ISSN No:-2456-2165

Attitudes, Barriers and Facilitators of Cervical Cancer Screening Intergration into HIV Care Programs in Selected Health Facilities in Kampala

Health Service Integration

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REGISTRATION NO.: RJ17M21/059

PROGRAME: MASTER OF PUBLIC HEALTH

DISSERTATION

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ISSN No:-2456-2165

DECLARATION

I, Pauline Picho, confirm that this research work described in this proposal is original and has never been presented for award of any degree at any University.

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Signature Date

Dr Joseph KB Matovu

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LIST OF ABBREVIATIONS

HIV: Human immune deficiency virus
CC: Cervical Cancer
HCP: Healthcare provider
WHO: World health organization
HPV: Human papillomavirus
AIDS: Acquired immune deficiency syndrome
VIA: Visual inspection with 5% acetic acid solution
ARV: Antiretroviral drugs
ART: Antiretroviral therapy.
PEPFAR: The President's Emergency Plan for AIDS Relief
UCI: Uganda Cancer Institute
Ca Cervix: Cancer of the cervix
M.O.H: Ministry of Health
UNEPI: United Nations Expanded Program for Immunization
HPV: Human Papilloma Virus
UPHIA: Uganda Population-Based HIV Impact Assessment

ISSN No:-2456-2165

OPERATIONAL DEFINITIONS

- *Cervix:*
  Opening of the uterus or womb.

- *Integration:*
  Integration is the management and delivery of health services so that clients receive a continuum of preventive and curative services, according to their needs over time and across different levels of the health system. (WHO, 2016).

- *Cervical Cancer Screening:*
  Cervical cancer screening is the process of detecting and removing abnormal tissue or cells in the cervix before cervical cancer develops.

- *Papanicolaou or Pap Smear:*
  The Papanicolaou test (abbreviated as Pap test, also known as Pap smear, cervical smear, or smear test) is a method of cervical screening used to detect potentially pre-cancerous and cancerous processes in the cervix.

- *HIV Care and Treatment:*
  Includes adherence which means that a patient takes antiretroviral (ARV) drugs correctly. Usually, patients take ARV drugs to treat HIV infection and other drugs, such as cotrimoxazole, to prevent opportunistic infections.

ISSN No:-2456-2165

ABSTRACT

- ***Introduction:***

Cervical cancer is the third most frequently diagnosed cancer in women, and fourth leading cause of cancer related deaths in the whole world. Yet readily preventable. Women living with HIV are at increased risk of invasive cervical cancer, highlighting the need for access to screening and treatment for this population. Integration of cervical cancer related services has been proposed as an effective way of improving access to cervical cancer screening especially in areas of high HIV prevalence which are most times areas of low resource settings.

- ***Study Objective:***

The main objective of this study is to assess factors associated with integrating cervical cancer screening services into existing HIV care programs in private and public health facilities in order to improve delivery of integrated HIV/ cervical cancer screening services in Kampala District, Uganda.

- ***Methods:***

The study was a cross sectional study with qualitative ethnographic approach. It explored perception of health workers in relation to delivering services within an integrated work environment. The study was conducted in the five divisions of Kampala district focusing on health center IVs, IIIs and hospitals both private and government facilities were chosen. The study population was purposively selected and included facility in charges, HIV clinic managers, maternal and child health clinic in charges, clinicians, nurses, midwives, HIV positive clients receiving HIV care from identified health facilities regardless of cancer status.

- ***Results***

A total of 63 individuals participated in the study this included service providers and clients attending HIV care clinics. Responses from the participants were in agreement with integrating cervical cancer into HIV care programs, because it provided access to cervical cancer screening services and other reproductive health services within the same environment and at one stop. These make the services feasible and accessible to all women.

- ***Conclusion.***

In conclusion for integration to be successful, several approaches like training of existing staff in providing cervical cancer screening and treatment services was highly emphasized by both staff and client respondents. Availability of treatment services and follow-up of patients is also Required to ensure continuum of care. Also, the most appreciated model of integration was the in clinic using existing staff because it maintained privacy and confidentiality of client information. Otherwise, integration was highly recommended to promote uptake of cervical cancer services among HIV positive women.

ISSN No:-2456-2165

CHAPTER ONE
INTRODUCTION

Cervical cancer is the third most frequently diagnosed cancer in women, and fourth leading cause of cancer related deaths in the whole world (Li M *et al*. 2017). A study conducted by, (Chandra-Mouli & Patel 2017; Gizaw *et al*. 2017), shows that, in 2012, there were 528,000 new cases of cervical cancer and 270,000 deaths estimated to have occurred in the whole world; the majority reported from developing countries and most especially in women infected with HIV. In Ethiopia, cervical cancer is the second most common cancer in women and said to be 8 times more common in HIV infected female than those negative (Da *et al*. 2017).

Out of 35 new cases diagnosed annually per 100, 000 in sub-Saharan Africa, about 60% are living with HIV infection (Ndawula and Samuel (2017). In a study done in southern Ethiopia, around 22% of women infected with HIV were positive for precancerous cervical cancer (Daniel *et al*. 2017). In another study done in Kenya among 488 women both HIV positive and negative, the risk of cervical cancer was found to be 21.0% in HIV positive women compared to 6.9% in their HIV negative counterparts (Yamada *et al*. 2008). All the above indicate that HIV positive women are more predisposed to cervical cancer and development of squamous intraepitheli1765al lesions because of the low immunity associated with HIV infection which cause rapid progression of pre invasive to invasive cervical cancer lesions.

Amidst all this, enrollment into HIV care coupled with provision of antiretroviral therapy (ART) and early screening and diagnosis for cervical cancer can greatly reduce the risk to cervical cancer among HIV positive women. A study conducted by Minkoff *et al*. in 2001 revealed that HIV positive women with persistent HPV (Human Papilloma Virus) infection, were more likely to have progression in their lesions, but with ART this can be reduced by 40%. A similar study by Compos *et al.* 2018 also indicated that early initiation, long duration, good adherence to ART, high CD4 cell count and low viral load is highly associated with a reduction in the incidence and progression of invasive cervical cancer lesions, leading to full restoration of cervical mucosal immunity in women infected with HIV. Therefore, since HIV programs are well established and advanced in developing countries, cervical cancer screening services should be included as a standard package of care in HIV treatment programs to enable accessibility to the service (Ezachi *et al*. 2017). Sadly, most HIV programs are offered in isolation of cervical cancer services hence affecting uptake of the services (Kumakech *et al*. 2014).

Integration of services can improve service provision, for example, in Zambia where cervical cancer prevention services is co-provided with HIV care and treatment services, huge benefits were observed. This included resource and infrastructure sharing, accessibility to a wider range of women's health services to HIV infected women and improved referral opportunities between the clinic systems were observed (Kumakech *et al*. 2014). Integration of cervical cancer screening and HIV services can not only improve quality of care but can also improve efficiency in service provision and increased uptake of a wide range of sexual and reproductive health services (White *et al*. 2017). WHO defines integrated service delivery as: "the management and delivery of health services so that clients receive a continuum of preventive and curative services, according to their needs over time and across different levels of the health system." Therefore by placing the client at the center of service delivery, integrated health services ensure that the health needs of the client are met comprehensively. However, vertical programs are usually disease-centered in their approach of service delivery hence providing limited scope of health services (white *et al*. 2017). For instance in a study done in Nigeria by Ezachi *et al*. in 2013, found that women who received cervical cancer services at health facilities that also offered HIV care services had a 79.8% acceptance rate. In addition early identification of pre-cancerous lesions was observed and treatment was initiated according to the WHO recommended guidelines for cervical cancer treatment.

Service integration can be achieved through three different ways i.e. within clinic, coordination between co-located clinics, and within complex programs (Sigfrid *et al*. 2017). Evidence suggests that the provision of integrated HIV and cervical cancer services improved uptake of cervical cancer and HIV services in all models; however, loss to follow-up for cervical cancer treatment was a challenge in all models. While integration of services can improve uptake of services, very few programs provide HIV and cervical cancer integrated services. In the few programs where services have integrated, existing challenges such as limited funding, increased responsibilities for service providers leading to high staff turnover and lack of availability of cervical treatment contributed to or inhibited uptake of services. This presents a missed opportunity for the target population. In this study, we shall explore the factors associated with integrating HIV and cervical cancer screening services in HIV care clinics in both private and government facilities in order to improve integration of cervical cancer screening services in existing HIV care clinics in both government and private facilities.

- *Background*

HIV and cervical cancer are co-related public health problems affecting one of the most vulnerable populations in the world, women (Mitchel *et al*. 2017). In Uganda it is the leading cause of death among women (Nakisinge, *et al* 2017). According to world health organization, in 2014, approximately 3915 women were diagnosed with cervical cancer and out of these 2160 died from it. Uganda Cancer Institute (UCI) reports that in 2017 the prevalence of cervical cancer was 37%, which spots Uganda as one of the countries with the highest cervical cancer incidence rates in the world. Still at UCI statistics indicate that 80% of the women who visit the facility for cervical cancer care, arrive in the advanced stages of the disease and many of these women come from rural areas where uptake of screening services is low.

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On the other hand a report released by UNAIDs in 2016, indicates the prevalence of HIV among women aged 15-49years was at 7.7 which is about 740,000 women infected with HIV in Uganda. A research conducted in 2015 by Kumakech *et al*, shows that the prevalence of HIV among women in Uganda aged 15 – 49 years increased from 7.5% in 2005 to 8.3% in 2011. Furthermore, this research like others mentioned also significantly point out the need for integrating cervical cancer services into HIV care given the fact that HIV positive women are a high risk population for cervical cancer. Ndejjo *et al.* 2016, recommend that more cervical cancer screening and treatment interventions should be put in place to target this risky populations, however, due to limited financial commitment, this has resulted into low uptake of these service in many developing countries and especially in rural areas of Uganda. The screening for this population should be done annually instead of 3 yearly like the HIV negative population (Nakisige, *et al* 2017).

In Uganda most HIV and Cervical cancer clinics are disintegrated, almost all HIV care programs in Uganda do not provide screening services for cervical cancer and vice versa, this creates a missed opportunity for the women, who frequently visit these programs for medical review and medication refills and later report in advanced stage of cervical cancer which leads to poor prognosis (Kumakech *et al.* 2015). This study therefore sets out to explore attitudes, barriers and facilitators of cervical cancer screening integration into HIV care programs in selected health facilities in Kampala district.

- *Problem Statement*

Women infected with HIV are at high risk of developing cervical pre cancer and cancer in limited resource countries.(Ndawula & Samuel, 2017). Studies done in Uganda have found a high prevalence of HIV among women infected with cervical cancer and a high prevalence of cervical cancer among HIV-infected women (Wanyenze *et al*. 2017). In most cases, however, women with HIV do not have access to cervical cancer screening; and women with cervical cancer may not be provided with HIV testing services since these services are not integrated. Indeed, studies have documented that the availability of ART has improved life expectancies among these HIV positive women but gaps still exist in uptake of cervical cancer services among this high risk population (Huchko *et al*. 2015). This is attributed to the fact that most HIV programs are implemented independent of cervical cancer services which presents a missed opportunity for identifying HIV-infected women who may be at a higher risk of developing cervical cancer for early treatment and management.

