case you need further information or particular form of care, you will be referred appropriately for further services. The indirect benefit of your participation in the study will include generation of information that we anticipate will be useful for improving prevention with positive programs in health facilities.

Voluntary participation: Taking part in this study is entirely voluntary. If you decide not to take part, this will not influence the care you receive at this health facility. You will be treated the same no matter what you decide. If you agree to take part in this study, you will be contributing to the national effort of controlling HIV/AIDS transmission. It is therefore important that you participate although you are free to decline the consent. If you agree to participate, you will be asked to sign this consent form.

Confidentiality: Confidentiality will be highly observed. Interviews will be conducted in a comfortable, private room. Questionnaires will be anonymous and data will be securely kept. Information and records about you will be kept confidential and will not be made available to anyone who is not connected to the study without your consent.

Duration of interview: The study is estimated to take about 30 minutes of your time.

Consent to participate: I would like to seek your permission to participate in this study. Do you consent to participate in the interview for this study? 1 = Yes 2 = No

If yes proceed to the next section of declaration and consent to participate

Declaration and signature

I hereby provide INFORMED CONSENT to take part in this study on **FACTORS ASSOCIATED WITH ADOPTION OF SAFER SEXUAL BEHAVIOR AMONG PLHIV IN CARE IN SELECTED CIVIL SOCIETY ORGANIZATIONS– IMPLICATIONS FOR POSITIVE PREVENTION (PP) PROGRAMS IN UGANDA.**

Thumbprint/Signature of respondent.....Date.....

Signature of interviewer.....Date.....

Contact information:

If you have any questions regarding this study, call the principle investigators
Dr. Bwayo Denis, Civil Society Fund.....

Prof. Fred Nuwaha, Department of Disease Control and Environmental Health, Makerere University
School of Public Health P. O. Box 7072, Kampala. Tel +256782518324
In case of any ethical issues related to the study, contact Dr. John Ssempebwa on +256 772 963 074,
P. O. Box 7072, Kampala

11.2 Quantitative Questionnaire

FACTORS ASSOCIATED WITH ADOPTION OF SAFER SEXUAL BEHAVIOUR AMONG PLHIV IN CARE IN SELECTED CIVIL SOCIETY ORGANIZATIONS-IMPLICATIONS FOR POSITIVE PREVENTION (PP) PROGRAMS IN UGANDA

Quantitative Questionnaire

General Information

Location

001. District name _____

{DISTR}

002. CSO name _____

{CSONAM}

003. Name of Interviewer _____

{FIELDWKR}

004. Date of completion of the instrument ____/____/2012
dd mm yyyy

{INTDATE}

Checked by (Field Editor) |_|_|_|_| {EDITOR}

Entered by |_|_|_|_| {DCLERK}

Verified by / Re-entered|_|_|_|_| {VERFYR}

Participant ID number |_|_|_|_|_|_|_|_|_|_| {VOLNTR}

Consent, Interview Language, and Name

005. Consent read and obtained

|_| {CONSENT}

Yes 1
No 2

→ If no, thank the respondent and end the interview

006. Interview Language (.....)

|_| {INTLANG}

English 1
Luganda 2
Ateso 3
Langi 4
Runyoro 5
Lugbar 6
Japadhola 7
Runyankole 8
Others _____ 9

{OTHINTLANG}

Section One: Background characteristics of the respondent

101. Sex

|_| {SEX}

Male 1
Female 2

Boda-boda/Taxi driver/Trucker	13
Bar worker/owner, Waitress/Waiter/restaurant owner.....	14
Hair dresser/Salon owner.....	15
Casual laborer/Construction (brick maker, builder, porter, painter)..	16
Mechanic (automobiles, bicycles, electronics)	17
Other (specify) _____	18

109. Taking the past month, can you tell me what your average earnings in Ugx has been?..... {AVGINCOM}

110. What is your marital status? |_| {MARRSTAT}

- Married or living together.....1
- Divorced/Separated 2 \longrightarrow **112**
- Widowed/Widower 3 \longrightarrow **112**
- Never married/never lived together.....4 \longrightarrow **201**

111. If married or living together, how many partners does your spouse have? |_|_|_| {MARRTYP}

Number.....
(If don't know write **999**)

112. In your life time, how many sexual partners have you been married to? |_|_| {PARTNMAR}

113. Have you ever divorced/been divorced/separated? Yes 1 |_| {DIVORCED}

No..... 2

Sexual behavior among PLHIV

Now I am going to ask you some questions that might be sensitive. I request you to be as truthful as possible. The information you provide will be treated confidentially. Your name will not be identified with the response you give. The information generated will help to improve the services for people living with HIV in care.

