INTEGRATION OF HIV CARE AND FAMILY PLANNING SERVICES: ATTITUDES, CHALLENGES AND OPPORTUNITIES IN LUSAKA, ZAMBIA

BY

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DECLARATION

I, **Lason Kapata**, declare that this is my own work and has not been submitted to this or any other institution or university. All scholarly work and materials used in this dissertation have been duly acknowledged.

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CERTIFICATE OF COMPLETION OF DISSERTATION

The undersigned certify that they have read the dissertation and are satisfied that it is the original work of the author under whose name it is being presented.

Dr. Chabila Mapoma (Supervisor)

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APPROVAL

This dissertation by **Lason Kapata** has been approved for the partial fulfilment of the requirements for the award of the Degree of Master of Arts in Population Studies by the University of Zambia.

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DEDICATION

Many thanks to my wife Brenda Kapuwe Kapata, my daughter Thelma Kimote Kapata and my son Theophilus Lusekelo Kapata for being there for me all the way, May the good Lord continue blessing you.

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ABBREVIATIONS AND ACRONYMS

AIDS	:	Acquired Immune Deficiency Syndrome
ART	:	Antiretroviral Therapy
ARV	:	Antiretroviral
CCU	:	Consistent Condom Use
CSO	:	Central Statistics Office
CT	:	Counselling and Testing
ERS	:	Enhanced Referral System
FP	:	Family Planning
HIV	:	Human Immunodeficiency Virus
ICPD	:	International Conference on Population and Development
MCH	:	Maternal and Child Health
MNCH	:	Maternal, Neonatal, and Child Health
PBC	:	Perceived Behavioural Control
PEP	:	Post-Exposure Prophylaxis
KAPB	:	Knowledge, Attitudes, Practices and Behaviour
NAC	:	National AIDS Council
NGOs	:	Non-Governmental Organisations
OSS	:	One-Stop-Shop
PI	:	Principal Investigator
PLWHIV	:	People or Person Living with HIV
PLWHA	:	People or Person Living with HIV and AIDS
PMTCT	:	Prevention of Mother to Child Transmission
RH	:	Reproductive Health
SRHR	:	Sexual Reproductive Health Rights
SPSS	:	Statistical Package for Social Sciences

STDs	:	Sexually Transmitted Diseases
STIs	:	Sexually Transmitted Infections
TB	:	Tuberculosis
UNAIDS	:	United Nations Joint Program on AIDS
UNDP	:	United Nations Development Programme
UNFPA	:	United Nations Population Fund
VCT	:	Voluntary Counselling and Testing
WHO	:	World Health Organisation
ZDHS	:	Zambia Demographic and Health Survey
ZSBS	:	Zambia Sexual Behaviour Survey
ZISSP	:	Zambia Integrated Systems Strengthening Program

ABSTRACT

Policy recommendations from governments and international organisations alike now explicitly support the integration of HIV and reproductive health service delivery, particularly family planning. There is recognition that integration is needed to support women's and men's reproductive health needs, to push the HIV epidemic back, with the goal of achieving an HIV-free generation and to meet several of the Sustainable Development Goals (UNDP 2015). Despite the existence of invaluable efforts to make available integrated HIV/FP services by government and other stakeholders, evidence for clients' attitude, challenges and opportunities towards these services in Zambia is limited. It is for this reason that this study was put up with the main objective to determine the attitudes, challenges and opportunities for providing integrated HIV care and Family Planning services in Lusaka, Zambia.

This study used a non-experimental cross-sectional design, with a quota sampling approach to capture the targeted number of respondents for the quantitative component and purposive sampling for the qualitative component. The study was conducted in eight ART facilities in Lusaka, among 480 ART clients (adult women and men) aged 18-49 years and living with HIV. Additionally, sixteen health care providers and eight ART clients from the selected health facilities were subjected to in-depth interviews so as to gather insights around service provision and their general perceptions and attitudes around the integration of HIV care and family planning services.

The study established that ART clients have the desire to access integrated services with support from the community, friends, partners or relatives, except that in most cases these services are provided in different standalone health facilities. Associations between demographic variables and the future intention to use integrated FP services were examined using Fisher's exact tests and permutation tests. Most participants (80%) indicated that they intended to use FP methods if made available. However, the majority of them (68%) indicated condoms as a preferred FP method for men, and 80% of them indicated that injectable were ideal for women. Factors associated with positive intentions to use integrated FP services were: marital status ($p=0.04$), having talked to their spouse or partner about FP ($p<0.001$), perceived spouse or partner approval of FP ($p<0.001$), previous use of a FP method ($p=0.006$), and satisfaction with the current clinical experience ($p=0.02$).

Additionally, more than 80% of the study participants agreed with the statement that FP services must be provided together and within the ART clinic. This therefore, implies that ART clients have no reservations when it comes to receiving integrated HIV care and FP services. The study further established that overburdened primary care facilities have limited the effectiveness of HIV and FP service linkage efforts which has been necessitated by lack of trained human resources to handle the ever increasing demand for various services. This situation coupled with evidence in the literature to-date, points to gaps in the continuity of care for HIV and FP clients, leading to missed opportunities for averting new HIV infections and unintended pregnancies.

Therefore, scaling up human resources for health will be essential in the continued effort to combat the HIV epidemic and provide other necessary health care services including FP. This coupled with strengthened cross-referrals and service linkages with a robust and well-stipulated system would provide an appropriate environment to increase uptake of FP and HIV care services among current FP and ART clients as well as among their partners.

CHAPTER ONE: BACKGROUND AND INTRODUCTION

1.1. Introduction

In the last decade, it has been increasingly recognised that global Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) efforts often fail to address the reproductive health specifically the family planning (FP) needs of people living with HIV (Gruskin *et al*., 2007). The need for an integrated approach to reproductive health and HIV was formally acknowledged early during the 1994 International Conference on Population and Development (UNFPA 1995) and has since generated substantial policy support and academic interest (Fleishman, 2006; Wilcher *et al*., 2009 and Angela *et al*., 2009).

From both reproductive rights-based and public health perspectives, the prevention of unintended pregnancy among women living with HIV has significant implications for maternal and child health. The World Health Organisation/United Nations Population Fund Glion Call to Action emphasised family planning as one of the four critical elements of a comprehensive Prevention from Parent to Child Transmission (PPCT) strategy (UNFPA 2004), reflecting the evidence on the cost-savings and demonstrated effectiveness of contraception in averting HIV-positive births (Reynolds *et al*., 2006). Improved access to contraception among this population is also expected to facilitate efforts to decrease maternal morbidity and mortality, as well as poor neonatal outcomes (Duerr *et al*., 2005).

1.2. Statement of the Problem

It is worth noting that in Zambia, the Ministry of Health (MOH) initiated a variety of efforts to increase FP uptake (among men and women regardless of the HIV status) (MOH, 2012). One such effort is the development of an eight-year FP scale-up plan whose objectives are: to increase access to integrated family planning services and reduce the maternal mortality ratio (MMR) from 591 per 100,000 live births in 2007 to 159 by 2020; to increase the contraceptive prevalence rate for modern methods from 32.7% in 2007 to 58% by the year 2020 (women currently married or in union); to reduce unmet need for contraception from 27% in 2007 to 19% by the end of 2015, and 14% by 2020; and to reduce teenage pregnancy from 28% in 2007 to 18% by 2020.

Since the introduction of this policy, there has been a significant and steady growth in modern contraceptive use, from 7% in 1992 to 25% in 2007 and further increased to 49% in 2014 (ZDHS 2013-14). Despite promising changes over the past decade, continuing to improve health outcomes and creating a sustainable integrated health system are challenges for Zambia. These and other challenges still exist and will need to be overcome in order to increase demand for HIV/FP products and services by women and men regardless of their HIV status.

Amidst all enormous challenges, the Government of Zambia is committed to delivering integrated HIV/FP services where human resources, institutional structures, and logistics are available (ZISSP, 2015). The Government of the Republic of Zambia is alive to the fact that integrated HIV care and FP services will be of great benefit to PLWHIV in that this will be able to facilitate the uptake of contraception by HIV-positive individuals, helping to maintain their health, plan safer pregnancies, and reduce the rate of mother-to-child transmission of HIV and also give an opportunity for high risk population like sex workers to access FP services when they need them.

Despite the existence of the above-mentioned benefits, invaluable policies, strategies and various efforts to make available integrated HIV/FP services by the government and other stakeholders, evidence for clients' attitudes, challenges and opportunities towards these services is limited in Zambia. The attitude of PLWHIV towards integrated HIV/FP services (presumably influenced by social, cultural, institutional or environmental factors, etc), remains unknown to-date as there is no clear evidence demonstrating knowledge of clients' and providers' acceptance of integrated HIV care and FP services. It is against this background that this study attempted to determine attitudes, challenges, and opportunities for the integration of HIV programmes with family planning services in Lusaka District in Zambia.

1.3. Rationale of this Study

Integration of HIV care and FP services is viewed as a priority in the fight for an AIDS-free generation because it has the potential of increasing access to HIV services and provide continuity of care for those living with HIV. In particular, family planning (FP) services can address some of the unique needs of HIV-positive individuals. For instance, regular contact and familiarity with appropriately trained health-care providers by patients in antiretroviral therapy

(ART) clinics may promote uptake of and adherence to FP methods, including increased condom use by 'humanising' care and making these contact opportunities about improving well-being rather than disease treatment focused.

Therefore, it is very important to measure the attitudes of clients towards integrated services so as to provide well-targeted programmes and strategies. In addition, understanding clients' attitudes towards the provided service will enhance the appropriate programme or service improvement. Through this process, various challenges and opportunities can be identified for programme improvement. It is for this reason that this study seeks to further explore attitudes, challenges and opportunities from the clients' and health-care providers' perspectives towards integrated HIV/FP services so as to contribute to the body of knowledge and further inform researchers, public health specialists, HIV programmes, policy and communication guidelines relating to comprehensive HIV prevention methods among PLWHIV.

1.4. General Objective

The main objective of this study was to determine attitudes, challenges, and opportunities for integrating HIV programmes with family planning services in Lusaka, Zambia.

1.5. Primary Objectives

a. To identify barriers and motivations related to uptake of integrated HIV care and family planning.
b. To explore attitudes of PLWHIV towards HIV care and FP service integration.
c. To explore perceptions of providers towards HIV care and family planning service integration.

1.6. Research Questions

a. How do PLHIV perceive integration of HIV care and family planning services?
b. What would motivate PLHIV to access family planning services within the facility?
c. How do ART and FP care providers perceive integration of HIV care and family planning services?

CHAPTER TWO: LITERATURE REVIEW

2.1. Introduction

Before undertaking integration of HIV and FP services, it is necessary to develop an understanding of the background, rationale, and relevant considerations for integration. This section provides an introduction to the concept of integration; a summary of the relevant literature regarding integrated FP and HIV services; a description of features, benefits, and challenges of FP – integrated HIV services and further highlight some findings from a few studies that focused on the attitude of PLWHIV towards integrated HIV and FP services around the world.

For more than a decade, attempts have been made to integrate FP with a variety of services —for example, with the management of sexually transmitted infections (STIs), and currently, with HIV services (prevention and risk reduction counselling; voluntary counselling and testing (VCT); PMTCT, and ART). International attention to HIV has overshadowed attention to FP, especially in Africa, where the HIV epidemic is most acute (Strachan *et al*., 2004). The key role that FP plays in HIV prevention has been only minimally acknowledged until recently.

There are approximately 20 million women of childbearing age living with HIV for whom FP plays an important role in limiting the epidemic. As the availability of ART increases and their quality of health and life improves, their need for contraception will become more pressing. The persistent "unmet need" for FP in general, with the increasing demand for FP by HIV-positive individuals living longer, requires that FP information and services be provided within HIV services —from voluntary counselling to testing and care, and treatment. In a study in Uganda by the Centres for Disease Control and Prevention (CDC), pregnancies were occurring among ART users who did not want any more children, among women who were not planning to have more children at the time, and among women who said that their partners did not want more children either (Smart, 2006).

The stigma that HIV-positive individuals face frequently affects their decision-making process when it comes to accessing HIV and FP services. For example, individuals may not access VCT or HIV services because they fear negative social consequences. A client's concern about being

stigmatised or judged by a provider can cause him/her to refrain from discussing certain issues (such as reproductive intentions) or to withhold his/her HIV status. Personal bias on the part of a provider may act as a barrier to providing either FP methods to PLWHIV or HIV counselling and services to FP clients. In some settings, providers have been known to coerce PLWHIV by threatening to withhold treatment unless they agree to use a provider-dependent FP method (e.g., surgical contraception). Discussing sexual behaviour is another obstacle for both providers and clients, especially when trust is limited and discussion of sexual matters is not the cultural norm. Gender relations and community attitudes play a significant role in influencing an individual's decision-making process regarding contraceptive use with HIV. Decisions to use FP or dual protection may cause a spouse or partner to become suspicious; this can often lead to negative or violent outcomes within a relationship. Negative associations with condom use can impact the negotiating power of an HIV-positive individual with his/her partner. Stigma reduction and couples' communication are, therefore, vital programmatic considerations for initiating and sustaining behavioural change (The ACQUIRE Project, 2005).

How best to provide FP and HIV services in an efficient, client-responsive way, continues to be challenging. There is a concern among healthcare decision-makers for providing effective services without diluting the goal of each of these two components of health care. This challenge becomes more acute in resource-constrained settings.

The international health community is increasingly taking steps to address the integration of FP within HIV services (and vice-versa). Due to this increased consideration for integration, the body of evidence that explicitly speaks to integrated FP and HIV programming is growing. Much of the current literature consists of research studies focusing on the attitudes and behaviours of HIV-positive individuals, the medical effects of contraceptive use by HIV-positive individuals, and documentation of pilot projects. A rights-based framework often provides the foundational starting point for much of the literature concerning HIV-positive individuals (USAID, 2012).

Some of the key themes emerging from the literature include the fact that; stigmatisation of HIV and AIDS clients plays a significant role both in client-provider interactions and in community dynamics, clients have the right to make informed decisions and access complete, accurate information; providers may be hesitant to provide integrated services due to their own biases and

lack of information; an increase in ART use tends to lead to an increase in sexual activity; many HIV-positive women (and men) would like to have children or to have more children; gender relations and the cultural/community context play a role in HIV-positive individuals' disclosure of HIV status and in their uptake of FP or their use of dual protection; FP offers the benefit of delaying pregnancy to optimise maternal health; the parallel funding mechanisms for HIV and AIDS, and FP often cause obstacles for integration; FP use by HIV-positive individuals can prevent both unintended pregnancy and mother-to-child transmission of HIV (USAID, 2012).

An existing gap in the literature is the dearth of programmatic documentation and evidence necessary to contribute to the larger body of advocacy and research material. As more organisations prioritise integrated programming, further data, and evidence will emerge to reduce this gap; additional programmatic documentation and findings on lessons learned will also facilitate the creation of a standardised menu of best practices.

2.2. Integrated Services: Features, Benefits, and Challenges

A review of the literature on service delivery integration reveals that the lexicon of terms that refer to concepts related to integration is varied, and the definition of the term integration itself is not uniformly understood. The related term most commonly used, sometimes interchangeably, is the concept of linkages. The World Health Organization (WHO) has attempted to distinguish between these two terms, defining linkages as a concept that encompasses more broadly the synergies that exist between sexual and reproductive health and HIV policies, programs, services, and advocacy efforts (WHO 2009).

Integration is one level more specific, focusing on targeted services and/or programs that can be joined together to ensure and perhaps maximize collective outcomes by offering more comprehensive services; this requires specific organizational and management structures/procedures to support such enhanced service delivery (WHO 2009).

Integration is an approach in which health-care providers use opportunities to engage the client in addressing broader health and social needs than those prompting the health encounter. Integration provides anticipatory assessment and plans and evaluates services relevant to the clients' desires, needs, and/or risks. When the integration approach is applied to HIV and FP

services, the goal is to provide comprehensive HIV prevention, counselling and testing, and treatment in which FP is an integral component of care. Consequently, the FP component of care will reflect the unique needs of HIV-positive individuals to improve sexual and reproductive health (SRH) outcomes (e.g., fertility decision-making, contraceptive options in relation to their HIV status, and the use of antiretroviral drugs or drugs to treat opportunistic infections (OIs) (Fleishman, 2006).

Very often, integrated services create an image of a facility where a client could have all of her/his health needs met during one encounter; this may not necessarily be feasible or appropriate, however, depending on the service's capacity. FP-integrated HIV services may be offered at the same facility or location during the same operating hours. FP-integrated HIV services may also be offered by the same provider in one visit, or "the provider of one service would actively encourage the client to consider using the other service during that same visit," if the needed services are beyond the capacity of the facility or the skills set of the attending provider (Foreit *et al*., 2002). However, for integration to be as effective as described, an effective referral system must be in place to provide accessible and affordable coordinated care.