In Uganda, almost all HIV care programs do not offer cervical cancer screening services. This makes it difficult for the HIV positive women attending these clinics to access Cervical Cancer screening services, despite the regular visits they make to the clinics for medical reviews and drug refills. Such missed opportunities for cervical cancer screening increase their risk of presenting late with advanced cervical cancer disease and a poor prognosis. Similarly, almost all cervical cancer screening programs in Uganda do not offer HIV screening services to women, so that these women risk receiving inappropriate schedules for cervical cancer screening. A less aggressive cervical cancer screening schedule for HIV-positive women also increases their risk of presenting in advanced stages with poor prognosis.

WHO recommends for a more vigorous approach to integrating HIV and cervical cancer, however, in Uganda and other developing countries HIV and cervical cancer prevention services continue to be implemented vertically. This study sets out to document the models of integration being used in the different health facilities in Kampala district in order to inform programing. In this study we also explore the perceptions of frontline health workers and clients towards integrating cervical cancer screening into HIV care programs as well as identify barriers and facilitator of integrating cervical cancer into HIV care programs to improve quality of integrated services hence strengthen the health care systems.

- *Study Justification*

Several studies have been conducted in regard to integrating cervical cancer screening into HIV care programs. These studies also highlight the low uptake of screening services in integrated HIV care programs. This study will document different models of integration in health facilities in Kampala district. By so doing we'll be able to identify the most appropriate and user friendly model of integration hence improving quality of care and uptake of cervical cancer screening in HIV care programs. Also by exploring perception of health service providers and clients towards integration, adequate information will be collected to guide formulation of policies to improve and strengthen HIV care programs

Integration of cervical cancer screening services offers multiple benefits for both the client and program planners. Integrating HIV and cervical cancer screening improves targeting for high-risk populations especially the women living with HIV who have a higher rate of HPV. More so they are more susceptible to accelerated development of precancerous and cancerous cervical lesions. Therefore, this study will inform program planners by offering evidence that integration of cervical cancer screening into existing HIV programs can address the lack of screening services for HIV – positive women as well as improve adherence to HIV care and treatment services.

By interviewing facility managers or administrators from different levels of health care system, this study will be in position to strengthen an enabling environment for integrated service delivery by providing a buy-in from key government and community leaders and other influential stakeholders who are a central component in the successful integration of health services integration.

ISSN No:-2456-2165

The strategic plan for cervical cancer prevention and control in Uganda 2010-2014 highlights the need to increase awareness around the cause of cervical cancer, the preventable nature of the disease and availability of screening and treatment services in this study we shall be able to increase awareness about cervical cancer as we disseminate our research findings to the different eligible stakeholder. All the above will create a better ground for integrated cervical cancer screening and HIV care and treatment.

➢ *Study Objectives*

- *Overall Objectives*

The main objective of this study is to explore attitudes, barriers and facilitators of cervical cancer screening integration into HIV care programs in selected health facilities in Kampala.

- *Specific Objectives*

✓ To document existing HIV/Cervical cancer screening models of service delivery.
✓ Explore attitudes of health facility managers, frontline service providers and clients towards integrating Cervical Cancer screening services into HIV care programs.
✓ To explore barriers and facilitators for HIV/Cervical cancer screening service integration in public and private health facilities.

➢ *Research Question*

- What models of integration is being used in the different health facilities in Kampala district?
- What are the perceptions of frontline health workers and clients towards integrating cervical cancer screening into HIV care programs?
- What are the barriers and facilitator of integrating cervical cancer into HIV care programs?

➢ *Conceptual Framework*

- *Conceptual Framework Narrative*

The conceptual framework illustrates the relationship between the different models of integration, social demographic and economic factors, and perception of health care providers to integrated services and how this facilitates or hinders uptake of cervical cancer screening services. We also looked at three models of integrated care and how they are feasible and acceptable to women infected with HIV/AIDS, however, in this study we'll further discover the most effective model of integration across all health facilities that have been chosen to participate in the study.

According to Kumakech *et al*. 2014, many of the HIV care programs in Uganda are not integrated and do not offer cervical cancer screening to their clients. Furthermore, almost all the cervical cancer screening centers in Uganda do not offer HIV testing. Therefore, many HIV positive women miss out on screening services which increases the risk of these women presenting in the advanced stages of the disease. This is mainly attributed to social demographic and economic factors coupled with client, health service providers and facility manager attitude towards the integrated service.

This study therefore will identify some of these barriers and promoters of integrated service to improve programing hence strengthening health care systems.

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CHAPTER TWO
LITERATURE REVIEW

➢ *Integration Definition*

Integration is the management and delivery of health services so that clients receive a continuum of preventive and curative services, according to their needs over time and across different levels of the health system (WHO 2016). WHO defines four models of service integration and these include, organizational, functional, and clinical integration.

- *Organizational Integration*

This is described as bringing together several Organizations through coordinated provider networks. Organizational integration can also be defined as the extent to which distinct and interdependent organizational components rapidly and adequately respond and/or adapt to each other while pursuing common organizational goals.

- *Functional Integration.*

Functional integration means integration of non-clinical and back-office functions through shared electronic patient records. Functional integration may also refer to implementation of as many technical functions as possible with in available environment or space.

- *Clinical Integration*

This is integration of care into a single and coherent process within/or across professions by means of, among others, using shared guidelines and protocols.

Another study conducted by Sigfrid *et al* in 2017, identifies three models of integrated care which includes Integration across clinically related and non-related disease programs, Integration between vertical (disease-specific) and horizontal (system-wide) programs, and Integration across service functions as explained below.

- *Within-Clinic Integration using Existing Staff*

This model of integration is commonly used in resource limited setting, with high demand for cervical cancer screening services. In this model existing clinical staff are used to implement the integrated service. In a study conducted in Mozambique, Tanzania and Zambia, discovered increased uptake of cervical cancer screening services in facilities that used this integrated approach compared to other models. In a cross-sectional study from Mozambique, described integration of cervical cancer services with PEPFAR-funded rural clinics and a hospital, which included training of existing child health nurses in VIA and cryotherapy. Women were offered cervical cancer screening together with screening for other STDs in a single visit. Before integrating services, there was no access to cervical cancer screening. Surprisingly, in the first year of integration, the health facility screened twice as many women as the target that was set by the country's MOH (Moon et al. 2012). This clearly shows that uptake of services are improved in and integrated setting within the same clinic.

- *Coordination Through Co-Location Clinics/Specialties*

The second model of integration described by Sigrid is a model where there is coordination through co – located clinics or specialties. In this model services are integrated within co located clinics or departments that are close to each other. In a study conducted in Nigeria, in an organization that is integrating cervical cancer screening into a reproductive and child health clinic that is co-located to an HIV care program, also discovered a great uptake of cervical cancer screening services among HIV positive women who were receiving services from this co-located clinics.

Mwanahamuntu *et al*., presented the results from a cross-sectional study set in Zambia. They evaluated the integration of new cervical cancer screening clinics into 17 public sector health clinics and a surgical center in Zambia, which delivered PEPFAR sponsored HIV care and treatment services at the same sites. HIV screening was also integrated into the cervical cancer clinics for women with unknown HIV status. These mutual linkages achieved greater efficiencies. Nurses were trained in cervical cancer screening and treatment of minor lesions. Digital images were used as an adjunct to screening and reviewed weekly with a gynecologist. For sustainability, peer educators were used for health promotion and as patient navigators to reduce loss to follow up, and the program was constantly refined through community feedback. Task-shifting helped overcome workforce shortages. The program screened 56,427 women (27% HIV+) during the study period (2006–2011). 28% of women were VIA+. Women living with HIV had 2.62 times higher odds of being VIA+ [AOR: 2.62 (95% CI: 2.49, 2.76, $p<0.001$] than HIV- women.

- *Complex Program of Integration and Coordination*

In this model services are integrated in complex programs for example reproductive health programs, Malaria programs or HIV care programs. This model requires coordination across health care pathways to ensure clients are served efficiently.

In a retrospective descriptive study evaluating this model of integration, where cervical cancer screening was integrated in a public health program with HIV and family health clinics in Kenya. The facility screened 6,787 women (2009–2011), of these 20% (n = 1331) were found with positive results for cancer cervix and 71% (n = 949) found to be HIV+. 68 women had cancer,

with an incidence of 414 per 100 000 women per year. The screen-and-treat model was used to treat pre-cancerous lesions, averted 349 cases from progressing to cancer. However, the loss to follow up was high (32%), and increased as treatment became more invasive (Khozaim *et al*. 2014).

- *Attitudes of Health Facility Managers, Frontline Service Providers and Clients Towards Integrating Cervical Cancer Screening Services into HIV Care Programs*

The extent to which integration will be successful can be a function of the attitudes of different players including health care providers, facility managers and administrators and clients themselves. Indeed, in the case of clients, a study conducted among a large number of HIV infected women receiving HIV care from all five geographical regions of Uganda to assess the uptake and correlates of cervical cancer screening among HIV infected women attending HIV care in Uganda found that half of the women in the study did not know the signs and symptoms of cervical cancer or the schedule for screening services in facilities where they were receiving treatment from, while 36% of them did not know where to attend screening services from (Wanyenze *et al.* 2017). This finding is similar to those from other studies conducted previously in Uganda and elsewhere in Sub – Saharan Africa.

In another study conducted in Uganda noted that health care providers perceived integration as a strategy that would minimize loss to follow up of clients from HIV care programs and also recommended that cervical cancer screening clinics be merged with HIV care clinics to further promote this (Plotkin *et al*. 2014). Health care providers also perceived integration as cost saving for both the women and health facility as the clients will only make one trip to the facility for multiple services hence making the service convenient for the women.

An analytical study conducted in Tanzania of a cervical cancer prevention program that was rolled out in a staggered fashion, noted that the uptake of services highly improved among women attending reproductive health care from the clinics. The approach proved to be highly acceptable, both to providers and to women, and was an effective way to identify women who do not know they are HIV status and refer them to appropriate care and treatment. Health care providers also perceived integrating health services as a proven strategy for improving quality of care and increasing uptake of services. It is particularly relevant to cervical cancer and HIV/AIDS, because both are sexually transmitted and infection with one increases vulnerability to the other (Plotkit et al, 2014).

- *Barriers to Integrating Cervical Cancer into HIV Care*

- *Attitude of Clients and Health Service Providers as a Barrier to Integration*

Several barriers to integration have been documented in previous studies that are centered on clients themselves, health service providers, models of integration and resource limitation. In a study that was conducted in Mildmay - Uganda, in 2015, discovered that, myths and misconceptions such as the belief that a woman's ovaries and uterus could be removed during screening was a major barrier to uptake of cervical cancer screening services (Bukirwa *et al*. 2015). Other documented barriers include, fear of pain associated with cervical cancer screening, fear of undressing and the need for women to preserve their privacy, low perceived cervical cancer risk, shortage of health workers to routinely provide cervical cancer education and screening, and competing priorities for both provider and patient time. All the above mentioned factors are reasons why clients have most times resisted uptake of the integrated cervical cancer screening services. Major barriers to repeat screening included limited knowledge and appreciation of the need for repeat screening, and lack of reminders (Bukirwa *et al*. 2015).