201. How long have you known that you are infected with HIV/AIDS?

Months if less than one year |_|_| {MONKNOWN}

Completed years |_|_| {YEARKNOWN}

202. Since you learnt of your HIV status, how many different sexual partners have you had? |_|_| {SEXPDIFF}

203. Have you ever had sexual intercourse? |_| {SEXEVER}

Yes.....1

No.....2 \longrightarrow 301

204. In the past 12 months, how many people have you had sexual intercourse with? |_|_| {SEXPRTN}

None.....0 \longrightarrow 207

One.....1

Two.....2

Three.....3

Four4

More than four, indicate number here_____5

____|{204NUMPRTN}

205. Of the people you have had sexual intercourse with in the past 12 months, how many are regular sexual partners?

____| {REGSEXP}

206. Of the people you have had sexual intercourse with in the past 12 months, how many are non regular sexual partners.....

____|NREGSEXP}

207. Do you currently have condoms at home?

____|{HVCONDHM}

Yes.....1

No.....2

208. In the past 12 months how often have you used condoms for sexual intercourse?

____| {COND12M}

Always.....1

Sometimes..... 2

Occasionally.....3

Never.....4

209. When was the last time you had sexual intercourse in the last 12 months?(Record number of days, weeks, months or year ago)

If N/A —→ 301

____| SEXLAST12M}

210. For the last time you had sexual intercourse in the last 12 months, was a condom used?

____| {CONDLTSEX}

Yes.....1

No.....2

Alcohol , substance abuse (drugs) and sex for money

301. In the last 12 months, have you consumed a drink containing Alcohol Yes = 1 No = 2 —→ 303

____|{SEXALC12M}

302. In the last 12 months, have you ever been drunk

Yes = 1 No = 2

____|{DRUNKAL12M}

303. In the last 12 months have you used drugs such as marijuana, mairungi, etc?

Yes = 1 No = 2

____| SEXDRUG12M}

304. In the last 12 months, have you ever paid or been paid for sex?

Yes = 1 No = 2

____| {SEXTRAD12M}

305. In the last 12 months, have you had oral sex?

Yes = 1 No = 2

____| {SEXORAL12M}

306. In the last 12 months, have you had anal sex?

Yes = 1 No = 2

____| {SEXANAL12M}

HIV status and disclosure

401. Is your current regular sexual partner(s) aware of your HIV status? |_| {REGPSTAT}

Yes.....1 (if one partner go to 403)

No.....2 → 405

DK.....3 → 405

NA.....4 → 405

402. If more than one regular sexual partner, have you disclosed to them all?
(Ask only those with more partners)

Yes1

No2

403. Who disclosed to them your HIV status |_| {DISURSTAT}

My self.....1

Healthcare provider.....2 → 404

NA.....3 → 404

Others. Specify.....4

404. How easy was it to disclose to your regular sexual partner?
(Only to those you disclosed to) |_| {EASY2DIS}

Very easy.....1

Somewhat easy2

Difficult.....3

Very difficult.....4

Not applicable.....5

405. Have you disclosed your HIV status to any other person |_| {DIS2SM1}

Yes.....1

No.....2 → 40

406. Who are these people you have disclosed to?

	Yes	No	
1. Mother.....	1	2	_ {DISCLOMUM}
2. Father.....	1	2	_ {DISCLODAD}
3. Friend.....	1	2	_ {DISCLOFRND}
4. Healthworker.....	1	2	_ {DISCLOHWK}
5. Religious Person.....	1	2	_ {DISCLOREL}
6. Others (Specify).....	1	2	_ {DISCLOTHR}