2.3. Efforts for Integration of HIV/AIDS and FP Services

Policy recommendations from governments and international organisations alike now explicitly support the integration of HIV and reproductive health service delivery, particularly family planning. There is recognition that integration is needed to support women's and men's reproductive health needs, to push the HIV epidemic back, with the goal of achieving an HIV-free generation by 2015, and meeting several of the Millennium Development Goals (UNAIDS 2010). This could be achieved in many ways, such as the use of any family planning method to space or limit the number of children, which in turn reduces the chances of transmitting HIV to the unborn child or infants. Sigh and Dorroch (2012) argue that beyond the beneficial impact of integration on the fight against HIV, there are gains to be won with regard to improved coverage of family planning services, which is particularly important in a context where unmet need for family planning remains extremely high.

It is worth noting that existing barriers to scaling-up the use of modern methods of FP in ART sites are structural and societal. A shortage of health workers with up-to-date knowledge and

skills — including how to provide services for all in need, coupled with weak distribution systems — limit women's choice of FP methods (*ibid* 2012). In addition, unmarried and young women's access to FP and RH is constrained by social stigma. Social and cultural factors, including actual or feared partner/spousal disapproval, fear of side effects, and myths/misconception held by providers' and potential FP user's further limit uptake (MCDMCH, 2013).

While the Government of the Republic of Zambia (GRZ) is committed to integrating FP/RH and HIV services, there are no existing policies and guidelines to guide implementation at the operational level. Multiple in-country programmes are working towards integrated service provision but with limited guidance. Community-based provision of health services has also helped reach remote and rural populations throughout Zambia, and health workers at primary and secondary public health facilities often provide antiretroviral therapy (ART) in conjunction with other health services, including FP/RH. FP/RH and HIV integration at the systems level is done primarily through developing and strengthening the essential commodity distribution systems that allow FP commodities and ARVs to be distributed through the same supply chain (ZISSP, 2015).

Many opportunities for integrating FP/RH and HIV services through improved provider training have been identified but not yet put into official policy or practice. Community health workers (CHWs) are trained through numerous non-governmental organisations and other implementing partners to counsel and test pregnant women for HIV, and they are also being trained to identify women interested in FP. However, existing training programmes do not instruct CHWs on the best practices for providing HIV and FP services together (GHF, 2015).

2.4. Challenges for HIV/FP Integration

Generally, the Zambia's health sector continues to face major challenges, which include inadequate medical staff, weak logistics management in the supply of drugs and medical supplies, inadequate and inequitable distribution of health infrastructure, equipment and transport, and challenges related to health information systems, inadequate financing, and identified weaknesses in the health systems governance. Weak contraceptive security also continues to be a major challenge (MOH, 2015).

2.5. Factors for Successful HIV/FP Integration

Given the recent coalescence of support for HIV/FP service delivery integration, the literature reviewed highlights a number of factors that affect the success of service delivery integration, which can be summarised along the following key areas: policy environment, overall health systems capacity and the strength of the base service onto which another is being integrated, local epidemiology, and existing demand for integrated services. With regard to policy environment, the existence of clear targeted national policies outlining guidance and strategies are required for the implementation of integration efforts at scale; political will to drive and support such efforts is equally important, particularly in contexts where 'vertical' approaches are still pervasive throughout the health sector (McNairy *et al*. 2011).

Another important factor to consider is the level of the existing demand for the services being integrated. For example, the success of integrated HIV/FP services is unlikely to occur if there is little demand for either family planning services or HIV-related services individually, due to predominant socio-cultural factors that often negatively affect women's and men's care-seeking behaviour (Li, 2005). Also, related to demand creation is the degree of unmet need for integrated services within the target population; integrated services are likely to be more accepted in contexts where there is a high degree of unmet need.

2.6. Models of Integrated HIV care and FP Services

Various models for integration exist, varying according to the specific mix of services integrated, the foundation or base service onto which another service is being integrated, the level of the health system in which integration is evident, and the service delivery structure for integration. In terms of the specific mix of services that are integrated, various combinations of the following services can be integrated: HIV counseling and testing (in its various forms), PMTCT, ART, and in some cases MCH more broadly. The base service is usually determined by country context (history of family planning and HIV programs, epidemiology, etc.); the strength of the systems in place to deliver this base service is thought to have direct implications for the success of integration efforts. Integration can occur at various levels of the health system, from national/policy level, to facility or service delivery level, and also down to community level. The modality for integrating services differs widely as well; services can be co-located (at the level of

the individual service provider, the consultation room, or at the level of the facility) or provided through referral services to other providers or separate facilities, which often provide more specialized or stand-alone services. However, it is generally accepted that the mere coexistence of services in the same facility does not constitute integrated services.

Models for integrated HIV care and FP service delivery exist in Zambia and internationally, but a fewer are providing a full range of services. An enhanced referral system (ERS) for example, is one model that may involve steps such as the following: 1) Screening of clients for unintended pregnancy risk, 2) Providing informed choice counseling on contraceptive options or safer pregnancy, 3) Referral for services, if desired, using a referral form, 4) Documenting the referral process, 5) Staff member accompanying the client to the FP clinic, 6) ART client accessing FP services in a timely manner, and 7) ART and FP staff following up on referrals and services through monthly meetings and tracking of completed referrals. In other words, this is a model where patients receive FP counselling within the HIV clinic and a referral to the FP clinic in the same facility for FP method. Whereas One-Stop-Shop (OSS) is another model where patients receive FP counselling and a FP method within the HIV clinic (Sabina A. H,. *et al*, 2017).

In other words, various models can be used to integrate services, including the provision of family planning within HIV testing, care, or treatment sites, within PMTCT services, or within peer-outreach and community-based and home-based programs. The levels of integration may vary per setting and offer some or all of the following: group education on family planning, client screening for family planning needs, counseling on the full range of contraceptive options and dual-method use, provision of some or all contraceptive methods, and referrals for those methods not available at the site. For example, a voluntary testing and counseling site may choose to screen clients for family planning needs, and (if necessary) offer counseling and referrals, whereas an HIV-treatment clinic may be equipped to offer screening, information, counseling, and a contraceptive method some examples of different levels of integration (Farrell 2007).

Integration models should include all groups targeted for RH services, which include men and women of reproductive age and the most at risk populations. Important beyond the model is the

approach to service delivery of the integrated services-driven by patient-centered care. Improved linkages between SRH-HIV services at all levels should be a starting point.

FP-integrated HIV services are characterised by a range of client-provider interactions that incorporate fertility management within the context of HIV services. These would include: provision of FP information, counselling, risk assessment, and behavioural change communications (BCC) for informed decision-making; health monitoring (history-taking, fertility desire/pregnancy risk assessment, physical assessment, including essential laboratory services when indicated); and treatment procedures that may include referral and provision of medications and/or FP commodities.

2.7. Benefits and Challenges of FP-Integrated HIV Service Delivery

Integrating the delivery of health services has the potential to improve health outcomes while also reducing the costs of delivering those services. Integration is also viewed as a priority in the fight for an AIDS-free generation because it has the potential to increase access to HIV services and provide continuity of care for those living with HIV. In particular, FP services can address some of the unique needs of HIV-positive individuals. For instance, regular contact and familiarity with appropriately trained health-care providers by patients in ART clinics may promote uptake of and adherence to FP methods, including increased condom use by 'humanising' care and making these contact opportunities about improving well-being rather than disease treatment focused (WHO/USAID/FHI360 2009).

As noted by Askew and Berer (2003), most men and women are infected with HIV early in their reproductive lives. Providing integrated services would not only provide the means to reduce the risk of infection and re-infection but would also help to prevent unintended pregnancies among HIV-positive individuals. HIV-positive people would be able to determine if, when, and how they would choose to have children, leaving fewer children orphaned.

Integrating family planning services into HIV programmes can increase access to contraception among clients of HIV services who wish to delay, space, or limit their pregnancies. Integration can also help to ensure a safe and healthy pregnancy and delivery for those who wish to have a child. For women living with HIV wishing not to become pregnant, family planning is an

evidence-based, cost-effective strategy for preventing unintended pregnancies and for reducing new paediatric HIV infections (Reynolds, 2008).

The ***benefits*** of incorporating FP into existing HIV services include that such an approach offers contraception as an integral part of comprehensive, client-centred HIV services, particularly during post-test counselling or overtime, depending on the client's receptivity; offers options for preventing unintended pregnancies to HIV-positive clients (using/not using ART), and as a part of PMTCT services; provides preconception counselling to optimise positive health outcomes; increases the pool of people who might not normally be reached through traditional FP clinics for example, youth (single and married), men, commercial sex workers, men who have sex with men but who also have female partners, and injecting drug users; expands providers' skills set to improve their performance of required tasks; Can diminish the referral barriers to accessing FP information and methods, especially where a trusting rapport has already been established; where referral is the integration modality, it can strengthen the coordination between two units to increase access to FP information and services; can increase staff's job satisfaction because they are comprehensively addressing their clients' needs; where ART is available, it supports women's access to a wider variety of treatment options without the fear of pregnancy and potential foetal damage; can help clients use condoms more consistently and effectively with both regular and casual partners; can provide information about dual protection by offering counselling, instructions for the dual methods chosen, and provision of both methods in one setting or during one client-provider encounter; makes it convenient for clients to initiate dual method use; ensures that the risk of HIV and AIDS is considered as part of making informed FP decisions.

Despite increasing efforts to address the reproductive health needs of people living with HIV, a high unmet need for contraception exists among HIV-positive women in sub-Saharan Africa. A study exploring the fertility intentions and family planning (FP) preferences of Kenyan women accessing HIV treatment conducted in 2009 shows fears of premature death, financial hardship, and prenatal HIV transmission were reasons for the participants' desire to delay or cease childbearing. Participants strongly requiring FP services preferred the HIV clinic as the site of FP access for reasons of convenience, provider expertise, and a sense of belonging, though some had privacy concerns. Other findings support the acceptability of integrated FP and HIV

services. This study further showed that efforts to empower women living with HIV to prevent unintended pregnancies must expand access to contraceptive methods, provide confidential services, and take into account women's varied reproductive intentions (GHF, 2015).

A study assessing family planning knowledge, attitudes, and practices conducted among HIV-infected women and men in Nyanza, Kenya showed that the majority of women and men thought that they or their partner would be more likely to use family planning if it were offered at the HIV clinic. Women who reported making family-planning decisions with their partner who were not currently using family planning were more likely to think they would use contraception if integrated services were available (*ibid*, 2015).

Integrating family planning into HIV care would probably have a broad impact on the majority of women and men accessing HIV care and treatment. Integrated services would offer the opportunity to involve men more actively in the contraceptive decision-making process, potentially addressing barriers to family planning; access to contraception and partner uncertainty or opposition (*op.cit*, 2015).

From both reproductive rights-based and public health perspectives, the prevention of unintended pregnancy among women living with HIV has significant implications for maternal and child health. The World Health Organisation/United Nations Population Fund Glion Call to Action emphasised family planning as one of the four critical elements of a comprehensive PPCT strategy (UNFPA, 2004), reflecting the evidence on the cost savings and demonstrating the effectiveness of contraception in averting HIV-positive births (Reynolds *et al*., 2006). Improved access to contraception among this population is also expected to facilitate efforts to decrease maternal morbidity and mortality, as well as poor neonatal outcomes (Duerr *et al*., 2005).

The ***challenges*** of incorporating FP into existing HIV services include that such an approach adds time to counselling encounters, can increase workload, and can increase client waiting time, particularly when staffing levels are low; requires health personnel who provide HIV services to acquire knowledge and develop new skills; requires facilities to incorporate FP into their record keeping, activity reporting, commodities logistics, and management of services consistent with the types of methods provided; may make monitoring of quality or performance improvement

more difficult (depending on the approach to service delivery); requires buy-in on the part of providers and minimisation of any existing provider bias prior to integration; requires establishment of new provider partnerships (e.g., FP providers will need to consult with HIV care providers, and case management will demand consultation between nurses, physicians, and PLWHIV); requires adequate assessment of male and female community members' and PLWHIV networks' attitudes regarding FP in general, specific FP methods, and their use in the presence of HIV; requires creating FP messages and materials that address the needs of an HIV-positive population; may overload the client with information they are not able to absorb, when FP is added to post-test counselling.

However, it is worth noting that in the last decade, it has been increasingly recognised that global HIV and AIDS efforts often fail to address the reproductive health — and specifically family planning (FP) — needs of people living with HIV (Gruskin *et al*., 2007). The need for an integrated approach to reproductive health and HIV was formally acknowledged as early as the 1994 International Conference on Population and Development (UNFPA, 2005) and has since generated substantial policy support and academic interest (Fleishman, 2006). Yet disconnected and "vertically oriented" HIV programmes persist (Dickinson *et al*., 2009) largely the product of separate funding streams and what has been described more recently as the "PEPFAR effect," which refers to the consequences of restrictions on the US President's Emergency Plan for AIDS Relief- (PEPFAR-) supported programmes against using funding for family planning (Wilcher *et al*., 2009).

2.8. Family Planning and HIV Integration in Recent International Agreements

In addition to the 1994 ICPD *Programme of Action* and Cairo +10 update, several recent international agreements recognise the importance of integrating FP to HIV services. These include the following: New York Call to Commitment, 2004 and the Glion Call to Action, 2004.

These agreements (signed by ministers, parliamentarians, ambassadors, leaders of the United Nations (UN) and other multilateral organisations, donor organisation officials, community and NGO leaders, young people, and people living with HIV) reiterate the importance of including FP in HIV services and serve as proof of the international community's commitment to integration. The creation of these documents provides a context in which to place national and

operational integration policies, recognising as they do the important role that integration can play in expanding access to FP and to reaching public health goals worldwide. These documents recognise that both sexual and RH initiatives and HIV and AIDS initiatives must reinforce each other and that stronger linkage between the programmes will result in more relevant and cost-effective programmes with greater impact [United Nations Population Fund **(**UNFPA)].

UNFPA and the Joint United Nations Programme on HIV and AIDS (UNAIDS), in collaboration with Family Care International convened a consultation on the AIDS epidemic in New York on June 7, 2004. Participants, including ministers, parliamentarians, ambassadors, leaders of the UN and other multilateral organisations, donor organisation officials, community and non-governmental organisations (NGOs) leaders, young people and people living with HIV made a call to commitment which included emphasis on the linkages between sexual and RH and HIV, and called for the promotion of programmes which recognise and reaffirm these linkages.

UN agencies have initiated a series of consultations to identify ways to build and reinforce linkages between RH programmes and HIV and AIDS prevention and care. The first consultation took place in May 2004 and focused on the linkage between FP and MTCT. It produced the Glion Call to Action, which includes recommendations in the following areas: policy and advocacy, program development, resource mobilisation and monitoring and evaluation and research.

For example, Uganda's draft guidelines on HIV counselling and testing identify FP as part of a comprehensive HIV care package. India's guidelines on ART use describe the components of FP counselling in an ART programme. These policies clearly recognise the importance of FP as part of HIV services, and articulate the form which it should take. The following resources should help in thinking through the issues which must be addressed in developing national HIV policies.

2.8. Why Integrate Family Planning into HIV Services?

The International Conference on Population and Development (ICPD) held in Cairo in 1994 called for a holistic approach to meeting women's and men's RH needs throughout their lives, from childhood, through adolescence and adulthood. ICPD called for integrated services to meet these needs, including helping individuals and couples meet their reproductive intentions and

prevent disease. Cairo + 5, held 5 years after the 1994 ICPD, reiterated the call for integration. Most efforts to-date have focused on integrating HIV prevention and care into FP services (Askew and Berer, 2003).

However, now the focus is shifting to integrating FP into HIV prevention, care, and treatment services, including in countries such as Kenya, Uganda, and Jamaica. Other countries, including Cambodia and Zambia, perceive a clear need to integrate services. Early integration efforts focused on integrating HIV prevention messages into FP and efforts to screen and treat sexually transmitted infections (STIs) in a variety of RH care settings. More recently, attention has shifted to voluntary counselling and testing (VCT) and preventing mother-to-child transmission (PMTCT) services as entry points for providing information on pregnancy prevention and contraceptive services. As more women and men begin antiretroviral therapy (ART), there is a pressing need to integrate FP into treatment programmes. As antiretroviral (ARVs) are becoming more widely available around the world, it is important to include FP as a part of treatment activities (*ibid* 2003).

