

Factors influencing women living with HIV/AIDS' intention to fall pregnant among those attending the OI/ART clinic in Murambinda, Buhera District, Manicaland Province, Zimbabwe, 2010



By

Dr Mandy Yolanda Sibanda

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College of Health Sciences

Faculty of Medicine

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DECLARATION

I, Mandy Yolanda Sibanda, confirm that this dissertation is the product of my original work and has been prepared in accordance with the guidelines of Master of Public Health Programme, University of Zimbabwe. I further attest that it has not been submitted in part or in full to any university and/or any publication.

Student:

Signature.....Date.....

Mandy Yolanda Sibanda

I, having supervised and read this dissertation, am satisfied that this is the original work of the author in whose name it is being presented. I confirm that the work has been completed satisfactorily for presentation in the examination.

Academic supervisor 1:

Signature.....Date.....

Dr. G. Shambira

Academic supervisor 2:

Signature.....Date.....

Mrs. J. Maradzika

Chairman of Department of Community Medicine, University of Zimbabwe:

Signature.....Date.....

Professor S. Rusakaniko

ABSTRACT

Factors influencing women living with HIV/AIDS' intention to fall pregnant among those attending the OI/ART clinic in Murambinda, Buhera District, Manicaland Province, Zimbabwe, 2010

Background: With increases in HIV testing facilities in Zimbabwe, more women are aware of their HIV status before falling pregnant. This was found in a Murambinda survey in 2008. It is every woman's right to fall pregnant, however, those living with HIV/AIDS need to be guided well to protect the health of the mother and her baby preventing Mother to Child transmission of HIV/AIDS (MTCT). We carried out a study to establish the factors contributing to WLHA's intention to fall pregnant in order to focus this guidance.

Methods: An analytical cross sectional study was carried out July-August 2010 at the Opportunistic Infection/ Anti Retroviral Treatment (OI/ART) clinic of Murambinda Mission Hospital. 421 WLHA of reproductive age were systematically sampled from those waiting in the queue to attend the OI/ART clinic. An interviewer administered questionnaire was used to collect data from them. Focus group discussions, counselling observations and check lists were also used to obtain information regarding factors influencing the intention of WLHA to fall pregnant.

Results: We interviewed 421 HIV positive women of reproductive age. Significant factors were being aged less than 36 [OR=4.45 (CI=2.78-7.16)], being married [OR=1.90 (CI=1.25-2.87)], having secondary education or above [OR=1.83 (CI=1.16-2.88)], having parity of less than 4 [OR=2.72 (CI=1.75-4.22)], spousal influence [OR=1.74 (CI=1.01-3.03)], partner disclosure [OR=0.50 (CI=0.27-0.87)], believing community approves intention to fall pregnant [OR=7.75 (CI=4.11-14.61)] and belonging to a support group [OR=0.62 (CI=0.40-0.91)]. Independent determinants of intention to fall pregnant were being aged less than 36

[aOR=2.15, (2.02- 2.98)], having parity of less than 4 [aOR=1.82 (1.10-3.02)] and believing community approves intention to fall pregnant [aOR=6.18 (5.75-6.39)]

Conclusion: Being married, being aged less than 36, being of secondary education and above, having parity of less than 4, spousal influence and believing community approves decision to fall pregnant increased the likelihood of the intention to fall pregnant. Partner disclosure and belonging to a support group decreased the likelihood of the intention to fall pregnant. Plans to strengthen and increase support groups for women and men living with HIV/AIDS have begun.

Key words: HIV positive women, pregnancy intention, family planning, Murambinda

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University of Zimbabwe (August 2010)

To my dear husband Sifanele and our lovely daughter Buhlebenkosi

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LIST OF ABBREVIATIONS

ANC	Antenatal Care
ART	Anti Retroviral Treatment
AIDS	Acquired Immuno Deficiency Syndrome
CI	Confidence Interval
DHA	District Health Administrator
DHE	District Health Executive
DHIO	District Health Information Officer
DNO	District Nursing Officer
FLAS	Family Life Association of Swaziland
FP	Family Planning
HIV	Human Immunodeficiency Virus
HSO	Health Studies Office
IEC	Information Education and Communication
MCH	Maternal and Child Health
MPH	Masters in Public Health
NGO	Non Governmental Organization
OPHID	Organisation for Public Health Interventions and Development
OI	Opportunistic Infections

OR	Odds Ratio
P	Probability
PMD	Provincial Medical Director
PMTCT	Prevention of Mother To Child Transmission of HIV
RSHR	Reproductive and Sexual Health Rights
SSA	Sub Saharan Africa
STI	Sexually Transmitted Infection
TBA	To Be Advised
US	United States of America
UZ	University of Zimbabwe
WHO	World Health Organisation
WLHA	Women Living With HIV/AIDS
ZIMA	Zimbabwe Medical Association

GLOSSARY OF TERMS

- **AIDS** – Acquired Immunodeficiency syndrome, the advanced stage of HIV disease infection with a low CD4+ count below 200 cells/microlitre or having one of defining illnesses
- **Antenatal** – period during pregnancy before delivery
- **Antiretroviral** – usually applies to a drug that is given to destroy or inhibit the HIV retrovirus the commonest retrovirus disease occurring among humans
- **Barrier Method** – the use of the male or female condom or diaphragm to prevent one from getting infected by STI or HIV
- **Contraception** – methods or devices used to prevent pregnancy
- **Discordance** – a situation whereby one member of a couple is HIV positive and the other member is HIV negative
- **Family Planning** – the planning of when to fall pregnant and have children and the use of birth control or contraception to implement such plans
- **Fertility** - is the natural capability to produce offspring
- **Human Immunodeficiency Virus (HIV)** – the lentivirus or slowly replicating retrovirus virus that causes AIDS
- **Human Papillomavirus** – a DNA virus from the papillomavirus family that is capable of infecting humans which may cause warts or cancers of the reproductive system
- **Menarche** – is the first menstrual cycle or first menstrual bleeding in humans signalling the possibility of fertility
- **Menopause** – refers to the time of cessation of a woman's reproductive ability signalling the end of the fertile phase of a woman's life

- **Microbicide** – pharmacologic agents and chemical substances that are capable of killing or destroying certain microorganisms that commonly cause human infection for example HIV
- **Opportunistic Infection (OI)** – an infection caused by pathogens that take advantage of a compromised immune system that usually do not cause disease in a healthy host, that is one with a healthy immune system.
- **Pandemic** – an excessive number of cases of an infectious disease that has spread through human populations across large region for example multiple continents or even worldwide
- **Pregnancy Intention** – wanting to fall pregnant on purpose
- **Prophylaxis** – a public health procedure or drug that is done or given to prevent rather than to cure a disease or ailment
- **Postnatally** – occurring after delivery
- **Prenatally** – occurring before delivery
- **Viral load** – the relative concentration of virus in a person's blood plasma

CHAPTER 1: INTRODUCTION

1.1. Background

The 2008 Report on the global AIDS epidemic confirms that the world is making some progress in its response to the global AIDS epidemic. Governments are honouring their promises that they made at the 2006 United Nations High Level Meeting on HIV/AIDS, to scale up towards universal access to HIV prevention, treatment, care, and support by 2010. As of 2008, a small number of countries were already providing universal access to antiretroviral treatment and to services to prevent mother-to-child transmission (PMTCT) of HIV.¹ Others had made plans to do the same. In an increased number of countries, of which Zimbabwe is one, HIV infection levels are falling.²

Women living with HIV/AIDS (WLHA) have similar general health needs and reproductive health needs to those women not living with HIV, but they need to be supported differently because of the state of their immune system, which needs them to adopt a healthier lifestyle. WLHA have to make decisions regarding their sexuality and child bearing in the light of their immune status, their infectious status and the effects of anti retroviral medication if they are already under treatment. Women's choices with regards to childbearing are largely a result of cultural and personal influences. As well as scientific evidence, that should affect the mothers the most regarding these decisions, there are various non scientific influences on a woman's choice of whether or not to have children. Spouses providing economic stability, pressures from in laws and other significant relatives, neighbours and other community members may influence the reproductive behaviour of a WLHA, whether she has disclosed her status to them or not.^{3, 4} Various misconceptions around contraception, childbearing, and disease progression may also influence the mother's intention to have or not to have children after finding out her status.

At this stage the mother will require objective information as to the optimal family planning methods and how to plan for a child minimising the risk of mother to child transmission of HIV. Success in the correct dissemination and implementation of this information will make a notable contribution to the achievement of millennium development goal number 6 which includes the combating of HIV, through the provision of better reproductive health services and access to information for the WLHA. With these measures in place, a lowering in the number of new HIV infections would be possible by decreased transmission of HIV from her to her child antenatally and postnatally, by comprehensive pregnancy planning, preventing unwanted pregnancies, preventing further transmission of HIV and prevention of reinfection by HIV and other STI.^{5, 6} PMTCT plays a major contribution in the achievement of 3 out of the 8 millennium development goals (MDGs). These are:

MDG 4- Reduction of child mortality. If a WLHA decides she wants to have a child and reproductive health service workers advise her well helping her to plan her pregnancy well in advance, the child is more likely to be healthier at delivery. The transmission rate of HIV from mother to child is 17% on single dose Nevirapine (sdNVP), but drops drastically to 4% on Highly Active Anti Retroviral Treatment (HAART). So if the WLHA is referred on time, her child is more likely to be born HIV negative.⁷

MDG 5- Reduction of maternal mortality. If a WLHA is given the right access to reproductive health services she can avoid a pregnancy and all the complications of it. If she does, however, decide that she wants to have a child; proper access to reproductive health services will make it possible for her to plan a healthy and successful pregnancy.

MDG 6- Combating HIV, malaria and other diseases. A 13% reduction in the HIV transmission rate will occur by placing a WLHA on HAART rather than depending on

sdNVP before pregnancy. This will in turn decrease the incidence of HIV by mother to child transmission by 13%, significantly reducing the incidence and prevalence rate as well. ⁷

Although it is every woman's right to have a child, pregnancy in a WLHA needs to be planned well to ensure the optimal care of the baby and the mother during delivery. Three major issues regarding WLHA falling pregnant need to be addressed.

Firstly, unwanted pregnancies need to be prevented. 1 in 8 births in Zimbabwe are unplanned and unwanted and if all contraceptive needs of WLHA are met, this would translate to the prevention of almost 14 000 potentially HIV positive, unwanted babies every year. This pregnancy prevention would decrease the strain on ART, and maternal and child healthcare resources which are already limited.⁸ Strain on the economic resources of families in which these babies would have been born would also be prevented. The incidence and prevalence of HIV would also be reduced.

Secondly, if a WLHA falls pregnant and decides not to approach any formal healthcare institution, there is a 15-30% chance that she will transmit HIV to her baby. If she arrives at ANC, in labour, she can be given sdNVP which decreases MTCT, and there is only a 10-17% chance of transmitting HIV to her baby. The most desirable situation would be that a WLHA presents to ANC early in her pregnancy so that she can be put on HAART by her second trimester which would decrease her rate of MTCT of HIV to 1-4%.⁸ If a WLHA on ART seeks counselling before falling pregnant, her drug regimen can be altered to ensure that teratogenic effects of certain ARVs are avoided.

Thirdly, the timing of pregnancy as advised by a reproductive healthcare provider is important. When a WLHA is pregnant and delivers when her viral load is high, her CD4

count is low and when there is presence of any AIDS defining illness, the chance of transmission of HIV to her baby is higher than if the converse is true. Therefore planning for this aspect would include a medical examination and CD4 counts and viral loads, where available, to verify the mother's chance of transmission of HIV to her baby.

All these considerations would all contribute to the fulfilment of 4 out of the 8 Millennium Development Goals; namely the empowering of women, reducing child mortality, improving maternal health and reducing HIV/AIDS by PMTCT. It is therefore important to tailor, implement and continuously assess an integrated reproductive health programme for WLHA by ascertaining their reproductive needs and practices.

1.2. Statement of the problem

With the maturation and expansion of VCT, PMTCT and ART services, the numbers of WLHA in Zimbabwe aware of their status before falling pregnant are increasing. The profiles of this group include women without children, PMTCT graduates, mothers at different stages of disease progression, those on ART and not on ART. Feedback from healthcare workers in Murambinda, Buhera, a mature PMTCT/OI/ART site indicated that previous WLHA PMTCT participants are now presenting with subsequent pregnancies.⁹ Of 43 WLHA studied in 2008, who accessed antenatal care, 19 (44.2%) knew their status and were on ART before falling pregnant and 24 (55.8%) became aware of their seropositivity when they enrolled in PMTCT.¹⁰ It is unclear if all the 43 pregnancies were planned or not, but the positivity of the 19 who knew their statuses seemed not to have affected their intention to have a child.

1.3 Research Questions

- What factors affect the intention of a WLHA to have a child in Murambinda, Buhera?
- What factors cause WLHA to have unplanned pregnancies?
- How accessible are family planning services to WLHA?
- Study Hypothesis

Null Hypothesis H_0 - There is nothing specific about the intention to fall pregnant in WLHA

Alternative Hypothesis – There are specific factors that are associated with intention to fall pregnant in WLHA

CHAPTER 2: LITERATURE REVIEW

Within the framework of the World Health Organisation's (WHO's) definition of health as a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity, the reproductive health of a woman addresses the reproductive processes, functions and system at all stages of her life. Here reproductive health, therefore implies that women have the capability to reproduce and the freedom to decide if, when and how often to do so from menarche to menopause.¹⁰

Implicit in this are the rights of women to be informed of and to have access to safe, effective, affordable and acceptable methods of fertility regulation of their choice, and the right of access to appropriate health care services that will enable women to go safely through pregnancy and childbirth and provide couples with the best chance of having a healthy infant even when they are HIV positive.^{10, 11}

The reproductive health needs of a woman are important to the health and development of society as they greatly affect infant health, health of families and ultimately the health of a community. Because of different physical, social and economic challenges faced by women living with HIV/AIDS (WLHA) their reproductive health attitudes, behaviours, needs, requirements and support may differ from those women who are HIV negative.¹³

WLHA have similar instincts and reproductive wishes compared to those of healthy women. Research indicated that in some instances the desire that WLHA have for child bearing is even greater than that of those not living with HIV/AIDS, because it apparently increases

their self esteem.^{3,12} Nineteen of 43 WLHA interviewed in Zimbabwe in one study conducted in Murambinda, Buhera, for example, became pregnant after their diagnosis.¹⁰ In Zimbabwe, as in many African countries, the desire of women to have children is also rooted in a context of a need for both love and financial security, especially where women are economically vulnerable.⁹ Marriage, especially if *lobola* or bride-price has been paid by a man's family to a woman's family, is based on an expectation of having children which is reciprocated by the provision of love and financial security from the man. This cultural and traditional expectation has not been changed by the HIV/AIDS pandemic as family pressure on wives to have children still exists. WLHA also find personal satisfaction and societal acceptance in having children in a society that sees having children as having worth and graduating upwards in the social ladders of society.^{3,14} Some WLHA have a desire to replace a child lost to AIDS in order to get over their sorrow and grief.¹⁵