Lack of reminders for follow up checkup was also cited as a big hindrance to cervical cancer screening among those that screened only once. Service providers too raised the issue of clients forgetting the due dates for the next screening procedure which affected the service delivery process. Another challenge highlighted was inadequate space, few trained staff , stock out of supplies and poor attitude of service providers affected service delivery process and contributed to long waiting time for the clients and loss to follow up in the long run.

- *Low Social Economic Status*

HIV infection makes women 5 times susceptible to cervical cancer. Therefore screening programs are necessary to detect precancerous lesions. Integration of cervical cancer into HIV care is the most effective strategy to offer this service to these women, however, the most outstanding challenge to this approached is the availability of highly trained human resources to effectively offer this service and must have adequate knowledge proving health care and also be able to effectively respond to complications that occasionally arise with immune compromised clients. Such providers are scarce in developing countries because of resource limitations hence affecting uptake of these services even when integrated.

In Uganda Statistics indicate the doctor-patient ratio is 1:24,725 while other reports indicate a ratio of 1: 35,000 of the total population and on the contrary WHO recommends one doctor for every 1000 patients(Ndawula & Samuel, 2017). Therefore, these big numbers of patients to be served by one health worker might compromise quality of care provided to the clients. Another challenge is availability of equipment. WHO recommends a "see-and-treat" approach for developing countries, through which women with a positive screening result for pre-cancerous lesions are immediately treated, however with lack of trained health

workers and availability of appropriate equipment, implementation may become a challenge. Availability of adequate infrastructure is also a challenge in integration, without enough space integration may be compromised.

Cervical cancer is most common in women of low socio– economic class but the low socio-economic class is not an independent risk factor. A diet low in vitamins A, C, Beta carotene and Folic acid has also been implicated. Tobacco use has been identified as an independent risk factor. However the role of alcohol consumption has not been confirmed (Kiguli-Malwadde, 2005). In this study, we shall assess social economic factors hindering integrating cervical cancer in both government and private facility to ensure effective service delivery.

- *Limited Health System Capacity*

Limitation in health system capacity is cited as a potential consequence of integration. This is because its inefficiency leads to prolonged waiting time at services delivery points causing tiredness among women and health workers. Another major health system challenge documented with integrating cervical cancer services into HIV care programs include the lack of health facilities offering cervical cancer screening services, lack of awareness of available services, services being far away from the community and the mistreatment of women by health workers at health facilities. For successful integration, these factors need to be addressed enhance attitude of clients towards the services hence increased uptake and coverage of the service (Ndejjo *et al.* 2017). Charging clients for services like these, especially in government facilities where services are expected to be free was also documented as a challenge as most of the women were economically handicapped and travel long distances for these services.

Challenges with referrals for treatment of advanced lesions present a great effect on an integrated service if treatment services are not integrated. This is a common challenge in the rural areas where such services are not available and clients have to travel long distances to urban areas to access them (Afzal *et al.* 2017).

➢ *Facilitators of Integrating Cervical Cancer into HIV Care Programs*

Several studies have been carried out to assess whether integration of cervical cancer in to HIV care is feasible. Cervical cancer services were integrated into HIV/AIDS programming in six African countries i.e. Ethiopia, Kenya, Malawi, Tanzania, Zambia, and Zimbabwe (Plotkin et al. 2014). In Zambia, Malawi, and Botswana, screening and cryotherapy services were integrated into existing national HIV/AIDS care and treatment programs. This resulted into increased coverage of screening and treatment services for HIV-positive women (Phiri *et al*. 2016). This increased use of cervical cancer services by the general population was attributed to the sustained efforts of providers and community mobilizers to educate all women within the target age group. In Ethiopia, programs that target women living with HIV for cervical cancer screening reported high service uptake in the pilot phase, but also recognized the challenge of scaling up within the broader health system (Shiferaw et al. 2016).

- *Promoting the Screen and Treat Approach as Recommended by WHO*

Initially the standard practice for identifying cervical cancer lesions was through a pap smear or pap test. Positive cervical cancer lesions were confirmed with colposcopy, biopsy of the suspicious lesions followed by histology (WHO, 2013). This required highly trained health professionals with fully equipped laboratory facilities. This set up is a high cost for low and middle income countries and cannot be sustained in the long run. In 2013 WHO developed a new guideline with a flow chart for identification and treatment of cervical cancer lesions. This was called the screen and treat approach. This approach is meant to cut down referral costs for treatment of positive cancer lesions and reduce cervical cancer and related mortality with relatively few adverse events (Paul *et al*. 2013).

The common screening tests that are widely used include tests for human papillomavirus (HPV), cytology (Pap test), and unaided visual inspection with acetic acid (VIA). These tests can be used as a single test or in a sequence. When using a single test, a positive result indicates the need for treatment. When using a sequence of tests, women who test positive on the first test receive another test and only those who test positive on the second test are treated. Women with a positive first screening test followed by a negative second screening test are followed up. Available treatments include cryotherapy, large loop excision of the transformation zone (LEEP/ LLETZ), and cold knife conization (CKC).

- *Opportunity to Receive a Variety of Services in One Stop.*

Still in Tanzania, Integrated HIV/cervical cancer screening approaches and fast tracking meant women got the critical services that they needed in one stop (Ishengoma *et al*. 2015). About 86 percent of the women screened with VIA positive results were treated on the same day. Cervical and breast cancer screening for all women provided an attractive entry point for identifying new HIV clients and about 36 percent of women screened for cervical cancer were HIV-positive and enrolled into care and treatment services (Ishengoma *et al*. 2015).

A point to consider is that, integrating HPV vaccination and CC screening for HIV positive women and young girls 9-13yrs can provide the greatest protection against CC also regional hospitals should be able to offer complex services like CC biopsy and treatment machines to strengthen referral completion for more advanced cases (Ishengoma *et al*. 2015).

- *Increased Access to Cervical Cancer Screening Services*

Integrating cervical cancer screening services into HIV care or grass root health facilities will increase access to cervical cancer screening services within communities (Ndejjo *et al* 2017). This will also address health system challenges such as long distances to health facilities and transport costs. To further achieve this in a developing country perspective, there is need to adopt a community outreach model of service delivery where screening services are extended to the community regularly and this also enables building capacity of lower health centers to improve quality of health care provided to the community (Ndejjo *et al* 2017).

- *Having a well-Functioning Health System and Workforce*

Health care professionals such as midwives and nurses are responsible for offering cervical cancer screening services and coordinating such services (Odafe *et al* 2013). Other cadres involved are doctors and facility managers who come in to offer supervision and advanced care. Khozaim *et al*. describes local nurses, gynaecologists laboratory staff and lay people being involved more in providing an integrated service. The recruitment of lay people is more for community engagement activities, proving community follow up of patients and offering peer education services.

Training of health care work force is also highlighted as a key feature in setting up an integrated program. In a study conducted in Côte d'Ivoire, Guyana, and Tanzania, training of health service providers was delivered by program partners as a mixture of classes and practical sessions where learners were provided with theories and practical sessions to improve skills in providing cervical cancer services to women. Onsite continual assessment and supervision was also recommended to be an important approach in improving knowledge and skills of health care workers. Other programs took a training of trainers approach; in Zambia, Mwanahamuntu *et al*. describe a train-the trainer model where nurses served as educators for their peers.

- *Health Education Campaigns and Stakeholder Engagement*

Stakeholder engagement, not only with staff but also with patients and communities, through talks, and community health promotion campaigns, were other important aspects to sustain uptake of the integrated service. Peer-education, together with counselling, were other important facilitators to an integrated service (Hucko *et al*. 2011).

In a study conducted by Ndejjo *et al* 2017, knowledge about cervical cancer causes, signs and symptoms, screening methods and prevention was poor among the participants. Common misconceptions about cervical cancer included the use of contraceptives being perceived as a cause of the disease that has previously been reported and discussed by other studies. Awareness of some cervical cancer risk factors was also high and most participants perceived themselves to be at risk of the disease. This creates an urgent need for health education campaigns on cervical cancer among the population and the need to create awareness of some cervical cancer risk factors. Most especially since availability of services alone is not sufficient enough to facilitate cervical cancer services in developing countries. Mass media communication measures such as radios and televisions can be used to publicize cervical cancer risks and prevention among the public. Community sensitizations and mobilization for cervical cancer programmes can also be contributed to by community health workers working with in the communities and engaging several stake holders for this cause.

➢ *Availability of Policies Associated with Integration*

MOH Uganda has policies to support integration of health care services. These policies include decentralizing operational responsibilities for integrated health promotion, disease prevention, curative and rehabilitative services below the district level, and build capacity for improved health care delivery and management.

The national health system is also to ensure effective harmony and linkages between the central government and districts on one hand, and the public and private sectors on the other. The Uganda Cancer Institute Bill establishes the Institute as a semi-autonomous agency mandated to undertake and coordinate the prevention and treatment of cancer therefore, its implementation will be a milestone in cervical cancer prevention and control.

In 2017, Uganda Ministry of Health appointed a Technical Advisory Committee to guide the overall approach to cervical cancer prevention. This committee comprised of AOGU, PATH, Uganda Women's Health Initiative and WHO is to be involved in writing the Cervical Cancer strategic plan and the training curriculum for screening with VIA and cryotherapy. This committee conducted a formative study that formed the basis for the current HPV vaccination activities in collaboration with UNEPI. They have also spearheaded or supported advocacy at the Ugandan Parliament, in the print/electronic media awareness campaigns against cervical cancer as well as cervical screening outreach activities.

Another study conducted in Zambia in co-located clinics in a public health facility providing HIV care and treatment clearly brought to light advantages of integrating these two services as promoting resource and infrastructure sharing, availability of several health services for HIV positive women, promoting referral opportunities between clinic systems and maximization of participation in both clinics. Similarly, in another study in Kenya, integrating cervical cancer services into MCH services promoted uptake of the services by women who brought their children to the Young Child Clinic since they were able to receive the service in a one stop center.

- *Summary*

In summary, the literature reviewed identified several models of integration but the ones seen commonly used in health facilities are three i.e. within clinic integration using existing staff; coordination between co-located clinics/specialist; and complex programs of integration involving coordination of many specialists/clinics as explained above. Overall, evidence suggests that the provision of integrated services is feasible, safe, and acceptable to both staff and women attending the health facilities. Uptake of cervical cancer and HIV screening was high in all models described, but loss to follow-up for cervical cancer treatment was a challenge in most studies.

Integration of screening and treatment into a single visit reduced loss to follow up and more feasible in low resource settings. However, limited evidence is available on the best approach to providing these additional services or on the long-term impacts of integration of services on patient outcomes and health system strengthening.