2.9. Conceptual Framework

This section describes the conceptual framework of this study, as well as the definition and theories of attitude and their implications for PLWHIV's attitude towards integrated HIV/FP services. A framework is the conceptual underpinning of a study, and the terms 'conceptual framework', 'conceptual model' and 'theoretical framework' are often used interchangeably (Polit and Beck 2004).

Central to this study is the concept of attitude and related ideas. 'Attitude' derived from the Latin *aptus*, and like its by-form, *aptitude*, denotes a subjective or mental state of preparation for action (Fishbein, 1967:3). Furthermore, Thomas and Znaniechi (1918) defined attitude as a process of personal consciousness that verifies individual actions in the social world, such as feelings, tendencies, needs, ideas, fears, thoughts and interests. Generally, the term attitude is viewed as affective or evaluative in nature and is derived from individual beliefs about an object.

2.10. Theory of Planned Behaviour Concepts

Normative beliefs and subjective norms: Normative belief refers to an individual's perception of social normative pressures, or relevant others' beliefs that he or she should or should not perform such behavior. Subjective norm is defined as an individual's perception about the particular behavior, which is influenced by the judgment of significant others (e.g., parents, spouse, friends, health care providers, teachers) (Amjad, N., & Wood, A.M. 2009).

Control beliefs and perceived behavioral control: Control beliefs are an individual's beliefs about the presence of factors that may facilitate or hinder performance of the behavior (Ajzen, I. (2001). The concept of perceived behavioral control is conceptually related to self-efficacy. Similarly, Perceived behavioral control is an individual's perceived ease or difficulty of performing the particular behavior (Ajzen, I. (1991). It is assumed that perceived behavioral control is determined by the total set of accessible control beliefs.

Behavioral intention and behavior: Behavioral intention is an indication of an individual's readiness to perform a given behavior. It is assumed to be an immediate antecedent of behavior (Ajzen, I. (2002). It is based on attitude toward the behavior, subjective norm, and perceived behavioral control, with each predictor weighted for its importance in relation to the behavior and population of interest. Behavior is an individual's observable response in a given situation with respect to a given target. Ajzen said a behavior is a function of compatible intentions and perceptions of behavioral control in that perceived behavioral control is expected to moderate the effect of intention on behavior, such that a favorable intention produces the behavior only when perceived behavioral control is strong.

2.10.1. The Conceptual framework derived from the Theory of Planned Behaviour

Several conceptual frameworks and measures have been used to address a broad range of research questions relating to attitudes towards certain behaviour. The theory of planned behavior (TPB), a modification of the theory of reasoned action, was based on the assumption that human beings are usually quite rational and make systematic use of the information available to them (Ajzen and Fishbein 1980). The theory contended that people estimate certain factors before deciding to engage or not engage in a behavior (intent factor). According to the theory of planned behavior, intention, devoid of unforeseen circumstances that limit individual

control, will help predict future behavior. The variance in intention is composed of three global constructs: (a) attitude toward the behavior, (b) subjective norms, and (c) control. Several studies have reported the association of the intention-behavior relationship (Ajzen 1985, 2001; Ajzen and Fishbein 1980; Conner and Armitage 1998). The TPB provides the study with a conceptual framework where attitudes are related to, but not entirely predictive of, behaviour. Rather attitudes and behaviours are mediated by 'behavioural intentions'.

Fishbein and Ajzen's theory is based on the assumption that human behaviour is most often reasoned rather than illogical behaviour. The theory views a person's intention as the immediate determinant of action, with the determinants of intention being attitudes, social norms and perceived control. Fishbein and Ajzen's (1975) is used as the conceptual framework for this study because it highlights the potentially complex understanding of attitudes, beliefs, subjective norms and perceived behavioural control as the determinants of intention to perform behaviour.

Behavioural intentions are considered to be more influential than attitudes in determining a specific behaviour, and as Ajzen (1991) noted, the TPB has three interlinked components that collectively are more predictive of individual behavioural intentions. The first predictor is an individual's 'attitude', defined as their favourable or unfavourable evaluation of an object (for example, access to a service). The second predictor comprises 'subjective norms', which relate to an individual's motivation to comply with the expectations of others. The third factor is 'perceived behavioural control', which includes internal and external factors and is defined as an individual's belief about how easy or hard it will be to successfully perform a given action. External factors include environmental and situational influences, while internal factors include personal skills, knowledge, abilities and emotions. Thus, a person's behavioural intention is viewed as a function of three factors namely attitude toward the behaviour, subjective norms and perceived behavioural control.

The Theory of Planned Behaviour concludes that as a general rule, the more favourable the attitude and subjective norms, and the greater the perceived control, the stronger the person's intention to perform that behaviour will be.

2.10.2. Operationalisation of the Theory of Planned Behaviour

The Theory of Planned Behaviour (TPB) is significant for the access of integrated HIV/FP services (see **Figure 1**). It suggests that strategies can be designed and implemented that may change behaviour towards access to HIV/FP integration by bringing about changes in behavioural intentions through addressing one or more constructs of the theory, that is either attitudes, subjective norms and perceived behavioural control. Significantly, the TPB argues that we have to consider "multiple act criteria" and understand that many factors shape behaviour and these include the individual's attitudes towards the target behaviour, along with their evaluations of those outcomes. Moreover, the theory points out that, subjective norms are the beliefs held by the individual about significant others' attitudes towards the behaviour. Subjective norms also incorporate the individual's motivation to comply with the views of such significant others. In the context of the present study, such significant others that may influence a client's ultimate desire to access integrated HIV/FP services include their peers, partners, and service providers and, particularly, the nature of their clinical experiences when receiving the service. Perceived behavioural control incorporates factors that the individual considers salient as to whether or not they can actually perform the behaviour.

The overall conceptual framework guiding this study as shown in Figure 1 below is underpinned by the belief that specific behaviours toward uptake of integrated HIV/FP services among PLWHIV can in part be predicted from knowledge of their attitudes and intentions towards integrated HIV/FP services. Behavioural intentions are viewed as immediate determinants of actual behaviours, and because most behaviour is voluntary, the individual is believed to actually perform those behaviours he intends to perform, although many factors can influence the strength of the relationship between a measure of intention and behaviour particularly, as noted, attitudes, subjective norms and perceived behavioural control.

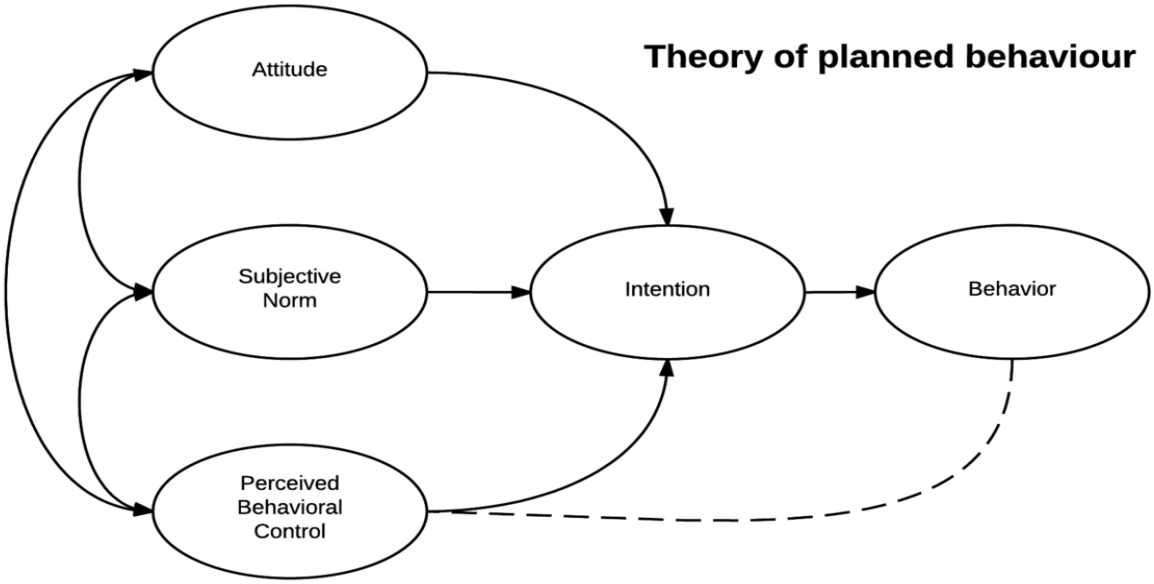

Figure 1: Conceptual Framework of Intention to the Use HIV/FP Integrated Services

*(Source: Ajzen, I. & Fishbein, M. (1980))***.**

Additionally, demographic variables, values and other variables of this kind are considered 'background factors' in the TPB. They are not ignored but are presumed to influence intentions and behaviour indirectly by affecting behavioural, normative and/or control beliefs. In this study, we assumed that the intention of PLWHIV toward integrated HIV/FP services were to some extent influenced by cultural values, beliefs, religious, family and social experiences as background. Consequently, this study further considered whether intentions to access integrated HIV/FP services among PLWHIV were influenced by their attitudes towards the service, subjective norms and perceived behavioural control.

2.10.3. Summary description of the Conceptual Framework

The TPB generally provides a mechanism for identifying factors that might help to predict positive behavioural intentions among PLWHIV towards utilisation of integrated HIV/FP services in Zambia. Table 1 below provides a summary description of the conceptual framework.

Table 1: Conceptual Framework's description

Concepts (variables)	Definitions	Examples of measurable questions/statements
Behavior intention	Behavioral intention (BI) is an indication of a person's readiness to perform a given behavior or action. Behavioral intention is considered to be the immediate antecedent of behavior. This intention is based on attitude toward the behavior, subjective norm, and perceived behavioral control, with each predictor weighted for its importance in relation to the behavior and population of interest (Ajzen, 2006).	• I intend to perform to use any FP method in future • I will try using an FP method in the near future • I plan to use this FP method in future
Attitude toward the Behavior	Attitude toward the act is the degree to which performance of the behavior is positively or negatively valued by an individual.	For me to use any FP method, it is: • Harmful/beneficial • Pleasant/unpleasant • Good/bad • Worthless/valuable • Enjoyable/unenjoyable
Perceived Behavioral Control	Perceived behavioral control refers to people's perceptions of their ability to perform a given behavior (Ajzen, 2006). The construct encompasses the perceived ease or difficulty a person associates with a specific task or behavior.	• It is possible for me to use FP services at this facility • If I wanted, I could use FP in the next few days
Subjective Norms	The subjective norm construct is the perceived social pressure to engage or not to engage in a behavior (Ajzen, 2006). It is assumed that subjective norm is determined by the total set of accessible normative beliefs concerning the expectations of important referents.	• Are there any individuals or groups of people who would approve of you enrolling for FP services? • Are there any individuals or groups of people who would disapprove of you using FP methods? • Are there any individuals or groups that come to mind when you think about using FP services?
Behavioral belief	A behavioral belief is the subjective probability that the behavior will produce a given outcome. Behavioral beliefs are based on personal experience, information sources and inferences.	• What do you believe are the advantages of using FP services during the next 6 months? • What do you believe are the disadvantages of using integrated FP services during the next 6 months? • Is there anything else you associate with using integrated FP services?

Significantly, the TPB argues that we have to consider "multiple act criteria" and understand that many factors shape behaviour and these include the individual's attitudes towards the target behaviour, along with their evaluations of those outcomes. Moreover, the theory points out that subjective norms are the beliefs held by the individual about significant others' attitudes towards the behaviour. Subjective norms also incorporate the individual's motivation to comply with the views of such significant others. In the context of the present study, such significant others that

may influence a client's ultimate desire to take up integrated HIV/FP services include their peers (i.e. fellow PLWHIV), their educators and, as the literature review showed, particularly the nature of their clinical experiences. Perceived behavioural control incorporates factors that the individual considers salient as to whether or not they can actually perform the behaviour. Thus, the Theory of Planned Behaviour (1975) views attitudes, subjective norms and perceived behavioural control as contributing to the formation of behavioural intentions.

The theory views a person's intention as the immediate determinant of action, with the determinants of intention being attitudes, social norms and perceived control. Fishbein and Ajzen‘s (1975) theory was used as the conceptual framework for this study because it highlights the potentially complex understanding of attitudes, beliefs, subjective norms and perceived behavioural control as the determinants of intention to perform behaviour. The TPB is the conceptual model for this study and provides a mechanism for identifying factors that might help to predict positive behavioural intentions to take up integrated HIV/FP services among PLWHIV. Importantly, some of these factors are amenable to interventions, for example, education or better clinical placements that might better predispose clients to access the service.

The overall conceptual framework guiding this study is underpinned by the belief that specific behaviours toward HIV/FP integration (whether to take up the service or not) among PLWHIV can in part be predicted from knowledge of their attitudes and their intentions towards the service. Behavioural intentions are viewed as immediate determinants of actual behaviours, and because most behaviour is voluntary, the individual is believed to actually perform those behaviours he intends to perform, although many factors can influence the strength of the relationship between a measure of intention and behaviour (Fishbein and Ajzen, 1975), particularly, as noted, subjective norms and perceived behavioural control.

Demographic variables, values and other variables of this kind are considered background factors' in the Theory of Planned Behaviour. They are not ignored but are presumed to influence intentions and behaviour indirectly by affecting behavioural, normative and/or control beliefs. In this study, it is assumed that the intention of PLWHIV to take up integrated HIV/FP services is largely influenced by Zambian cultural values, beliefs, religious, family and social experiences as background. Moreover, attitudes toward an object are empirically related to the individual's

intentions to perform a variety of behaviours with respect to that object. In this study, it was assumed that a relationship predicts the attitude and the set of behavioural intentions toward integrated HIV/FP services, rather than some specific intention toward the object (Fishbein and Ajzen, 1975).

Willingness to take up integrated HIV/FP services comprises normative beliefs and motivation to comply which may lead to normative pressures on the individual. In this study, subjective norms are determined by beliefs that specific referent individuals or groups (for example, peers, mentors, educators, family, health care providers) approve of the behaviour and there is motivation to comply with these referents (Fishbein, 1967). Perceived behavioural control (PBC) is a function of the perceived probability that certain control factors are present and these factors may promote or inhabit performance of behaviours (Fishbein, 1967). Similarly, Ajzen and Madden (1986) defined PBC as "the persons' belief as to how easy or difficult performance of the behaviour is likely to be" (p.457). In line with this, Conner and Norman (2005) noted that Perceived Behavioural Control (PBC) as a construct was intended to encompass perceptions of factors that were both internal (e.g. knowledge, skills, will power) and external (e.g. time availability, cooperation of others) to the individual. In essence, Perceived behavioural control (PBC) incorporates factors that the individual considers to be salient in determining whether or not they can actually perform the behaviour. These beliefs are assumed to be based upon various forms of previous experience with the behaviour.

Ajzen and Fishbein (1980) see intention - a person's intent to perform or not to perform a behaviour - as the immediate determinant of an action. Fishbein and Ajzen (1975) said intentions may be viewed as special case of beliefs, in which the object is always the person himself and the attribute is always a behaviour (p.12). The Theory of Planned Behaviour concludes that as a general rule, the more favourable the attitude and subjective norms, and the greater the perceived control, the stronger will be a person's intention to perform that behaviour. Consequently, this study will consider whether intentions to take up integrated HIV/FP services are influenced by the clients' attitudes, subjective norms and perceived behaviour control.

CHAPTER THREE: METHODOLOGY

3.1. Introduction

The purpose of this chapter is to describe the methods that were selected and used for this study. The chapter includes descriptions of the research design, target population, sampling and sample size, data collection techniques and analysis, and ethical considerations.

3.2. Study Design

This study used a descriptive non-experimental cross-sectional survey design. Mixed methods (quantitative and qualitative) were used to explore attitudes and perceptions towards integrated HIV care and family planning services among PLWHIV aged between 18 and 49 years and receiving HIV care, in eight purposefully selected health facilities in Lusaka District.

3.3. Study Setting

Lusaka District was selected as a setting for this study as it was identified as one of the most severely affected area with high HIV prevalence (20%) in Zambia by 2007 (ZDHS, 2007). To ensure easy access to respondents, this study was conducted in 8 randomly selected public health institutions offering ART services; at ART centres, and with clients on ART treatment in Lusaka district. Health-care Providers within the selected health facilities were purposefully targeted to understand challenges and opportunities for providing integrated HIV care and FP services.

3.4. Target Population

This study interviewed men and women aged 18 to 49 years who were living with HIV and AIDS and were on ART by the time of the survey. The selection of the age range of 18-49 years was from the background that, this is a category of individuals who are adults and are able to make their own decisions when it comes to participating in any study. And so this meant that there was no need to get any third party consent, as it is the case for those aged below 18 years. Additionally, PLWHIV are critical to the fight against HIV as they are right at the centre of the pandemic, and they could be in need of family planning services.