Even in countries studied outside Africa, this trend and this desire by WLHA seems to be consistent. The fact that many WLHA actively seek and continue pregnancies despite potential risks for their infants has been demonstrated in several U.S.A. studies.¹⁶ In interviews with 82 WLHA in the U.S.A., awareness of HIV infection or knowledge that risk of mother-to-child HIV transmission can be decreased by prenatal zidovudine treatment did not significantly influence pregnancy planning by accessing antenatal care early and seeking prevention of mother to child transmission (PMTCT) of HIV, contraceptive choice or use. Only 15 percent of respondents used condoms consistently. Only half used any form of contraception. About two-thirds of pregnancies were unplanned. Most women (70 percent) reported that their desire for a child was the most important reason for carrying the pregnancy to term.¹⁶ Highly Active Antiretroviral Therapy (HAART) has also provided women and men

living with AIDS the possibility of envisaging new life projects such as parenthood, because of a return to health.¹⁷

In another American study, to identify factors that influence HIV-infected women's intent to get pregnant. Factors that could influence intent to get pregnant that were examined included demographic characteristics, HIV-related factors and personal beliefs and attitudes. In simple logistic regression models, younger age, increased motivation for child bearing, decreased perceived threat of HIV, decreased HIV symptomatology, higher traditional gender role orientation, and greater avoidance coping were all associated with greater intent to get pregnant. These results are of use to health care providers in developing plans of care for WLHA.¹⁸

It is this overwhelming desire to have children for various reasons and family pressures that often make WLHA have children without first seeking out their choices and getting good advice. It is important to provide adequate access to reproductive health information to assist WLHA in taking the necessary pregnancy planning steps to ensure a healthy delivery to bring a healthy child into her world, concurrently decreasing the incidence of HIV and other STI.¹⁸

In some African couples, however, it has been found that there is disagreement on types of contraception to be used and the intention whether to have children or not. Some WLHA have partners who refuse to use the barrier method.¹⁹ These couples need assistance with other methods of contraception as well as counselling on reducing the risk of transmission of HIV. In a Kenyan study, a 27-year-old Kenyan housewife explained in an interview why she wished to conceive, despite the fact that both she and her husband were HIV-positive. She said that though her husband didn't want any children, she wanted a child. She felt she could

not live without children as she was always lonely at home and didn't feel she had to be alone since she was not barren. On having a child, she felt she would take care of her child and be active. She said she would have a reason to work and a reason to live because she would now have somebody to take care of and have a responsibility she yearns for.²⁰ Disagreement can also occur when the couple is discordant which can also influence the sexual and reproductive choices of a woman. Depending on a host of other influencing factors if the woman is positive and her partner is negative, she may decide for or against having a child. Counselling on reproductive choices for couples when one or both partners are HIV positive is an important form of secondary HIV/AIDS prevention. Services fostering a supportive environment to open up discussion about discordance are required.²¹

In Botswana it was found that WLHA had a desire to fall pregnant and have a baby in order to secure financial support. Some WLHA even believe that subsequent pregnancies would reduce the concentration of HIV in the body by diluting it to her unborn child. Pregnancy is also viewed by some Batswana as proof of fertility and falling pregnant and having a baby gives them elevation in the society. However some Batswana health care workers have judgemental attitudes towards WHLA and the only contraceptive method they offer these women are condoms. These factors and this hindering environment make it difficult for women to access reproductive health services.²²

Some WLHA because of their denial and disbelief of their status, want to conceal their diagnosis from their family, especially in-laws, by having children. These women want to continue being valued in the family they have married into by the children they bear. If they do not have children, the in-laws may raise questions about her fertility and either send them

back to her home or have her husband marry another wife for the purpose of children. Both of these consequences of not having children lead to great emotional distress, social embarrassment and economic instability so a mother would rather have a child at all costs to qualify her position in the family.³ To assist mothers in denial like these, a different counselling approach needs to be implemented to help them come to term with their status and then proceed to making healthier choices.

In Swaziland, like some communities in Zimbabwe, a husband's consent is needed before a woman can begin taking family planning. Many women who want to practise family planning are inhibited by their spouse's lack of support and permission. For example, the Family Life Association of Swaziland (FLAS) has found that many men in rural areas have the attitude that modern contraception is a foreign intrusion that does not integrate well with traditional practices and therefore do not support it. They also believe that it kills. In addition, women fear seeking medical assistance because they do not wish to draw attention to themselves, particularly if it concerns their spouses or family members or is seen as challenging traditional custom and the family headship of the husband. Working to increase the knowledge of men on family planning and HIV/AIDS and the availability of reproductive health services is an important part of improving the reproductive and sexual health rights (RSHRs) of women. Including family members, particularly correctly educated mothers-in-law, in improving RSHRs of women is also important because they have much influence on the reproductive rights of women in Swaziland as in other African countries.²³

Another challenge that has been faced by healthcare workers when dealing with WLHA is their incorrect belief that HIV-related symptoms are a result of contraceptive use. This has

been reported in Family Planning Association of Kenya clinics where WLHA are guided through counselling to choose a contraceptive method that provides dual protection against both pregnancy and HIV transmission and re-infection. In this programme however, health care workers have said it has been difficult to convince women who are HIV-infected that their ailments or symptoms have nothing to do with family planning methods. As a result, they tend not to use contraception. These women need extensive counselling both at the clinic and community level. ^{3,24}

Some WLHA have no knowledge of contraception therefore they don't know how to stop having children. In the Zimbabwean study previously quoted, of 43 WLHA, 19 of whom became pregnant after diagnosis, seven of these nineteen women who reported unplanned pregnancies were already married with children. Researchers concluded that long-term married women, particularly in rural areas, often have no history of contraceptive use before they are infected by HIV. They may be ready to terminate childbearing, but often cannot put that intention into practise because they lack control over contraception especially when the condom is the only means of contraception that they know. Women like these have to be educated on alternative methods of contraception as a method of family planning that they can control independently of their husbands. ⁴

Another issue that has arisen regarding the reproductive health needs of WLHA is that of gynaecological morbidity. Research in Yaoundé has shown that sexually transmitted infections (STIs) and preinvasive cervical lesions are more prevalent in HIV-infected pregnant women compared to their non-infected compatriots. The modification of their immune system predisposes them to these conditions. From this study routine screening and

treatment of STIs during antenatal care in Cameroon and other countries like Zimbabwe, with similar social profiles was recommended. Technological advances in diagnosis of STIs, microbicide development and screening and vaccination for human papillomavirus must be made available in developing countries and for those WLHA who are among those with the highest need globally.²⁵

Some WLHA do not have access to family planning services so even when they want to prevent pregnancy, they do not have the means. They may want to end childbearing for various reasons. Some are worried that pregnancy will further compromise their health. They are concerned about transmitting their infection to children they might conceive. They realize that, particularly without treatment, HIV infection will shorten their own lives, and they fear leaving orphans. Another HIV positive Kenyan woman interviewed said that she felt that the two children she had were enough and if she continued to give birth, she would have no energy to take care of those many children. She also feared dying early and leaving them suffering. An even worse situation that she feared was that of her husband dying first, her becoming a widow, and being left with no means of taking care of her children. However, she had no access to family planning services so continuously she was gripped by these fears^{4, 11, 20, 26}

A trained health service workforce is critical to ensuring good quality service delivery to people living with HIV. There is only limited documented information on the challenges and constraints facing health care providers in meeting the sexual and reproductive health needs of WLHA.²⁵ There is need for comprehensive and appropriate training for health care providers to build their capacity to meet the requirements and expectations of different sub-

populations of HIV positive people. Most physicians encourage only condom use while a minority refers patients to family planning providers or talks with them about contraception, often in a rushed counselling session. A lack of updated information about interactions between antiretroviral drugs and hormonal contraception and/or intrauterine devices was not infrequent among providers. WLHA reported having been discouraged or blamed by health professionals when they revealed they wanted to have (or were expecting) a baby. Professionals and program directors' attitudes regarding reproduction range from not acknowledging people's wishes, to not providing useful information or referral. Physicians as well as nurses and midwives, who are the primary caregivers for most of the population in many resource-poor settings, need training. Supportive and knowledgeable providers are crucial for helping HIV positive people seek and adhere to treatment, prevent sexually transmitted infections, unintended pregnancies and vertical and horizontal transmission of HIV and supporting positive living free from stigma and discrimination. Providers, some of whom may themselves be HIV positive, can make an important difference, especially if they are supported in their working conditions. There is a potential role for gynaecologists and obstetricians as well as public health consultants through integration of HIV/AIDS into sexual and reproductive health services to strengthen the response to the epidemic.^{27, 28}

Sexual and reproductive health services are absent or of poor quality and underused in many developing countries because discussion of issues such as sexual intercourse and sexuality make people feel uncomfortable.²⁹ Adequate sexual and reproductive health services as well as innovative ways to encourage discussion of these issues within couples therefore need to be in place.

The existing range of contraceptive options should be made available to people living with HIV, along with more information about and access to emergency contraception presently only available in the urban areas. Potential drug interaction must be considered between hormonal contraception and treatment for tuberculosis and certain antiretroviral drugs. WLHA who wish to use a permanent contraceptive method should have access to female sterilisation and vasectomy in an informed manner, if the partner agrees. This contraceptive option is uncommon in resource poor settings like Zimbabwe.⁶

The Zimbabwean National PMTCT program was initiated in 1999 as a pilot programme. It was rolled out nationally in 2001 and by 2008 there were 930 health centres offering on-site HIV testing and PMTCT services out of about 1500 healthcare centres across Zimbabwe³⁰ and 138 sites offering on-site ART services. The Organisation for Public Health Interventions and Development (OPHID) has supported the national PMTCT program in Mashonaland East and Manicaland since 2001 with particular focus on operational research with respect to PMTCT.⁹

According to feedback from health workers stationed at the PMTCT sites there has been an increasing number of HIV positive mothers who are aware of their status prior to pregnancy and previous HIV-positive PMTCT participants now presenting with subsequent pregnancies. This is an interesting phenomenon that has come with the maturation of the PMTCT programmes and its extent, reasons, factors associated with it and ways to deal with it need to be established.^{9, 10}

Many women within this unique group return to health and fertility because of ART and get pregnant without them planning it or expecting it as they are not aware that their reproductive system has returned to normal function.⁹ As patients get healthier they need to be informed of the possibility of getting pregnant again.

As voluntary counselling and testing (VCT), PMTCT and ART services mature and become more widely available, more women are going to be aware of their HIV status before pregnancy. SRH counselling probably initiated by the provider needs to be tailor made to these HIV positive women with correct information given and done in sufficient time especially regarding family planning, sexual and reproductive health. Through education and increased awareness of the needs of WLHA, health care workers at PMTCT and ART centres need to change their often negative attitude towards pregnancy in a WLHA.⁹ Also, the attitudes and behaviour of these women, through research, need to be ascertained in order to equip WLHA with the necessary services and information in order to make the best RSH choices possible for both their health and the health of the children that they decide to have.⁹

10

According to the Zimbabwe Demographic Health Survey of 2005-2006 (ZDHS) family planning methods are divided into two broad categories, modern methods and traditional methods. Modern family planning methods are further categorised into three subgroups, that is, short-term methods (oral contraceptive pills, condoms, the lactational amenorrhoea method-LAM, and emergency contraception), long-term methods (injectables, implants, and intrauterine devices or IUDs), and permanent methods (female and male sterilisation). Traditional methods consist of periodic abstinence (rhythm method), withdrawal, and various

folk methods such as strings and herbs. A comprehensive list of family planning services and commodities that health centres should provide or advise on consist of the following methods listed in Table 1 below.³²

Table 1: Types of contraception required for the provision of comprehensive Family Planning services

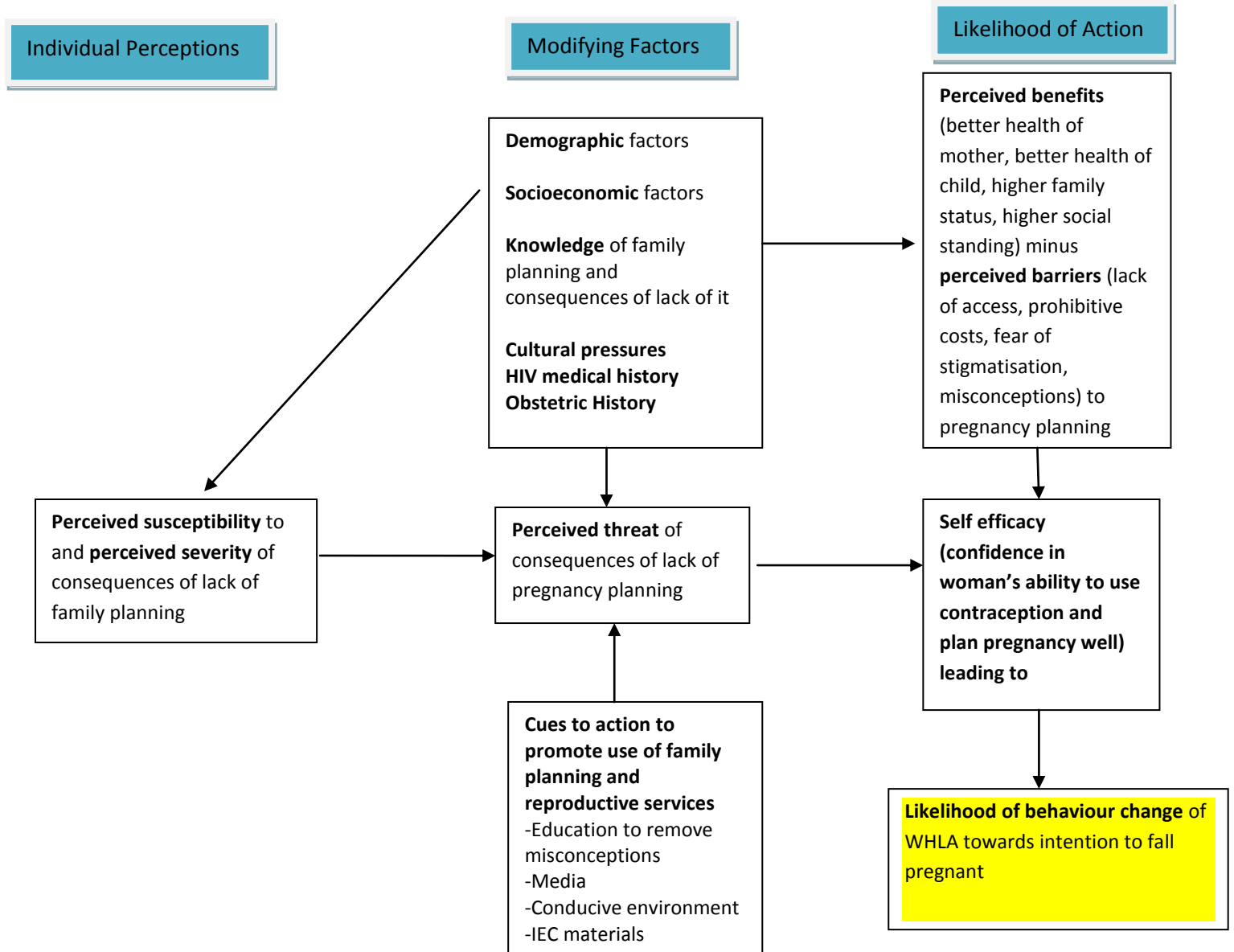
SHORT TERM METHODS	MEDIUM-LONG TERM METHODS	TRADITIONAL METHODS	PERMANENT METHODS
Contraceptive pill	Inter-uterine device (IUD)	Herbs	Male sterilisation
Male condom	Hormonal injection (Depo provera)	Strings	Female sterilisation
Female condom	Implants (Norplant/Jadelle)	Withdrawal method	
Diaphragm		Periodic abstinence (rhythm method)	
Foams/ jelly			
Lactational amenorrhea			

Ideal pregnancy planning would include psychological counselling, contraceptive counselling before contraception, CD4 counts, viral load tests, full blood counts, full medical screening

especially for STI's, then the initiation of HAART or the More Efficacious ARV Regimen (MER) if applicable. ³¹

The Zimbabwe contraceptive prevalence rate which is calculated by the percentage of women who are using at least one modern method of contraception is 60.2%. The demand for contraception which is the percentage of women who report wanting contraception is at 73.7%. The unmet need for contraception is 12.8%. This translates to 1 in approximately 8 women who fell pregnant who would have rather not done so had all services been accessible and available. These are the women who may report that the last child they had was not planned, or the not pregnant woman who wants child spacing of 2 years or more but is not currently using any contraception. So it follows that 82.6% of women's family planning needs are met in Zimbabwe, affecting both HIV positive and HIV negative women. If all family planning needs were met, the contraceptive prevalence rate would increase from 60.2% to 74% which is a significant difference in the development of a country as resources will be less strained. ³²

FIG 1: CONCEPTUAL FRAMEWORK TO EXPLORE FACTORS ASSOCIATED WITH INTENTION TO FALL PREGNANT IN WLHA, ATTENDING THE OI/ART CLINIC IN MURAMBINDA BUHERA.