Several barriers and facilitators to integration were also discovered during the literature review. Some of the barriers were associated with attitude of clients and health service providers towards an integrated service. Otherwise, others were related to compromised health systems functions and capacity. Training and capacity building of health care workers was documented in many studies as a facilitator of an integrated services (Anderson *et a*l. 2015, Shiferaw *et al*. 2016, Khozaim *et al*. 2014). Several distinctive facilitators where identified, which included, Peer-education together with counselling being a major facilitator because it created awareness and support to the target population. Other facilitators including logistical and chain management support, the use of pre-existing infrastructure, such as government-funded clinics, staff and services already targeting women living with HIV, together with the use of HIV funded services, were key facilitators to integration together with the single visit approach where clients would receive a variety of services in one stop.

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CHAPTER THREE
METHODOLOGY

➢ *Study Site*

The study was conducted in health centers four, three, and hospitals, located in the 5 Kampala district divisions (i.e., Kawempe, Makindye, Nakawa, Rubaga, and Kampala central, divisions). A multi stage sampling method was used to select the health facilities. Facilities were listed down on a paper then clustered per division and finally simple random sampling method to select which health facility to include in the study was applied.

Fig 1 Map Showing the Five Divisions of Kampala

Three health facilities representing three levels of health systems i.e. H/C III, IV and a hospital were purposively selected from each of the 5 divisions of Kampala District (Figure 1 above) to participate in the study. The health facilities were qualified to be in the study if they had a standalone clinic offering HIV care and treatment.

➢ *Study Design*

A cross-sectional study design with a qualitative ethnographic approach was used to explore attitude and perception of health care providers, client in HIV care programs and facility managers/administrators towards integrating cervical cancer screening services into HIV care programs. The study also documented existing models of integrated services for cervical cancer screening, client's levels of satisfaction with integrated services in terms of accessibility and service delivery in comparison with those receiving care from facilities that do not have integrated services. It explored perception of health workers in relation to delivering services within an integrated work environment.

➢ *Study Population*

The study population was purposively selected and included facility in charges, HIV clinic managers, maternal and child health clinic in charges, clinicians, nurses, midwives, HIV positive clients receiving HIV care from identified health facilities regardless of cancer status.

➢ *Inclusion and Exclusion*

- *Inclusion Criteria*

✓ Participants had to be clients and staff of health facilities, private or government located in one of the 5 divisions of Kampala district
✓ Participant had to be nurses, clinicians, midwives employed in any of the identified health facilities or client receiving treatment from any of the identified facilities.

- *Exclusion Criteria*

✓ Those who were below the age of 15 years and above the age of 49 years.
✓ Those who were not receiving HIV care and treatment from the identified health facilities.
✓ Those who were not nurses, midwives, clinicians or managers of the identified health facilities.

➢ *Sample Size and Sampling Procedures*

The sample was selected using purposive sampling under non – probability sampling method. Purposive sampling allows selection of appropriate persons for inclusion in a qualitative study especially where samples are selected on the basis of knowledge of the research problem like in this case. In this study, the purposive sample size depended on the basis of theoretical saturation. A total of **63** participants were interviewed comprising of 15 service providers and administrators i.e. nurses, midwives, clinicians, and managers e.g. HIV clinic managers, MCH in charges, facility in charges. 48 clients who are in HIV care and receiving cervical cancer screening were included in the FGD discussions. Participants were selected purposively basing on level of saturation, to allow selection of service providers who are experienced in delivering both HIV and cervical cancer screening services and facility managers and clients attending HIV or cervical cancer screening services in the selected health facilities.

➢ *Data Collection Procedures and Methods*

Data was collected from clients and service providers using an FGD guide and a key informant interview guide respectively. An observation check list was also administered to allow observation of availability of integrated cervical cancer screening in the existing HIV care programs. A recording device was used to record discussions (with permission from the participants) and a separate sheet of paper was used to record participant's socio-demographic information as shown in Table 1 below.

- *Focus Group Discussions (FGDs)*

Six FGDs were conducted to explore attitude of clients towards integrated HIV and Cervical Cancer screening. The interviews were conducted in English and the focus group discussion in *Luganda* and translated for clients who do not understand *English* and *Luganda* accordingly. The discussions were conducted in a quiet environment with in the health facilities premises. FGDs were conducted per level (i.e. Health Center III, Health Center IV and Hospital) totaling to 6 FGDs for the entire study. Each FGD had 6 - 8 participants. FGD participants were stratified by age into those aged 15-24; 25-34; 35+ and sex (male, female).

Table 1 Focus Group Discussions (FGDs) Stratification by Age

	Study Site					
Divisions	**H/C III**		**H/CIV**		**Hospital**	
	Age Category	**No. of FGDs**	**Age Category**	**No. of FGDs**	**Age Category**	**No. of FGDs**
Kampala central	-	-	-	-	35+ years (males and females)	7
Nakawa	25 - 34 years males and females	6	35+years females	7	-	-
Rubaga	-	-	Males 15 – 24 years	6	-	-
Kawempe	-	-	Females & males 35+ years	8	Male 15 24 years	6
Makindye	Females 25 – 34 years	8	-	-	-	-
Total		**14**		**21**		**13**

- *Key Informant Interviews (KIIs)*

Fifteen KIIs were also carried out with health workers and facility in charges. Each facility had 1 key informant interview totaling to 3 per division and 15 key informant interviews for the entire study (see Table 2 below for details). Data were collected on attitudes, barriers and facilitators of integrating cervical cancer screening into HIV care programs among frontline service providers, clients and facility managers in the district.

Table 2 Distribution of Participant's Category who will Participate in the KII Interviews

Facility Levels	Nakawa	Rubaga	Makindye	Kawempe	Kampala Central
H/C III	1 Facility in charge		1 HIV clinic manager	1 nurse 1 Administrator	1 Clinician 1 midwife
H/C IV	1 Facilityadministrator 1 Midwife	1 clinician			1 HIV clinic manager 1 Facility in charge
HOSPITAL			1 MCH focal person 1 midwife	1 facility manager 1 midwife	
TOTAL	**3**	**1**	**3**	**4**	**4**

➢ *Data Management and Quality Control*

- *Study Rigor*

Study rigor was ensured by paying attention to the credibility, trustworthiness, and transferability of the research. The researcher's prolonged duration of time spent collecting the data and analyzing it ensured credibility of the data. To ensure trustworthiness of the study, several categories of respondents were involved (triangulation of data sources).

Interview data was collected through making field notes and later documenting and expanding them. A tape recording was also made which was later transcribed into a computerized word document.

- *Pre-Testing of Study Tools*

Data collection tools were pretested on a few participants to ensure accuracy of the tool.

- *Training of Data Collectors*

Data collectors were trained on how to administer the consent form and research tools to ensure collection of accurate information that answered the set research questions.

- *Data Transcription*

Data was transcribed to give a written account of spoken words during the FGDs. This was transcribed verbatim from the audio recorder. Research assistants were present to take notes of discussions for comparison purposes.

➢ *Data Management and Analysis*

Data (from the audio recording) was transcribed verbatim and then analyzed using content analysis method. Interview responses were sorted into four content areas: general understanding of cervical cancer screening, availability of cervical cancer screening services in the HIV care clinics, attitude and perception to integrating cervical cancer screening services into HIV care programs, barriers and facilitators of cervical cancer screening services into HIV care programs. Attitude, barriers and facilitators of cervical cancer screening integration into HIV care programs was explored by asking: *Tell us about cervical cancer screening services among women living with HIV. In your view, what do you think would be the challenges with integrating cervical cancer screening with HIV care programs?* The interview was read through several times to obtain sense from the responses. The text from clients and service providers' attitude and perception to integration was extracted and brought into one text which constituted the unit of analysis. The text was divided into meaning units that were condensed, abstracted and labelled with a code as represented below in *table 3 & 4.*

Table 3 Identification of Codes

Theme	**Facilitators to Integration**	
Category	Health service providers perception	Clients perception
Sub- category	Improved quality of care to HIV positive women	Convenient in terms of cost and time.
Codes	Integration promotes privacy and reduces stigma in HIV positive women.	A lot of time is saved because all services are received in one place. Transport cost is also reduced because we travel once to receive a variety of services.

The various codes were compared based on differences and similarities and sorted into sub-categories and categories which constitute the reported content.

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Table 4 Identification of Meaning Unit Condensed Unit and Codes

Meaning unit	Condensed meaning unit	Code
Sometimes we are so many for the few doctors to serve us and they become so tired and rude to us."	Increased workload leading to poor attitude of health workers	Poor attitude of health workers.
The patients should be empowered to prevent the disease because it is painful to find out you have cancer and HIV	Sensitization on cervical cancer prevention	High desire for prevention massages.

The concept of themes in qualitative study was used to further analyze this data. Themes have multiple meanings and creating those help to link the underlying meanings of the study together in categories as illustrated in *table 3*. Themes can also be described as recurring regularity developed within categories or cutting across categories. A condensed meaning unit, a code or a category can fit into more than one theme (Graneheim & Lundman, 2003). A theme can be constructed by sub-themes or divided into sub-themes as indicated in table 5. In this table we see how the theme barriers and facilitators of integrating cervical cancer screening services into HIV care programs emerges from meaning units condensed into sub-themes and finally forming themes as explained in the table below.

Table 5 Identification of Sub-Themes and Themes

Meaning unit	Condensed meaning unit description close to the text	Condensed meaning unit Interpretation of the underlying meaning	Sub-theme	Theme
To integrate cervical cancer screening into HIV care would be expensive on the side of the organization and brings about too much work for staff who already have a lot to do with the increasing number of HIV clients.	Integration is expensive and increases workload for staff	Integration leads to high program costs and increased employee workload hence burnout	To integrate cervical cancer screening into HIV care, increased resources are required.	Barriers and facilitators of integrating cervical cancer screening services into HIV care programs.
Lack of man power to offer the services, like in our case, we had to get a specific day for the service because we had limited staff to offer it. Some patients fear to undress before health workers so you may refer them for the screening and they just continue with their HIV medicine and go away	Staff shortage which has affected regular provision of services. Patient fear to undress before health workers	Limited number of days to offer the service leading to missed opportunities for some clients. Clients feel uncomfortable to undress before health workers so they rather not take up the service	Inadequate human resource Cervical cancer screening Compromises client privacy	

ISSN No:-2456-2165

CHAPTER FOUR
RESULTS

➢ *Participants' Characteristics*

A total of 63 individuals participated in the study this included service providers and clients attending HIV care clinics. Fifteen (15) service providers comprising of doctors, medical clinical officers, nurses and midwives (Table 5) and 48 clients receiving HIV care and treatment services (Table 6) were selected from health facilities in Kampala district to participate in Key Informant Interviews and FGDs, respectively, with in the same geographical locations as shown below.