407. Do you know the HIV status of your regular sexual partner? |_| {KNREGPSTA}

Yes..... 1

No..... 2

DK..... 3

NA..... 4

408. If more than one regular sexual partner, do you know all their status?

Yes1

No2 → 410

{REGPSTA}

409. If yes, for either the above what is their HIV status? (tick all that apply)

- Positive.....1
- Negative.....2
- Non response.....3

410. Do you have anxiety or fear of rejection if you disclose your HIV status to your partner(s)/spouse?

(Ask only those who have not disclosed)

- Yes.....1
- No2
- Don't Know.....3
- Not Applicable.....4

{FEAR2DIS}

411. Do/did you need assistance in disclosing your HIV status to your partner(s)/spouse?

- Yes.....1
- No.....2
- Don't Know..... 3
- Not Applicable.....4

{NDASS2DIS}

HEALTH SERVICE FACTORS

501. During the last 12 months, which of these HIV prevention services have you RECEIVED at the health facility/hospital/organisation:

(Please circle yes for any that apply)

	Yes	No	
a) HIV testing and counseling.	1	2	<input type="checkbox"/> {HCT12M}
b) Reading materials (brochures, pamphlets) about how I can prevent transmitting HIV to someone else.	1	2	<input type="checkbox"/> {BKSPRV12M}
c) Reading materials (brochures, pamphlets) about – Assistance on how you can tell my sex partner/ – spouse that your HIV positive.	1	2	<input type="checkbox"/> {BKSDIS12M}
d) Counseling on – Assistance on how I can tell my sexual partner/spouse that your HIV positive.	1	2	<input type="checkbox"/> {COUNDIS12M}
e) Education and/or counseling on risk reduction strategies – safer sex and how you can prevent transmitting HIV to someone else.	1	2	<input type="checkbox"/> {RSKRDC12M}
f) Education on the importance of using condoms Consistently for protection.	1	2	<input type="checkbox"/> {YCONDFRQ12M}

- g) Demonstration on how to use a condom or other latex barriers. 1 2 {CONDUSE12M}
- h) Education and/or counseling on the importance of Protecting yourself from a different strain of HIV. 1 2 {YPRTHIVSTR}
- i) Information on how to protect your baby from GettingHIV if you were to get pregnant.(Only women) 1 2 {PRTBABY}
- j) You have attended a HIV prevention discussion or support group. 1 2 {PRVDISGP}
- k) have received skills' building workshops that support safer sex behaviors (e.g., condom use, negotiation skills, etc). 1 2 {SKLBLDWKSP}

502. Who at this health facility do you feel you are comfortable with talking about sexual activities, safer sex, and HIV transmission? (*prompted*)

(Please check all that apply)

	Yes	No	
Doctor	1	2	<input type="checkbox"/> {DOCTOR}
Clinical officer	1	2	<input type="checkbox"/> {CLINCOFF}
Nurse	1	2	<input type="checkbox"/> {NURSE}
Counsellor	1	2	<input type="checkbox"/> {COUNSLR}
Expert client	1	2	<input type="checkbox"/> {XPTCLIENT}
Don't Know	1	2	<input type="checkbox"/> {DK}
None	1	2	<input type="checkbox"/> {NONE}
Other, (please specify what other staff).....	1	2	<input type="checkbox"/> {OTHSTFF}

503. In general, as a person living with HIV, do you feel your prevention needs are being met?

{NEEDSMET}

- Yes 1
- No.....2
- Not sure.....3

504. During the last 12 months, indicate true or false if any of the following has been a barrier to receiving any prevention services? (True (T) or False (F))(prompted)

- a) You do not know the HIV prevention services currently T don't know OR were these left as were? F {KNPRVSV} Do you offered at the clinic.
- b) You do not have reliable transportation to receive T F {TP2PRVSV}

- prevention services.
- c) You do not want to inform your partner or spouse about my HIV status T F {NODIS2PRTN}
 - d) You do not want anyone to know that you are HIV positiveT F {NODIS2ANY}
 - e) There are no prevention services offered where you live. T F {NOPRVSV}
 - f) You do not feel comfortable talking about your sexual behavior. T F {NOCMFT}
 - g) You have some type of physical disability. T F {DISABLED}
 - h) You are depressed. T F {DEPRESED}
 - i) You are dealing with addiction problems. T F {ADDCPB}
 - j) The quality of the prevention services is poor. T F {POORSRV}
 - k) The health workers are not supportive. T F {NNSUPPT}
 - l) There is no privacy at the health facility/clinic. T F {NOPRIVAC}