In order to design well tailored interventions that yield desirable changes, an understanding of theories of the behaviour intention to plan pregnancies is required.³³ A theory of health behaviour is a set of different interrelated constructs (concepts), definitions, and propositions that present a systematic view of phenomena by specifying relations among variables, with the purpose of explaining or predicting behaviour.³⁴ Application of well defined and carefully tested theories to the reproductive programme development process has advantages for health workers in terms of effectiveness of interventions. Programme planners can use theories to shape the pursuit of answers to Why? What? And How? In the case of the reproductive health needs and practices of WLHA, a theory can help us deduce, **why** WLHA do not seem to do adequate pregnancy planning? **What** factors are influencing their use of family planning and intention to have a child? And **how** we as public health practitioners can upgrade, evaluate or create a reproductive health programme that can specifically cater for their needs.³⁵ Thus theories and models of behaviour explain behaviour and suggest ways to achieve behaviour change. Theories are comprised of concepts which are the building blocks or primary elements of the theory. Concepts or ideas are best understood within the concept of a theory.³³ A concept that has been developed or adopted for use in a particular theory, are called **constructs**. An example of a construct is *perceived barriers* which forms part of the Health Belief Model (HBM). This would be the factors that would be a barrier to one using a health service for example. **Variables** are the operational forms of constructs in order to be measured in a specific situation. In the perceived barrier example of a construct above, variables would be affordability/cost of accessing certain health care, availability of drugs and distance of health care centre from home.³⁵

The HBM is used to understand why people accept preventive health services and why they do or do not adhere to other health care regimens and health and medical recommendations.³³

It has provided the conceptual basis for many interventions since it was formulated. It is a cognitive value-expectancy theory meaning that it explains behaviour as a function of the subjective value of an outcome, and of the subjective probability or expectation that a particular action will achieve that outcome. It is one of the most widely applied theoretical foundations for the study of change and maintenance of health behaviour and can be used to explain and intervene in family planning behaviour of WLHA. The discovery that people will take action to prevent, to screen for, or to control ill health conditions if they believe that they are susceptible to the condition; if they foresee that it would potentially have serious consequences; if they believe that a course of action that is recommended to them would be beneficial to them reducing either the susceptibility or severity of the condition; and if they believe that the anticipated barriers to taking the action are outweighed by its benefits.³⁵ The key constructs of the HBM include:

Perceived susceptibility: this construct refers to one's subjective perception of the risk of contracting a health condition. Within the context of this study this construct would refer to the WLHA's perception of her risk or her unborn baby's risk to illness or pregnancy and birth related problems if she does not seek pregnancy planning advice before falling pregnant.

Perceived severity: this explains one's belief of how serious a condition and its sequelae are. In the context of this study, it would refer to the belief of the WLHA, deciding whether or not to fall pregnant, believing how serious the consequences on her health or her baby's health would be if she does not adequately plan her pregnancy.

Perceived benefits: this construct explains one's belief in the efficacy of the recommended action to reduce risk or seriousness of the impact of the negative consequences. In this study this would be the belief of the WLHA that adequate pregnancy planning will be an advantage to her and her baby.

Perceived barrier: this explains the potential negative aspects of a particular advised health action, the cost or impediments to undertaking that particular health behaviour. WLHA may believe that seeking family planning advice may be expensive or time consuming, and acquiring family planning commodities like the pill or the loop may have negative side effects.

In the National Operational Plan for Scaling Up HIV Prevention in Botswana, strategic messages to influence behaviour change are based on basic principles of Behavioural Theories, like the principle of perceived barriers. A perceived barrier to marital faithfulness was found to be peer pressure and the prevention message to address this was “Be a man, don’t be swayed by your friends. Be faithful to your wife.”²²

Cues to action: strategies to activate one’s readiness to taking up family planning services for example IEC materials placed in OI-ART clinics given to patients when they come for their follow up visit.

Self efficacy: One’s confidence in one’s ability to take action. This would be the WLHA’s confidence in her ability to take action and plan her pregnancy by seeking reproductive health services and commodities in advance that would indeed be an advantage to her health and the health of her unborn baby.

In an American study of likelihood of use of contraception in a high risk group, perceived barriers, cues to action and self efficacy were the strongest predictors of likelihood to use birth control.³³

In a Malawian study, perceived barriers to discussing pregnancy or contraception in WLHA included disbelief or denial. In this study done in rural Malawi, women did not consider the fact that they were HIV positive when they were considering children and as a result often

presented late at health care centres without doing any pregnancy planning, increasing their babies' risk of contracting HIV from them.³⁶

In a Zimbabwean study, it was found that a perceived barrier to accessing ante natal care early or PMTCT included personal, financial, structural and cultural reasons. Many women in this study failed to access pregnancy care as they could not access the hospital where this care was available.³⁷ In another Zimbabwean study, perceived barriers to seeking reproductive health services in WLHA included: stigma, discrimination, denial, discomfort, rude health care workers, betrayal of confidentiality of HIV status by health care workers, fear of rejection, blame, lack of access and lack of affordability. Perceived benefits of having a child found in the same included: low perception of risk of transmission of HIV to their child, social approval, higher social status and economic security.³⁸

CHAPTER 3: STUDY JUSTIFICATIONS AND OBJECTIVES

3.1 Study Justification

This study identified issues that are important in designing an integrated reproductive health intervention to assist WLHA who need appropriate family planning advice in order to

- prevent unwanted pregnancies
- maximally prevent transmission of HIV to their baby
- have a problem free pregnancy and birthing process for preservation of maternal and child health
- withstand family and cultural pressures associated with the low usage of family planning
- remove misconceptions about certain family planning commodities
- educate and empower the women

3.2 Objectives of the Study

3.2. 1. Broad Objective

To identify the factors that are associated with the intention to fall pregnant in WLHA attending OI/ART in Murambinda, Buhera district, 2010

3.2. 2. Specific Objectives

1. To assess the reproductive needs and attitudes of WLHA and the factors driving their intention to fall pregnant.
2. To assess constructs of the Health Belief Model in association with the intention of the WLHA to fall pregnant
3. To assess knowledge and understanding of family planning methods, types preferred and used by WLHA.
4. To ascertain the accessibility of family planning commodities and appropriate advice for WLHA of reproductive age and gaps in family planning services offered.
5. To assess the health workers attitudes and behaviour towards reproductive issues and the intention of WLHA to fall pregnant.

CHAPTER 4: METHODOLOGY

4.1 Study Design

This was an analytical cross sectional study.

4.2 Study Setting

Murambinda Mission Hospital (Designated Buhera District Hospital) OI/ART clinic.

4.3 Study population:

- WLHA of reproductive age (15-49years of age) presenting at the OI/ART clinic of Murambinda Mission Hospital fulfilling the inclusion criteria and consenting to the study in July 2010.
- The counsellors at the OI/ART clinic.

4.4. Sample size calculation

The sample size calculation was based on the intention of women to have a pregnancy with knowledge of their HIV status. The sample size was calculated using StatCalc at 5% significance level assuming that the proportion of women who intend to have a pregnancy is 31% based on surveillance data from Murambinda (Buhera)⁹, error risk of 1.96 and adjusting for a 20% attrition rate. Minimum sample required was 421 WLHA.

4.5. Sampling Procedure, Data collection techniques

Female patients were screened for eligibility according to the inclusion criteria and of the eligible ones, study participants were selected systematically at the OI/ART clinic up to the sample size required of 421 women and were enrolled in the study. Systematic sampling was done by choosing a random number by the lottery method (picking a random number out of a hat of numbers) and then interviewing every second eligible patient standing in the queue from the picked number onwards. The questionnaire was then designed in Shona then translated to English then back translated to Shona to ensure maintenance of meaning and linguistic power. For the measurement of knowledge of family planning; a WLHA was assumed to have knowledge of Family planning when she named both the condom and the pill as a dual protection method of family planning.

Inclusion and Exclusion criteria

Inclusion criteria: WLHA aged 15-49 years, found at the OI/ART clinics, and consenting to the study. Those women under age 18 required parental or guardian consent.

Exclusion criteria: Women not consenting to the study, permanently sterilised, or for medical or other reasons unable to answer questions.

Focus Group Discussions (FGDs)

10 randomly selected women agreeing to consent were asked to participate in focus group discussions around the subject of Factors associated with intention to fall pregnant in WLHA

attending OI/ART clinics in Murambinda, Buhera. A translated FGD guide was used. One focus group discussion was done from 1400hrs to 1700hrs on Wednesday the 28th of July 2010.

Questionnaire guided interviews

Three community peer educators based in Murambinda, accustomed to doing health research were trained to assist in data collection. I conducted a formal meeting with them where I showed them the questionnaire and discussed how the responses to each question were to be captured. Mock interviews were done on 10 female patients attending Murambinda Mission Hospital antenatal clinic who were not included in the study by each of the three trained assistant field investigators.

430 study participants were then selected and given two consent forms to sign, one of which they retained after agreeing to consent. Information was then obtained from them using the pre tested interviewer administered questionnaire.

Specific targeted counsellors stationed at the clinics selected for data collection found on duty were interviewed using a separate interviewer administered questionnaire to obtain information on their knowledge, attitudes and perceptions of the provision of reproductive and family planning advice to their patients. A total of 22 consenting counsellors were interviewed.

Counselling sessions

Counselling sessions were observed with permission from both the counsellor and the patient being counselled as they were occurring for an assessment of their content. A total of 10

counselling sessions were observed. After each counselling session the counsellor was asked certain questions to ascertain their understanding of the information given to them during the counselling sessions.

Observations

The clinic structure was also observed for ease of access of family planning information, advice, useful IEC materials and family planning commodities via a check list and viewing of stock cards.

4.6. Variables:

4.6.1 Dependent/ Main outcome variable

Intention to fall pregnant.

4.6.2 Independent variables

Below are the variables captured and analysed. They were in categories of socio-demographic, socio-economic, socio-cultural, obstetric, HIV treatment and family planning factors.

TABLE 2: Dependant variables measured

Category	Variables analysed included these
1. Socio-demographic factors	Age, education level, marital status, religion, partner's education.
2. Socio-economic factors	Employment status, partner's employment status
3. Socio-cultural factors	Religion, staying with in-laws, disclosure of HIV status to partner
4. Obstetric factors	Parity, previous bad outcomes of pregnancy, influence on intention to fall pregnant, decision to fall pregnant in the near future
5. Treatment factors	Disclosure, partner testing, partner disclosure, time on ART,
6. Family planning factors	Family planning method used, knowledge of dual protection, access to family planning, counseling experiences

The following constructs of the Health Belief Model were measured;

- perceived susceptibility - do the women see themselves as susceptible to any health issues if they do not do adequate pregnancy planning before intending to fall pregnant
- perceived severity- are the consequences of not planning pregnancy severe enough to make WLHA seek counsel before intending to fall pregnant

- perceived benefits- are the benefits of pregnancy planning sufficient to convince WLHA to plan their pregnancies adequately before intending to fall pregnant
- perceived barriers- are there barriers that are preventing WLHA from planning their pregnancies adequately before intending to fall pregnant
- cues to action- what makes WLHA take actual steps to intend to fall pregnant

Below (Table 3) are the different components (constructs) of the Health Belief Model that were used to predict likelihood of intention to fall pregnant with examples of statements that were asked in each category. Participants were asked to respond to each statement on an ordinal scale by stating whether they;

1: Strongly agreed 2: Agreed 3: Undecided 4: Disagreed 5: Strongly disagreed

TABLE 3: Examples of constructs and statements of Health Belief Model

Construct (Component)	Example of statement
1. Perceived susceptibility	<p>WLHA should fall pregnant whenever they feel like doing so</p> <p>If I do not seek advice before falling pregnant, I could be very ill during pregnancy</p> <p>If I do not seek advice before falling pregnant, I could give birth to an HIV positive child and inherit problems</p>
2. Perceived severity	<p>If I do not seek adequate advice before falling pregnant, I could die during pregnancy</p> <p>If I do not seek adequate advice before falling pregnant I could lose a lot of blood during childbirth</p> <p>If I do not seek adequate advice before falling pregnant, I could take a long time to heal after childbirth</p>
3. Perceived benefits	<p>If I have another baby, my husband will love me more</p> <p>If I have a baby my desire to be a mother will be fulfilled</p> <p>If I have a baby my marriage will be strengthened/ solidified</p>
4. Perceived barriers	<p>I do not like taking the pill because I am already taking too many pills and I will forget</p> <p>It is difficult to get family planning commodities because the health centre is far and I cannot walk the distance or afford the transport fares</p> <p>My religion demands that I do not use contraception</p>
5. Cues to action	<p>If my husband encourages me I will get family planning</p> <p>If I hear about family planning on the radio, I am more likely to use it</p> <p>If I read about family planning on posters and in the newspaper, I am more likely to use it</p>

4.7. Data analysis

Quantitative data was captured and analyzed using Epi- info version 3.5.1 August 2008 statistical software package. Analysis included generation of descriptive statistics such as frequencies, proportions and measures of central tendency, calculation and tabulation of

measures of association that is prevalence odds ratios (OR). Significance testing to 95% Confidence Interval, stratified analysis to control for possible confounding and assess for effect modification, and multivariate analyses using forward and backward stepwise logistic regression to control for confounding was also done. Stata version 10.1 was used to analyse ordinal responses of the Health Belief Model. Qualitative data was analysed manually for content.