The study population was divided into three groups: the first group comprised of those on ART for 6-18 months, seconded by those on ART for 19-32 months, and the last group was for those on ART for 33 months and above. This inclusion criteria is in line with a similar study conducted in Nepal in 2015 that involved ART Clients on ART for at least six months and over (Kiran Bam, 2015). This segmentation was to help understand various family planning needs at different levels of accessing ART services. The assumption behind this was that those on ART care for a longer period are more likely to have the desire for family planning services as compared to those on ART for a short period of time. Not only that, those who may have been receiving ART services for less than six months may not have spent much of their time to assess and give a full account of how they feel about the facility in terms of services they receive. Additionally, the study only included adults on ART but were living in their usual places of residence and were, therefore, not hospitalised or bed-ridden. This was so to facilitate the capturing of information pertaining to sexual behaviour and family planning needs in general.

As part of this study, health-care providers were equally targeted. These were conveniently selected from the study sites.

3.5. Sample Selection and Procedure

3.5.1. Quantitative Sample

As shown in **Table 2**, the sample consisting of 480 subjects were disproportionately drawn from 8 ART sites in Lusaka district. WHO sample size determination for health studies formula was used to determine the sample size of the study (Lwanga SK, Lesmeshow S. 1991). The total sample size was determined to be 480 by taking 95% confidence interval, 84.0% level of ART adherence in Zambia (Mwila Musenge, Dorothy Phiri Sital, Jessy Zimba, 2014), 5% margin of error, design effect of 2, Anticipating 16% non-response and incomplete interviews, and 80% power.

At 95% Confidence Interval (CI), with the allowable error of 5%. The sample size was calculated as follows:

$$(n) = [Z2 \times p \times (1-p)]/a2$$

- p = 84.0%
- α = Allowable error = 0.05
- n = [(1.96)² x 0.84 x (1-0.84)]/(0.05)²
- n = [(1.96)² x 0.84 x (0.16)]/(0.05)²
- n = 206.5≃ 207.

A design effect of 2 was added to minimize the clustering effect as stated in other surveys sample size after including design effect – 207x2=414. Anticipating chance of receiving incomplete interviews, then increased the final sample size by 16% which is now ≃480. The multistage sampling technique was used to select the study participants. In the first stage, 27 GRZ owned ART clinics were selected and subjected to a lottery method to select 8 ART centers in Lusaka district. In the second stage, the total of 480 samples was probability proportional to size allocated to each selected ART clinics. The participants were selected from the PLHIV on ART, accessing ART services on the day of the study, using a quota sampling procedure.

Quota sampling is a method of gathering representative data from a group. As opposed to random sampling, quota sampling requires that representative individuals are chosen out of a specific subgroup. This method further implies that people with the required characteristics (i.e., the PLWHIV, aged 18–49 years and are on ART, by duration, non-pregnant, non-sterilised, etc.) are selected but does not randomly select from the population a subset of all qualifying elements but recruitment continues until the required and desirable sample (a quota) is reached. This method, as compared to stratified or simple random sampling, is inexpensive and less time-consuming and does not require the availability of a sampling frame.

Stratification was done disproportionally by duration of ART treatment as shown in Table 2. This was meant to facilitate the assessment of different FP service needs. The sample was drawn from eight different centres so as to meet the required numbers within a short period of time and to enhance a variety of experiences.

Table 2: Sampling Distribution for ART Clients (Quantitative Component)				
	Duration of ART Treatment			**Overall Total**
Clinic	**6-18 Months**	**19-32 Months**	**33+ Months**	**Count**
Clinic 1	20	20	20	60
Clinic 2	20	20	20	60
Clinic 3	20	20	20	60
Clinic 4	20	20	20	60
Clinic 5	20	20	20	60
Clinic 6	20	20	20	60
Clinic 7	20	20	20	60
Clinic 8	20	20	20	60
Total	**160**	**160**	**160**	**480**

3.5.2. Qualitative Sample

The respondents of the qualitative component were recruited purposively from the selected eight ART sites in Lusaka. The sample of 16 health-care providers and 8 ART clients from the ART facilities were purposefully targeted for in-depth interviews as shown in Table 3. Two service providers at each of the eight ART/FP sites were asked to participate in the study through in-depth interviews. The 8 ART clients were not part of the 480 quantitative sample. The purpose of recruiting this group of individuals for a qualitative component was to identify various structural and institutional needs so as to understand challenges and opportunities in providing integrated HIV/FP care services.

Table 3: Sampling Distribution for Qualitative Component				
Health Facilities	**FP Providers (KIIs)**	**ART Providers (KIIs)**	**ART Client (KIIs)**	**Total**
	Count	**Count**	**Count**	**Count**
Clinic 1	1	1	1	3
Clinic 2	1	1	1	3
Clinic 3	1	1	1	3
Clinic 4	1	1	1	3
Clinic 5	1	1	1	3
Clinic 6	1	1	1	3
Clinic 7	1	1	1	3
Clinic 8	1	1	1	3
Total (N=24)	**8**	**8**	**8**	**24**

3.6. Data Collection

This study was conducted between March and May, 2016 at eight health facilities in Lusaka with assistance from four data collectors. Necessary permission was received from facility in-charges in order to have access to ART clients. However, study participants had an opportunity to choose whether to participate in the study or not. For those who agreed to participate, were requested to sign a consent form as proof for accepting to participate in the study.

Quantitative data: A member of the research team administered the face-to-face quantitative survey (as shown in Appendix IV) with consenting ART clients who may have signed a consent form (see Appendix II). The canvasser method was meant to facilitate the uniformity and accuracy of the data collected. The questionnaire was administered once to all consenting ART clients.

Qualitative data: To explore and gain more insights with regard to PLWHIV's attitudes towards HIV/FP integration, challenges and opportunities, a number of in-depth interviews with health-care providers and ART clients were employed in the selected facilities using interview guides as shown in Appendix V and VI respectively. This approach necessitated the understanding of various factors that were at play in influencing attitudes of PLWHIV towards the HIV/FP integration services.

3.7. Data Collection Procedures

The Principal Investigator (PI) with the assistance from the four data collectors, were stationed at eight different ART centres at different times to consent and conduct interviews with respondents. Respondents were interviewed in a private room at ART centres. At initial contact, the researcher would introduce the study to eligible respondents based on the informed consent form. Eligible participants were non-pregnant and non-sterilised, HIV-positive women and men aged 18–49 years accessing care at the respective eight public health facilities in Lusaka.

3.7.1. Training of Research Team

The PI provided mentorship to the data collection team in data collection techniques and provided them with the HIV and AIDS context in Zambia, particularly with regard to ART and Family Planning services. To ensure that team members had baseline knowledge of family

planning and HIV and AIDS, the training curriculum included VCT, ART, PMTCT and FP information. The training further covered the basic concepts of research, objectives of the study, the interviewer's role, identification and recruitment of respondents, interviewing techniques, problem solving during the interviews, and appropriate recording of responses.

3.7.2. Instrument Pre-testing

The semi-structured instrument was pre-tested at one of the ART sites that was not included in the main survey, to determine the suitability of tools for collecting the required data. The results from the pre-test were used to refine the instruments and to enhance the data collection skills of the research assistants. To make data collection easy, the semi-structured instrument was translated into Chinyanja language which is dominantly spoken in Lusaka District. The in-depth interview guide was equally pre-tested to ascertain its suitability and gauge whether it was worth capturing the required information.

3.8. Data Analysis

A data entry screen (database) was formulated and descriptive analyses were conducted using SPSS 16. Associations between demographic variables and the future intention to use integrated FP services were examined using Fisher's exact tests and permutation tests. Additionally, simple logistic regression was used to understand the net effect of independent variables. Simple descriptive statistics were equally used to analyse the data. Qualitative data analysis was conducted using NVivo 10. Thematic and content analysis was equally employed to validate the information collected.

3.9. Ethical Considerations

This study was reviewed and approved by the University of Zambia Humanities and Social Sciences Research Ethics Committee (UNZAHSSREC). The Ministry of Health through the National Health Research Authority (NHRA) equally provided authorisation for this study. Additionally, the Provincial and District Health offices for Lusaka were equally appraised. Authority and consent was further obtained from the people in charge of the selected health facility.

This study methodology was designed to address the following ethical principles: respect for persons, beneficence and justice. Efforts were made to protect individual autonomy, minimise harm and maximise benefits by using procedures that are consistent with sound research designs that take these issues into consideration. Despite the intention to elicit information to improve HIV and FP services, this study is sensitive to the fact that HIV and AIDS, sexual activity, and contraceptive use are personal and delicate issues.

The confidentiality and integrity of all individuals who participated in the study were observed at all levels of study implementation. All participants including health-care providers were asked for written voluntary consent before being enrolled in the study. Notwithstanding existing levels of stigma and the high degree of openness of people living with HIV and AIDS in our communities, interviews with clients were held in secure rooms at the respective facilities. Interviews with providers were conducted in counselling rooms or any convenient space at the health facility to ensure privacy. Participants' views were not marked with any identifiers and therefore, views expressed cannot be traced to any participant.

This study did not pose the physical risks associated with a physical procedure or intervention, such as obtaining tissue or blood samples. Primarily, this study ensured informed consent and confidentiality of responses.

CHAPTER FOUR: FINDINGS OF THE STUDY

4.1. Introduction

This chapter provides key findings of the study. It also highlights motivations and barriers to accessing integrated HIV care and family planning services. It further provides indication of attitudes, challenges and opportunities for the integration of family planning services in HIV care services in Zambia, with particular focus on Lusaka District.

4.2. Respondent's Characteristics

Table 4 provides a summary of key characteristics of study participants.

Table 4: Characteristics of Study Participants

Characteristics	Frequency (N)	Percentage (%)
Age in Years		
18-21	13	2.7
22-25	37	7.7
26-29	61	12.7
30-33	76	15.8
34-37	98	20.4
38-41	86	17.9
42-45	69	14.4
46-49	40	8.3
Total	**480**	**100.0**
Mean age (years)	**35.39**	
Median age (years)	**36**	
Mode age (years)	**36**	
Marital Status		
MARRIED	290	60.4
WIDOWED	48	10.0
SEPARATED	58	12.1
SINGLE	84	17.5
Total	**480**	**100.0**
Education Attainment		
PRIMARY	196	40.8
SECONDARY	237	49.4
TERTIARY	25	5.2
NONE	22	4.6
Total	**480**	**100.0**

Out of a total of 480 respondents, (n=326) 67.9% accounted for female participants and (n=154) 32.1% were male. This confirms the fact that there are more women clients on ART than men. According to UNAIDS (2015), Women account for more than half the number of people living with HIV worldwide. Not only that, HIV disproportionately affects women and adolescent girls because of vulnerabilities created by unequal cultural, social and economic status. There are so many other reasons behind this situation, but may require a different study to capture this scope

of work. On average, the study participants were aged 35.39 years and most of them were aged 36 years as shown in table 4. Table 4 further shows that the majority of the participants were in the age range of 34-37 years accounting for 20.4% of study subjects. Similarly, the majority of the study participants confirmed being married at the time of the study, accounting for 60.4% of married participants, whilst 5.6% accounted for participants who were single and not in a relationship. This information is shown in Table 3.

In terms of education attainment, 49.4% of the study participants confirmed having completed secondary education. Notably, 5.2% of the study participants indicated having completed tertiary education, whilst those who have never been to school accounted for 4.6% of the study participants, as shown in Table 4.

4.3. Motivations to Uptake of Integrated HIV/FP Services

One important prospect for this study is on motivations to uptake of integrated HIV care and family planning services. Results show that more than three quarters of the study participants (80%) agreed that they would be willing to take up FP services from the same facility where they access ART services and only 20% expressed lack of willingness, as shown in Figure 2.

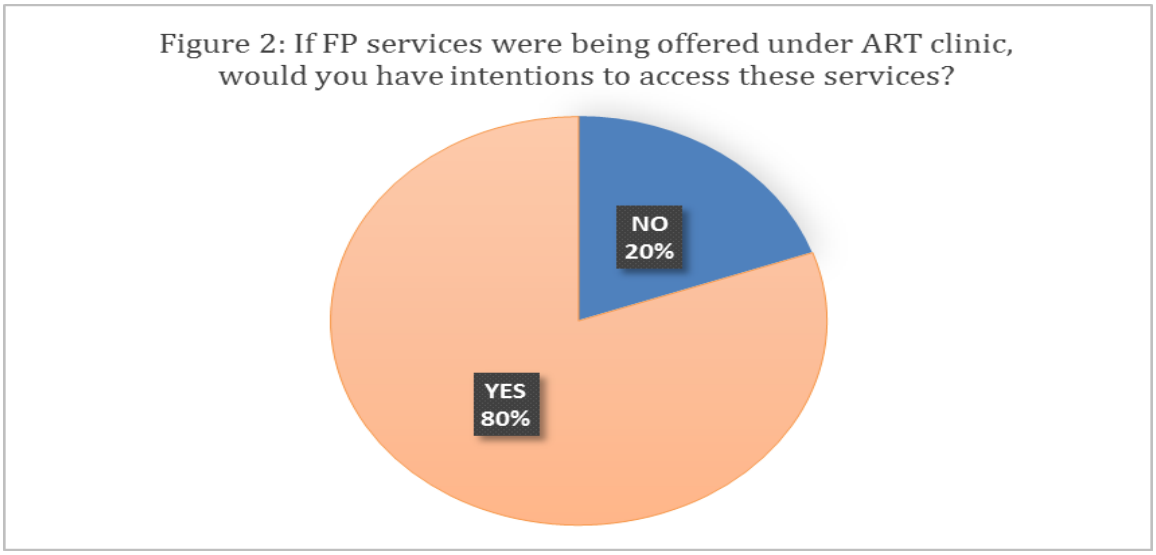

Figure 2: Willingness of ART Clients Accessing Integrated HIV Care and FP Services

There are several factors that motivate ART clients to access health services at the health facility. Respondents were asked to provide reasons for accepting to access FP services from the same

facility where they receive ART services. Some of the reasons cited included to avoid delays; to have easy access to FP services; to avoid referrals; having the opportunity to learn more about one's condition and how that can fit in with the use of any family planning method. The following are some of the excerpts from in-depth interviews.

> *"……when I compared this facility to the other clinic; staff in the pharmacy here are friendly, the laboratory here is perfect and everything goes on very well as expected within the manageable timeframe…. I don't have to waste much of the time at this clinic." (ART Female Client Integrated Facility Lusaka).*

> *"And as you know, there are some people who don't even know how to use a condom. So I am not supposed to complain much, but receive anything that I find here and appreciate it because I know that tomorrow it will never be the same… So if I want to prolong my life, I should accept my current situation because those people who serve us are trained professionals specialised in that field." (ART Female Client Standalone Facility Lusaka).*

This study further established that families, partners, friends and the communities play a very important role in encouraging their peers to access FP services. The following are some of the excerpts from in-depth interviews.

> *"Many people do encourage us to be on some form of family planning, especially friends, and so, if you have a friend that you trust very much you can tell him or her about your condition and they will tell you to go for family planning so that you don't have an unplanned child." (ART Female Client Standalone Facility Lusaka).*

> *"Firstly, it's the counsellor who educates me a client to go for family planning and its importance, and then I inform my husband. If my husband doesn't want me to be on family planning, then it's my duty as a wife to go and tell my husband the importance of family planning and then we should plan for our children." (ART Female Client Integrated Facility Lusaka).*

For those who expressed lack of willingness to access these services from the same facility pointed at a number of factors such as the fact that FP would encourage re-infections; the

environment not being conducive for one to be given any method of choice; and lack of confidentiality and secrecy which is necessitated by congestion, leading to health-care providers failing to provide adequate attention to clients due to limited manpower. All these factors in one way or the other contribute to discouraging clients from accessing services in these facilities.