Table 6 Key Informant Characteristics

Occupation	Number (N=15)	Percentage (%)
Midwives	3	20
Nurse	4	26.7
Medical clinical officers	3	20
Facility in charge/administrator	5	33.3
Total	15	100

Table 7 FGD Characteristics

	Division				
Age Group	**Kawempe**	**Nakawa**	**Rubaga**	**Kampala**	**Makindye**
15-24	6	0	6	0	0
25-34	0	6	0	0	8
35+	8	7	0	7	0
Sex					
Male	9	4	6	4	0
Female	5	9	0	3	8
Occupation					
builders	2	0	1	0	0
Motorist	1	1	1	1	
Business man	1	0	1	1	
Housewife	2	2		1	1
House maid	1	0		1	1
Market Vendors	5	4	3	2	0
Student	0	1	1	0	1
Guard	0	1	0	0	0
Factory worker	0	1	0	0	1
Hair dresser	1	1	0	0	2
Cashier	0	1	0	0	0
waitress	0	0	0	0	2
Tailor	1	0	0	1	0
Self-employment	0	1	0	0	0
Total	14	13	6	6	8

➢ *Existing Models of Integration*

The existing model of integration observed was Clinical integration using shared guidelines and protocols across public health programs and health service interventions. There was integration between Maternal and Child Health clinics, family planning, and HIV care and treatment clinics and this, required clients to move from one clinic to another i.e. across departments. This was reported to be inconveniencing to clients and health service providers in the KCCA clinics because it compromised privacy of clients moreover there is also no clear guideline on following clients up.

"Privacy is not kept because other health workers are always seated in the clinic while looking at the patient undergoing the cervical cancer screening." **FGD Kisugu**

"Our patients have stigma, when they are sent to another place for cervical cancer screening they may not go because they fear to be known to be HIV positive. They are more comfortable when they meet people who already know their HIV status." Key informant at **Kiswa H/C**.

Several of the health facilities have an integrated cervical cancer screening service, however, the referral for treatment is made to Mulago hospital cancer institute. This poses transport cost implication on the client who is most times economically handicapped.

"We screen the patients but refer them to Uganda Cancer institute for cervical cancer treatment." Midwife from **Kawempe Hospital**

*"At Kisugu we screen for cancer but for treatment especially in the advanced stage, we refer to Kirudu hospital because it is the nearest to us but the screening is done in the family planning clinic. "****Clinician at* Kisugu**

In Nakawa one facility admitted that they do not have screening services but do refer their clients to a health facility with in the division for screening. It is very difficult to ascertain whether these clients have actually reached the referral site or not since there is no clear referral system in place.

"We do not screen for cervical cancer but refer our clients to Naguru hospital. We are not sure if they reach because we do not have a follow up system to ascertain if they reached or not." **Clinician from Reach out Mbuya**

- *Integration with Other Reproductive Health Services.*

Some participants reported their organizations integrated cervical cancer screening in the MCH department to ensure that clients benefit from both family planning and cervical cancer screening with support from Reproductive Health Uganda. This has greatly contributed to provision of several services in one stop hence a reduction in transport costs to health facilities for other health care services that can be received at once if integrated with cervical cancer screening.

"Our clients are screened and sent o Uganda cancer Institute for treatment. The screening is done in the MCH room every day the clinicians send them here when they have noticed the client has never been screened. We also get support from RHU on busy clinic days at least twice in a week." **Nurse from IDI**

*"All women are managed in the family planning unit for cervical cancer screening and other equivalent services. We do not treat for cancer but refer them to Mulago Cancer institute for the treatment. All interested women are referred here from the HIV clinic some come but other do not come and we cannot force them."***Midwife from Kisenyi H/C**

➢ *Facilitators to Integration*

- *Community Sensitization*

Both the male and female clients appreciated the idea of integrating cervical cancer screening into HIV care. The clients responded to an integrated program providing a positive outcome for HIV positive women because they will know their cancer status hence be able to access treatment early. However, awareness about the disease should be created to promote a positive attitude among the community and the HIV positive women towards an integrated cervical cancer screening services and HIV care. This would also change people's health seeking behavior to taking up these services. Many women will be reached because the service is brought closer to them. Therefore, for this integration to be successful the clients emphasized that the benefit of this service should be communicated to the clients through dialogues with them and the community at different levels to create an understanding of the program hence promoting a positive understanding of the service as emphasized in the responses below;

"For me I think it will make it easy because we shall have all the services we need near and time will be saved. It will also allow us to get diagnosed early for therapy but we have to be informed through health education or radios of this services to make us understand why we have to be screened and the health workers should not force us to go for it like they always do when a new program is introduced." **Female FGD from Kisugu**

"A lot of sensitization has to be done for the community to understand why they have to receive this service and why it should be integrated. Because if they don't, most of the women might not take up the services. Not all of them know about cancer and yet it is a big health problem to them. Using radios to do health talks and flyers can be of big help to the community and the integrated service." **Clinician from Reach out Mbuya.**

- *Increased Waiting Time*

Integrating cervical cancer screening into HIV care programs was viewed by some clients as time wasting and would lead to increased waiting time for the clients. This is because most clients cited waiting time at the existing HIV clinics being long and congested. This would increase even more with integrating cervical cancer screening services.

*"It is time wasting because already we are waiting for a long time to see the doctor then we shall wait for screening. It will affect our work if it is integrated. Some of us come from far and leave our children with neighbors so we have to go back very fast to attend to them. I think the hospital should also teach the community about this cancer so that we can understand it better because I do not know anything about this disease and I am sure there are more women where I stay who are the same like me. "***FGD from Kisenyi hospital**

- *Provision of Cancer Treatment*

The clients perceived integrating cervical cancer screening into HIV care programs would instill hope in the women because they will be able to detect the disease early and receive the treatment early. The women also echoed that for integration to be successful, cervical cancer treatment should be made available to instil hope in the women than screening and giving them positive results without treatment. They also appreciated integration as promoting privacy and confidentiality of health information in the HIV positive women who fear to disclose their status to new faces. Appropriate support among clients will be provided because there will be several women with the same problem.

"*It is good because it will help many HIV positive women get cancer treatment early. It is even better if patients are to be screened and treated there and then than referring them to other places where they will be made to wait for many days before they are treated. It will also promote privacy of patient information because the same healthworker who treats you for HIV is the same who will screen you for cancer"* **Male and female FGD in Kawempe hospital**

"Integration will help stop stigma and discrimination in patients diagnosed with cervical cancer in the HIV program because they will be able to get support from other clients facing similar experiences." **Key informant in Kiswa H/C**

- *Accessibility to Several Services*

Integrating cervical cancer screening into HIV care programs would be facilitated by availability of several services that the clients can benefit from. Providing access to several services to HIV positive women who are also at high risk of several other HIV related diseases would highly promote an integrated HIV program. The female FGDs sighted the fact that several times people have illnesses that they are not aware of and with these screening services these conditions can be easily identified. Services like family planning, immunization of children can also be accessed with integration. Therefore integrated services should not only include cervical cancer screening but also other beneficial services for HIV positive women to holistically benefit.

"Yes it is important and beneficial to integrate cervical cancer screening in to HIV care programs since cervical cancer is a major health problem and leading cause of death in women and HIV positive women are more at risk of the disease than other women. However, other services can also be made available to them to make meaning to the integration" **Clinician in Reach out Mbuya**.

"It is good to integrate because we can receive as many services available at the hospital like family planning and immunizing our children at one visit and this saves our time and money." **Female FGD in Makindye**.

- *Availability of Resources*

Adequate human resource, equipment and other required supplies was said to promote integration. The participants agreed that integration to be successful, staff should be added to the facilities and adequate financial allocation should be made towards purchase of required supplies and equipment to effectively render these services to the clients. Issues to do with space also strongly came in across discussions with Key informants.

"There should be an addition in the number of staff so that they can treat the patients well. The workload will be too much for the employees but if they are many they can do the work very well without being harsh on the patients." **Mixed FGD in Kawempe and Kisenyi hospital**

"The integration would be good if it is only for HIV patients because there are many health workers working in the HIV clinics than post natal." **Midwife from Kisugu H/C**

- *Collaboration and Partnership with Other Stakeholders*

Another emerging factor as a facilitator was integration in partnership with other organizations and stakeholders. This reduces cost of integrated programs and enhances good working relationships with other services providers. Partnerships also improve implementation strategies hence promoting patient satisfaction.

"*Ahhhh… okay it depends... When we have the RHU team we see many women. The day for them to come was put on our busy days Monday and Friday but we also added Tuesday and Thursday to cater for those who may miss on the other days."* **Nurse from IDI**

"Integration is less costly if other donors and partners would come on board to support private facilities like ours. This would not only strengthen relationship with these partners but also help us offer services that are satisfying to our clients." **Clinician from Reach out Mbuya.**

- *Reduced Transport Costs to Clients*

Several FGD participants responded to integration saving cost of transport to and from health facilities for clients. They said several movements to health facilities for services is an increased burden on them in terms of finances however, with integrated

services, this would highly relieve them of this burden. This is attributed to the fact that they would receive all the services in one stop with less frequency to health facilities. They also recommended that if integration included outreach services for both HIV and cervical cancer screening services even the women in the rural areas would benefit since it would be with in their reach more so if the services were free of charge. Some health workers also suggested for transportation to be provided to HIV clients who are the most affected by the disease and are at high risk of multiple other illnesses.

"*Integrating cervical cancer screening and HIV care would save a lot of our cost of transport to the clinic because we would receive many services at the same time, it is very expensive to come for treatment and the transport cost these days is very high."* **FGD in Kisenyi and Kawala**

"If patients were being provided with transportation it makes them come for the services as agreed with the doctor, some patients say they are busy and cannot spend a lot of time at the clinic because they have to go to work. The services should be convenient for the patients so that many come in big numbers." **Midwife in charge in Kisugu.**

- *Support from Government*

Respondents also appreciated government support of integrated services particularly with cervical cancer into HIV care to reduce financial burden for health facilities. There should also be a collaborative effort between government and private health facilities to promote integrated services in order to improve coverage of cervical screening and HIV management as well.

"Some organization have enough funding and this helps to integrate the services. The government also is working with some organization to make the service available so in a way that helps." **Administrator from Kawempe home care**

Integration will help women take both HIV and cervical cancer screening services at the same time and this will increase on the number of clients accessing these services. The women will also mobilize other women for these service." **ART clinic in charge Kawala**

- *Availability of Adequate Space*

Space was sighted to be great contributing factor to integration. Participants said if integration was to take place successfully, there was need to have adequate space at the disposal of the health facilities. This would minimize congestion; create a conducive and comfortable environment for both clients and service providers.