Sources of knowledge of safer sexual behaviours and PwP services

504.1 What was the source of knowledge for each of the following items below: Indicate a tick or N/A for item not applicable

Prevention service	Source of knowledge					
	Health facility	Radio	TV	Newspaper	Friend	Other (Specify)
Education for prevention with positives						
HCT						
Condom use						
Counseling						
Negotiation building skills						
HIV disclosure skills						
PMTCT						

504.2 For the knowldge on prevention with positives that you received from the health facility, specify the cadres of personel who provided you with the information

Prevention service	Specific sources of knowledge					
	Medical doctor	Clinical Officer	Nurse	Counselor	Expert client	Other (Specify)
Education for prevention with positives						

HCT						
Condom use						
Counseling						
Negotiation building skills						
HIV disclosure skills						
PMTCT						

KNOWLDGE AND ATTITUDES ABOUT PREVENTION WITH POSITIVES

For the following sets of questions let me know whether you **strongly agree, agree, neutral, disagree, or strongly disagree** with each statement below. For each statement, check the answer that is closest to how you feel.

601. People living with HIV/AIDS, are important in helping to stop the spread of HIV. Do you feel you have an important role in helping to stop the spread of HIV?*(prompted)*

- Strongly agree.....1
- Agree.....2
- Neutral.....3
- Disagree.....4
- Strongly disagree.....5

|__|{RLMDL2HIV}

602. You are able to to tell your partner that you wish to use a condom during sexual intercourse *(prompted)*

- Strongly agree.....1
- Agree.....2
- Neutral.....3
- Disagree.....4
- Strongly disagree.....5

|__|{RT2SFSEX}

603. You are able to tell your partner that you wish to abstain from sexual intercourse *(prompted)*

- Strongly agree.....1
- Agree.....2
- Neutral.....3
- Disagree.....4
- Strongly disagree.....5

|__|{AVDRSKBHV}

604. The responsibility for not getting infected with HIV should rest with HIV negative people *(prompted)*

- Strongly agree.....1
- Agree.....2
- Neutral.....3
- Disagree.....4
- Strongly disagree.....5

|__|{NGT4MSEX}

605. Using a condom during sexual intercourse reduces pleasure*(prompted)*

- Strongly agree.....1
- Agree.....2
- Neutral.....3
- Disagree.....4
- Strongly disagree.....5

|__|{NGTVRESP}

606. Condoms can't be used in marriage or stable relationships *(prompted)*

- Strongly agree.....1
- Agree.....2
- Neutral.....3

|__|{MARCSFSEX}

Disagree.....4
Strongly disagree.....5

607. Condoms are for the sexually loose/ promiscuous people (*prompted*).

{ALCBSEX}

Strongly agree.....1
Agree.....2
Neutral.....3
Disagree.....4
Strongly disagree.....5

608. Women can ask men to use condoms (*prompted*).

{CONPRVHIV}

Strongly agree.....1
Agree.....2
Neutral.....3
Disagree.....4
Strongly disagree.....5

609. Condoms are not suitable for some sexual styles (*prompted*).

{AVDRSKSITU}

Strongly agree.....1
Agree.....2
Neutral.....3
Disagree.....4
Strongly disagree.....5

610. It is possible to re-infect someone who is already HIV positive.

{REINFNCT}

Agree.....1
Disagree.....2
Not sure.....3

611. People living with HIV can become co-infected with other illnesses, especially sexually transmitted infections.

{COINFSTD}

Agree.....1
Disagree.....2
Not sure.....3

612. People living with HIV/AIDS need not to use condoms

{PRTPRV4ILL}

TRUE.....1
FALSE.....2

.....Mths {ARTIMMT}
..... Yrs {ARTTIMY}

813. How do you rate your health status now, is it better, same or worse (*Prompted*)

Better.....1 {HEALTHST}
Same.....2
Worse.....3

BEHAVIOR DISINHIBITION

The following statements pertain to ART, tell me whether you agree or Disagree, Not sure