4.8 Pretesting

This interviewer administered questionnaire was pretested on 20 selected patients. Changes were made where necessary

4.9. Permission to proceed and ethical considerations

Permission was sought from the Health Studies Office, Directorship of OPHID TRUST, Medical Research Council of Zimbabwe (MRCZ) and Ethical review board (ERB).

Ethical considerations

Informed written consent was obtained from each study participant before taking part in the study. Written consent was sought from study participants and confidentiality was maintained by ensuring that no names of participants appeared on the questionnaires. Consent forms were kept in a secure place separately from questionnaires to protect the respondents and to keep the information confidential. Permission to take and use photographs was sought from study participants. Confidentiality was assured and maintained.

4.10 Utilisation of results

Feedback of recommendations found from this study has been communicated to the counsellors and the District Health Executive (DHE) from the Murambinda Mission Hospital and relevant governing authorities of OPHID Trust and Harare City. Results have also been presented at the UZ Annual Medical Research Day 2010, ZIMA Annual Congress 2010, Zimbabwe National Family Planning Conference Kadoma 2011, and poster presentation at the World Aids Conference IAS 2011 in Rome 17th – 20th July 2011.

CHAPTER 5: RESULTS

A focus group discussion was done in order to elicit information on factors influencing the intention to fall pregnant in WLHA for design of the questionnaire and for background information of the WLHAs intentions to fall pregnant. Responses are given verbatim below.

FOCUS GROUP DISCUSSION RESPONSES FOR HIV POSITIVE WOMEN

1. What are your preferred types of family planning and why?
 - Family planning tablets – easy to use
 - Condoms – protects against pregnancy and STIs and reinfections which can also harm unborn baby
2. What do you think are the challenges /disadvantages of family planning?
 - IUD goes bad when one has an STI
 - IUD can cause long heavy periods
 - OCP- increases already high pill burden and we get confused with the times etc
 - OCP- high possibility of forgetting
3. What are your feelings about having children now or in the near future? Would you like to have a baby?
 - I have had enough children but my husband wants more, whenever he sees others with babies, he starts wanting children
 - They would give me problems when they get sick if the child comes out positive
 - It will give me stress which will make me more sick
 - Considering the pain I would go through, I do not want to disturb my CD4 count and health again
 - I am afraid to die and leave my family desperate with the problems of taking care of my children
 - My ARVs are curing me so I can now have many more children
 - I have heard the advice but I don't take it seriously because I need to have children so that the country can go on or else there will be no people
 - I have had negative babies so there is no reason why I shouldn't have more babies
4. What do you think about women falling pregnant knowing they are HIV positive?
 - It is an individual decision
 - It is painful to us because we know the kind of problems they would be inheriting

in the possibility of having an HIV positive child- problems include administering drugs to self and baby, multiple tests and checkups, feeling ill from the disease, feeling ill from the medication- it is better not to have a child

- These women encourage our husbands to also want babies – we are angry with these ones- they are bad examples
- Some women have no choice because they are forced by their husbands just to increase the size of their family
- There are many deaths that we have heard of that happen during childbirth
- It makes other HIV positive mothers want to also have a child increasing the burden on the community especially if the HIV positive mother falls ill and dies leaving behind her children
- After 2 or 3 children, sterilisation should be made an option or else the woman be punished for not planning her pregnancy
- Some women fall pregnant because they do not have enough information on the risks they will be taking
- We feel ART has made us physically fit for manual work but we are still not in a perfect state of health to keep on having children

5. Did you ever discover you were pregnant and it was not your intention? Elaborate

- Yes, my husband removed the condom, I had had enough children but my husband wanted more children so he removed the condom during sex and I got pregnant
- Yes, my husband pierced and cut the condom so it would not be effective and I found myself pregnant
- Yes, my husband just refused to use a condom
- Yes, my husband would put my OCPs near the fire so that they would lose their power and I fell pregnant even though I was on the pill

The common themes found in the FGDs were;

1. Many of the women agreed that falling pregnant and having babies while knowing their HIV positive status was **not wise** due to the physical strain on the body which was already undergoing physical strain due to either the HIV infection or the ARV

treatment side effects or both. They also thought it was unwise because some of them were presently experiencing better health after a long period in poor health due to HIV and then due to the side effects of the medication. They felt therefore that falling pregnant would again depress their immunity, dropping their CD4 count again and take them back to a poor state of health as before. The WLHA also expressed the fact that pregnancy is stressful to them psychologically and that would in turn cause them to be physically unwell and in addition to that they felt that there was a high chance of giving birth to an HIV positive child or themselves dying during childbirth from what they had witnessed in their community. They felt that these women who had died after giving birth to an HIV positive child left a huge burden on the community as there would be more AIDS orphans to take care of. The WLHA believed that this burden could be lessened by giving all WLHA adequate information about how to reduce the consequences of falling pregnant in their HIV positive state. These WLHA would therefore **not intend to fall pregnant** and neither would they encourage any other WLHA to fall pregnant. They would actually strongly discourage any other WLHA from falling pregnant.

2. A number of the women expressed the fact that even if it was not their intention to fall pregnant, their very influential husband and in laws did not give them that freedom of choice. In this group, even if the WLHA tried to use contraception, her husband would either disagree with it or somehow make the pill or the condom ineffective by damaging it. There was also a fear of being disowned by the in laws if they did not have children. This group would be **forced to intend to fall pregnant due to strong spousal or in law influence.**
3. A few of the women on the other hand felt they had every **right to intend to fall pregnant.** These women felt that they had been given a second chance on life due to

the therapeutic ability of the ARVs and felt strong enough to bear as many children as they wanted. These WLHA felt it was their duty to populate Zimbabwe and if they did not have children they would not be doing their duty as a citizen of Zimbabwe.

4. In terms of family planning use two different themes were elucidated from the discussions. Some of the WLHA felt that use of the pill was **easy** and the use of the dual system was even better in preventing both pregnancy and STIs. Other WLHA felt that the use of the pill was **difficult** because it was an unwelcome increase to an already high pill burden due to ART and therefore easy to forget. They also felt that the IUD had the potential to go ‘bad’ while inserted in ones uterus or even cause heavy periods.

This FGDs analysis helped provide an in depth understanding of the issues that the WLHA have to deal with on a regular basis.

Response Rate of Study Participants

Of 430 WLHA sampled; 421 were successfully interviewed giving a response rate of 97.9%.

The 9 that did not complete the interview cited personal reasons. .

Of the different age groups, the youngest group whose youngest members were aged 19 years had the lowest frequency. The group with the highest frequency was aged between 30 and 35 years. The majority of women (66%) had attained secondary education similar to their husbands (72%). Almost 62% of the women were married and about 20% were widowed. About half of the women (53%) were unemployed and the majority of their husbands (64%) were employed whether it was informally or formally.

Regarding the woman's intention to fall pregnant, 38.7% (n=166) of the women interviewed intended falling pregnant again whereas 61.3% (255) were not. Table 4 below shows how these two groups of women were divided according to demographic characteristics. Some of the characteristics were statistically significantly different. In the age groups, as the ages went up, the intention to fall pregnant went down. This was statistically significant in almost all of the age groups there were also statistical differences in marital status and level of education.

TABLE 4: Socio-demographic characteristics of WLHA attending OI/ART at Murambinda Hospital, 2010

Factors	Frequency Of those intending to fall pregnant (Total N=166, Percentage %)	Frequency Of those not intending to have a child (Total N=255, Percentage %)	Total frequency (Total N=421, Percentage)	P value
Age				
19-24	36 (2.7)	10 (3.9)	46 (10.9)	0.000*
25-29	41 (24.7)	29 (11.4)	70 (16.6)	0.0003*
30-35	54 (32.5)	74 (29.4)	129 (30.6)	0.444
36-39	19 (11.4)	50 (19.6)	69 (16.4)	0.027*
40-44	12 (7.2)	47 (18.4)	59 (14.0)	0.002*
45-49	4 (2.4)	44 (17.3)	48 (11.4)	0.000*
Level of Education				
A: Of Woman				
None	3 (1.8)	7 (2.8)	10 (2.4)	0.162
Primary	41 (24.8)	93 (36.8)	134 (32.1)	0.011*
Secondary	118 (71.1)	151 (59.2)	266 (63.6)	0.013*
Tertiary	4 (2.4)	4 (1.6)	8 (1.9)	0.536
B: Of Husband				
None	4 (3.4)	7 (4.7)	11 (4,2)	0.832
Primary	16 (13.8)	38 (25.5)	54(20.4)	0.114
Secondary	90 (77.6)	102 (68.5)	192 (72.5)	0.004*
Tertiary	6 (5.2)	2 (1.3)	8 (3.0)	0.037*
Marital Status				
Never married	21 (12.7)	12 (4.7)	33 (7.8)	0.003*
Married	117 (70.5)	142 (55.7)	259 (61.5)	0.002*
Divorced	9 (5.4)	7 (2.7)	16 (3.8)	0.160
Separated	9 (5.4)	16 (6.3)	25 (5.9)	0.717
Widowed	10 (6.0)	78 (30.6)	88 (20.9)	0.532
Occupation (Woman)				
Student	1 (0.6)	2 (0.8)	3 (0.7)	0.828

Unemployed	84 (52.8)	128 (51.2)	212 (51.8)	0.935
Informally employed	64 (40.3)	111 (44.4)	175 (42.8)	0.311
Formally employed	10 (6.3)	9 (3.6)	19 (4.6)	0.957
Occupation (Husband)				
Student	1 (0.9)	2 (1.4)	3 (1.1)	0.921
Unemployed	40 (34.8)	53 (36.3)	93 (25.6)	0.288
Informally employed	54 (47.0)	79 (54.1)	133 (51.0)	0.535
Formally employed	20 (17.4)	12 (8.2)	32 (12.3)	0.771
Religion				
Apostolic sect	93 (56.1)	145 (57.1)	236 (57.0)	0.865
Roman Catholic	26 (16.0)	49 (19.4)	52 (17.7)	0.652
Protestant	24 (14.7)	28 (11.1)	43 (10.3)	0.289
Pentecostal	19 (11.7)	24 (9.5)	75 (18.0)	0.334
Christian other	2 (1.2)	8 (3.2)	10 (2.4)	0.939
Other	2 (1.2)	1 (0.4)	3 (0.7)	0.897
Parity				
Mean (std dev)	3.4 (1.8)	3.0 (1.8)	3.2 (1.8)	0.256
Monthly income of Husband (US\$)				
Mean, std devn	79.88 (43.25)	77.15 (44.11)	69.52 (45.83)	0.339

* Indicates statistical significance

TABLE 5: Distribution of intentionality of last pregnancy among WLHA attending OI/ART at Murambinda Hospital, 2010

Intentionality of last pregnancy (N=421)	Frequency Intending to fall pregnant (n=166)	Frequency not Intending to fall pregnant (n=255)	Total frequency N=421 Percentage (%)	P value
Last pregnancy was unintentional	19 (11.4)	211 (82.7)	59 (14.6)	0.332
Last pregnancy was intentional	147(88.6)	43 (16.9)	344 (85.4)	

About a seventh of all the WLHA who had had a baby in the past (N=404) said their last pregnancy was unintentional. Where the last pregnancy was intentional almost 87% of the women expressed the intent to fall pregnant again. The converse was true as well.

TABLE 6: Demographic factors associated with the intention of falling pregnant of WLHA attending OI/ART at Murambinda Hospital, 2010

DEMOGRAPHIC FACTORS :	Frequency of WLHA intending to have a child (Total N=166)	Frequency of WLHA not intending to have a child (Total N=255)	PREVALENCE ODDS RATIO	95% Confidence Interval
Age group				
35 and below	131 (78.9)	114 (44.7)	4.45	2.78-7.16*
36 and above	35 (21.1)	141 (55.3)		
Marital status				
Married	117 (70.5)	142 (55.7)	1.90	1.25-2.87*
Not Married	49 (29.5)	113 (44.3)		
Level of education				
Primary or below	44 (26.5)	100 (39.2)	1.83	1.16-2.88*
Secondary or above	122 (73.5)	155 (60.8)		
Education level;husband				
Primary or below	20 (12.0)	45 (17.6)	0.64	0.36-1.12
Secondary or above	146 (88.0)	210 (82.4)		
Occupation				
Employed	92 (55.4)	135 (52.9)	0.91	0.61-1.34
Not employed	74 (44.6)	120 (47.1)		
Living arrangement				
with in-laws	123 (74.1)	201 (78.8)	1.28	0.73-2.25
not with in-laws	43 (25.9)	54 (21.2)		

* Indicates statistical significance

Table 6 above shows demographic variables researched for association with the WLHA's intention to fall pregnant. Being age 35 and below, married and being at or above secondary

level of education were found to positively influence the WLHAs intention to fall pregnant. Those who were younger, married and more educated were more likely to want to have another child. The education level of the WLHA's husband and occupation of the WLHA seemed not to affect their intention to fall pregnant. Whether the WLHA lived with their in laws or not also surprisingly did not seem to affect whether they intended to have a child or not.

Table 7: Obstetric factors associated with the intention to fall pregnant in WLHA attending OI/ART at Murambinda Hospital, 2010

OBSTETRIC FACTORS :	Frequency of WLHA intending to have a child (Total N=166)	Frequency of WLHA not intending to have a child (Total N=255)	PREVALENCE ODDS RATIO	95% Confidence Interval
Any previous pregnancies that did not survive - Yes - No	63 (38.0) 103(62.1)	108 (42.4) 147 (57.6)	1.26	0.83-1.92
PMTCT – pregnancy status - Yes - No	27 (16.3) 139 (83.7)	11 (4.3) 244 (95.7)	4.57	2.19-9.51*
Parity Less than 4 4 or greater	37 (22.3) 129 (77.7)	130 (51.0) 125 (49.0)	2.72	1.75-4.22*
Spousal influence - Yes - No	121 (72.9) 45 (27.1)	223 (83.8) 32 (12.3)	1.74	1.01-3.03*
Was on Family planning before diagnosis - Yes - No	130 (78.3) 36 (21.7)	224 (87.8) 31 (12.2)	0.50	0.30-0.84*

* Indicates statistical significance

Table 7 above shows obstetric variables researched for association with the intention of the WLHA to fall pregnant. Those who were presently pregnant, had a parity of less than 4, and

having their spouse influencing their intention to fall pregnant, positively influenced a WLHAs decision to fall pregnant. Being on family planning before diagnosis negatively influenced a WLHAs intention to fall pregnant. Surprisingly however, having previously experienced a pregnancy that did not carry to full term or having previously experienced a foetal death seemed not to affect the WLHA's decision to fall pregnant.