> *"I would discourage the use of family planning from my side because it will give a mind-set of having live sex which is a danger because you will be reluctant seeing that you are taking family planning every day and thereby having live sex with your partner every day. This is not good for us as it may lead to infections and re-infections." (ART Female Client Integrated Facility Lusaka).*

> *"So I think the use of family planning is not right for the person who is taking ARVs because there are consequences such as your CD4 going down, and the end result of CD4 going down is that you will get very sick." (ART Male Client Integrated Facility Lusaka).*

> *"... as you can see today there are so many people at that table, meaning there is a shortage of manpower and also there is need to have more people working from the adherence department. But what happens is that you would find there are just two people working from a department and sometimes even one person, and this is what makes people to complain a lot when they come [to access services from] here." (ART Male Client Integrated Facility Lusaka).*

4.4. Barriers to Uptake of Integrated HIV/FP Services

One of the objectives of this study was to determine barriers to the use of integrated HIV care and FP services among clients. Results show that congestion and health-care providers' attitude towards clients to a larger extent have a critical role on one's decision as to whether or not to access the most needed ART or FP services. For example, one client confirmed that she ended up changing the facility where she used to receive ART services to another facility as a result of not having an opportunity to interact with health-care providers as expected. Others complained about congestion.

"The ART services at this health facility are quite ok..; it's only that it is always congested. We end up spending more than three to four hours instead of an hour; so that's the only problem here……" (Male ART Client Integrated Facility Lusaka).

"Where I was before, the problem was that you just get medicine without seeing a doctor. In my case, I received ART treatment for two years without seeing a doctor. So I thought this was not good for me as I needed to know the level of my CD4, how I am coping with the medicine, and so on. Not only that, I also needed to know my weight and how I was fairing. So this is why I moved from a certain clinic; I won't mention the name of the clinic for some reasons." (Female ART Client Integrated Facility Lusaka).

"I think the challenge here is that there are too many people who receive treatment from this clinic, and because of that the counsellors in the adherence rooms tend to skip topics to do with family planning, just like what happened to me today. So I entered in the adherence room, but they did not mention anything to do with family planning issues. But on days like Wednesday, they talk about family planning, maybe it's because there are few people who come on that particular day, I am not very sure. But family planning like any other service should be provided together with other ART services." (Male ART Client Integrated Facility Lusaka).

4.5. PLWHIV's Attitude towards HIV/FP Integrated Services

One other objective of this study was to determine the attitude of ART clients towards integrated HIV care and FP services. Study findings show that 80% of ART clients were willing to receive integrated HIV care and FP services.

In table 5, a number of variables were analyzed to identify predictors of intention to use FP among the 480 participants who definitely stated they either intended to use or not to use integrated FP services. There was a significant association between intent to use FP and marital status of ART Clients (p=0.04). Specifically, married (88%) and single ART clients (73%) reported higher rates than widowed (65%) and separated/divorced (64%) participants (p=0.02).

It was also established that there was a significant association between intent to use FP and those who talked to their spouse or partner about the intention to use FP ($p<0.001$) and those whose spouse or partner approved of using FP ($p<0.001$). All of the men and women who answered the questionnaire indicated they had prior knowledge of FP. Previous use of FP was significantly associated with intention to use FP in the future ($p=0.006$). Not only that, satisfaction with the current clinical experience was significantly associated with the intention to use FP services in future ($p=0.02$)

Table 5: Predictors of Intention to use Integrated FP services

Variable (n=480)	Category	Total Number of Participants	Number of participants with Intention to use Integrated FP services (**)	Percentage (%)(**)	P-value
Marital Status (n=480)	Married	290	257	88%	0.04
	Widowed	48	31	65%	
	Separated/Divorced	58	37	64%	
	Single	84	61	73%	
Education Attainment (n=480)	Primary	196	179	91%	0.31
	Secondary	237	164	69%	
	Tertiary	25	21	84%	
	None	22	20	91%	
Number of sexual partners (n=428)**	0	106	94	89%	0.79
	1	290	282	97%	
	2-5	32	27	84%	
Knowledge of FP (n=480)	Yes	480	384	80%	N/A
	No	0	0	N/A	
Previously used a FP method (n=462)**	Yes	214	203	95%	0.006
	No	248	220	89%	
Talked to Spouse/partner FP (n=347)**	Yes	287	285	99%	<0.001
	No	60	56	93%	
Spouse/partner approval of FP use (n=347)**	Yes	285	276	97%	<0.001
	No	58	51	89%	
	Unknown	4	3	75%	
Satisfaction with the service received (n=480)	Yes	427	346	81%	0.02
	No	53	38	72%	
** Number (percent) indicates the number of ART clients of the total who intended to use integrated family planning services. Sample sizes may vary due to missing data.					

4.6. Logistic Regression for PLWHIV's Attitude towards HIV/FP Integrated Services

Logistic regression refers to a special form of regression where the dependent variable is a dichotomous variable. The form of the logistic regression variate is similar to the variate in multiple regressions. The variate represents a single multivariate relationship with regression-like coefficients indicating the relative impact of each predictor variable. In relation to

discriminant multivariate analysis, logistic regression has the advantage of being less affected when basic assumptions, particularly normality of the variables, are not met (Hair, J. F., et, al, 2010). Regardless of the similarities between linear and logistic regression, linear regression cannot be applied directly when the outcome variable is categorical. The reason is that one of the linear regression assumptions is the linear relationship between variables and when the outcome variable is categorical, this assumption is violated.

Therefore, this study used the Binary logistic regression, which is a type of regression where a response variable with two categories is related to a set of explanatory variables which can be discrete and/or continuous in nature. A simple logistic regression model with only one predictor was used. And so to get a linear model, a model of odds of an event occurring was used. It is a generalized linear model that is used to analyze the relationship between a response variable measured on a binary scale; and a set of predictor variables. Examples of the response include: willingness of the ART client using FP services; a proportion of women who have used contraceptives before (for grouped data), etc. This model is a generalized linear model, defined in three components:

a) Random component: For un-grouped data; since the response variable is a binary categorical variable, a numerical value using a dummy variable was assigned. A dummy variable is a binary variable for which all cases falling into a specific category assume the value of 1 and all cases not falling into that category assume the value of 0. Let Y be the response variable Y. 1 if the outcome is a success, 0 if the outcome is a failure.

   $f(y,p) = p^{y}(1-p)^{1-y}$ $y = 0,1$ $0 < p <$

b) Systematic component: The predictor variables can either be quantitative (continuous) and/or qualitative (categorical). For the qualitative variables, numerical values are assigned to the levels of the variable using dummy variables. For a categorical variable with m categories then we create m−1 dummy variables by selecting one of the categories arbitrary as a reference (base) level. The reference level is assigned value 0 for all the m-1 dummy variables; and each of the other m−1 levels are assigned the value 1 for respective dummy variable created for the level.

c) Link function: The logit function links the random component to the systematic component.

Odds and odds ratio: Odds is a ratio of the probability that an event will occur versus the probability that the event will not occur. Odds equals the probability of event occurring/probability of event not occurring. If p is the probability of event occurring and 1 − p is the probability of event not occurring then;

$$\text{Odds} = p/1 - p$$

Interpretation of odds ratio: the values of an odds ratio range from zero to infinity. For interpretation we can classify the possible values into three categories: values less than one; the value one and values greater than one.

i. An odds ratio of less than one means that the event of interest is less likely to occur for the group in the numerator compared to the group in the denominator.
ii. An odds ratio of one means that both groups had the same odds of the event of interest occurring.
iii. An odds ratio of greater than one means that the event of interest is more likely to occur for the group in the numerator compared to the group in the denominator.

The parameter estimates are given in Table 6. Also, Table 6 summarizes the effect of each predictor. The sign of the coefficients for covariates and relative values of the coefficients for factor levels can give important insights into the effects of the predictors in the model. For covariates, positive (negative) coefficients indicate positive (inverse) relationships between predictors and outcome. An increasing value of a covariate with a positive coefficient corresponds to an increasing probability of being in one of the "higher" cumulative outcome categories. For factors, a factor level with a greater coefficient indicates a greater probability of being in one of the "higher" cumulative outcome categories. The sign of a coefficient for a factor level is dependent upon that factor level's effect relative to the reference categories. The β in the table below indicates the amount of change in the outcome variable expected for each unit change in the explanatory variables when all the other predictors are held constant.

Binary logistic regression model was used to evaluate the effect of selected independent variables on a dependent variable relating to intention to utilize HIV/FP integrated services among PLWHIV in Lusaka. The model estimated regression coefficients through the maximum likelihood and the results are presented as adjusted odds ratios, together with their 95% confidence intervals as shown in table 6.

Logistic regression coefficients show that female study participants living with HIV are 59% more likely to have intention to use integrated HIV/FP services compared to their male counterparts even though there is no statistical significance. Similarly, study participants who have attained primary school education were 70% likely to use integrated HIV/FP services as compared to those who attained secondary school education when all other independent variables are held constant.

Table 6 further shows that PLWHIV who have not used FP before are 64% less likely to utilize HIV/FP integrated services as compared to those who have used FP before and the relationship is not statistically significant, whereas those who reported 2 and more sexual partners were 75% more likely to use integrated HIV/FP services compared to those who had one partner.

Table 6: Factors influencing Intention to use Integrated FP services in future among PLWHIV

Variable (n=480)	**Category**	β	**SE**	**Significance**	**95% Confidence**
Sex (n=480)	Male	0.131972	0.665464	0.843	-1.172314
	Female	0.585772	1.096737	0.593	-1.563794
Education Attainment (n=458)	Primary	0.698115	0.891683	0.434	-0.495220
	Secondary	0.206241	1.838883	0.720	-0.297905
	Tertiary	0.421271	1.534881	0.354	-1.587041
Number of sexual partners (n=322)	1	0.125721	0.075816	0.001	0.038556
	2-5	0.751098	1.032079	0.835	0.050824
Previously used a FP method (n=462)	Yes	0.521351	0.708582	0.001	0.088555
	No	0.361557	1.410631	0.992	-1.277834
Talked to Spouse/partner FP (n=347)	Yes	0.668321	0.065716	0.002	0.083546
	No	0.898455	1.032087	0.001	0.050823
Spouse/partner approval of FP use (n=347)	Yes	0.938275	0.054736	0.001	0.308362
	No	0.696438	1.130334	0.001	-0.301998
	Unknown	0.745121	1.243901	0.002	-3.015817
Satisfaction with the service received (n=480)	Yes	0.917316	0.175413	0.001	0.063843
	No	0.667843	1.870320	0.021	0.030825
Health care providers in the ART clinic are more caring	Yes	0.609238	0.736054	0.051	0.208063
	No	0.674593	1.133430	0.033	-0.389190
	Unknown	0.253646	1.290143	0.203	-3.015817
* Statistically significant at p<0.05.					

Results from table 6 shows that the variables, “Talked to the partner/spouse about FP”, “Spouse/partner approval of FP use”, and “Satisfaction with the service received”, were statistically significant. Additionally, results show that study participants who may have received spouse/partner approval about FP are 95% likely to utilize integrated HIV/FP services as compared to those who may have not received approval from their partner or spouse. Similarly, study participants who expressed satisfaction with the service received at the health facility are 92% likely to utilize integrated HIV/FP services as compared to those who may have expressed dissatisfaction with the service.

Study participants were asked whether or not they were satisfied with the services received from the facility that particular day of their visit, results show that the majority of the clients were satisfied with the services accounting for 67.9% of all study subjects. Twenty-one per cent (21%) and eleven per cent (11%) of the study participants respectively, indicated that they were somewhat satisfied and not satisfied. This information is provided in Figure 3.

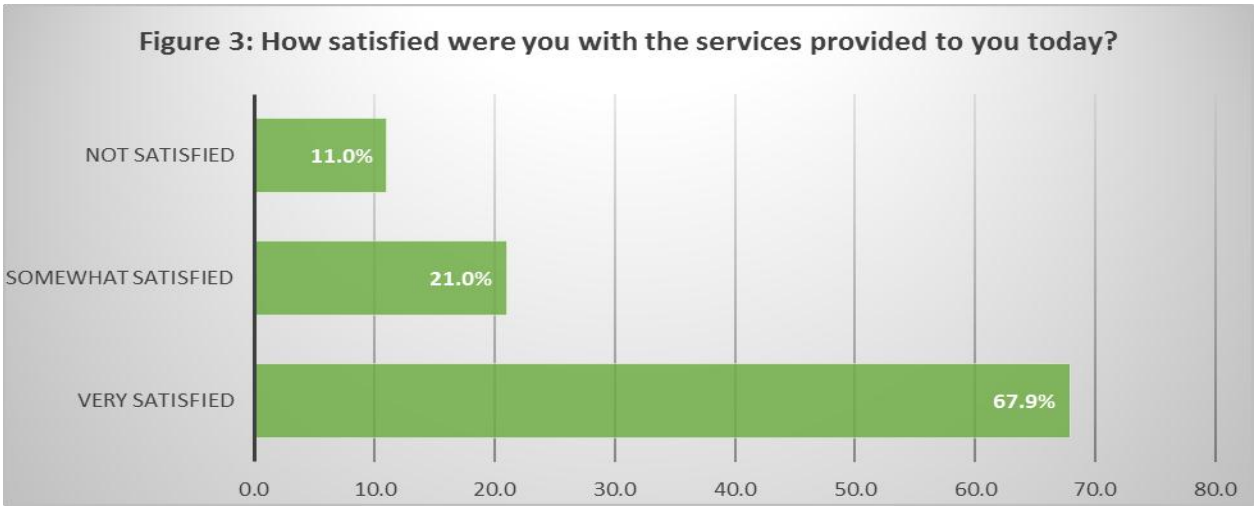

Figure 3: How Satisfied ART Clients Were With Services Provided to Them During Their Visit

Notably, 11% of clients that felt not satisfied with the service they received on that particular day cited various aspects that contributed to this, which included long waiting hours, receiving medicine refills to last for a month, and lack of adequate attention from health care providers.

"The services here are just fine, but I have one concern especially from where we get drugs; I used to receive three months refills for some past months, but I don't know what is happening nowadays because they are just giving me for one month only. So when I asked people in the pharmacy, they told me that they follow what is in my file. So today, I went to the laboratory to get my blood and I tried to explain to them that I stay in Chisamba, which is very far from here and it's difficult for me to be asking for permission to be coming here every month because my boss is hard to understand; and if I miss my appointment or come on a different date, they are the same people who shout at us. So my laboratory results went missing and this is why they have drawn blood from me again and they have given me drugs only for one month." (Male ART Client_Integrated_Lusaka).

"This facility offers good services here ..... it's only that there is too much congestion because of too many people coming here, but if they give us three months refills, congestion is lessened usually and as you know people are getting sick and dying every day. So mostly what kills us is feeling shy to come and queue up to wait for your turn to receive drugs, with fear of meeting with someone you know, which grows into serious stigma." (Female ART Client_Integrated_Lusaka).

4.7. Provider Perceptions and Attitudes towards HIV/FP Integration

Apart from establishing the attitude of clients towards HIV/FP integration, this study solicited for provider perceptions and attitude towards the same. Findings show that the majority of the providers appreciate the benefits associated with integrated HIV care and FP services to clients.

One of the primary goals of integration is to ensure that HIV positive women have access to a full range of effective contraceptive methods, in order to best meet their fertility desires. The majority of health-care providers interviewed under this study were willing to provide integrated services if available and when demanded for by clients. Another observation made by health-care providers was that every man or woman wishing to have children should have access to information and access to safe and non-judgmental counselling services regardless of their HIV status.

"As health-care providers, we have the duty to ensure that HIV-positive clients are provided with information… and be able to exercise voluntary choices about their health, including their reproductive health, they can even ask for a particular family planning method they really want." (ART Provider Standalone Facility Lusaka).

"You know….access to family planning, including condoms by a person on ART should not be conditioned on that person's HIV status. They have a right to access whatever service they want including family planning. They should not be given conditions for them to access family planning. If anything, they should be given wider choices to choose from and then our duty as providers is to guide them on what to do." (ART Provider Integrated Facility in Lusaka).

Similarly, lack of adequate human resource and the consequent heavy workload were cited as major barriers to providing integrated HIV care and FP services. The providers often felt the need to lead individual counselling sessions, however, they ended up having limited time to counsel and answer questions about HIV or FP due to the huge numbers of clients that come to seek for these services.

"It's not easy if you have a lot of clients… there are some who really need information because there are some who get information easy and some who don't get it easily, so you need enough time. You need to be patient with them so it's quite difficult there; especially if there are a lot of clients. But if there are not too many clients, it's easy to give out information." (ART Provider Integrated Facility Lusaka).

More than half of the providers indicated that clients' negative attitudes, fears, and misconceptions about FP services serve as a barrier to utilising integrated services. These barriers include among others; clients' fears about side effects such as weight gain, cancer, and infertility; clients' beliefs that unmarried women should not use contraception; and lack of support for FP from the clients' partners.

"On family planning it is difficult especially when they come for refill because you discover that they also need the family planning but they are not ready and they want to get married and have kids, but you see that there is need for them to get any FP method." (ART Provider Standalone Facility Lusaka).