901. ART has enabled people to have children. {ARTCHILD}
Agree.....1
Disagree.....2
Not sure.....3

902. When one is on ART, he/she is less likely to transmit HIV virus to the sexual partner {ART2TRANSM}
Agree.....1
Disagree.....2
Not sure.....3

903. When women are on ART, they dont transmit HIV virus to their children. {ART2PREG}
Agree.....1
Disagree.....2
Not sure.....3

LIVING ARRANGMENTS

904. Who do you live with?

	Yes	No
1. Mother	1	2
2. Father	1	2
3. Guardian	1	2
4. Husband	1	2
5. Wife	1	2
6. Children	1	2
7. Others (specify)	1	2

- {LIVWTHMUM}
- {LIVWTHDAD}
- {LIVWTHGAD}
- {LIVWTHHUS}
- {LIVWTHWFE}
- {LIVWTHKID}
- {LIVWTHOTH}

Mental Health status (PHQ2)

Over the past two weeks, how often have you been bothered by any of the following problems

905. Little interest or pleasure in doing things
- Not at all..... 0
 - Several days.....1
 - More than half the days.....2
 - Nearly every day.....3

{INTEREST}

906. Feeling down, depressed or hopeless
- Not at all..... 0
 - Several days.....1
 - More than half the days.....2
 - Nearly every day.....3

{SLFESTEEM}

907. What would motivate you to practice safer sexual behavior

.....

.....

Information from this study will be used to enhance and improve prevention services among Civil Society Fund supported organisations.
 Is there any additional information you would like for us to know?
 If yes, please write in the section below. {CMMT}

Interviewer..... {INTERVIEWR} Date___/___/___ {DATE}

dd / mm / yyyy

11.3 Key Informant Interview Guide

FACTORS ASSOCIATED WITH ADOPTION OF SAFER SEXUAL BEHAVIOR AMONG PLHIV IN CARE IN SELECTED CIVIL SOCIETY ORGANIZATIONS– IMPLICATIONS FOR POSITIVE PREVENTION (PP) PROGRAMS IN UGANDA

Key Informant interview guide (medical doctors, counselors, nurses, client representatives, District HIV focal persons)

Date _____

District _____

Municipality/sub-county _____

Organization/health facility name: _____

Interviewers name _____

Recorders name _____

Time began _____

Time ended _____

Title of respondent _____

Qualification of respondent _____

Other relevant characteristics/description

To describe the safer sexual behaviors that are adopted by the CSF supported PLHIV in care.

How do the people in this community behave these days (probe for sexual behavior, what they understand by safer sexual behavior)

To explore the factors associated with adoption of safer sexual practices among PLHIV in care.

1. In your opinion as a service provider who interacts with the PLHIV in care, what would you say about their adoption of safer sexual practices? Do they adopt?

Reasons for your answer.

2. What would you say are some of the safer sexual practices that clients have adopted?
3. What would you say are the factors that influence or affect their adoption of safer sexual practices?

To determine the range of positive prevention services and degree of adherence to guidelines among CSF supported sub-grantees.

4. What kind of services do you offer for PLHIV?

Probe for counselling, (HCT, Couple counselling, Ongoing counselling), Assisted disclosure, PMTCT (prevention of mother to child transmission), ART (antiretroviral therapy), Contraceptives (Male and female condoms), PreP (pre-exposure prophylaxis) PEP (post exposure prophylaxis), Advice on conception, Empowerment, Skills building for positive prevention (disclosure, safer sex, negotiation),

5. Do you provide any other partner services? If so which ones?
6. Are there guidelines that you follow in provision of services for PLHIV? Which guidelines? How do you utilise them? How often do you follow these guidelines?
7. Do you have any challenges or limitations in following these guidelines? Please elaborate.

Prevention services

7. What do you understand by (prevention with positives) PWP services?
8. What (prevention with positives) PWP services are provided at this facility?
9. In your opinion, would you say there something unique about how you provide prevention services to your HIV patients/clients? What is that?
10. As a provider, what are some of the challenges you have experienced in providing

prevention with positive services to your HIV/AIDS patients/clients?

11. From your experience with PWP service provision, what would you say are the strategies used that have been successful in promoting and providing prevention services to your HIV patients/clients?