Table 8: Treatment factors associated with the intention to fall pregnant in WLHA attending OI/ART at Murambinda Hospital, 2010

TREATMENT FACTORS :	Frequency of WLHA intending to have a child (Total N=166)	Frequency of WLHA not intending to have a child (Total N=255)	PREVALENCE ODDS RATIO	95% Confidence Interval
On ART – Yes - No	116 (72.5) 44 (27.5)	199 (79.6) 51 (20.4)	0.68	0.43-1.07
Time on ART<12 months - Yes - No	20 (7.5) 156 (94.0)	41 (16.1) 214 (83.9)	0.85	0.48-1.48
Past history of prophylaxis – Yes - No	109 (65.7) 57 (34.3)	51 204	1.32	0.89-1.97
Self HIV disclosure - Yes - No	163 (98.2) 3 (1.8)	250 (98.0) 5 (2.0)	1.07	0.25-4.54
Partner HIV disclosure	68 (81.0) 16 (19.0)	107 (87.7) 15 (12.3)	0.50	0.27-0.87*
Knowledge of dual protect - yes - No	156 (93.4) 10 (6.6)	232 (87.2) 23 (8.6)	1.15	0.55- 2.41

* Indicates statistical significance

Table 8 above shows researched factors associated with treatment for HIV that were associated with the WLHA's intention to fall pregnant. The only factor with statistical significance was that of partner HIV disclosure. Those women whose partners disclosed their HIV status to them were less likely to intend to have more children. The time spent on ART seemed not to affect the intention of WLHA's to have a baby and neither did being previously on prophylaxis which was being a PMTCT graduate. The disclosure of the WLHA's HIV positive status to ones husband and the knowledge of dual protection also did not significantly affect the WLHA's intention to fall pregnant.

Table 9: Treatment factors associated with the intention to fall pregnant in WLHA attending OI/ART at Murambinda Hospital, 2010 (continued)

TREATMENT FACTORS:	Frequency of WLHA intending to have a child (Total N=166)	Frequency of WLHA not intending to have a child (Total N=255)	ODDS RATIO	95% Confidence Interval
Community approval - Yes - No	50 116	14 (5.5) 241 (94.5)	7.75	4.11-14.61*
Being in a support group - Yes - No	56 (33.7) 110 (66.3)	116 (45.5) 139 (54.5)	0.62	0.40-0.91*
Adequate Counselling session - Yes - No	146 (88.0) 20 (12.0)	232 (91.0) 23 (9.0)	0.72	0.38-1.36
Private Counselling environment - Yes - No	159 (95.8) 7 (4.2)	245 (96.1) 10 (3.9)	0.92	0.35-2.49
Positive Treatment by health worker/ counsellor – yes - No	164 (98.8) 2 (1.2)	253 (99.2) 2 (0.8)	0.66	0.09-4.67

* Indicates statistical significance

Table 9 above shows further researched factors associated with treatment for HIV that were associated with the WLHA's intention to fall pregnant. Believing in the need for community

approval on one's intention to fall pregnant and being in a support group for HIV positive women were the most significantly and interestingly associated with intention to fall pregnant. However having adequate counselling, being counselled in a private environment and being treated well by the health worker seemed not to significantly affect the WLHA's intention to fall pregnant.

Thinking that the community approves the intention of the woman to have a child showed the highest prevalence odds ratio of 7.75 of all the independent variables researched, showing it to possibly be the greatest influence on the intention of a WLHA to have a child. The next greatest influencers on the intention to fall pregnant were being pregnant presently with the knowledge of PMTCT and being of age below 36 years of age which had prevalence odds ratios of 4.57 and 4.45 respectively.

Stratified analysis was conducted, stratifying for age followed by forward and backward stepwise logistic regression to control for confounding and effect modification. The result of this further analysis showing the calculated adjusted Odds Ratios (aOR) was as follows;

Table 10: Independent determinants of intention to fall pregnant

Term	aO R	95% CI	P-Value
Being aged less than 36	2.15	2.02-2.98	0.00
Parity of less than 4	1.82	1.10-3.02	0.00
Community approval	6.18	5.75-6.39	0.02

From table 10 above the independent determinants of intention to fall pregnant were being aged less than 36, having a parity of less than 4 and believing that the community approves the intention to fall pregnant.

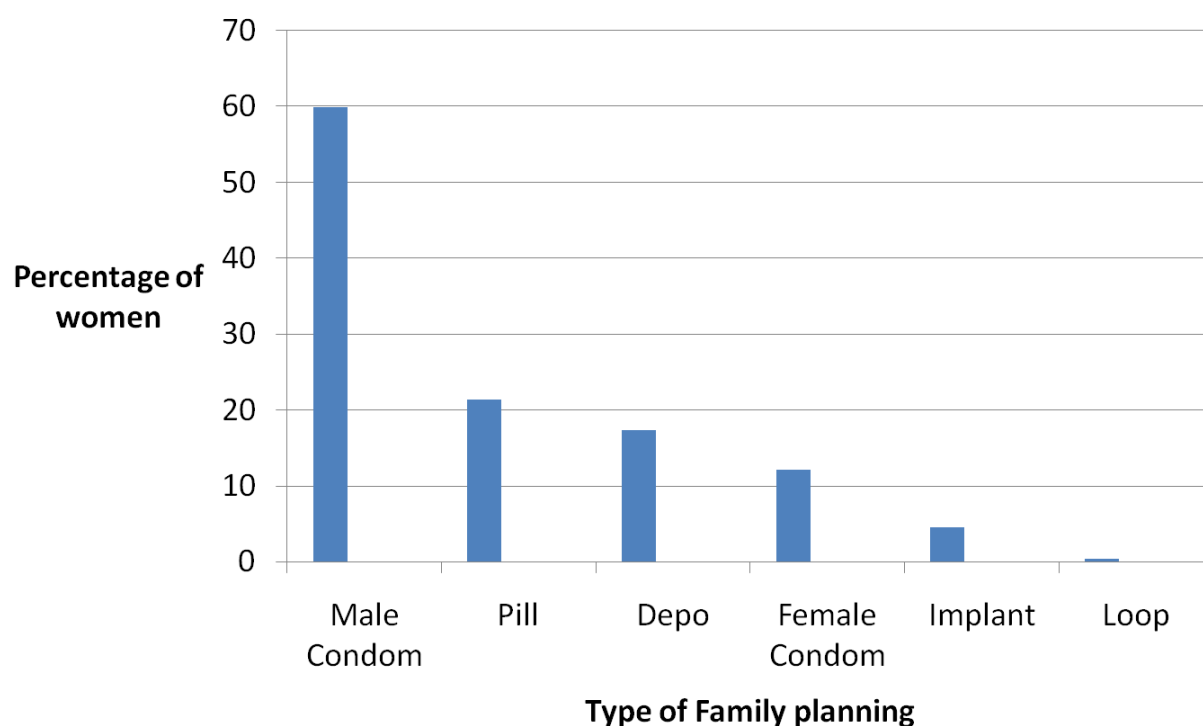
TABLE 11: Knowledge of family planning methods among WLHA attending OI/ART at Murambinda Hospital, 2010

Knowledge of family planning by WLHA	Adequate n (%)	Inadequate n(%)
Proportion of those who are intending on falling pregnant N (%)	154 (36.57)	12 (2.85)
Proportion of those who are not intending on falling pregnant (%)	234 (55.81)	21 (4.99)

For both those intending and not intending to fall pregnant the majority (388 out of 421 or 92.2% of WLHA) of women had adequate knowledge of family planning and its use. Adequate family planning was measured as those who mentioned at least 2 types of family planning constituting dual protection.

Contraceptive prevalence rate (using at least one type of family planning) was = **78.9%**.

FIG 2: Family planning methods used by WLHA attending OI/ART at Murambinda Hospital, 2010



The male condom (approximately 60% use it) is the most popular method of contraception followed by the pill and depo with each having 20% WLHA using it.

TABLE 12: Accessibility of family planning commodities and appropriate family planning advice by WLHA attending OI/ART at Murambinda Hospital, 2010

Difficulty of access	Frequency N (%)
No Problems	368 (96.3)
Experience Problems	14 (3.7)

Most of the WLHA (368 out of 421 or 87.7%) had no problems accessing family planning commodities.

Health workers attitudes and behaviours to pregnancy and reproductive issues in WLHA;

Almost all the interviewed women (99%) believed that the health workers had a good helpful attitude towards them and their pregnancy planning intentions. Only a small fraction (1%) felt that the health workers had a negative attitude and made them feel uncomfortable.

Of the 10 family planning counselling sessions observed in the post test counselling unit of the hospital, all of them (100%) were held by experienced counsellors and in a private setting. The patients were all given the opportunity to ask questions and seek clarity. All the counsellors taught on dual protection and gave demonstrations of use of contraception on models. Counselling took on average 30 minutes. Counselling sessions in the OI/ART clinics were all shorter and more summarised than that of post test counselling. These ones were on average 10 minutes. Counsellors interviewed for background information revealed that they were all trained in family planning counselling and had a standard approach to counselling WLHA on family planning which was observed in the counselling sessions.

Pharmacy stock cards revealed that over the whole of 2009, there were no stock outs in the control pill (a combined oegesternone and progesterone pill), secure pill (one combined pill used during breastfeeding, depo hormonal injection, male and female condoms. The jabelle and loop (IUD) were always available but special request according to hospital regulations.

RESULTS OF THE STATISTICAL ANALYSIS OF THE HEALTH BELIEF MODEL (HBM)

The purpose of the HBM was to investigate the factors influencing the WLHA's intention to fall pregnant by using the factors that constitute the HBM namely;

Perceived susceptibility – does the WLHA perceive she is susceptible to any problems to her or her baby if she intends to fall pregnant without planning

Perceived severity – how serious would the consequences be if she falls pregnant without planning / unintentionally

Perceived barriers – how difficult it is to fall pregnant intentionally appropriately plan for a pregnancy

Perceived benefits – what the advantages of falling pregnant intentionally (with planning)

Cues to action – what strategies available to help her fall pregnant intentionally with adequate planning

TABLE 13: Significance of the 5 constructs of the Health Belief Model in those WLHA attending OI/ART who intend to fall pregnant.

Construct	Frequency of WLHA intending to have a child (Total N=166)	Frequency of WLHA not intending to have a child (Total N=255)	O.R	C.I
Perceived susceptibility	162	77	2.00	0.63-6.31
Perceived severity	164	155	0.97	0.16-5.91
Perceived benefits	161	49	0.25	0.04-1.32
Perceived barriers	31	79	1.35	0.81-2.28
Cues to action	159	83	0.54	0.18-1.65

For every construct of the HBM there were certain statements to which the study participant had to respond either

- Strongly Agree (Scored 5)
- Agree (Scored 4)
- Undecided (Scored 3)
- Disagreed (Scored 2)
- Strongly disagreed (Scored 1)

Of those WLHA that were intending to have a child (N=166) and those who were not intending to have a child (N=255) the number who strongly agreed were noted and summated

for each construct and tabulated as shown in table above. All the constructs of the health belief model tested were statistically insignificant even after logistic regression using STATA version 10.1.

Overall average tendencies are shown as well; the highest tendency which would show the greatest influence on prediction of health behaviour ie intention to fall pregnant is 5 and the lowest would be 1. If the participant answered mostly strongly agree which was given a score of 5 the scores averages would tend towards 5. The same would apply for agreeing at a score tending towards 4, undecided- tending towards 3, disagree tending towards 2 and strongly disagree tending towards 1. The higher the tendency or direction, the more respondents agreed with components of that construct and the more likely the construct was to predict or affect intention to fall pregnant. The lower the tendency, the less the respondents agreed with the statements being asked.³⁹ The average score for each construct was calculated from all the 421 study participants and these are shown below.

Table 14: The tendency of responses of the Health Belief Model.

Construct	Tendency of data
Perceived susceptibility	3.96
Perceived severity	4.21
Perceived benefits	4.30
Perceived barriers	1.98
Cues to action	4.54

The construct that was the greatest predictor to intention to fall pregnant was that of **cues to action** where an environment is created for the WLHA whereby the intention to fall pregnant is properly guided and facilitated. According to the questionnaire the following are cues to action which were the greatest predictor to the intention to fall pregnant;

- An encouraging and educated husband
- Supportive in laws
- Being given family planning information at every clinic presentation
- Being offered medium or long term family planning soon after giving birth and
- Being given adequate education
- Hearing about family planning on the radio
- Reading about family planning in the newspaper
- Reading about family planning on posters
- Being taught about family planning in the clinic
- Receiving IEC materials on family planning

The construct that was the least predictor to intention to fall pregnant was that of **perceived barriers** where the WLHA perceives there to be certain hindrances in her environment to the proper guiding and facilitation of the intention to fall pregnant. Since the perceived barriers were the least predictor to intention to fall pregnant, it shows that the WLHA tended not to be affected by perceived barriers in their intention to fall pregnant. According to the

questionnaire, the following were some of the perceived barriers which were the lowest predictors to intention to fall pregnant;

- A demand for more children from their husbands
- A need to have a boy child for issues of inheritance
- A need to have a big family because the husband or religion demands big families
- A fear of going against a husbands wishes with regards to family planning
- A fear of being disowned by the husband or in laws
- A lack of access to the family planning commodities
- A dislike of family planning because of what it does to the body
- Pressure to have another child after giving birth to an HIV negative one

These findings are consistent with the statistically significant prevalence Odds Ratios and aOR mentioned previously.

CHAPTER 6: DISCUSSION

Several factors were shown to be associated with intention to fall pregnant in WLHA attending the OI/ART clinic in Murambinda. The factors can be classified into demographic, obstetric, HIV treatment, family planning factors and the theory of the HBM. The response rate to the study was very high (97.9%) showing a general interest in taking part in the study. Community mobilisation regarding HIV has been extensive and this has resulted in the increased freedom with which many PLWHA particularly WLHA share information about themselves. Only 9 WLHA declined to be interviewed.

The youngest age of WLHA interviewed was 19 years old. Those younger than that were probably at school or not yet presenting at OI/ART clinics. Those aged below 36 years, were 4 times as likely to intend to fall pregnant again as compared with those that are aged 36 and above. There was a general notion in many communities that women should bear children by age 35. It is considered that from this age onwards, the likelihood of giving birth to an ‘abnormal’ child is high.⁴⁰ Within this Murambinda community, this was the case and most of the women wanting to fall pregnant again were below the age of 36 and therefore still felt they needed to have more children. Often this is the same group that is getting married and because culturally a marriage seems more solidified especially after the husband pays lobola, when a child is born. From this study, this was the case as those who were married were found to be about twice as likely to intend to fall pregnant as those who were not married group. This is consistent with in studies in Kenya and other east African countries where WLHA who are married are more likely to intend to have a child.^{3, 14} Therefore the most important age group to give pregnancy planning and family planning advice and information would be in this kind of setting would be the aged nineteen to thirty – five years group. This is the group that would most likely be planning to fall pregnant and would need support to

facilitate whatever decision they would decide to make. Another possibly useful avenue to explore would be to incorporate pregnancy planning into pre marital counselling since most pregnancies are associated with marriage. This could be facilitated through churches and formal counselling centres as almost all of the WLHA belonged to a religious denomination or sect as is the case with the general Zimbabwean population.³² Furthermore pregnancy planning advice should be given as an integral part of pre or post test counselling at all HIV counselling and testing centres.