"For the integration to work, there should be availability of enough space to offer the services. Also enough machines and supplies should be available. Patients should be counseled so that they do not fear to come for the services." **Midwife from IDI division.**

"When integrating services, special consideration should be made for provision of adequate space to the enable comfort for users of the service and the service providers. If space is not considered patients may not feel at ease taking the service since it will cause congestion and risk of acquisition of other health problems." **Clinician from Reach out Mbuya.**

- *Integration with Health Talks and Counseling Services*

Clients emphasized the need for integrating cervical cancer into HIV care to be in combination with health talks and counseling services. This would highly facilitate an integrated cervical cancer screening service because there would be increased understanding of the service and its benefit to the high risk HIV positive clients

"It will be easily taken up if awareness is created among the clients to teach them about cervical cancer and screening so that they may know more about and why they have to screen." **FGD in Kawala H/C**

"The integration has to be with services like sensitization and using social media and radios for many people in the community to understand why they have to screen most clients may not understand the benefit for the services." **Administrator in Kawempe home care.**

➢ *Barriers to Integration (Perception of Health Care Providers and Clients)*

- *Infrastructure*

Respondents highlighted factors associated with inadequate cervical cancer screening equipment and supplies coupled with inappropriate sterilization facilities being hindrances to an integrated program. Lack of appropriately trained health workers clearly came up in the discussions as affecting up take of services due to inefficiency of health care workers. Some health workers also felt forced to offer services that they are not technically comfortable with. For example a nurse providing cervical cancer screening which is technically a midwife's work in accordance to academic training.

ISSN No:-2456-2165

*"Inadequate equipment is a hindering factor to integration with lack of sterilization facility. For this to work we should have enough supplies and equipment with well trained workers to handle the work. "***Mid wife from Kawala.**

"It would be good if they used midwives because I am a nurse and I am not trained to do cervical cancer screening even at school. It becomes difficult for me to learn on Job. Most time they people from RHU train you two to three times and you have to start working alone. **"Nurse from IDI**

- *Increased Waiting Time for Clients*

The male FGDs sighted increased waiting time if integration is promoted because both male and female clients will have to wait longer at the facility if the service is integrated in the HIV clinic. The clients also fear that if cervical cancer is integrated into HIV care programs, it will lead to long waiting time to even see the health service provider for other non-related health conditions hence affecting clients' other responsibilities and uptake of these services.

"It is time wasting because already we are waiting for a long time to see the doctor then we shall wait for screening. It will affect our work if it is integrated. Some of us come from far and leave our children with neighbors so we have to go back very fast to attend to them." **FGD in Kawala**

*"Some of us work for Indians we escape to come for HIV services. So when they integrate the service we shall wait for a longer time don't you think this will cause us to lose our jobs***?" FGD from Kisugu**

- *Fear of Double Positive Results*

Some clients reported fear to take up cervical cancer screening services because the result may turn out positive for cancer yet they are already HIV positive. This require sufficient time for counseling which is not available in most of the health facilities due to low staffing levels and increased number of clients. Therefore this is a hindrance to an integrated program if client's negative perception is not addressed.

*"I fear because it is very painful to know you are HIV positive and have cancer at the same time. How do you tell your husband this because he can even chase you from the house? "***FGD from Mulago Kawempe**

"It is beneficial to have some counseling for the clients to allay their anxiety because you never know the result can turn positive yet they are already HIV positive. **"Nurse from IDI**

- *Increased Workload for Health Service Providers*

Several service providers sighted increased workload as a negative aspect of integrating cervical cancer screening into HIV care programs. This is because currently they are overwhelmed with increased number of HIV positive clients and with integrating cervical this will mean increased number for clients for cervical cancer this become burdensome for the health workers hence compromise quality of care, affect staff attitude and promote negligence of clients who would highly benefit from the service.

"Integrated services can cause increased work load for health worker if staff shortage is not addressed which is the case most times. Policies are always implemented without considering its effect on the person on the ground. I suggest for this to work well they should consider increasing number of health workers first." **Clinician at Reach out Mbuya**

"What I have seen is that there is always staff shortage with integrated services yet there is too much to do like filling patient registers and forms and sterilizing equipment in addition to carrying out the service. Some of the employees are not also trained to offer the service and this affects their performance." **Facility In charge Kiswa**

- *Limited Opportunities for Cancer Treatment.*

Limited opportunities for cervical cancer treatment were also brought out as a hindering factor to integrating cervical cancer into HIV care. Respondents said for integration to be successfully implemented there should be availability of cervical cancer treatment options for the women and this should be decentralized to the different regions of the country. Most times clients prefer to receive such treatment from their home districts because it is easier to have care taker there and it is less costly in terms of transportation for the several movements involved to and from the health facility for treatment.

"Treatment for cervical cancer is a huge barrier to integrating the service into HIV care because clients will see no point of screening if there is no hope for treatment. Most of them don't want people to know their HIV status so when you send them to Mulago for treatment they might not go and end up dying slowly with the disease." **Nurse from IDI**

*Most times we refer these women to Mulago cancer institute for treatment of advanced lesions. However, most of them would prefer to receive treatment in their home areas where they can get support from family members and be able to travel easily to the hospital for treatment because transport is very challenging here in Kampala***. Midwife in Kawala H/C**

ISSN No:-2456-2165

- *Negative Client Attitude Towards Cervical Cancer Screening Integration*

Clients who have received cervical cancer screening reported discomfort with the procedure because most times the health workers are unfriendly and very rude to them. The equipment used is also big, cold and painful when being inserted in them that some of them felt it would cause vaginal enlargement and trauma. To some the procedure compromised their privacy as the service was being offered openly in front of other clients and health workers while health workers are having conversations.

"*It is painful while the screening is taking place and the health workers do not even feel mercy for you while doing it, others come and open the curtain to ask things from the health worker when she is working on you and this is not comfortable.*" ***FGD from Kisugu H/C***

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CHAPTER FIVE
DISCUSSION

- *Models of Integration*

In this study the models of integration identified was integration across public health programs where services are provided across different departments through referrals from one department to another. This is clearly defined by Sigfrid *et al*, 2017. In this study three different models of integration were identified and this includes, within clinic integration using existing staff; coordination between co-located clinics/specialist; and complex programs of integration involving coordination of many specialists/clinics. Across the different facilities visited, clients were being referred from one department to another for cervical cancer screening. However, only one health facility was in position to follow up these patients to ensure they successful received the service they were referred for. This creates a missing link in the health system which needs to be bridged. One of the HIV care programs highlighted the need to have the service integrated within their health care system but due to lack of resources, this will not happen soon. Therefore, their clients have to travel long distances to access cervical cancer screening services. This model of integration is clearly defined by WHO as organizational integration, where distinct and interdependent organizational components rapidly and adequately respond and/or adapt to each other while pursuing common organizational goals. Most respondent preferred integration with in the same clinic, using existing staff as the most appropriate model because it was cost effective and follow up of clients was effective. The clients FGDs recommended this model because it promoted privacy of their confidential clinical information.

- *Facilitators and Barriers to Integration***.**

Discussions arising from the FGDs and key informant interviews strongly recommend the use of different awareness creation strategies to create an understanding of the benefit of cervical cancer screening in an integrated care program. Respondents recommended this, to improve and prevent resistance to the service when integrated. Creating awareness would provide a positive understanding of the service and eliminate negative complaints from clients due to long queues, congestion at the facility and other myths and misconception about the services. This is equivalent to a study by White H, *et al* in 2017 which highlighted integrated service delivery offering an opportunity to increase knowledge and awareness among a wider range of women reproductive health problems by incorporating information on cervical cancer into broader SRH education and mobilization activities. Health talks and counseling services at different service points would be of great benefit to an integrated care program. Hucko *et al*. also recommended peer-education, together with counselling, as other important facilitators to an integrated service.

- *Availability of Cancer Treatment.*

Both, health care providers and clients agreed that for integration to be successful there is need for readily available cancer treatment. The respondent said it was pointless to screen people and leave them without treatment. Availability of treatment is an added advantage on the screening program and would highly facilitate the program by providing access to cervical cancer treatment hence hope after screening. In studies conducted in Uganda, Peru and Vietnam, screening with visual inspection of the cervix using acetic acid was documented to be simple, affordable and sensitive to identify precancerous changes of the cervix. In these countries the screen and treat approach was evaluated and results showed that use of VIA and cryotherapy in these settings is a feasible approach to providing cervical cancer prevention services and increased retention of clients in HIV care programs as well as follow up for scheduled screening and treatment services (Paul *et al.* 2013).

- *Availability of Commodities, Equipment and Trained Health Service Providers.*

The ability to plan and effectively manage stock is essential while planning for an integrated program. Integrating cervical cancer screening services into HIV care programs highly increases the need for commodities, adequate space, health personnel who are well trained and equipment. This is in line with a study conducted by White H, *et al.* in 2017 which recommended for the need to adequate stock, and manage inventory in an integrated program to effectively address the high demand for services. Otherwise respondents welcomed the initiative as being beneficial to HIV positive women who are identified as being at high risk and also request for more effort to be put to ensure accessibility to the service through community outreaches where both HIV positive and Negative women would have equal access to cervical cancer screening services in order to curb down the disease burden.

- *Access to Several Other Services Other than HIV and Cervical Cancer Screening***.**

Several other facilitators were recognized including integrating cervical cancer screening into HIV care being an entry point to several other services for the women. This approach will highly meet the reproductive health needs of several of these women in return improve their quality of life. Through screening, identification of several other silent illnesses will be made which will promote early treatment of such illnesses. This was also highlighted in an article written by Mwanahamuntu et *al.* 2009 that integration allows opportunities for the provision of broader gynecologic and other health care for women accessing cervical cancer and HIV care services.

- *Emotional Stress Related to Receiving Double Results.*

In the FGDs the clients expressed emotional stress related to receiving double positive results of HIV and cervical cancer. This would affect family relationships especially with spouses hence less support from them. However, with availability of treatment for cancer and counseling services at the screening centers, the clients would have confidence in taking up the service. However currently there is limited availability of treatment site with less coordination among treatment facilities which has led to negative impact on screening services. For a successful integration, there is need for a coordinated and standardized referral system to promote access to treatment for pre-cancerous and invasive cancers.

- *Partnerships and Government Collaborations*

Partnerships and government collaboration was seen to be another facilitator to integrating cervical cancer into HIV care. Respondents saw this as a facilitator to this integrated program because it would lead to technical and financial support from government to different service providers hence improved quality of care to the beneficiaries and strong systems development and strengthening in the different health facilities. In 2015, the Global Fund for AIDS, Tuberculosis and Malaria announced that it will allow countries to include cervical cancer services in their Global Fund requests, hence opening the door to increased funding for these services (AIDSPAN, 2017). In Sub- Saharan Africa, cancer prevention is championed by the African First ladies coalition, many of whom are resilient advocates for cervical cancer prevention (Blumenthal *et al.* 2007).

- *Barriers to Integration (Perception of Health Care Providers and Clients)*

Respondents expressed their views as lack of adequate space, lack of trained health workers who are highly motivated being a high barrier to an integrated service because it would lead to congestion at the health facilities and long waiting time for clients accessing the service. Some health service providers also explained that being allocated duties that they are not technically trained for creates a lack of confidence on the side of health workers and compromised the quality of care rendered to the clients therefore facility managers should always allocated duties appropriately.

- *Negative Service Provider Attitude.*

Another barrier is the increased work load for service providers which creates a negative attitude towards clients and the entire program itself. This creates a barrier to the success of the program. Special consideration should be made to help health workers be able to work under considerable stress and change their mind set towards such developments in the health systems.