12. What ideas do you have on how prevention services can be improved for PLHIV?

13. Do you have any additional comments?

THANK YOU FOR YOUR TIME TODAY

11.4 In-depth Interview Guide

FACTORS ASSOCIATED WITH ADOPTION OF SAFER SEXUAL BEHAVIOR AMONG PLHIV IN CARE IN SELECTED CIVIL SOCIETY ORGANIZATIONS– IMPLICATIONS FOR POSITIVE PREVENTION (PP) PROGRAMS IN UGANDA

In-depth interview guide: The in depth informants will include those with lived experiences of safer sexual behavior such as abstinence, consistent condom use, and faithfulness.

Introduction High risk sexual behavior is on the rise in Uganda. About five years ago, the Ministry of Health reported that there was resurgence of risk sexual behavior in the general public in Uganda. The risky sexual behaviors identified were: acquisition of multiple sexual partners, incorrect and inconsistency use of condoms and acquisition of STDs. Recent studies in Uganda have also indicated high risk sexual practices among PLHIV in spite of the prevention with positives programs. This study therefore aim to investigate the factors associated with safer sexual behavior with a view of suggesting remedial measures necessary to improve PwP services and consequently adoption of PwP services.

Date _____

District _____

Municipality/sub-county _____

Category of In-depth Interviewee: _____

Interviewers name _____

Recorders name _____

Time began _____
Time ended _____
Other relevant characteristics/description

1. How do the people in this community behave these days (probe for sexual behavior, what they understand by safer sexual behavior)
2. In your opinion as a person who has adopted/not adopted safer sexual behaviour, what would you say about adoption of safer sexual practices by PLHIV in care? Do they adopt? Reasons for your answer.
3. What would you say are some of the safer sexual practices that PLHIV have adopted?
4. What safer sexual practices have you manage to adopt? (**For those who have not yet adopted, ask for the practices that they have not adopted**)
5. How did you manage/what compelled you to adopt safer sexual practice(s)? (**For those who have not yet adopted, ask why they have not done so**)
6. What were the challenges that you went through so as to adopt the safer sexual practices? (**For those who have not yet adopted, ask for the challenges for having not adopted**)
7. What do you think should be done to improve adoption of safer sex behaviors?
8. Do you have any additional comments?

THANK YOU FOR YOUR TIME TODAY

11.5 Focus Group Discussion Guide

FACTORS ASSOCIATED WITH ADOPTION OF SAFER SEXUAL BEHAVIOR AMONG PLHIV IN CARE IN SELECTED CIVIL SOCIETY ORGANIZATIONS– IMPLICATIONS FOR POSITIVE PREVENTION (PP) PROGRAMS IN UGANDA

Focus Group Discussion Guide

Date.....
District
Sub-county
Organisation/health facility.....
Time began..... Time ended.....
Facilitator:.....
Note taker:.....
Venue:.....
Language:.....
Number of Participants:
Description of participants: _____
Type of contact group _____
Age range _____

Other relevant characteristics/description

INTRODUCTION

“My name is...” and my colleague is called.....” “We work with Makerere University School of Public Health and for an organization called Civil Society Fund (CSF) which helps to provide services for people like you in Uganda. “We are talking to you today to hear your views on HIV transmission, prevention and to discuss factors associated with adoption of safer sexual practices among PLHIV here and in Uganda. Eventually, we hope to use this information to address some of the challenges and ultimately provide better services for people like you both here and in other areas like yours in Uganda.” The discussion will last for about 2 hours

“Thank you for allowing us to spend time with you getting your feedback. We hope to use this information to recommend solutions for better service provision”

“Guidelines for the FGD (Ground Rules):

- 1 There is no right or wrong answers, your personal opinion are valuable to us.
- 2 Be honest; your individual comments will remain confidential but will be compiled into a report without identifying your personal identities.
- 3 We will be recording the session such that any detail that might be missed by the note taker are re-played in order to ensure that details are not missed out during the report writing. The audio will not be shared with anyone, except the Key members of the research team.
- 4 Be respectful- no personal attacks; if you disagree, please tell us but in a calm and respectful manner
- 5 Stay on the subject and we kindly request each one of you to actively participate

Introduction of study participants: Please tell us your name (if you don't mind), age, what you do and where you stay

Discussion Questions

To describe the safer sex behaviors that are adopted by the CSF supported PLHIV in care.