A factor influencing the intention to fall pregnant in WLHA that is closely linked with being married is that of spousal influence. Those women who answered the fact that their husband was the most influential in their decision as a couple to fall pregnant were twice as likely to also answer that they planned to have another child. From the focus group discussions the underlying common denominator to most of the factors influencing the intention to fall pregnant was that of spousal influence. Some women even recounted stories of the fact that their husbands would damage the condom or put the pill near heat to deactivate in the hope that their wives would fall pregnant. On talking to some of the health workers about this, from their experience, the men there wanted to have many children especially to inherit their name. It is also reported that the men who often are in denial, refuse to make any thought out decisions regarding intention to fall pregnant based on possible transmission of HIV to their child. This is also consistent with another finding of this study of partner disclosure. It is interesting to note that where the husband had been tested and disclosed the status to the wife, the likelihood of her deciding to have another child decreased. This may be due to the fact that where a husband has been found to be cooperative enough to be tested for HIV, and be communicating well enough with his wife to disclose his status to her and possibly get onto ART; speculatively he would be more empathetic towards his wife and not force her to have a child. Also one could speculate that once denial is overcome and testing is done especially

of the husband then the counselling and education given to the one that is tested may be effective enough to make the husband see that pregnancy needs to be planned properly and an intention to fall pregnant must be well thought out. These study findings regarding the spouse show us that the husband is a key player in the avoidance of unplanned pregnancies and in planning families well. Therefore RSH clinics need to have a department dedicated to counselling men as the major influencers in women falling pregnant. Support groups for men to tackle such issues would probably be useful as well as men may express themselves more freely in an environment where there are no women.²³

Another factor related to spousal influence is parity. The number of children that the WLHA wanted seemed to be above 4. According to the demographic health survey, the national average parity per family is 3.8 being over 4 in the rural areas and being less than 3 in the urban areas.³² In statements agreed with in the health belief model and the focus group discussions it came out that some husbands wanted big families of families of at least 4 so the wives had no choice but to give birth to them. It is therefore clearly seen through this study that those WLHA that want to fall pregnant again are significantly in the group with parity less than 4. It was also seen that those who were pregnant at the time of the interview with the knowledge of PMTCT were also most likely to want to fall pregnant again and have another baby. This may often be caused by the fact that some WLHA and their husbands become grateful for the opportunity of parenthood again because of return of their fertility because of ART and the high chance and teaching that the baby can turn out negative through PMTCT. This is similar to a Brazilian study where desire for parenthood influenced a WLHAs desire to fall pregnant.¹⁷ This desire to be a parent still needs to be guided appropriately through appropriate counselling and education for the best health outcomes for the mother and the baby.

It was also found that the higher the level of education a WLHA had, the more likely she was to want to have another child. This was an unusual finding in that often the better educated women in Zimbabwe, from secondary level of education and above are likely to have smaller families.³² A possible explanation is the fact that, the well educated women are the ones who will understand the teachings on PMTCT and therefore even if they have an HIV positive status, will know that if they attend ANC early, the chance that their baby will turn out HIV negative is a real one.

Murambinda seemed to be a community that has extensive community interactions and influential social groups. The people there appear to genuinely “look out for and take care of” each other. However this may be particular to the HIV positive community where support groups are very strong and almost constitute a political movement with their strong opinions. It has a number of Non-Governmental Organisations (NGOs) working in it, doing community mobilisation, approval and training peer health educators in HIV/AIDS. In the past 28 years that the AIDS pandemic has been in existence, community members have watched their neighbours and family die due to HIV/AIDS. Moreover, women interviewed for the study expressed the fact that they were ‘tired’ of seeing their community members die due to HIV and AIDS particularly the women during pregnancy and child birth. Because of the high AIDS orphan burden in the community and the grief shared by many when someone dies, the community has decided to take a leading role in ensuring that WLHA do not fall pregnant unintentionally, and that when they do fall pregnant, they do so after planning well with regard to their health and also planning well with regard to the ability to financially and emotionally support the child in the future.

Support groups have been formed and within these groups, women are encouraged to make wise decisions regarding their health and childbearing. Support groups have been found to be a positive influence on the general emotional psychosocial and physical health needs of HIV positive women in the UK as well as in Zimbabwe.^{41, 42} Support groups have also been found to empower the woman where skills training happens to be able to create wares for sale for example.⁴² From the level of positive influence that these support groups have, WLHA countrywide need to be encouraged to become a part of one.

The present Maternal Mortality Rate (MMR) is 775 out of 100 000 live births. This translates to one woman dying out of every 138 live births and 25.5% of these deaths are related to AIDS defining conditions making HIV the leading cause of death.⁴³ Women in rural Zimbabwe although many not formally educated about this have themselves noticed the number of HIV positive women dying in the community during pregnancy, childbirth and soon after delivery. They have seen that pregnancy and childbirth by themselves pose a risk on the life of a woman and with HIV added to the situation to complicate it, the risk of poor pregnancy outcomes is even worse.⁴³

On the contrary literature from research conducted outside Africa, where long term pregnancy outcomes are compared between WLHA and those who are HIV negative, reveal that there is no difference between these two groups in well resourced settings. In such research all medical care and supplies that are required for a positive outcome of pregnancy are easily available including complex procedures like sperm washing.²⁴

Consistent use of family planning before diagnosis is another factor that decreased the likelihood of intending to fall pregnant. The contraceptive prevalence rate for this study was found to be at 78.9 % showing that most of the WLHA sampled were using at least one form of contraception. This is higher than the estimated contraceptive prevalence rate in Zimbabwe which is 60. 2%. This high contraceptive rate may be the result of extensive counselling and community mobilisation regarding family planning. However there is still a small percentage of 14.6 % (one in seven) of the women interviewed who said that their last pregnancy was unintentional. This figure may indicate for us the unmet need of contraception in WLHA. This figure is higher than that estimated for the whole country in the ZDHS which states that there is an unmet need for contraception of 12.5% (one in eight pregnancies). This is of importance because of the fact that when there is an unmet need for contraception in WLHA, there is a chance of an increase in the number of children that are born positive which is against MDG 6 which is to decrease HIV incidence and prevalence.⁶

The most commonly used method was the condom followed by the pill. The women who were using family planning consistently before their diagnosis are more likely to continue to do so after their diagnosis. Also a woman who takes contraception probably is well planned and well organised and may have realised some problems with having another child so was unlikely to want to fall pregnant again and furthermore, was unlikely to have an unintentional pregnancy. According to discussions with some of the study participants, coming up with strategies to increase contraceptive uptake would therefore be a useful contribution to reducing poorly planned or unintended pregnancies.^{20, 36}

The Health Belief model was used to elucidate the behavioural factors influencing the WLHA's intention to fall pregnant by using the factors that constitute the HBM. It was found that perceived barriers to intention to fall pregnant which include lack of access to family planning and high cost of family planning commodities do not influence a WLHA's intention to have a child, whereas cues to action which include IEC materials with family planning messages, radio and TV adverts with family planning messages and spousal and community support most positively influenced behaviour change in the intention to plan a pregnancy. Therefore, public health actions can be constructed knowing that behaviour change is most likely to come if cues to action are used. These include the use of television, radio, newspapers, influential community members and spouses to lead the community messages encouraging the avoidance of unintentional pregnancies and promoting the proper planning of pregnancies. The results of the tendencies or direction of the data also show us that there seem to be few barriers to health behaviour change. WLHA do not see factors like lack of access to health facilities, lack or high cost of family planning commodities as those that would prevent them from either using family planning or planning their pregnancy well. This may be due to the fact that at this particular district hospital, all family planning commodities except Jadelle were available free of charge. This is similar in some aspects to an American study that found that the likelihood of contraceptive uptake had cues to action as one of the strongest predictors to intention to fall pregnant³¹ Although the Health Belief Model construct results were all statistically insignificant, the tendencies give some idea as to which construct is most likely to influence the intention to fall pregnant.

Therefore the study demonstrates that a WLHA who is below age 36, married, in secondary school or above and has her husband being the most influence in her life needs to be advised accordingly regarding the preparing for children in the future because she is most likely to be

intending to have another child. Husbands who are married to these WLHA of reproductive age need also to be well counselled to increase their testing with their partner and be encouraged to 'soberly' make a decision about falling pregnant.

CHAPTER 7: CONCLUSION, STUDY LIMITATIONS AND RECOMMENDATIONS

7.1 Conclusion

Being married, being aged below 36 years, being of secondary education and above, having parity of less than 4, spousal influence, believing community approves decision to fall pregnant increased the likelihood of the intention to fall pregnant. Partner disclosure, consistent use of family planning and belonging to a support group decreased the likelihood of the intention to fall pregnant.

7.2 Study Limitations

- Prestige bias could have caused some of the study participants to answer according to what they thought was what I wanted to hear as an interviewer. This is definite possibility in this community where research tends to occur regularly. Some questions that I asked may have also been heard a number of times before and they would also simply answer as they had answered before possibly without truly reporting the most correct response to the question being asked.
- Cronbach's alpha and internal consistency item correlation would need to be done in order to verify the interconstruct and intra construct validity of the Health Belief Model. This however was beyond the scope of my study and therefore interconstruct and intra construct validity could not be ascertained.
- Most of the WLHA who participated in my study were unemployed. The way the research was structured with data collection happening mainly on weekdays and during working hours over two months meant that perhaps data from employed

WLHA could not have been collected. These employed women perhaps came to the clinic less frequently or other times tailored to their needs. This particular group of women could have provided a different aspect to the research findings ascertained.

- The 15-18 year reproductive age group was unintentionally excluded from the study. None of the study participants interviewed were of this age. The research was done whilst school was open so if these WLHA of this age group existed, they could not be captured during this study because they would have been in school during the data collection period. This group could have also given an additional aspect to the research findings.
- Of the nine study participants that were approached for the study but could not complete it, the reasons they gave were all related to time as this was a fairly long interview, making them spend more time at the hospital than they may perhaps have liked to. These WLHA could not participate because they were either tired, feeling unwell or had to go home to take care of their children. These nine women could have made a valuable contribution to the research findings.
- Factors researched may be specific to WLHA with a different health seeking behaviour to those in the general community who do not present at the OI/ART clinic which was the study setting. A community based study however was not possible due to financial constraints.

7.3 Recommendations;

- To increase IEC materials available at clinics and hospitals and to improve community reproductive education on TV, radio, printed media and posters to encourage all sexually active women to use contraception and for those who are HIV positive to seek adequate counselling before intending to fall pregnant. (DHIO, DNO)
- To employ more counsellors working in primary health care in order to ensure comprehensive pre test and post test counselling to every woman that needs it. (DHA)
- To include in the post-test counselling content of WLHA and continuous counselling for women attending OI/ART clinics, the encouragement to attend support groups for both women of the younger age group (below age 36) and the older age group (age 36 and above) making the counselling sessions age specific. (OPHID programme coordinators and District PMTCT programme coordinators, DNO)
- To initiate, where they are not already in existence, male support groups in the community for men living with HIV and AIDS and train more male peer educators to educate other men on the importance of HIV testing with their wives, disclosure, family planning, issues regarding HIV and pregnancy, and the attendance of ANC with their wives. (District PMTCT programme coordinators)
- To use community mobilisation, to educate the community correctly about the complications that may arise before, during and after pregnancy in WLHA so they can be influenced to plan accordingly by the community. (District PMTCT programme coordinators)
- To incorporate pregnancy planning into premarital counselling since most pregnancies are associated with marriage as is to be expected. This could be

facilitated through churches, certain community organisations and formal counselling centres. Furthermore pregnancy planning advice should be given as an integral part of pre or post test counselling at all HIV counselling and testing centres.

- **Public Health Actions so far** - Social mobilisation by OPHID peer male educator; encouraging men living with HIV attending OI/ART clinics to attend the men's support groups. The number of male support groups and the number of men attending them is on the rise.⁹

CHAPTER 8: ANNEXES

Annexe 1:

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Annex 2 Questionnaires and guides

FOCUS GROUP DISCUSSION GUIDE FOR WLHA

1. What is family planning? What is its use? *Kuronga muri chii? Imimi munofunga kuti Family planning chii? Inoshandisirwei?*
2. What are your preferred types of family planning? *Ndeipi nzira dzekuronga muri dzamunoziva? Ndedzipi nzira dziri nani?*
3. What are the benefits of family planning? *Kuronga muri kunobatsirei?*
4. What do you think are the challenges /disadvantages of family planning? *Matambudziko enyu pakuronga muuri ndechii?*
5. What are your feelings about having children now or in the near future? Would you like to have a baby? *Munonzva sei panyaya yekuita vana iyezvinezvi kanakuti makore anoteera?*
6. What are your fears and concerns about falling pregnant? *Zvi zvamunotyaka kanakuti zvinokunetsa panyaya yekuita mwana?*
7. What is helping you decide whether or not to have a baby in the future? *Chi chinokubatsirai kuti mugone kusarudza kuita mwana kana kusaita mwana?*
8. Would you discuss your pregnancy or family planning plans with anyone? If so who? If not why not? *Pane pamuno kurukura napo panyaya yekuita mwana kanakuti kuronga muri? Ndiani?*
9. Do you need partner approval to go ahead with these plans of pregnancy planning or contraception? *Munofanirwa kupiwa mvumo nemurume wenyu here panyaya dzekuita vana?*
10. a) What do you think about women falling pregnant knowing they are HIV positive? b)Should they have babies? c)Explain your answer. *Munofungei nemadzimai vanoita pamuviri ivo vane chirwere che utachiona? Vano fanirwa kuita vana? Tsanangurirai?*
11. a)Did you ever discover you were pregnant and it was not your intention? b)How did this happen? c) Why were you not intending to fall pregnant? *Makamboerekana muripamuviri musina kuzvironga? Zvakamboitika sei?Sei musina kuzvironga? Mamusingadi mwana?*
12. Do you feel you are getting adequate information from health centres regarding Family Planning? *Murikuwana ruzivo rakakwana panyanya yekuronga muri?*
13. What kind of information are you getting? *Murikuwana ruzivo rupi?*
14. Did you feel free to ask questions? *Mainzva kusununguka here pamaidzidziswa pekuronga muri?*

15. Are the family planning commodities/ methods always available? Have you ever not found them? *Zvekurongesa muuri zvinogara zvinowanikwa nguvadzese here? Mambodzishaya here?*
16. What do you suggest should be done to improve Family Planning services to WLHA? *Chichamunofunga chingaitwa kugadziridza zvekuronga muri kwemadzimai anorarama neutachiona we HIV?*

INTERVIEW GUIDE FOR HEALTHWORKERS INVOLVED WITH WLHA

1. What do you think about a WLHA falling pregnant knowing her HIV status?
2. What are your fears and concerns regarding this
3. How do you best respond to them when they express that they want to have a child?
4. Why do you think WLHA fall pregnant without doing any previous pregnancy planning?
5. When would you start Family Planning counselling for WLHA?
6. Why do you think WLHA may not use contraception?
7. How can they be assisted to use contraception more or know about contraception more?
8. How can WLHA reduce unintended pregnancies?
9. Do you regularly refer women for family planning counselling?
10. How often and where to?
11. Are these people you are referring the WLHA to, qualified in FP counselling?
12. Do you sometimes run out of FP commodities stock?
13. How do you ensure that you always have FP stock commodities?
14. How can health care workers improve the FP needs of WLHA?

Questionnaire: FACTORS ASSOCIATED WITH INTENTION TO FALL PREGNANT IN WLHA ATTENDING OI/ART CLINICS IN MURAMBINDA, BUHERA

Questionnaire No.....

Date:.....