- *Health Education and Emotional Support for Health Workers*

Adequate counseling, health education should be provided to clients in order to improve their attitude towards the services. As seen in the FGDs clients reported discomfort with the equipment used and unethical practices among health care providers as services are being provided to them. They also feared receiving positive results with no hope of treatment and increased cost of treatment if the need arises. These issues have to be addressed as integrating services to allay client's anxiety towards the integrated services.

- *Study Strength and Limitations*

One of the strengths of this study was involvement of several participants i.e. Clients, health service providers and facility administrator, through FGDs and Key Informant interviews. This gave strength to the study because a variety of opinions were shared during the different discussions held. The major limitation of the study was that most clients and health workers were unable to clearly define and identify with cervical cancer, cervical cancer screening or an integrated service and therefore it became challenging to acquire information from them in regard to the study objectives. Several literature reviews showed very little information in relation to the feasibility and cost effectiveness of the different models of integration and perception of clients/health service providers towards current models of integration being used in the different government and private health facilities.

- *Implication for Research*

The evidence available on integration of cervical cancer mostly describe perception of health service providers and clients towards and integrated services and factors affecting uptake of cervical cancer screening services. Few of the studies seen provide information on the effectiveness and sustainability of an integrated cervical cancer screening service into HIV care program or the effectiveness of the different models of integration. Therefore there is need to evaluate and compare the different models of integration with programs that are not integrated in terms of patient uptake of both HIV and cervical cancer screening services and long term impact on patient outcome in terms of HIV/cervical cancer disease progression.

- *Implications for Policy and Service Delivery*

The findings highlighted in this study indicate existing challenges in expanding and providing access to cervical cancer screening services for HIV positive women who are known to be at risk of the disease. The finding indicates the need to create awareness about cervical cancer screening across all population categories. This can be effected at different levels including schools to ensure prevention of both HIV and cervical cancer. Access to cervical cancer screening services should be available both at facility and community level with an emphasis on systems strengthening for improved referrals for cancer treatment. Furthermore a multidisciplinary approach should be used to enhance an integrated program. Collaboration between government

ISSN No:-2456-2165

and other stakeholders like the private partners, health care workforce, community/local leaders and the clients is important to promote prevention and uptake of screening and treatment services for both cervical cancer and HIV.

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CHAPTER SIX
CONCLUSION

Positive opinion of integrating cervical cancer screening into HIV care programs was expressed in this study. This is mainly because cervical cancer is highly prevalent in HIV positive women and most especially those in resource limited countries. Therefore, integrating HIV and cervical cancer screening and treatment is feasible and acceptable to staff and patients and has the potential to improve uptake of screening for women living with HIV. Also identified is for integration to be successful, several approaches like training of existing staff in cervical cancer screening and treatment to ensure appropriate screening, treatment, and follow-up of patients is required. Also the most appreciated model of integration was the in clinic using existing staff because it maintained privacy and confidentiality of client information. The benefits of integration to the clients, seem to overweigh the anticipated challenges. In addition, the respondents recommended that government should work closely with health facilities providing this integrated services by ensuring availability of medicines for both HIV and cancer treatment. The clients also request for availability of equipment and other required resources and commodities mostly well trained and highly motivated health workers to further enhance these programs. There is need to study availability of cervical cancer treatment in the government facilities and how referral for treatment of pre and cancerous lesions can be minimized by integrating the screen and treat approach in the different HIV care programs and government health center.

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APPENDICES

A. Appendix 1: Work Plan

RESEARCH STUDY WORK PLAN			
Objective	**Activities**	**Required resources**	**Out come**
To identify and train data collectors by 15th July	Identify and train data collectors	Space, data collection tools, pen	Data collectors identified and trained to ensure accurate collection of research data.
To pretest study tools by 15th July	To carry out data collection on 5 different individuals	5 data collection tools, space	Study tools pre tested.
To seek permission from identified health facilities by 16th July	Visit identified health facility administrators to seek for permission.	Transport and letter of clearance from UCU.	Letters delivered and permission sought.
To conduct KII and FGDs from study sites Rubaga 17th July Makindye 18th July Kawempe 19th July Kampala Central 20th July Nakawa 21st July	Conduct KII and FGDs in the different study divisions	Data collection tools, pens, recording devise transportation, transport refund for FGD respondents and space with conducive environment	Data collected from identified health facilities in the five divisions.
To analyze collected data by 22nd July	Analyze data	Filled up data collection tools, pen, paper, recording devise and computer	Data analyzed and report written ready for dissemination.
To present research findings in UCU mock vivas as scheduled	Make presentations in mock vivas	PowerPoint presentation and computer	Presentation made
To present research findings to external examiners as scheduled by the university	Make presentations to external examiners	PowerPoint presentation and computer	Presentation made

B. Appendix 2: Budget To Facilitate The Study On Integrating Cervical Cancer Screening Into HIV Care Programs

Category	Number	Unit Cost	Total cost	Period	Description
Research assistants	2	50,000/= per day for 6 days	300,000/=	6 days	Will be paid to cover travel cost and refreshments. Each day 8 IDI will be conducted and 1 FGD
Biostatician	1	400,000/=	400,000/=	1 day	Will be paid for technical support to the team
Printing paper	5reams	17000/=	85000/=	1weeks	To aide data collection
Tonner	2	35000/=	70000/=	1weeks	To aide printing
Pen	1 box	20000/=	20000/=	1weeks	To aide writing
Voice recorder	1	0	0	-	To borrow from my own organization
Participants	195	500000/-	975,000/=	1week	As transport refund
Research assistants	2	150,000/=	300000/=	1weeks	Professional fee
Total					This is the estimated amount to be spent during the study.

C. Appendix 3: Consent form and Authorization

➢ *Consent Form*

Study Title: Factors associated with integration of cervical cancer services into HIV care and treatment programs in private and public health facilities in Kampala

- *Study Investigators: Pauline Picho*

Hello, my name is _____. I am part of a team from Uganda Christian University that is implementing a study aimed at promoting Integrating Cervical cancer screening services into HIV care. We are collecting data from health facilities that have integrated services and those which do not as well as from health workers and clients receiving health services from these facilities. I would like to invite you to participate in this study since you are one of the individuals who meet the requirement.

➢ *Objective of the Study*

The main objective of this study is to assess factors associated with integrating cervical cancer screening services in existing HIV care programs in private and public health facilities in order to improve delivery of integrated HIV/ Cervical Cancer screening services in Kampala District, Uganda.

➢ *Procedures*

In-depth interviews will be conducted with facility managers, frontline health workers and clients. Interviews will be conducted at the health facility, or at home or at other agreed-upon venues. Data will be collected on the perception of service providers, clients and facility managers towards HIV and Cervical Cancer screening integration

Consent will be obtained from the above category of people to audio-record the interviews. The interviews will be audio-recorded in the language of interview and transcribed verbatim. The verbatim transcripts will then be translated into English. In-depth interviews will last between 30-45 minutes. Prior to interview, all participants will be asked to provide written informed consent.

➢ *Risks from being in the Study*

Potential risks include the risk that your views may become known to other people who have not participated in the interviews. We will minimize this by ensuring that only those individuals who are directly responsible for this study will have access to the interviews. Only authorized project personnel (approved by the study Principal Investigator) will have access to this information.

➢ *Benefits*

You will not directly benefit from the study. However, your participation in this study provides you with an opportunity to have your ideas shared with policy makers and program implementers to influence integration of cervical cancer screening into HIV care programs.

➢ *Assurance of Confidentiality*

Information collected from you will be kept confidential by Uganda Christian University to the full extent allowed by law. In addition, all audio-recordings will be destroyed immediately after the transcription process; and all transcribed data will be kept under password-protected computers to avoid unauthorized access to the data. Finally, your name will not be linked to your views; we will report about people's views in general and no attempt will be made to link the views to those who shared them.

➢ *Participation is Voluntary*

Your participation in this study is completely voluntary. You are free to withdraw at any time or decline to participate in the interview altogether. If you decide not to participate or withdraw from the study, you will still have access to the general health services offered at the health facility.

➢ *Compensation*

Participants will receive a travel refund of up to U Shs. 5000 (exact amount given will depend on distance travelled to reach the health facility) to cover their transport expenses.

➢ *Questions/Points of Contact*

If you have any questions for me, about the study or the consent process, please ask before signing, and I will do my best to answer them. You will receive a copy of this consent form. If you have additional questions or if you need to discuss any other aspect of the study, you can contact: Pauline Picho, the Principal Investigator, based at Uganda Christian University, Kampala (0772 648470).

This study has been reviewed and approved by the Uganda Christian University, Research and Ethical Committee and by the Uganda National Council for Science and Technology. If you have any questions concerning your rights as a participant in this

ISSN No:-2456-2165

research, please contact the Chairman of the Higher Degrees, Research and Ethical Committee at Uganda Christian University, Mukono (tel. +256312350800/835).

STATEMENT OF PARTICIPANT'S CONSENT

I have been asked to participate in a research study named FACTORS ASSOCIATED WITH INTEGRATION OF CERVICAL CANCER SERVICES INTO HIV CARE AND TREATMENT PROGRAMS IN PRIVATE AND PUBLIC HEALTH FACILITIES IN KAMPALA

The Principal Investigator, Pauline Picho, or her representative, _____, has explained the study to me and risks that I might take. The information was read to me and I have been given an opportunity to ask questions. All questions were answered in a way that I understand. If I have other questions about this research, I can ask the study representative, _____, or contact Pauline Picho. I understand that my agreement to participate in this study is voluntary, and that I can decline to participate or leave the study at any time, without losing access to services provided to individuals at this health facility whether or not they are study participants. I also understand that I have the right to voluntarily refuse to participate in all or part of the study. I am signing this consent form below to indicate my consent to participate in this study. I have agreed to be audio-recorded for this interview. I understand that I will be given a copy of the signed consent form.
****

SIGNATURE OF PARTICIPANT DATE
(Thumb print if non-literate)

_____ _____

SIGNATURE OF INVESTIGATOR ELICITING CONSENT……...
DATE……..

PRINTED NAME OF INVESTIGATOR ELICITING CONSENT
……

D. Appendix 4: Focus Group Discussion Guide

FACTORS ASSOCIATED WITH INTEGRATION OF CERVICAL CANCER SERVICES INTO HIV CARE AND TREATMENT PROGRAMS IN PRIVATE AND PUBLIC HEALTH FACILITIES IN KAMPALA

FOCUS GROUP DISCUSSION GUIDE

FOR OFFICIAL USE ONLY

Date of interview: _____/ _____/ _____
Name of health facility: _____
Venue: _____
Language of interview: _____
Number of participants: _____
Time started: _____ Time ended: _____

FGD identifier: _____

Note: The FGD identifier should be composed of the initials FGD followed by the name of the health facility where the interview took place (first 3 digits), date of interview in the format *yy/mm/dd* and FGD number (3 digits) assigned cumulatively. For example, if the first FGD was done on December 20th, 2015 at ABC health facility; this FGD's identifier should be in the form: FGD/ABC/15/12/20/001.