1. How can we prevent HIV transmission?
2. What is the role of PLHIV in prevention?
3. What do PLHIV in this community do to prevent transmission of HIV and re infection? *Probe for safer sexual practices.*

ESTABLISH THE UNDERSTANDING OF SAFER SEXUAL PRACTICES AND BE SURE THAT ALL; ARE ON BOARD

4. In your opinion, what should people living with HIV do to prevent transmission to others and to prevent re-infection? *Probe for abstinence, consistent condom use, disclosure to partner, use of antiretroviral therapy (ART), prevention of mother to child transmission (PMTCT), post*

exposure prophylaxis(PreP), microbicides, vaginal gel, post exposure prophylaxis (PEP), have sex with only those who are HIV positive

To explore the factors associated with adoption of safer sexual practices among PLHIV in care.

5. In your view, what are those factors at the household among couples and community level you think are most important in facilitating adoption of safer sexual behavior practices? *Probe for how do attitudes of other people in the community affect couples' decisions to adopt safer sexual practices, How sexual norms (things that are acceptable and not acceptable around sex in our society) affect adoption and adherence to safer sexual behavior*
6. How important is it for men and women living with HIV to disclose their HIV status to household members including their spouses? (probe for risks and benefits)
7. In a typical relationship in this community, how easy is it for men or women to talk about sexual health issues, such as HIV and contraception, HIV and safer sexual practices, condom use?
8. In your opinion, how is the communication among sexual partners in this area? Probe: *Does communication vary depending on the type of relationship (wife vs. casual partners?)*
9. If HIV positive people want to have children, what should they do?
10. What challenges do people with HIV in this community face to prevent transmission?
11. What would you suggest that can help to stop further transmission of HIV? *(probe for treatment options, legal measures, empowerment, help in getting services, train health workers in communicating to patients)*

To determine the range of positive prevention services and degree of adherence to guidelines among CSF supported sub-grantees.

12. What services do you receive from the health facilities and organizations working with PLHIV in this community? *Probe from which organizations*
13. Do you like these services and the way they are provided? Give reasons for your answer
14. What are some of the challenges in accessing these services?

THANK YOU FOR YOUR TIME TODAY

11.6 Facility checklist for prevention with positives activities

Does this organization carry out the following activities for clients?

YOUTH AND CHILDREN

Does this organization carry out the following activities for clients?

	Yes	No
1. Provide sexual education to delay sex debut and acquisition of skills about risks associated with sex among youth	1	2
2. Discourage unsafe sex among youth	1	2
3. Provide education and counseling on ART and ART adherence for youth	1	2
4. Provide STI screening and treatment among youth	1	2
5. Provide risk reduction counseling to youth	1	2
6. Provide psychosocial and spiritual support to youth	1	2
7. Facilitate support for groups for PLHIV among youth	1	2
8. Address issues of sexual and gender-based violence among youth	1	2
9. Provide premarital counseling for youth above 18 years	1	2

WOMEN AND GIRLS

Does this organization carry out the following activities to women and girls? **(Code in women column)**

Does this organization carry out the following activities to men? **(Code in men column)**

	WOMEN		MEN	
	Yes	No	Yes	No
10. Provide IEC to increase uptake of HIV prevention interventions	1	2	1	2
11. Provide risk reduction counseling	1	2	1	2
12. Provide support for disclosure of HIV sero-status to partners and family members and partner testing	1	2	1	2
13. Provide family planning methods	1	2	1	2
14. Provide PMTCT for pregnant women/ Male involvement in PMTCT	1	2	1	2
15. Provide education and counseling on ART and ART adherence	1	2	1	2
16. Provide STI screening and treatment	1	2	1	2
17. Provide psychosocial and spiritual.	1	2	1	2
18. Facilitate support for groups for PLHIV	1	2	1	2
19. Support stigma and discrimination reduction	1	2	1	2
20. Address issues of sexual and gender-based violence	1	2	1	2
21. Provide treatment of other health conditions –TB, malaria, nutrition	1	2	1	2
22. Address socio-cultural-economic-legal factors to mitigate the effects of HIV/AIDS				