Good morning/afternoon. My name is Mandy Sibanda. I am a Public Health officer with the University of Zimbabwe conducting an Assessment of the factors contributing to HIV positive women in Buhera planning their pregnancies. All data collected will be treated with confidentiality and privacy. Anonymity will be maintained. The findings will be used to make recommendations for interventions to resolve any challenges highlighted from this study. Data collected from this study will be stored under secure lock and no one will have access to it except myself. If you have any queries please contact the MPH co-ordinators on 04-791631 or the programme coordinators on 04-797350 OPHID TRUST

Do you voluntarily/freely agree to participate?

.....Yes/No

Signed by the Participant.....(PLEASE DO NOT WRITE YOUR NAME)

Parental/Guardian consent if necessary.....

Signed by the Interviewer.....

SECTION 1: DEMOGRAPHIC CHARACTERISTICS

1. Age_____ (mune makore mangani?)
2. Residence_____ (munogara kupi?)
3. Marital Status
 - a) Single – Never Married (hamusati marorwa here?)
 - b) Married (makarorwa)/Divorced/ Separated/ Widowed (makambororwa mukarambana? Hamusi mese nemurume wenyu? Murume wenyu akafa?)
4. Religion (chitendero chenyu ndechipi?)
 - a) Apostolic (state which) b) Pentecostal c) Roman Catholic d) Other, specify_____
5. Level of Education (makadzidza kusvika pachinhanho chipi?)
 - a) None b) Primary-grade____ c)Secondary-form____ d) Tertiary

6. Occupation (munoita basa rei/ munoshanda here?)
- a) Student (murikudzidza pachikoro) b) Unemployed (hamusevenzi)
 c) Informal Employment (specify salary) US\$_____ d) Formal Employment
 (specify salary) US\$_____ (munotambira marii?)

IF NOT MARRIED GO TO QUESTION 12

7. a) Age of Husband _____ (murumewenyu ane makore mangani?)
- b) What is the nature of your relationship with your husband (good-open/ bad-can't discuss certain issues openly) (munogona here kutaura nyaya dzakasiyana-siyana pasina kuwandirana?)
8. Level of Education of husband (murume wenyu akadzidza kusvika papi?)
- a) None b) Primary c) Secondary d) Tertiary

9. Occupation of husband (murume wenyu anoita basa rei)

a) Student b) Unemployed c) Informal Employment (specify monthly salary) US\$_____

d) Formal Employment (specify salary) US\$_____ (anopiwa marii)

10. Does your husband have any other wives besides yourself? (murume wenyu anevamwe vakadzi kunze kwenyu) Yes/ No

11. Are you free to do as you wish with your money? (munoita zvamunoda nemari yamunopiwa kubasa) Yes/No

12. a) Which relatives/ people are you living with? (munogara nehamadzipi?) _____

b) What is the nature of your relationship with them? Good, positive influence/bad-negative influence (hukama hwenyu hwakaita sei nehama dzamunogara nadzo?)

c) Are you in a support group? (Urimu support group here?) Yes/ No _____ if yes, since when (watanga rini kuenda kuma support groups?) _____

SECTION 2: PAST OBSTETRIC HISTORY

13. Number of living children (munevana vapenyu vangani) _____

14. Ages of living children (vane makore mangani?) _____

15. Any other pregnancies/children that did not survive (include still births/ miscarriages etc) (mune vana vamakaita here vakafa pakuzvarurwa?)

Number _____

16. Number of children tested (vangani vana venyu vakanovhekwa ropa?) _____

Number HIV positive (vangani vabatwa neutachiona) _____

17. Are you pregnant now? (munepamuviri ikozvino here?)

Yes/No _____

18. Have you previously had a baby on PMTCT? (makamboita umwe mwana pa PMTCT here?) Yes/ No _____

19. At your last (or present) pregnancy if applicable, did you access ante-natal care? (panhumbu yenyu yekupedzisira maienda ku ANC/scale here? Yes/No

a) If yes- when did you access antenatal care (specify week of pregnancy and **where** you went) (maienda kupi uye makanyoresa mava nemwedzi mingani?)

b) If no, why not? _____

c) Were you already aware of your HIV status? (maiziva here kuti muneutachiona?)

d) Was your pregnancy intentional or not? (pamuviri apa pakauya muchida here kanakuti kwete?) _____

e) Did you do anything else to prepare for your pregnancy? (explain-PMTCT/ counselling/change in medication/ iron etc) (pane zvamakaita here kugadzirira pamuviri apa?)

20. Have you decided you want to be pregnant again in the near future? (parizvino, makaronga kuti muchaziota pamwe pamuviri munguva inotevera)

Yes/No _____

21. If not, why not? (specify) (kana musingadi sei musingadi?)

THEN GO TO QUESTION 25

22. If yes- a) why? (kana muchida, sei muchida?)

b) What/Who are/were the greatest influences on your decision to have a child? (self/ husband/ in laws/ relatives/ other) (ndiani akakukonzera kuti muite nhumbu kana kusaita)

c) What do you think is your community's view on you having a child?(munofunga kuti vanhu vemu nharaunda vanoti chii nokuita kweny vamwe vana?)

23. If you have decided on having a child, what precautions will you take on preventing HIV transmission to your unborn child?(Kana mukaronga kuita umwe mwana muchaita sei kuti mwana iyeye asabata utachiona hwe HIV?) (6 months exclusive breastfeeding/ formula feeding after that/ check CD4 count first/ check fitness for pregnancy)

24. If you have decided on having a child in the future will you be accessing antenatal care? (Kana mukaronga kuita mwana muchaenda kuscale here?) Yes/No _____

a) If you will not be accessing ANC, why not? (Kana musingadi, sei musingaendi?)_____

b) Where do you prefer to deliver? At home? In a health institution and why? (Mungada kuzo sunungukira kupi? Kumba here kanakuchipatara? Sei masarudza izvozvo?)_____

25. How did the answers to the questions above in this section influence your decisions about family planning? (Davidzo dzemivunzo dziripamusoro zvine chekuita here nezvamuri kuita pa Family planning?)_____

SECTION 3: HIV MEDICAL HISTORY

26. Where were you diagnosed HIV positive? Ndekupi kwamakaudzwa kuti munehutachiona)_____ (VCT/PMTCT/referred for medical reasons)

27. Have you disclosed your status to anyone? (pane wawakabudira pachena kuti unehutachiona here?) Yes/No

28. If yes, to who?(kana waka budira pachena, wakaudza ani? Murume/ vana/ vabereki/ hadzvadzi) (husband/ children/ parents/ sister/ aunt/ other relatives/ healthworkers) other_____

29. If no, why not? (kana usina kuudza munhu sei usina kutaura?)

30. How did the person you disclosed to respond to your HIV result? (munhu wawakaudza akaita sei wamuudza?) (did not believe-havana kuzvitenda/ was supportive-vakandibatsira/ accepted it-vakazvitenda)

IF UNMARRIED GO TO QUESTION 34

31. Has your partner been tested? (ko murume wenyu akaongororwa hutachiona here?)
Yes/No?

32. If yes what was his outcome? (Kana akavhenekwa akawanikwa akamira sei) HIV
POSITIVE/ HIV NEGATIVE

33. If he's not been tested, why not? (kana asina kuvhenekwa sei asina kuongororwa?)

34. What is the present state of yours (and your husband's) health? (Utano hwenyu nemurume wenyu hwakamira sei parizvino?) (feeling well/ feeling strong/ have opportunistic infection)

35. Are you on ART? Yes/No (Muri kunwa maARV here?)

36. If yes, for how long have you been on ART? (makatanga rini? mava nemwedzi mingani muchinwa maARV) (State months) _____ **GO TO QUESTION 38.**

37. If not on ART, why not? (Kana musiri kunwa maARV sei musiri kunwa?)

SECTION 4: KNOWLEDGE ON HIV AND REPRODUCTIVE HEALTH AND FAMILY PLANNING NEEDS

38. Were you using family planning **before** you were diagnosed HIV positive?
(Maishandisa nzira ipi ye family planning musati maonekwa kuti muneutachiona hwe HIV? Sei maishandisa mhando iyoyo?) Yes/No

If **yes** specify which ones below and reasons for your choices

Type: (tick all the ones that you use)

- | | | |
|---|----------------------------|--------------|
| a) Male condom | b) female condom | c) diaphragm |
| d) Pill | e) Depo-hormonal injection | f) IUD/loop |
| g) Natural rhythm method/ periodic abstinence | h) norplant/ Jadelle | |
| i) Breastfeeding/ Lactational amenorrhea j) spermicide foams/ jelly | | |

k) other _____

Reasons for choices,

list other family planning options that you **know** as above but do not use: (taurai dzimwe ndzira dzamunoziva)

39. If you did not use any family planning, why not? Specify (kana musirikushandisa Family planning, sei musina, nyatso tsanangurai)

40. What do you see as the consequences of **not** using family planning? (munofunga kuti chi chinoitika kana musinga shandisi family planning?)– poor health status/ inability to afford child/ unplanned pregnancy/ STI/ re infection/ other _____

41. What do you see as the advantages of accessing ANC and family planning services when one wants to fall pregnant? (munofunga kuti chi chakanakira kushandisa sikero neku kurumidza kushandisa nzira dzekuronga mhuri?) a) health tests b) fitness for pregnancy c) healthy growth of baby d) am I gaining weight e) do not know f) other

42. Are you using family planning now? (pari zvino, murikushandisa mhando ipi yekuronga mhuri? Yes/ No _____ If Yes-Specify which ones below and reasons for your choices (sei makasarudza mhando iyoyo)

Type: (tick all the ones that you use)

a)Male condom
c)diaphragm

b) female condom

d) Pill

e) Depo-hormonal injection

f) IUD/loop

g)Natural rhythm method/ periodic abstinence

h)) norplant/ Jadelle

i)Breastfeeding/ Lactational amenorrhea j)spermicide foams/ jelly

k) other _____

Reasons for choices: (sei makasarudza mhando iyoyo?)

43. Where do you access your family planning method from presently or in the past?
(munowana/maiwana kupi nzira dzekuronga mhuri?)

- a)Community based distributor (CBD) b) Family Health Clinic (Kuchipatara/clinic)
c) Pharmacy (kumapharmacy)
d)Hospital e) Support groups
f)Other,specify_____

44. If you are not using any family planning, why not? Specify (kana musiri kushandisa sei pasina chamunoshandisa)

45. Do you have any challenges with the use of your choice of family planning method?
(Pane chirikunetsai here panezvamurikushandisa pakuronga mhuri?) Yes/No ____if
yes specify

- a)Because of side effects b)I sometimes forget to take it (kukanganwa)
c)My partner does not agree with it (murumewangu haadi)
d)My family does not agree with it (mhuru yangu haidi) e)Other reasons
specify(zvimwe, nyatsotsanangura) _____

46. Do you have any problems accessing family planning and advice from the clinics?
(pane chinokunetsai here pakuwana nzira dzekuronga mhuri yamakarudza nerudzidziso?) Yes/No (specify and elaborate) **TICK If yes, specify which problems you have**

- a) Distance (0-2km, 2-5km, above 5km distance state which) (Kure)
b) Cost (state cost of health service and cost of transport to health care service)
(zvinodhura)
c) Structural environment of health care centre not conducive ie no privacy
(kuchipatara kwacho zvinongoitwa vamwe vachiona, vachinzwa)
d) Health staff not supportive (Vashandi vehutano havanyatsobastire)
e) IEC materials not available if applicable (hakuna zvakanyorwa zvinokurudzira nezvekuronga mhuri)

f) Other reasons, specify

(zvimwe)_____

47. Who influenced your decision on family planning choice? /where did you hear about it from? (ndiani akakukuridzirai zvekuita zvekuronga mhuri/ makazvinzwa kupi_____

48. If you are on ART were you given any counselling that your fertility would change after beginning ART? Yes/No (makandzwa here nevadzidzisi kuti kugona kwenyu kunogona kuchinja? nyatsotsanangura) explain_____

49. Did you receive any counselling on family planning after you began ART? Yes/ No? explain (makawana rudzidziso here panezvekuronga mhuri kubva pamakatanga kunwa maARV?)

50. If yes, what do you remember from the counselling session? List types of family planning methods you were advised and when best to use each (kana maka wana, chii chamurikutondera pachidzidziso ichocho? Dudzirai mhando dzekuronga mhuri dzamakadzidza uye nguva kakakodzera kuishandisa)

51. Was the environment conducive for you to freely talk about your HIV status, sexuality and reproductive needs? (Hazvina here kunetsa kutaura nezveutachiona hwenyu panguva iyoyo?)_____

52. What do you believe are the advantages and disadvantages of the family planning methods you use? Explain.; preparation/ health status, other (chichamutotungira kuti chanakira mhando dzekuronga mhuri?)_____

53. Where do you get this advice from? (who and where) (dzidziso iyi munoiwana kupi?)

54. What do you think can be done to make it better? (chichamunofunga kuti chingaitwe kuti zviite nani?)

55. Did you feel the counselling time was sufficient? Yes/No (Nguva yedzidziso yaiva yakakwana here?)_____

56. Were you given a chance to ask questions/ seek clarity? Yes/ No (makapiwa mukana wekubvunza mivunzo here pane zvamaisaziwa?)_____

57. How did this person counselling you treat you when you expressed your decision to/not to have a child? How did they make you feel? How do you think they could improve on the way they counsel? Did you feel free? (Pamakataurira mudzidzisi wenyu kuti munoda/hamudi kuita mwana wakatichii?)

Treatment:_____

How you
felt_____

Suggestions for improvements: (uye chi chavangaite kuti dzidziso dzavo dziitwe zvakakanaka)

Section 5: ISSUES AFFECTING PREGNANCY PLANNING

Tick in the appropriate box using the scale provided below.