"Some of the men are rigid. As a provider, you may tell the woman about FP, but the man would oppose because he wants to have children every time… It's so important that we have to continue talking to the men so that they can also appreciate issues around family planning." (ART Provider Integrated Facility Lusaka).

Providers indicated that it was easier to ensure that clients access the recommended FP services when the service was offered at the same site. In these cases, providers could quickly show the clients the appropriate location in the clinic where to access the service. By contrast, FP services to ART clients off-site require available transportation and more of the client's time. The following excerpt attests to the assertion:

"Most things are done just within the hospital, so it's very easy. I just move from corner to corner to make a simple handover, "Oh, this is where you are going to go…" if that other provider there for the service that you have given is not very busy then you say, "I have got this client who came for this service but he's also interested in this service. Please takeover and I will make a handover." (ART Provider Integrated Facility in Lusaka).

4.8. Opportunities and Challenges for Integration of HIV/FP Care Services

Linking sexual and reproductive health or family planning with HIV services is beneficial and feasible, and that individual, public health, and rights based benefits accrue from integration (Wilcher 2013; FHI360, 2013). Integrating family planning services into HIV programmes can increase access to contraception among clients of HIV services who wish to delay, space, or limit their pregnancies. Integration can also help to ensure a safe and healthy pregnancy and delivery for those who wish to have a child. For women living with HIV who do not wish to become pregnant, family planning is an evidence-based, cost-effective strategy for preventing unintended pregnancies and for reducing new paediatric HIV infections (Reynolds, 2008).

With a number of benefits outlined, there are opportunities that are missed when these services are not provided in an integrated fashion. Findings from this study show that integrated health care services would increase the number of people seeking and receiving family planning services such as counselling and provision of FP products, in instances where these services are being provided in ART centres. This was confirmed by almost all health-care providers and ART clients interviewed.

> *"Counselling can affect behaviour change through improved decision-making. When clients are well equipped with information, they have a greater ability to reduce their risk of infections, and are better prepared to achieve their desires for less or more children through choosing appropriate contraceptive methods." (ART Provider Integrated Facility in Lusaka).*

> *"Providing counselling and FP products to HIV-positive men and women is often not a priority in ART facilities, other than the tradition of providing condoms to them. It is important that HIV-positive women and men understand the risks of transmission and have the knowledge to make decisions regarding future pregnancies. And so, counselling becomes vital to all ART clients coming to seek health services from the ART clinic". (ART Provider Standalone Lusaka).*

This study coupled with literature from various sources, Global Policy Statements, National Frameworks, and Programmatic Guidance and tools highlights the range of potential individual, programme, and public health benefits to be gained if the integration of family planning and HIV services was to be embraced in the health sector (Askew and Berer 2003). For instance, there has been an outcry for male involvement in as far as health is concerned when it comes to health seeking behaviours for a family. Studies have shown that men tend not to be fully involved in accessing health services as compared to women. Therefore, integration of HIV care and FP services would give an opportunity to reach out to a large group of men who come to seek HIV related products and services. The following excerpt attests to this assertion:

"Men are rarely clients of family planning clinics, but they regularly access HIV programmes, especially for HIV testing, and HIV care and treatment. HIV services can therefore, serve as an access point to reach men with messaging and counselling, and help increase their knowledge about FP and reproductive health. Overtime, this has the potential to change their attitudes and improve their engagement with female partners on FP issues" (FP Provider Integrated Facility Lusaka).

It was one of the main thrusts of this study to determine challenges for integrating HIV care and FP services. Findings show that there are a number of factors that lead to challenges experienced in the provision of integrated services; lack of space in facilities which lead to congestion, lack of confidentiality in counselling or adherence rooms, and lack of trained manpower in health facilities. The following excerpts attest to this assertion:

"Of course we have the shortage of manpower because integrated means you have many people come for different services in one place, and so when you are few, you will be challenged by the number of clients and they will end up staying long hours on a queue to access the service they want." (ART Provider Standalone Facility Lusaka).

"So, increased human resource is what I am talking about…… as well as availability of all the things required to be used as we offer the service; both for the people who are offering it and its also available to give out for the people who need it." (ART Provider Integrated Facility Lusaka).

Additionally, this study established that despite having the majority (slightly over half of the sample) agreeing to the fact that they would be willing to access integrated HIV/FP services if made available, there still remains a pocket of individuals with negative attitudes and misconceptions about accessing modern family planning for HIV-positive individuals. Figure 4 shows that 50.2% of the study participants disagreed with the statement that the community they came from would recommend someone with HIV to access modern contraceptives from the ART clinic and 23.5% strongly disagreed with this statement.

This study is alive to the fact that there are so many factors that may lead to this situation especially that this decision is always based on personal experiences and perceptions. Therefore,

study participants' perceptions about the community may be subjective in nature and must be interpreted with caution.

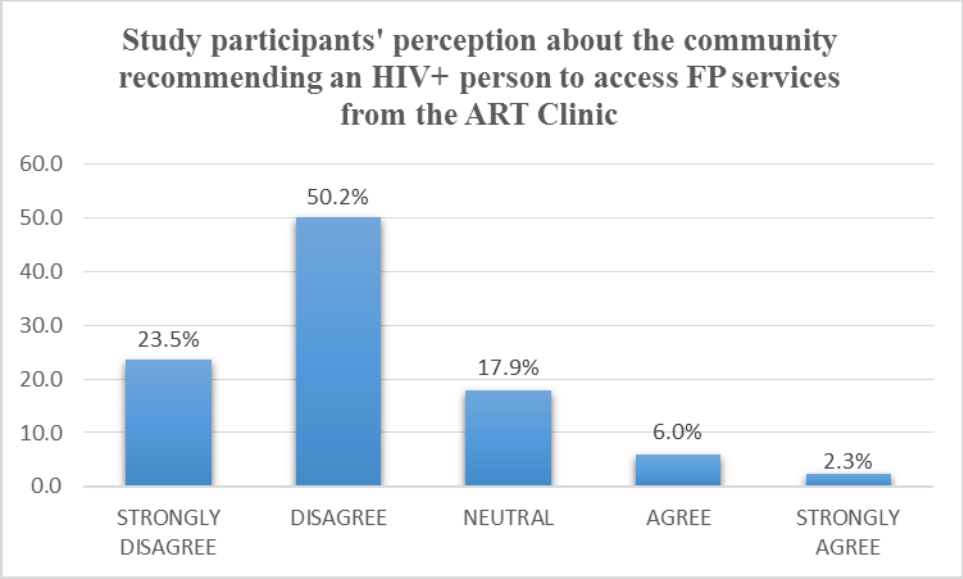

Figure 4: Study participants' perception about the community recommending an HIV+ person to access FP services from the ART clinic

4.9. Suggestions for improving the Integration of HIV/FP Care Services

One important prospect of this study was to recommend the promotion and utilisation of integrated FP services among ART clients. Results show that the promotion and improvement of service quality could be achieved by (a) increasing the amount of space and staffing at ART clinics and (b) offering regular refresher trainings to ensure providers' knowledge and skills are up-to-date; and (c) creating awareness of the existence of these services to the public.

> *"I think they should just employ a lot of people since in some places like here, there is only one counsellor. They should bring some more to reduce the workload. The HIV Testing and Counselling rooms are few, so you will find a lot of people and only one counselling room, so they should improve by building some more." (ART Provider Integrated Facility Lusaka).*

"…… we have very few people trained in family planning. For example, I personally was trained in long-term family planning methods and not short-term. Also, there is a shortage of staff, like for example, today I am all alone and if I have an appointment for long term, I will of course give that person an appointment for tomorrow." (ART Provider Standalone Facility Lusaka).

"I think trainings are important, you can't just say you have all the information that you need. It keeps on changing, so I think trainings are important in one's life. I think sometime in 2007 or 2008, we used to have training every year ends, and we do refresher training on family planning. We used to have those training, so that when you are beginning a year you start on a fresh note you know. So I think trainings are very important." (FP Provider Standalone Facility Lusaka).

"There is much need to sensitise communities about the existence of these services in the facilities. Not only that, people need to be educated on how various methods of family planning work and how that can affect someone who is HIV-positive. I know the counselling sessions conducted may not be enough to exhaust the needs of ART clients that are seeking family planning services." (FP Provider Integrated Facility Lusaka).

Additionally, providers suggested that utilisation of FP services could be enhanced by offering these services within the same site on a daily basis to avoid making referrals resulting in clients failing to access services they were referred for. According to the providers, the current system of offering services on certain days and requiring clients to travel to other facilities limits accessibility.

"I think if at the clinic setup all the services were provided daily, it would be easy…where even if you refer them you just refer them to where they will be attended to, rather than where you refer them to another centre…they won't even try to maybe go that side." (ART Provider Standalone Facility in Lusaka).

CHAPTER FIVE: SUMMARY, DISCUSSION AND CONCLUSION

5.1. Introduction

The main objective of this study was to determine the attitudes, challenges and opportunities for integrating HIV programmes with family planning services in Lusaka, Zambia. Specifically, the study aimed at identifying barriers and motivations related to uptake of integrated HIV care and family planning; exploring PLWHIV's attitudes towards HIV care and FP service integration; and further explore perceptions and attitudes for providers towards HIV care and family planning service integration.

5.2. Summary of Main Findings and Discussion

5.2.1. Attitudes towards HIV Care and FP Service Integration

Overall, the integration of FP into HIV care and treatment settings was associated with higher levels of knowledge among women and men living with HIV. The diversity of integration models and their successful implementation across a range of settings suggests that such models are feasible. About 68 percent of women living with HIV are engaged in HIV care and treatment, making it a relevant platform from which to empower women to make informed decisions regarding their SRHR; this coverage is expected to improve further with progress towards the UNAIDS 90-90-90 goals for HIV testing, treatment, and effective viral suppression developed at the 21st International AIDS Conference (UNAIDS 2014).

On one hand, results show that 80% of ART clients targeted for this study were willing to access integrated HIV care and family planning services where available. Some of the reasons cited for this included; to avoid delays in accessing other services one may be in need of; having easy access to FP services; to avoid referrals; and to further have an opportunity to learn more about one's condition and that fits in with the use of any family planning method.

On the other, the majority of the study participants agreed with the statement that their respective communities wouldn't be in the position to approve and recommend of an HIV positive person to access modern family planning methods as this is more of a personal decision one ought to make. Study findings show that 50.2% of study participants disagreed with the statement that the

community they came from would recommend someone with HIV to access modern contraceptives from the ART clinic and 23.5% strongly disagreed with this statement. This study is alive to the fact that there are so many factors that may lead to this situation especially that this decision is always based on personal experience and perceptions. But having study clients feeling that the community they came from could not recommend others to go for integrated HIV/FP services, may in return pose a challenge for others in need of these services. This is so because many people depend on the support from significant others to access such services. Therefore, this study is of the view that the community where study participants are a member of, equally has a role to play in providing access to integrated HIV/FP services.

Additionally, health-care providers equally have an influence on the uptake of integrated services to a larger extent. This is so because they are the trusted sources of health information. If positive information is provided to clients in need of these services, with an upright attitude, those seeking the service will be able to accommodate that information and cherish it as the truth. Results show that congestion and health-care providers' attitude towards clients to a larger extent have a critical role on one's decision as to whether or not to access the most needed ART or FP services.

This study identified five variables that were significantly associated with an increased intention to use FP: 1) marital status ($p=0.04$), specifically being married or single vs. divorced, separated or widowed ($p=0.02$), 2) having talked to the spouse or partner about FP use ($p<0.001$), 3) perceived spouse or partner approval of FP ($p<0.001$), 4) previous use of a FP method ($p=0.006$), 5) and satisfaction with the current clinical experience ($p=0.02$). These results are consistent with the findings from other studies with a high percentage of unintended pregnancies in Uganda and another study in Kenya (Wanyenze RK, *et al*. (2011), (Polis CB, Gray RH, *et al*. (2011), (Mutiso SM, Kinuthia J, Qureshi Z 2008), which found a significant association of FP use with marital status, and having discussed FP with their partner. In addition to previous findings, the analysis for this study uniquely revealed that the women's and men's perceived spouse or partner approval of FP were significantly associated with the intention to use FP in the future.

Two of the variables associated with intention to use FP, namely having talked to the spouse or partner about FP and spouse or partner approval of FP, reveal the importance of communication. These results suggest that open and effective communication with one's spouse or partner is more likely to result in use of a FP method. Communication, gender relationships and negotiating in decision making are important determinants of FP (Montgomery CM, *et al*. 2008). Having an agreement between both parties in the relationship is more likely to result in successful and sustained use of an effective FP method. These results underscore the importance of the role of the spouse or partner in the FP process. Whereas most men have limited FP knowledge (King R, *et al*. 2011), they remain crucial in the decision-making process on selection of FP options. Counseling for couples rather than individual counseling may prove more effective in promoting the uptake and use of FP options.

Health care professionals and public health personnel involved in patient care need to emphasize FP as a preventive measure to mitigate the spread of HIV infection. Integration of reproductive health services into voluntary HIV counseling and testing sites has resulted in increased use of contraceptives, reduced discontinuation of contraceptives and a significantly reduced pregnancy rate (Duerr, A. *et al.*, 2005). FP and counseling services should be designed to target the unmet needs of HIV-positive women and men. This will increase the knowledge and awareness of options available for those who desire FP. The expected end result will be greater use of FP methods, yielding fewer unintended and unplanned pregnancies, thereby lowering the incidence of new HIV infections. There is a need for couple-oriented and male-oriented reproductive health services, in addition to addressing female reproductive health issues for HIV-positive men and women. Study findings highlight the need to incorporate FP services into routine HIV care and treatment services as part of a holistic HIV prevention approach.

Similarly, study results further show that congestion and health-care providers' attitude towards clients to a larger extent have a critical role on one's decision on whether or not to access the most needed ART or FP services. For example, one ART client confirmed that she ended up changing the facility where she used to receive ART services to another facility as a result of not having an opportunity to interact with health-care providers as expected. Health care providers tend not to have enough time to adequately attend to each clients' needs when there are so many

others waiting to be attended to. This situation has been perpetuated by lack of trained personnel in health facilities.

5.1.2. Challenges for HIV Care and FP Service Integration

This study through the interaction with health-care providers established that in most cases, the provision of integrated services is not structured or organised such that clients do not know whether they can demand for FP services or not. Additionally, guidelines on how to systematically provide integrated services do not exist, which makes it difficult for health -care providers to systematically provide the services as expected. Where integrated services were available, health-care providers are highly overwhelmed with a lot of workload to cope with the number of clients they serve in a day. As a result, providers end up not giving adequate attention to clients seeking an array of services that include counselling and family planning services. In such instances, clients are referred or advised to go to other health centres for family planning services. However, a referral system to monitor or track whether or not clients were able to access other services when referred does not exist.

On the other hand, it is important to indicate that individual clients accessing HIV care and FP services equally face so many challenges in deciding whether or not to access integrated services where available. This study established that the community plays a critical role in influencing others whether or not to access FP services. In some circles, myths and misconceptions about modern contraceptives have contributed to lack or low numbers of people living with HIV demanding for these methods. The support received from close friends and family members equally has a role in influencing ART clients to take up integrated services or not.

5.1.3 Opportunities for HIV Care and FP Service Integration

Many stakeholders agree that integrating FP services and HIV prevention, care, and treatment services provides valuable opportunities to: increase access to contraception among clients of HIV services who do not wish to become pregnant; ensure a safe, healthy pregnancy and birth for clients who do wish to have a child; and provide valuable HIV prevention and support services to FP clients. Notably, the first of these opportunities contributes to preventing

unintended pregnancy among women with HIV, which is one of the four cornerstones of a comprehensive approach to preventing vertical transmission of HIV (Pathfinder, 2011).

This study established that ART clients were willing to access integrated services as they felt secured to be advised by health personnel who has a track record of their health status and would be in the position to advise the appropriate combination of contraceptives to take at that particular point. However, the provision of the services in question is not offered on a daily basis in some health facilities. The following excerpt confirms this assertion, which in one way presents a missed opportunity to integrated health services.

> *"I think if at the clinic setup all the services were provided daily, it would be easy…where even if you refer them you just refer them to where they will be attended to, rather than where you refer them to another centre…they won't even try to maybe go that side." (ART Provider Standalone Facility in Lusaka).*

Literature has further shown that effective and efficient integration of FP and HIV services capitalises on multiple service delivery entry points and enhances comprehensive care. Common FP/HIV Integration models that exist in Zambia include: 1). Integrated facilities: one-stop-shop where both services are offered at the same service delivery point by the same provider during the same visit (e.g. HIV provider counsels and provides contraceptive methods); 2). Integrated facilities: referrals within the same service delivery point utilising multiple providers (e.g. internal referral system within same service delivery site); and 3). Standalone facilities: external referral network between service delivery sites. Zambia utilises models 2 and 3 in most cases.