TEAM INTRODUCTION

Thank you for agreeing to participate in the study on integrating cervical cancer screening services into HIV care and treatment. We are now set to begin our discussion. Let us introduce ourselves so we get to know who is participating in this discussion. I am_____ and I am with you today to lead the discussion. My colleague _____ will be taking notes during the discussion. As I mentioned, the entire session will be audio-recorded. To protect everyone's privacy, we will use first names only in referring to individuals. Your response will not be linked to you personally, so feel free to say whatever is on your mind. Let's begin this side [moderator points to the right side]. Please tell us your name, where you come from and your expectations from this discussion. We will go round like this [moderator demonstrates in a clockwise fashion] until each of us has introduced him/herself.

- *Ground Rules*

Before we begin, let's remind ourselves of the following rules that each of us should respect if we have to have a meaningful discussion:

We would like to encourage each person here to freely contribute to the discussion, but most importantly, to stick to the subject being discussed. We will be glad if we let only one person to speak at a time. We would like to remind you to respect each other's privacy; please don't tell other people who are not here what any person has said here.

In our discussion today, please keep in mind that we are interested in your opinions and perspectives. We would like to know what you think, what you think other people think, and what you know other people have experienced. The purpose of this discussion is not to talk about your own personal experiences. However, if you feel you have had your own personal experience that is relevant to the discussion and that you are comfortable talking about, you are welcome to share this information. In summary, if we get on a topic, and you or someone you know has had an experience related to the topic, it would be most appreciated if you could share that story – but you don't have to.

There is no need to raise hands. Please speak right up from your seat but also respect others when they are talking. This discussion will last two hours. Is there anyone who can't stay for the duration of the discussion? Are there any questions before we begin?

We would like to audio-record this discussion. The recording is only to help us make sure we "hear" everything that is said and to make good notes. Only people who are working on this project will ever hear any of the recordings or read the notes we take. After the study and all planned data analyses have been completed, these tapes will be destroyed. Does anyone have any objections to being tape-recorded?

Thank you for your attention, we are now set to begin the discussion

➢ *Questions:*

- *Section A: General Questions*

- Let's us begin by talking about what you understand by the term cervical cancer screening. Probe

✓ Please explain what you understand by cervical cancer screening
✓ Mention the difference between cervical cancer and HIV?
✓ What are the benefits of cervical cancer screening?
✓ In your view should cervical cancer be integrated into HIV care programs?
✓ What are the benefits of integrating cervical cancer screening into HIV care programs
✓ What do people living with HIV think about integrating cervical cancer into HIV care programs?

Cervical screening is the process of detecting and removing abnormal tissue or cells in the cervix before cervical cancer develops. By aiming to detect and treat cervical neoplasia early on, cervical screening aims at secondary prevention of cervical cancer.

- *Section B: Service availability, barriers and facilitators to integration*

- What cervical cancer and HIV care services are available at this health facility?

✓ HIV Counseling and testing only
✓ HCT,HIV care and treatment(including ART)
✓ Cervical cancer screening only
✓ Cervical cancer screening and HIV care and treatment

- In your view, what do you think would be the challenges with integrating cervical cancer screening with HIV care programs?
- How are the services provided? Is it with in the same clinic or you have to move to another clinic for cervical cancer screening?
- Tell us about cervical cancer screening services among women living with HIV. Probe for (benefits, fears, what they think is the appropriate means of delivering the service to them)

- *Section C. Attitude to integrating cervical cancer into HIV care programs*

✓ Tell us in your own words if it is important to integrate cervical cancer into HIV care programs.
✓ For those who have received cervical cancer screening services tell us your experience.
✓ For those receiving HIV care from facilities that have integrated services tell us your experience.
✓ Do the cervical screening services offered at this facility meet your needs as individuals living with HIV/AIDS? Are you satisfied with it?

✓ If yes, what aspect are you satisfied with and why?
✓ If no, what aspect are you not satisfied with and why?
✓ Please explain the different models of integration to the participants

- Which one is the most preferred model of integration to you?
- What do you think is needed if we are to integrate cervical cancer into HIV care
- How do the different models of integration used at this facility influence your uptake and utilization of the services
- We have learnt that some people do not come back for follow up cervical cancer screening services as scheduled. Why do you think this happens?

- *Section E: Recommendations*

✓ We are now approaching the end of our discussion. Is there anything else anyone would like to add about integrating cervical cancer screening in HIV care programs, its benefits, challenges and how best it would affect service delivery?
✓ What would you like to see done to improve already existing integrated services in this regard?

Thank you for your responses

E. Appendix 5: Key Informant Interview Guide

FACTORS ASSOCIATED WITH INTEGRATION OF CERVICAL CANCER SCREENING SERVICES INTO HIV CARE AND TREATMENT PROGRAMS IN PRIVATE AND PUBLIC HEALTH FACILITIES IN KAMPALA

KEY INFORMANT INTERVIEW GUIDE

FOR OFFICIAL USE ONLY

Date of interview: _____/ _____/ _____
Name of health facility: _____
Venue: _____
Language of interview: _____
Time interview started: _____ Time interview ended: _____
In-depth interview identifier: _____

Note: The key informant interview participant's identifier should be created as follows: Type the initials - "KII" – followed by the name of the health facility where the interview has taken place (first 3 digits), followed by the date of interview in the format ***yy/mm/dd*** and the participant's number (3 digits) assigned cumulatively. The participant's identifier should end with a code showing the type of client as explained below. For example, if the first respondent is interviewed on December 20th, 2015 at ABC health facility; this participant's identifier should be in the form: **KII/ABC/15/12/20/001/EU, where EU= ever used modern FP methods. Please use: CU = currently using FP; EU = ever used FP or NU = Never used FP at the end of each participant's number to designate the type of participant interviewed.**

Interviewer: **Please obtain any additional details about the participant, e.g. his/her name and telephone contacts should be kept separately for any follow-up interviews that may be deemed necessary after the initial contact.**

Explore attitudes of frontline service providers and clients towards integrating Cervical Cancer services into HIV care programs.

To explore barriers and facilitators for HIV/Cervical cancer integration in public and private health facilities

➢ *Participants Socio-Demograpgic Information*

- *Age Group*

✓ 18 – 25 years
✓ 26 - 30 years
✓ 31 – 40 years
✓ 41 – 50 years
✓ 51 – 60 years

- *What is your Position here?*

✓ Enrolled nurse
✓ Enrolled midwife
✓ Registered midwife
✓ Registered Nurse
✓ Clinical medical officer
✓ Doctor
✓ Administrator
✓ Facility manager

➢ *Questions to Guide the Discussion*
PART 1 (for all Participants)

- *Section A: General Questions*

✓ Let's us begin by talking about what you understand by the term cervical cancer. Probe
✓ Can you explain what you understand by cervical cancer and mention the difference between cervical cancer and cervical cancer screening?
✓ What are the good and bad things about cervical cancer screening?

- ✓ Why is cervical cancer screening important in HIV infected women?
- ✓ Why is it important for these women to have cervical cancer screening?

- *Section B: Service Provision.*

- ✓ Tell me more about availability of cervical cancer screening services within the facility and how it is provided?
- ✓ Have you ever requested for it or referred your clients for the service elsewhere?
- ✓ Service available 24/7.
- ✓ Service provided at one stop.
- ✓ Service not available, however, referral made to partner organization. (Probe more)
- ✓ Service provided with in the same facility but by another section/department.

- *Section C: Social Demographic Factors*

- ✓ Tell me more about uptake of the service, what are some of the social issues promoting integration
- ✓ Tell me more about hindering factors to cervical cancer screening services? Below are some optional answers…
- ✓ Client's ability to pay for the services
- ✓ Distance to the health facility
- ✓ Clients level of knowledge about availability of the service.
- ✓ Peer influence
- ✓ Age of the client(older client take up the service more than younger clients)
- ✓ Married clients take up the service more than the unmarried
- ✓ Clients with children take up the service more than those without children- explore for number of children.

- *Section D: Factors Associated with Integration*

- ✓ What do you understand by the phrase integrating cervical cancer into HIV care?
- ✓ How do you feel about integrating cervical cancer into HIV care?
- ✓ What are some of the factors that promote integrating cervical cancer screening in this facility?
- ✓ What are some of the factors that are hindering integrating cervical cancer screening in this facility?

- *Resource limitation*
- *Knowledge and skills gap among the health workers.*
- *Fear for increased workload.*
- *Lack of buy in from facility administrators. (Probe for more reasons)*

- *Section E: Uptake of Cervical Cancer Services*

Tell more about your clients' response to cervical cancer screening services.

Are they aware about availability of the services? If yes do they take up the service? If no do they request for it? Probe for more responses…

- *Section F: Recommendations*

- ✓ Do you have any suggestions on how to improve provision of cervical cancer screening services for women living with HIV?
- ✓ Any questions/comments you would like to make regarding this study?

➢ *Part 2 (For Only Frontline Service Providers)*

- *Section A: General Questions*

- ✓ What is cervical cancer?
- ✓ Why is it important for HIV positive women to have cervical cancer screening?
- ✓ Have you been trained in providing cervical cancer screening?
- ✓ Have you ever provided cervical cancer screening to any of you clients?
- ✓ How often do you request for the service?
- ✓ What are some of the challenges you have faced in you practice with integrated services e.g. Family planning, malaria, or cervical cancer into HIV care.

- *Section B: Service availability*

✓ Do your clients have access to cervical cancer screening services in this facility?

- Yes
- NO

✓ If yes how are the services provided and by whom?
✓ Services provided as a one stop center, by whom?
✓ Clients have to move to another service provider for the service. Who refers them?
✓ Clients are referred to another partner Organisation. By whom?
✓ If No why and how do you feel about integrating the service into HIV care and treatment clinics? Probe for more information.
✓ Do you have any suggestions on how to improve provision of cervical cancer screening services for women living with HIV?
✓ Any questions/comments you would like to make regarding this study?

- *End of Interview: Thank you for your Time*

F. Appendix 7: Observation Checklist

To document existing HIV/Cervical cancer screening models of service delivery.

FACTORS ASSOCIATED WITH INTEGRATION OF CERVICAL CANCER SERVICES INTO HIV CARE AND TREATMENT PROGRAMS IN PRIVATE AND PUBLIC HEALTH FACILITIES IN KAMPALA

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Date of observation _____/ _____/ _____
Name of health facility: _____
Venue: _____
Time started: _____ Time ended: _____

- Does health facility offer HIV care and treatment services?
  YES OR NO.....
- Does health facility offer cervical cancer screening services?
  YES OR NO.....
- Does health facility offer both cervical cancer screening and HIV care and treatment in one stop? Describe how it is being done……
- Are clients' referred to another department for cervical cancer screening? Which department in particular……..
- Are clients referred to another health facility with in the division for cervical cancer screening? If yes what level of health system is this facility?
- Are clients referred to another health facility within the district for cervical cancer screening? If yes at what level of health system is this facility.
- Are there sensitization activities on cervical cancer screening at the health facility and how is it done?.....

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