KEY: Strongly agree (SA) = 5 Munobvumirana nazo zvakanyanya

Agree (A) = 4 Munobvumirana nazvo

Undecided (U) = 3 Hamunochokwadi nazvo

Disagree (D) = 2 Hamubvumirane nazvo

Strongly disagree (SD) = 1 Hamubvumirane nazvo zvachose

Variable	Scale				
	5 S A	4 A	3 U	2 D	1 SD
(perceived susceptibility)					
58. HIV positive women desire to have children just like HIV negative women (mai vane utachiona we HIV vanoshuwirai kuita mwana kunge mai asina utachiona)					
59. Women who are HIV positive should receive the same Family planning advice as HIV negative women (Vanamai vane utachiona we HIV vanekodzero yekuwana mazano akafanana nevasina pamusoro penyaya ndekuronga mhuri)					
60. Women who are HIV positive should be able to fall pregnant whenever they feel like doing so. (Vanamai vane utachiona we HIV vanogonao kutakura pamuviri pavanodira)					
61. If I do not use Family Planning consistently, I will get pregnant and my Immune System will deteriorate (Kana ndisingashandise nzira dzekuronga mhuri nduva dzese, ndichaita mumuviri, masoja epamuviri wangu obva adzikira)					
62. If I do not seek advice before falling pregnant, I will get pregnant and my Immune System will deteriorate (Kana ndikarega kutsvaga rudzidziso, ndisati ndava nepamuviri, ndichaita pamuviri, masoja epamuviri wangu obva adzikira)					
63. If I do not use Family Planning consistently, I could be very ill during pregnancy (Kana ndisingashandise nzira dzekuronga mhuri nguva dzese, ndichanyanyisa kurwara pandinenge ndazvitakura)					
64. If I do not seek advice before falling pregnant, I could be very ill during pregnancy (Kana ndikarega kutsvaga rudzidziso ndisaiti ndaita pamuviri, ndichanyanyisa kurwara)					

pandinenge ndazvitakura)					
65. If I do not use Family Planning consistently, I could give birth to an HIV positive child and inherit problems(Kanandisingashandise nzira dzekuronga mhuri nguva dzese, ndinogona kusununguka mwana aneutachiona we HIV, nekuzova nematambudziko nazvo)					
66. If I do not seek advice before falling pregnant, I could give birth to an HIV positive child and inherit problems (Kana ndikarega kutsvaga rudzidziso ndisaiti ndaita pamuviri, ndinogona kusununguka mwana aneutachiona we HIV, nekuzova nematambudziko nazvo)					
67. It is not important to seek advice from a counsellor's advice before deciding to fall pregnant (Hazvina kukosha kutindipangwe mazano nachipanga mazano ndisatindazvitakura)					
68. I do not need any doctor's advice before deciding to fall pregnant (Hazvina kukosha kutindipangwe mazano nachiremba, ndisati ndazvitakura)					
69. I do not need any family planning advice before deciding to fall pregnant (Hazvina kukosha kuwana rudzidziso nezvekuronga mhuri, ndisati ndazvitakura)					
70. I am healthy enough to have another baby if I want as the ARVs are curing me (Ndineutano wakasimba zvekuti ndinogona kuita mwana nekuti arikundirapa/podza)					
(perceived severity)	5 S A	4 A	3 U	2 D	1 SD
71. If I do not seek adequate advice before falling pregnant- I could die during pregnancy (Kana ndikarega kuwana rudzidziso yakazara ndisati ndazvitakura- ndinogona kufa ndinepamuviri)					
72. If I do not seek adequate advice before falling pregnant- I could lose a lot of blood during childbirth (Kana ndikarega kuwana rudzidziso rwakazara ndisati ndazvitakura- ndinogona kurasikirwa neropa rakawanda pandinosununguka)					
73. If I do not seek adequate advice before falling pregnant- I could be very ill during pregnancy (Kana ndikarega kuwana rudzidziso yakazara ndisati ndazvitakura- ndinogona kurwara zvakanyanyisa ndazvitakura)					
74. If I do not seek adequate advice before falling pregnant- I could be very ill during childbirth (Kana ndikarega kuwana rudzidziso yakazara ndisati ndazvitakura- ndinogona kurwara zvakanyanyisa ndirikusununguka)					
75. If I do not seek adequate advice before falling pregnant- I could die during childbirth (Kana ndikarega kuwana rudzidziso yakazara ndisati ndazvitakura-ndinogonakufa ndirikusununguka)					

76. If I do not seek adequate advice before falling pregnant my child could die during childbirth (Kana ndikarega kuwana rudzidziso yakazara ndisati ndazvitakura-mwanawangu anogona kufa ndichimusunguka)					
77. If I do not seek adequate advice before falling pregnant- I could take a long time to heal after childbirth (Kana ndikarega kuwana rudzidziso yakazara ndisati ndazvitakura-ndinogona kutora nguvayakareba ndisati ndapora)					
78. If I do not seek adequate advice before falling pregnant- I could give birth to a sickly HIV positive child (Kana ndikarega kuwana rudzidziso yakazara ndisati ndazvitakura-ndinogona kuzvara mwana anorwararwara neutachiona we HIV)					
79. I should have a child because my reproductive system is still working well (Ndinofanira kuita mwana nekuti ndichikukwanisa kubara)					
80. I should have a child because I am not barren (Ndinofanira kuita mwana nekuti ndinogona kuzvara/ndinembereko)					
81. I should have a child because it is my right to do so (Ndinofanira kuita mwana nekuti ikonzero yangu kuita mwana, ndine chibereko)					
(perceived benefits)	5 S A	4 A	3 U	2 D	1 SD
82. Adequate pregnancy planning will allow me to have a small family that I can afford to support financially (Kuronga mhuri, kuneungwaru kunondipa mukwana vekuita mhuridiki yandinokwanisa kushandira ndichiwamari inokwanirana nemhuri)					
83. Adequate pregnancy planning will allow me to have a small family that I can afford to support emotionally (Kuronga mhuri, kuneungwaru kunondipa mukwana yekuita mhuridiki yandinokwanisa kuriritira nerudo)					
84. If I adequately plan my pregnancies, I will be strong enough to work to earn money to send my children to school (Kuronga mhuri, kuneungwaru kunondipa mukwana yekuita mhuridiki yandinokwanisa kushandira nesimba ndichiwana mari yekuendesa vanakuchikoro)					
85. Family planning forms part of positive living which is how I want to live (zekuronga mhuri ndeimwenzira inoshandiswa kunevanorarama neutachiona sezvandinoda)					
86. Family planning it helps me maintain my health in a stable state (Kuronga mhuri kunondibatsira kutihutanowangu hugare hwakanaka)					
87. Sterilisation should be encouraged as a family planning option because it is permanent and will help reduce the AIDS orphans problem in a greater way (Kusunga chibereko yenzira yekuronga mhuri inofanirakukurudzirwa kushandiswa nekuti inogona kugara kweupenyu yese uye inoderedza matambudziko)					

88. The condom is a family planning method that is good for me because it prevents STIs as well as unwanted pregnancies (Condom inzira yekuronga mhuri yakanakira kuti inodzivirira zvirwere zvese zvepabonde uye nenhumbu dzisinakurongeka)					
89. The condom is a family planning method that is good for me because it prevents reinfection with HIV as well as unwanted pregnancies (Condom inzira yekuronga mhuri yakanakira kuti inodzivirira kuramba uchitapura utachiona we HIV uye nenhumbu dzisinakurongeka)					
90. If I have another baby, my husband will love me more, I will please him and he will be satisfied (Kana ndikaita mwana murumewangu onondida zvakananyanya, uye anogutsikana neni)					
91. If I have another baby, my in laws will accept and love me more (Kana ndikaita mwana vanavamwene vanondifarira zvakananyanya)					
92. My friends/neighbours have babies and so I want one also (Vavakidzani vangu neshamwari vanevana saka ininindinodao mwana)					
93. If I have a baby, my desire to be a mother will be fulfilled (kana ndikaita mwana chido change chine chazadzikisisa)					
94. If my child dies, I should replace him by having another baby (Kanamwana wangu akafa, ndino fanira kuita umwemwana kutsiva mwana akafa)					
95. If I have a baby, my marriage will be strengthened/solidified (Ndikaita mwana hukama wangu nemurume wangu unosimbaradzwa)					
(Perceived barriers) – IT IS VERY POSSIBLE/ IT IS POSSIBLE/ UNDECIDED/ IT IS NOT POSSIBLE/ IT IS IMPOSSIBLE	5 S A	4 A	3 U	2 D	1 SD
96. HIV positive women fall pregnant because their husbands demand for more children (Vakadzi vaneutachiona weHIV vanoita pamuviri nekuti varume vavo vanovamanikidza kuita vana)					
97. If I have only girl-children, I have to keep having babies till I have a baby boy so there will be someone to inherit my husband's name and property (Ndikaita vana vasikana chete ndino fanira kuramba ndichizvara kusvika ndaita mukomana anozogaranhaka yangu)					
98. If I have only boy-children, I have to keep having babies till I have a baby girl (Ndikaita mwana mukomana chete ndino fanira kuramba ndichizvara kusvika ndaita mwanamusikana)					
99. It is not acceptable for me to have only one gender of child, I have to have both (Hazvitambirike kuti munhu aite vana vakomana chete kanakuti vana vasikana chete, ndinofanira kuzvara vese)					

100. I have to give birth to many children because my husband wants a big family (Ndinofanira kuita vanavakawanda nekuti murume wangu anoda wana vakawanda)					
101. If my husband doesn't want me to use Family Planning I cannot go against his will or else he will be angry with me (Kanamurume wangu asingade kuti ndishandise nzira dzekuronga mhuri, handifani kupikisana naye, nekuti anozondigumbukira)					
102. If I do not have a child/more children, my husband will disown me (Kana ndikasaita mwana, murume wangu anondi ramba)					
103. If I do not have a child/more children, my in laws will disown me (Kana ndikasaita mwana, vamwene vangu, vanondivenga)					
104. It is difficult to get family planning commodities and advice because the health centre is far and I cannot walk the distance (Zvakaoma kuti tiwane nzira dzekuronga mhuri nekuti tirikure nekunowanikwa rubatsiro wacho, andigoni kufamba netsoka)					
105. It is difficult to get family planning commodities and advice because the health centre is far and I cannot afford the transport fares (Zvakaoma kuti tiwane nzira dzekuronga mhuri nekuti tirikure nekunowanikwa rubatsiro wacho, andina mari yebazi)					
106. It is difficult to get family planning commodities because I cannot afford them (Zvakaoma kuti tiwane nzira dzekuronga mhuri nekuti tirikure nekunowanikwa rubatsiro wacho, nekuti andina mari yekutenga)					
107. It is difficult to get family planning commodities and advice because the health care workers are too busy (Zvakaoma kuti tiwane nzira dzekuronga mhuri nekuti vashandi vehutano vakawandirwa nebasa, havakwanise kutibatsira zvakanwana)					
108. It is difficult to get family planning commodities because the health care workers treat me badly because of my HIV status (Zvakaoma kuti tiwane nzira dzekuronga mhuri nekuti vashandi vehutano vanondibata zvisina kunaka nekuti ndineutachiona che HIV)					
109. I do not like taking the pill because it gives me headaches and weakness (Andifarire kutora mapirisi ekuronga mhuri nekuti anondirwadzisa musoro, nekundinetesa)					
110. I do not like taking the pill because I am already taking too many pills and I will forget (Andifarire kutora mapirisi ekuronga mhuri nekuti ndirikutora mapirisi akawanda ndinonzo kanganwa)					
111. I do not like using the IUD because it gives me more frequent and heavier periods (Andifaririkushandisa loop nekuti ndinoramba ndirikumwedzi kwenguva yakareba)					
112. I do not like using the condom because it is painful (Andifarire kushandisa condom nekuti rinondirwadzisa)					
113. My husband does not like using the condom because he says he paid lobola for me so he doesn't need to use a condom so we don't use it (Murume wangu hadi kushandisa)					

condom nekuti anoti akabvisa pfumo)					
114. My religion demands that I give birth to many children as possible (Chitemdero changu chinoti tiite vana vakawanda)					
115. My religion demands that I do not use contraception (Chitemdero change hachitenderi kutindishandise nzira dzekuronga mhuri)					
116. My husband damages the condom to make sure I fall pregnant (Murume wangu ano vharura/bora condom kuti ndibate pamuviri)					
117. My husband damages or hides the pill to make sure I fall pregnant (Murume wangu anovigamapirisi wangu kuti ndibate pamuviri)					
118. I have had serious side effects with family planning so I do not like it anymore (Ndinorwara kanandikashandisa nzira dzekuronga muri saka andichadi kuwashandisa)					
119. Giving birth to an HIV negative child has made my husband/in laws put pressure on me to have more children (Kubara mwana asina utachiona kwakaita kuti murume wangu nehamadzake vati ndiite mumwe mwana)					
(cues to action)	5 S A	4 A	3 U	2 D	1 SD
120. If my husband encourages me, I will get family planning (Kana murume wangu akandi kurudzira ndinoshandisa nzira dzekuronga mhuri)					
121. If my in laws are supportive, I will get family planning (Kana vanavamwene vangu vakandi kurudzira ndinoshandisa nzira dzekuronga mhuri)					
122. If the health care workers have time to counsel me, I will get pregnancy planning advice and use appropriate family planning (Kanavashandi vehutano vakandipa mazano pamusoro pekuronga mhuri ndinotora nzira dzekuronga mhura dzakafanira)					
123. If my husband is educated, it will be easier for me to get family planning (Kanamurumewangu aine ruzivo rakakwana zvirinyore kutora nzira dzekuronga mhuri)					
124. If I am offered family planning every time I go to the clinic for drugs or checkups, I am more likely to use family planning (Kana ndika kurudzirwa kushandisa nzira dzekuronga mhuri pese pandinoenda kuchipatara kunotora mishonga yangu yekurapwa ndichashandisa nzira dzekuronga mhuri)					
125. If I was given medium or long term family planning soon after I gave birth, I could have prevented an unplanned pregnancy (Dai ndakapiwa nzira dzekuronga mhuri ndichangosununguka, ndikadai ndisina kuzoita imwe nhumbu isina kurongera)					
126. If I am given adequate education, I am more likely to use family planning					

(Kanandikapiwa ruzivo raka kwana ndino kwanisa kushandisa nzira dzekuronga mhuri)					
127. If I hear about family planning on the radio, I am more likely to use it (Kana ndikanzwa nzira dzekuronga mhuri padzimudzangara ndinokwanisa kudzishandisa)					
128. If I read about family planning in the newspaper, I am more likely to use it (Kana ndikaverenga nzira dzekuronga mhuri pamapepandau ndinokwanisa kudzishandisa)					
129. If I read about family planning on posters, I am more likely to use it (Kana ndikaverenga nzira dzekuronga mhuri pamaposter pamiduri ndinokwanisa kudzishandisa)					
130. If I receive adequate information, I will seek advice before falling pregnant (Kana ndika piwa ruzivo rakakwana ndinotsvaga rubatsiro ndisati ndaita pamuviri)					
131. If I am taught about family planning in the clinic, I am more likely to use it. (Kanandikadzidziswa nezvekuronga mhuri kuchipatara ndinokwanisa kuzvishandisa)					

HEALTH CARE WORKERS QUESTIONNAIRE (only proceed if you are involved with counselling of HIV positive patients)

1. What is your job title/ profession? _____
2. Age _____
3. Number of years in service _____
4. Approximately how many patients do you see a day?
5. Do you refer your patients for family planning counselling? Yes/No
6. If no, why not? _____
7. If yes, when and for what reasons? _____
8. Have you received any training on family planning counselling? Yes/ No
9. What methods of family planning do you advise WLHA and why? List all _____
10. Approximately how long is your counselling session with your patients?

11. Do you give your clients an opportunity to ask questions? Yes/ No
12. What influences your counselling time? _____

OBSERVATIONS

1. Length of counselling time _____ mins
2. Privacy of counselling room _____

Other people can easily see/ hear the client being counselled Yes/ No

3. Adequate space for counselling Yes/No
4. Display of IEC materials _____ Yes/ No
5. Counselling content adequate/ inadequate _____
6. Gave client an opportunity to ask questions and seek clarity Yes/ No

CHECK LIST FOR FAMILY PLANNING SERVICES

Method	Available Y/N (brand)	Stockouts recorded on stock card Y date/N
Progesterone only pill (POP)		
Combined Oral Contraceptive pill (COC)		
Injectable		
Loop		
Sterilisation		
IEC materials posters/ pamphlets		

Annexe 3: MRCZ Approval letter (appended)