Within these service delivery platforms, different models can be used to integrate services. For example, provision of all FP methods at every HIV service point may not be feasible or appropriate in some contexts. In some cases, a referral-based model of integration may be more appropriate.

However, this study established that in both integrated and standalone facilities, a referral system to monitor or track whether or not clients were able to access other services when referred does not exist. Therefore, it is very difficult to document the proportion of ART clients who may have received FP services once referred. This in its sense presents a missed opportunity as we are

unable to tell whether or not the referred client may have received the additional services referred for.

5.1.4 Policies and Programming on HIV Care and FP Integration

Basically, several strategies and programmes focusing on the provision of HIV care and reproductive health in general exist in Zambia. However, there is no single policy to guide the implementation of the integration of HIV care and FP services in Zambia. This situation has been compounded with a number of challenges, which could range from political, economic, structural, and institutional in nature. This does not imply, therefore, that we do not have such services being implemented in Zambia. Integrated services are currently being implemented by different cooperating stakeholders and partners without any clear policies and guidelines from the Government of the Republic of Zambia.

5.2 Study Implications

Given the findings in this study, what, therefore, are the implications? Findings in this study have several implications. Some of them may require a paradigm shift in the manner in which integration of HIV care and FP services is currently being looked at.

Information on integrated HIV care and FP services has shown that the number of clients in the reproductive age range of 15 - 49 years being enrolled for ART care will continue rising. This situation coupled with the positive attitude of ART clients being open to integrated services, provides a fertile environment for providing most needed services such as family planning counselling and product provision. Consequently, the need to plan for the provision of the most needed health care services especially in the near future cannot be overemphasised. This situation further calls for measures to ensure that HIV care and FP services are made available in a fashionable manner to serve those in need including the most vulnerable in society.

It is worth noting that the provision of integrated HIV care and FP services will require concerted efforts both from the private and public sectors in order to meet these ever increasing demands. Implementation of such efforts will not be free of challenges. This situation has been revealed

not only by this study, but also by other studies as well (Gruskin, S. *et al*: 2007; UNFPA 2005; Fleishman, J., 2006; Dickinson, C., *et al*, 2009; Wilcher, R., *et al*., 2009).

Some of the challenges may include but not limited to the following: adds time to counselling encounters, can increase workload, and can increase client waiting time, particularly when staffing levels are low; requires health personnel who provide HIV services to acquire knowledge and develop new skills; requires facilities to incorporate FP into their record keeping, activity reporting, commodities logistics, and management of services consistent with the types of methods provided; requires buy-in on the part of providers and minimisation of any existing provider bias prior to integration; requires establishment of new provider partnerships (e.g., FP providers will need to consult with HIV care providers, and case management will demand consultation between nurses, physicians, and PLWHIV); requires adequate assessment of male and female community members' and PLWHIV networks' attitudes regarding FP in general, specific FP methods, and their use in the presence of HIV (Gruskin, S. *et al*: 2007; Dickinson, C., *et al*, 2009).

Apart from attitudes and challenges, this study examined opportunities for integrated HIV care and FP services. For example, the provision of integrated health services requires particular skill sets and knowledge among health-care providers to provide the needed services. This study established that lack of adequate numbers of health-care providers poses a challenge in the provision of health-care services. Therefore, this presents an opportunity to enrol adequate numbers of personnel to man ever increasing demands for health services. This in turn will enable ART clients to seek and receive FP services when in need. This situation will further increase the number of clients receiving family planning services, as the said services will be made available within the facility.

5.3 Conclusion

A body of evidence supports the feasibility, benefits, and potential cost-effectiveness of integrating FP into HIV care and treatment services in a range of settings. However, the quality of the evidence of effectiveness is modest. Furthermore, some integration efforts demonstrate that improving access is not sufficient to improve the uptake of more effective contraceptive

methods among women living with HIV who want to avoid pregnancy. Integration, particularly in contexts where the use of effective contraception is low, must address the cultural and gender norms that impact women's decision making regarding FP alongside improving access to FP information and services within routine HIV care.

This study has shown that people on ART face reproductive decisions and need the information and means to have children or avoid childbearing, depending on their choice. In addition, initiation of ARV treatment, in many cases, result in improved health, which may lead to the resumption of sexual activity. Treatment with ARVs involves regular contact with health-care providers. The contacts represent opportunities to discuss reproductive intentions and to provide contraceptive information and services. Therefore, integration offers an opportunity to improve health care services. Integration at the programme level offers the opportunity to provide a broader spectrum of services to people in need. The promotion of integration has been intended to ensure greater responsiveness to client needs and to enhance the efficiency and effectiveness of service delivery, including reducing costs.

However, this study established that there is no policy at the moment that regulates the provision of integrated HIV care and FP services. In order for integrated services to yield expected results, there is always need for a policy and standard operating procedures to guide the implementation of such services. If integration is not addressed at the national and operational policy levels, it is unlikely that FP and HIV programmes will be integrated at the service level. National policies provide the leadership and guidance for programmes.

To ensure success, national policies must be translated into programmes to achieve the goals set forth at the national level. Non-existence of these policies has led to difficulties in actualising the provision of integrated HIV care and FP services in the country. In some cases, some facilities provide *adhoc* referrals to clients seeking other services such as FP services in ART clinics. However, fragmented coordination and overburdened primary care facilities have limited the effectiveness of HIV and FP service linkage efforts. This situation coupled with evidence in the literature to-date points to gaps in the continuity of care for HIV and FP clients, leading to missed opportunities for averting new HIV infections and unintended pregnancies. Lack of it or

poor tracking and follow-up of HIV positive clients has also likely resulted in lower uptake of HIV monitoring and antiretroviral therapy (ART) and family planning services.

5.4 Recommendations

A significant gap exists between intentions for future FP use and current FP practices. Support and approval by the spouse or partner are key elements of FP intentions. This therefore, implies that counseling services should be offered to both members of a couple to increase FP use. Condoms were reported to be the most preferred method of family planning especially among men. This method should be promoted as part of a dual use method for HIV and STI prevention and for contraception. Additionally, integration of individual and couple FP services into routine HIV care, treatment and support services is needed in order to avoid unintended pregnancies and to prevent mother-to-child HIV transmission.

Overall, the success of integration primarily depends on the performance of service providers which, in turn, depends on a whole range of facilitative organisational factors. The following are some of the recommendations that this study brings on board;

- The Ministry of Health in Zambia should create a coherent policy environment, spearhead strategic planning and ensure availability of resources for implementation at lower levels of the health system. Key to the success of any effort to integrate services such as family planning and HIV care is having a base of trained health-care providers

- The Ministry of Health should devise a robust but simple referral system(s) that does not lose clients as they are referred from one service point to another.

- Another important factor to consider is the level of existing demand for the services being integrated. For example, the success of integrated HIV/FP services is unlikely if there is little demand for either family planning services or HIV-related services individually, due to predominant socio-cultural factors (myths and misconceptions) that often negatively affect people's care-seeking behaviour. Therefore, there is need for scaling up community awareness for people to know that integrated HIV care and FP services are

available to those who may want the services especially in facilities where they are offered.

- The capacity of the health system to function smoothly across all key technical domains is an important factor that can affect how well service integration is operationalised. Key domains include a health workforce (numbers and skill level), supply chain management (particularly regarding sufficient stocks of commodities), health information systems and monitoring and evaluation, infrastructure, referral systems, etc.

5.5 Future Research Areas

In order to study integration of HIV care and FP services comprehensively and appreciate its contribution to the general wellbeing of the populace, this study proposes a few areas of concentration:

- To effectively measure attitudes, challenges and opportunities in integrated HIV care and FP services, a longitudinal study focusing on ART clients and their sexual reproductive health behaviour overtime is highly required. This is so because attitudes and intents for accessing integrated services may not be understood or take effect over a short period of time, as they may be influenced by so many factors overtime. They require a longer period of observation rather than based on a one-time-exploratory study as has been the case with the current study; and secondly,

- At National level, there is need to conduct a study to map out all policies that relate to HIV care and FP services or sexual reproductive health in general, so as to develop comprehensive guidelines on how best integrated HIV care and FP services can be achieved. This will definitely continue enriching literature on integrated HIV care and FP services and thereby contributing customarily to both policy formulation/adjustment and/or implementation.

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APPENDICES

Appendix I: Study Information Sheet

Integration of HIV Care and Family Planning Services: Attitudes, Challenges and Opportunities in Lusaka, Zambia
Information Sheet

Good morning/afternoon. My name is _____. I am working with the data collection team on a research looking at the topic; ***"Integration of HIV Programmes and Family Planning Services: Attitudes, Challenges, and Opportunities in Lusaka, Zambia".*** If it is alright with you, we would like to interview you.

Who is conducting this study and why: This study is being coordinated by the University of Zambia, School of Humanities and Social Sciences, Demography division. It is primarily being conducted as a partial fulfillment of the award of a Master of Arts in Population Studies. This study is also aimed at providing insights on how to improve the medical and health education services received by people in the community, particularly the people living with HIV, to inform HIV care programming and policy development among others.

Who will be in the study: About 308 people living with HIV as well as 16 Health Care Providers will participate in this study. It will include adult men and women in the age group 18 and 49 years.

Procedure: I am going to give you full details about this study and on the basis of which, you will have to decide whether to participate or not. If you agree to participate in the study, I will ask you questions about your age, schooling, and perceptions about HIV, ART care and family planning among others. This study is purely verbal and no physical examinations will be conducted. The interview will take about 30-45 minutes.

Benefits & Risks: The information you give me will assist to establish and improve future Family planning and HIV care programming. A risk of participating in this study is that you may be stressed with questions that you will be asked and the time spent answering the questions. On the other hand, the benefit of your participation is that you will contribute useful information to researchers and public health managers so they may better provide HIV care and family planning related programmes in Zambia.

Possibility of withdrawal or declining specific questions: your participation is completely voluntary. You may ask me to stop this discussion if you are uncomfortable, or you may also decline to answer any single question. Not participating in the study will not attract any penalty.

(For ART clients) Your non-participation in the study will not jeopardise your access to the services that you may be receiving at this health facility.

Confidentiality: The interview is strictly confidential; so your responses will not be shared with anyone. Your name will not appear on the questionnaire, any of my notes, or any of the reports.

Reimbursement: You will not be charged, nor will you be paid for participating in this study.

Who has reviewed the study: The study has been reviewed and authorised by the ethical review board of the University of Zambia and Ministry of Health.

Offer to answer questions: I can answer any questions you may have. If I don't have the information you require, I will tell you so. If you have any doubts or questions in future, you may contact:

1. **Mr. Lason Kapata,**
   Principal Investigator,
   University of Zambia, Great East Road Campus,
   P.O. Box, 32379,
   LUSAKA.
   Cell: +260-977966028.

2. **Dr. M. Nkolola–Wakumelo,**
   Chairperson, Humanities and Social Sciences, Research Ethics Committee,
   University of Zambia,
   P. O. Box 32379,
   LUSAKA

3. **Prof. I.A. Nyambe,**
   Director, Directorate of Research and Graduate Studies,
   University of Zambia,
   P. O. Box 32379,
   LUSAKA

Appendix II: Informed Consent Form ART Clients

Integration of HIV Care and Family Planning Services: Attitudes, Challenges, and Opportunities in Lusaka, Zambia

Informed Consent Form ART Clients

Do you consent to participate in this study? ☐Yes ☐No

PARTICIPANT AGREEMENT

The information sheet describing the benefits, risks and procedures to participate has been read and explained to me, the participant. I also understand that participating in this study is voluntary and that I can withdraw at any time. I have been given an opportunity to ask any questions about the activity and be satisfactorily answered.

_____	_____	_____
Date	Signature of respondent	*(mark/thumbprint)

*In case the respondent is not able to sign this form, this attests that the consent form has been read and explained accurately by a member of the research staff and that the respondent has fixed his/her thumbprint as consent.

If you have any doubts or questions in future, you may contact:

Mr. Lason Kapata: Principal Investigator, University of Zambia, Great East Road Campus, P.O. Box, 32379, LUSAKA. Cell: +260-977966028

Dr. M. Nkolola – Wakumelo: Chairperson, Humanities and Social Sciences, Research Ethics Committee, University of Zambia, P. O. Box 32379, LUSAKA

Prof. I.A. Nyambe: Director, Directorate of Research and Graduate Studies, University of Zambia, P. O. Box 32379, LUSAKA

Study Team Member's Statement

I, the undersigned interviewer, have explained to the participant in a language he/she understands, and he/she understands the procedures to be followed in the study and the risks and benefits involved.

_____	_____
Signature of interviewer	Date

Appendix III: Informed Consent Form Health Care Providers

Integration of HIV Care and Family Planning Services: Attitudes, Challenges and Opportunities in Lusaka, Zambia

Informed Consent Form Service Providers

Do you consent to participate in this study? ☐Yes ☐No

PARTICIPANT AGREEMENT

The above document describing the benefits, risks and procedures to participate has been read and explained to me, the participant. I also understand that participating in this study is voluntary and that I can withdraw at any time. I have been given an opportunity to ask any questions about the activity and be satisfactorily answered.

_____	_____	_____
Date	Signature of respondent	*(mark/thumbprint)

*In case the respondent is not able to sign this form, this attests that the consent form has been read and explained accurately by a member of the research staff and that the respondent has fixed his/her thumbprint as consent.

If you have any doubts or questions in future, you may contact:

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Study Team Member's Statement

I, the undersigned interviewer, have explained to the participant in a language he/she understands, and he/she understands the procedures to be followed in the study and the risks and benefits involved.

_____	_____
Signature of interviewer	Date

Appendix IV: Client Exit Interview Questionnaire

Integration of HIV Care and Family Planning Services: Attitudes, Challenges and Opportunities in Lusaka Province, Zambia

Client Exit Questionnaire

QUESTIONNAIRE: Integration of HIV Care and Family Planning Services: Attitudes, Challenges and Opportunities in Lusaka Province, Zambia	
PROVINCE: ☐	Time interview started: ☐☐☐☐ Time interview ended: ☐☐☐☐
DISTRICT : ☐	DATE: [___|___]/[___|___]/[___|___] Day Month Year
FACILITY NAME:	FACILITY CODE: ☐☐
TYPE OF FACILITY: ☐ INTEGRATED ☐ STAND ALONE	
INTERVIEWER NAME:_____	INTERVIEWER CODE: ☐☐

Thank you for allowing me to speak with you today. I would like to start by asking you a few questions about yourself and why you came to this clinic today.

SECTION 1: BACKGROUND

No.	*QUESTIONS AND FILTERS*	CODING CATEGORIES (circle respondent answer)	GO TO
101	Gender	1 = Male 2 = Female	
102	How old were you at your last birthday?	_____ Years **(End the interview if respondent is less than 18 years or more than 49)**	
103	What is your marital status?	1 = Married 2 = Widowed 3 = Separated 4 = Single but has a partner 5 = Single but do not have partner 6 = Other: 99 = No answer	

No.	*QUESTIONS AND FILTERS*	CODING CATEGORIES (circle respondent answer)	GO TO
104	What level of education have you completed?	1 = Primary 2 = Secondary 3 = Tertiary (college/university) 4 = None 99 = No answer	
105	What is your religion?	1 = Catholic 2 = Protestant 3 = Muslim 4 = Other [specify] ……	
106	Are you pregnant? (**Ask female respondents only)**	1 = No →**Continue interview** 2 = Yes →**End interview, thank respondent** 3 = Unsure →**Continue interview** 99 = No answer →**Continue interview**	
107	How many living children do you have? (**write 0 if no living children**)	_____ Children	**If 0→ Q109**
108	How old is your youngest child?	1 = Less than 6 months 2 = 6 to 12 months 3 = 12-24 months 4 = Between 2 and 5 years 5 = Between 6 and 12 years 6 = 13 years or older 99 = No answer	
109	Do you want a child in the next two years?	1 = No 2 = Yes 3 = Unsure 99 = No answer	

SECTION 2: HIV/ART AND FAMILY PLANNING SERVICES

No	QUESTIONS AND FILTERS	CODING CATEGORIES (circle respondent answer)	GO TO
Now I will ask you a number of questions related to the HIV/ART Care and Family Planning services you receive at this facility, as well as your visit today to this facility. As discussed before, if you wish to skip certain questions or sections, just tell me, and I will go on to the next question.			
201	Were you sexually active in the last 12 months?	1 = No 2 = Yes 99 = No answer	

202	What was the primary reason for your visit today?	1= Counselling/testing 2= ART refill 3 = For Family Planning services 4= Other (specify): _____ 99 = No answer	
203	What is your HIV Status?	1 = Living with HIV (HIV+) 2 = Not living with HIV 3 = Unaware of HIV Status 99 = No answer	**If 2→ End Interview**
204	When were you diagnosed with HIV (**year and month**)?	_____	
205	Where were you diagnosed with HIV (**location**)?	_____	
206	How long have you been on ART Treatment?	_____	
207	Have you ever received counselling that relates to family planning?	1 = No 2 = Yes	**If NO→211**
208	When was the last time that you received counselling about your family planning options	1= 0-6months 2= 7-12months 3= 2-3years 4= 3+years ago 5= Never	
209	By then, were you already aware of your current HIV status?	1 = No 2 = Yes 99 = No answer	
210	Was that counselling provided within the ART clinic?	1 = No 2 = Yes	
211	Prior to your visit today, were you familiar with any family planning method?	1 = No 2 = Yes	**If NO→213**
212	If yes, which methods were you familiar with before the consultation? **(Multiple responses possible: circle all methods mentioned)**	1 = Pills 2 = Injectable 3 = Implants 4 = IUD 5 = Sterilization 6 = Diaphragm 7 = Condoms 9 = Other(specify):_____	
213	Are you currently using any form of family planning method for you or your partner to delay or avoid getting pregnant?	1 = No 2 = Yes 99 = No answer	**If NO→217**
214	What family planning method are you using?	_____ _____	

215	Where do you usually receive family planning services in this community?	1= Within this health facility 2= At another health facility 3= I do not receive any 4= Others (specify)_____	**If 3→Q217**
216	Do you receive family planning services in the same place that you receive care for HIV (ART Clinic)?	1 = No 2 = Yes 99 = No answer	
217	Do you have a spouse or sexual partner (**check Q103**)?	1 = No 2 = Yes 99 = No answer	**If NO→Q219**
218	Do you know his/her HIV status?	1 = No 2 = Yes 99 = No answer	
219	Do you plan to have children/more children in the near future?	1 = No 2 = Yes 99 = No answer	
220	Did the service provider today ask if you are currently using any family planning method to delay or avoid having a child?	1 = No 2 = Yes 3 = Don't remember 99 = No answer	
221	Did the service provider today ask if you were interested in using any particular family planning method?	1 = No 2 = Yes 3 = Don't remember 99 = No answer	
222	Did the service provider today talk to you about the benefits of family planning?	1 = No 2 = Yes 3 = Don't remember 99 = No answer	
223	Did the service provider today talk to you about different family planning methods available at this health facility?	1 = No 2 = Yes 3 = Don't remember 99 = No answer	**If NO→ 226**

224	Which family planning methods did the service provider talk about today? **(Do not prompt client with names of methods. Circle all methods mentioned by name or description)**	1= Hormonal contraceptives (injectables) 2= Hormonal contraceptives (pill based) 3= Emergency contraceptive pills (ECPs) 4= Intrauterine devices (IUDs) 5= Condoms (barrier methods) 6= Diaphragm (barrier methods) 7= Withdrawal/pulling out (coitus interrupts) 8= Rhythm/sex during non-fertile periods (fertility awareness methods) 9= Female surgical sterilisation 10= Male surgical sterilisation 11= Other (please specify) 12= None/Not applicable 13= Other(specify):	
225	Which aspects of those methods did the service provider talk about today? **(Multiple response possible).**	1 = How it is used 2 = How it works 3 = Advantages 4 = Disadvantages 5 = Possible side effects 6 = Other (specify): _____	
226	Did the service provider recommend any family planning methods to you today?	1 = No 2 = Yes 3 = don't remember 99 = No answer	**If NO→ 228**
227	If yes, which method(s) were recommended? **(Multiple responses possible: circle all methods mentioned)**	1 = Pills 2 = Injectable 3 = Implants 4 = IUD 5 = Sterilisation 6 = Diaphragm 7 = Condoms 9 = Other(specify):	
228	Did you choose a family planning method today?	1 = No 2 = Yes 99 = No answer	**If NO→ 232**
229	If yes, which method did you choose? (**List only main method chosen**)	1 = Pills 2 = Injectable 3 = Implants 4 = IUD 5 = Sterilisation 6 = Diaphragm 7 = Condoms 9 = Other(specify): _____	
230	Were you given your chosen method today?	1 = No 2 = Yes 99 = No answer	**If YES→ 232**

231	If not, what was the main reason for not getting the chosen method?	1 = Health reasons 2 = Not available at this facility today 3 = Needed to make an appointment 4 = Never available at this facility 5 = Out of stock 6 = Told to talk to spouse/partner 7 = Other (specify):	
Before ending the visit today…			
232	Did you have any questions for the ART service provider with regards to any health issue?	1 = No 2 = Yes 99 = No answer	**If NO→ 234**
233	Were you satisfied with the answers provided to your questions?	1 = No 2 = Yes 99 = No answer	
234	Did the provider schedule a follow-up appointment for further ART services?	1 = No 2 = Yes 3 = Don't remember 99 = No answer	
235	Did the provider schedule a follow-up appointment for family planning services?	1 = No 2 = Yes 3 = Don't remember 99 = No answer	
236	Did the provider refer you to another clinic for further family planning services?	1 = No 2 = Yes 3 = Don't remember 99 = No answer	**If NO→ 243**
237	Is that referral clinic in this same facility or external?	1 = Same facility 2 = External facility	
238	Did the provider give you a written paper for the referral?	1 = No 2 = Yes 3 = Don't remember 99 = No answer	
239	Did the provider ask you to contact a specific person at the referral clinic?	1 = No 2 = Yes 3 = Don't remember 99 = No answer	
240	Do you plan on going to the clinic you were referred to and get the services prescribed?	1 = No 2 = Yes 3 = Don't remember 99 = No answer	**If NO→ 242**
241	When do you plan on completing the referral? (**write time in days, weeks or months**)	----------Days ----------Weeks ----------Months	

242	What are your principal reasons for not completing the referral? (**write the main reasons as the client mentioned them**)	1--- 2--- 3---	
243	Do you receive family planning services in the same place where you receive care for HIV?	1 = No 2 = Yes 3 = Don't remember 99 = No answer	
244	What sexual and reproductive health services have you been offered at your HIV care clinic today? **(Multiple responses possible)**	1= Family planning 2= Pregnancy testing 3= Emergency contraception 4= STI screening, diagnosis, and treatment 5= Condom provision 6= Cervical cancer screening 7= None 8= Other (specify)……	
245	If family planning services were being provided within the ART clinic, would you have intentions to access these services?	1 = No 2 = Yes	
246	What are your reasons for the answer provided in Q245 above?	…… …… …… …… ……..	
247	Who has an upper say in your decision whether or not to use family planning methods? **(Multiple responses possible)**	1= Myself 2= My mother 3= Friends 4= Church Leaders 5= Health Care Providers 6= My partner	
248	Overall, how satisfied were you with how the health care provider treated you during this last visit? **READ ANSWERS, RECORD ONLY ONE (Choose one)**	1 = Very satisfied 2 = Somewhat satisfied 3 = Not satisfied 7 = Don't Know 8 = Refuse to Answer 9 = Not Applicable 10 = Others_____	

SECTION 3: ATTITUDE TOWARDS INTEGRATION OF ART AND FAMILY PLANNING SERVICES

No	QUESTIONS AND FILTERS	CODING CATEGORIES (circle respondent answer)	GO TO

Now I will read to you a number of statements related to your perceptions towards access to integrated HIV care and Family Planning services at this facility. As discussed before, if you wish to skip certain statements, just tell me, and I will go on to the next statement. For each statement I would like you to tell me whether you strongly disagree, disagree, neutral, agree, or strongly agree (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree)			
301	HIV/AIDS services are freely given at this health facility.	1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree	
302	ART services are freely given at this health facility.	1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree	
303	Health Care Providers in the ART clinic at this facility are more caring.	1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree	
304	Condoms are freely supplied when you request from health care providers in the ART clinic at this health facility.	1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree	
305	ART services are not easy to access at this health facility.	1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree	
306	Health care providers in ART clinic at this facility are not friendly.	1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree	
307	It is very difficult to receive family planning services in the ART clinic at this health facility.	1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree	

308	Family planning issues are not discussed in ART clinic at this health facility.	1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree	
309	I wouldn't recommend an HIV positive person to access family planning services from the ART clinic at this facility.	1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree	
310	People in this community wouldn't recommend an HIV positive person to access family planning services from the ART clinic at this facility.	1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree	
311	An HIV-Positive Mother is not allowed to fall pregnant to avoid complications such as death.	1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree	
312	An HIV-Positive Mother is not allowed to use any other family planning method other than condoms to avoid giving birth to a deformed baby.	1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree	
313	An HIV-Positive Mother can choose to have children as long as she adheres to ART treatment.	1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree	
314	Male partners are the ones that approve of couples using family planning methods regardless of their respective HIV status.	1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree	
315	I think that my spouse/partner would approve using family planning methods regardless of my HIV status.	1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree	

316	I think that we would approve as a couple using family planning methods regardless of our HIV statuses.	1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree	
317	I think that most of my friends in this community would approve HIV positive couples using family planning methods.	1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree	
318	I think that Male partners are supposed to accompany their spouses when attending family planning counselling sessions at ART clinics.	1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree	
319	I think that community members would approve male partners accompanying their spouses for ART services.	1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree	
320	I think that most of my friends in this community would approve male partners accompanying their spouses for family planning services.	1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree	
321	I think that older women in this community would approve male partners accompanying their spouses for family planning sessions.	1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree	
322	I am always ashamed seeking for family planning services from the ART clinic.	1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree	
323	It is very dangerous for an HIV positive person to use modern contraceptives.	1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree	

324	A child born to HIV infected mother will always get infected with HIV as well.	1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree	
325	A child born to HIV-infected mother can remain HIV negative if the mother utilises and adheres to PMTCT protocols.	1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree	
326	One can get cured from HIV/AIDS if s/he has sex with a minor without a condom.	1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree	
327	Anyone can contract HIV if one is involved in sexual relationship with someone infected with HIV.	1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree	
328	A person who is HIV positive should be blamed for bringing HIV virus into the community or home.	1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree	
329	You cannot tell the HIV status of a person by looking.	1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree	
330	Family planning services are not offered in the ART clinic at this health facility.	1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree	
331	Family planning services must be provided within the ART clinic.	1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree	

332	The ART clinic at this health facility doesn't have the capacity to provide family planning services within one roof.	1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree	
333	The ART clinic at this health facility provides referrals to another clinic for those that may require family planning services.	1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree	
334	Health care providers in the ART clinic do not have enough time dedicated to the provision of family planning services.	1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree	
335	Special attention must be given to ART clients when it comes to accessing family planning services.	1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree	

END OF INTERVIEW

Appendix V: Health Care Service Provider's Interview Guide

Integration of HIV care and Family Planning Services: Attitudes, Challenges, and Opportunities in Lusaka, Zambia

Service Provider's Interview Guide

Date:……..	Facility name:……
Position: ……	Gender: …….
Age: ……..	District: ..……..
Name of interviewer:……	Start Time: …….. End Time:……

1. Could you please describe what your role is for this health facility?
2. How long have you been working in this role at this facility?
3. What is the catchment population for this health facility, segmented by sex?
4. What is your basic understanding of health care service integration in general?
5. What are the core HIV services currently being offered at your facility?
6. What Sexual Reproductive Health services do you offer to the clients at your facility?
7. What policy regulates the provision of integrated HIV care and Family planning services in Zambia?
8. Describe the extent to which HIV/ART clients are able to access family planning services at this health facility? To what extent?
9. What family planning methods do you offer to the clients who are living with HIV at your facility?
10. Are there restrictions with regards to the particular method they are supposed to use as compared to HIV negative clients?
11. What family planning methods do you recommend for women or men living with HIV?
12. Kindly describe how HIV care and Family Planning services are provided at this facility?
13. What have you done as a health facility in ensuring that ART clients make a choice of the kind of method they would go if they desired any family planning services?
14. What model of service delivery do you use for clients to access both HIV care and family planning services in this facility?
15. What referral system exists for clients seeking HIV care or Family Planning services at this health facility?
16. How do you ensure that the referred clients ultimately receive the required service?
17. How do clients find a situation where they are referred to another department for add-on services? (e.g., HIV client to access FP services in MCH clinic or vice-versa). Why do you say so?
18. What do you think would motivate HIV-positive men and women to access both HIV care and family planning services at this health facility?
19. What do you think makes it so difficult for HIV-positive clients to access family planning services at this facility? Community?

20. What are some of the factors that inhibit people living with HIV to access HIV care and family planning services available at this health facility? Probe for social, cultural, religious, etc?
21. What challenges do you face in providing integrated HIV care and Family Planning Services within this health facility?
22. What do you think should be done to overcome these challenges?
23. What else should be done differently to improve the provision of integrated HIV care and Family Planning services at this facility? In this community?

The end. Thank you so much for your precious time

Appendix VI: ART Client's Interview Guide

Integration of HIV care and Family Planning Services: Attitudes, Challenges, and Opportunities in Lusaka, Zambia.

ART Client's Interview Guide

Date:…….. Facility name:……
Gender: ……. Age: ……..
District: ..……... Name of interviewer:……
Start Time: …… End Time:……..

1. How long have you been receiving ART services from this health facility?
2. How would you describe ART services provided at this facility?
3. How helpful are health care providers in meeting your health needs?
4. What is your basic understanding of health care service integration in general?
5. What are the core HIV services currently being offered at this facility according to your observations?
6. What Sexual Reproductive Health services are offered to you within the ART clinic at this facility?
7. How would you describe the family planning services that are provided within the ART clinic at this health facility?
8. How acceptable are integrated HIV care and family planning services in this community especially for people living with HIV?
9. What do people in the community look at someone who is HIV positive receiving family planning methods for limiting or spacing children? Probe for Friends, family, peers, etc.
10. Who influences someone on ART to access family planning services at the health facility? Why do you say so? Probe for spouse, friends, peers, etc.
11. If family planning services were being provided within the ART clinic at this facility, would you have intentions to access these services? Why do you say so?
12. What do you think makes it so easy for people on ART to access family planning services at this health facility? Why do you say so?
13. What do you think makes it so difficult for people on ART to access family planning services at this health facility? What other factors? Why do you say so?
14. Are family planning services always available in the ART clinic at this health facility?
15. What happens in instances where the family planning method you are looking for at that moment is not available in the ART clinic?
16. Are referrals provided to ART clients that may need family planning services? Explain how this is done?
17. What family planning methods are recommended for women or men living with HIV at this health facility? What are the reasons for that?
18. Kindly describe how HIV care and Family Planning services are provided to you as clients at this health facility?
19. Overall, describe your level of satisfaction with the services provided to you today? Why do you say so?

20. Who has an upper say in your decision whether or not to use family planning methods?
21. What do you think are challenges faced in providing integrated HIV care and Family Planning Services within this health facility?
22. What do you think should be done to overcome these challenges?
23. What else should be done differently to improve the provision of integrated HIV care and Family Planning services at this facility? In this community?

The End. Thank you so much for your precious time

Appendix VII: ART Client's Screening Tool

Integration of HIV care and Family Planning Services: Attitudes, Challenges, and Opportunities in Lusaka, Zambia.

ART Client's Screening Tool

Good morning/afternoon. My name is _____. I am working on the data collection team of a research looking at the topic; ***"Integration of HIV Programs and Family Planning Services: Attitudes, Challenges, and Opportunities in Lusaka, Zambia".*** If it is alright with you, we would like to interview you. This tool is aimed at helping us know if at all you meet the criteria of people to participate in this study.

Question	**Response**	***Eligibility criteria***	**Mark an X if fulfils requirement**
1. What is your age?	_____ ***Less than 18 or above 49 end interview***	*Must be between 18-49*	
2. What is your HIV status?	1. Positive 2. Negative ***End the interview***	*Must be positive*	
3. Are you on ART?	1. Yes 2. No ***End the interview***	*Must be on ART*	
4. How long have you been on ART?	1. 0-5 months ***End the interview*** 2. 6-11months ***Recruit*** 3. 12-23months ***Recruit*** 4. 24 and over ***Recruit***	*Must have been on ART for 6 months and over. Take note of the three recruitment categories.*	
5. Are you pregnant?	1. Yes ***End the interview*** 2. No	*Must not be pregnant.*	

INVITE. Thanks for answering these questions.