

**PREGNANT WOMEN'S ATTITUDES TOWARDS THE PREVENTION OF
MOTHER-TO-CHILD TRANSMISSION PROGRAMME**

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of Master of Philosophy (HIV/AIDS Management) at Stellenbosch University**



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DECLARATION

By submitting this assignment electronically, I declare that the entirety of the work contained therein is my own, original work, that I am the owner of the copyright thereof (unless to the extent explicitly otherwise stated) and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

A handwritten signature in black ink, appearing to read 'D. Ntsheli', positioned above the signature line.

Signed.....

Date.....06 March 2009

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ABSTRACT

This research paper has been developed in order to find the reasons for negative attitudes towards the Prevention of Mother-To-Child Transmission (PMTCT) Programme by pregnant women. Although the advantages for PMTCT Programme are clear on the HIV Positive women; there are still very few pregnant women who enrol to the programme. The benefits for the Programme include the treatment of opportunistic infections, antiretroviral treatment such as nevirapine which benefits the mother and the baby, psychological support and the prevention of mother- to-child transmission of HIV infection.

Most Ante Natal Care (ANC) clinics offer Voluntary Counselling and Testing (VCT) and PMTCT Programmes but enrolment to these programmes remains poor, the reasons for such poor enrolment being not known. Health organizations need to work very hard towards ensuring that most or all pregnant women know their HIV status in order to decrease the number of babies that are born HIV positive.

This study was conducted at Thabani Magwaza (Hambanathi) Clinic which is situated at Hambanathi Township (next to Tongaat) in the Province of KwaZulu Natal in South Africa. The information was obtained voluntarily from the ANC clients who attend the service at Hambanathi Clinic. The focus was on 30 women, 15 who are 15 to 20 years old and 15 who are 21 to 25 years old. The data was gathered through the use of interview schedules.

The data gathered was about personal details, health care workers, baby's financial support, understanding of PMTCT, feeding options, family planning, HIV/AIDS, attitude of the client, client's support from the community and characteristics. The information gathered was compared and analyzed. The data analysis has shown that poor literacy, poverty and poor support from the communities are the reasons for negative attitudes towards PMTCT Programme.

OPSOMMING

Hierdie navorsing is gedoen om rede vir die negatiewe houding teen die Voorkoming van die Moeder-tot-Kind Oorsending (VMTKO) te probeer vind. Alhoewel die beloning van die program tussen vrouens wat HIV het, duidelik is daar is nog te min verwagte vrouens wat aan die program deelneem. Die voordele van die program is die behandeling van infeksies, 'antiretroviral' behandeling soos nevirapine wat 'n voordeel aan albei die moeder en kind is, sielkundige ondersteuning en die VMTKO.

Die mees van die na gebore (ANC) klinieke gee vir 'n mens vrywillige berading maar daar is 'n slegte respons van die publiek af. Die rede daarvoor is onbekend. Gesondheid organisasies moet hard werk om verwagte vrouens oor hul HIV stand te laat weet sodat minder HIV babas gebore sal word.

Hierdie navorsing was by die Thabani Magwaza (Hambanathi) Kliniek (naby Tongaat), KwaZulu-Natal, in Suid-Afrika gedoen. Die inligting was vrywillig van die ANC kliente wat die kliniek bywoon, af gekry. Dertig vrouens het deelgeneem. Vyftien van hulle was tussen vyftien en twintig jaar oud en vyftien van hulle was tussen een-en-twintig en vyf-en-twintig jaar oud. Die informasie het deur die gervik van ondhout schedule gekry.

Die inligting was oor persoonlike inligting, gesondheid werkers, die baba se finansieele ondersteuning, hul verstand van voorkoming, kos keuse, gesin beplanning, HIV/AIDS, hul uitkyk, ondersteuning van die gemeenskap en kenmerke. Die navorsing wys vir ons dat slegte begrip, armoede en slegte ondersteuning van die gemeenskap is sommige van die rede vir die negatiewe houding teen die voorkoming van die Moeder-tot-Kind Oorsending Program.

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ACRONYMS AND ABBREVIATIONS

ACT	Artemisinin combination therapy
AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal care
ANHMRC	Australian National Health and Medical Research Council
ARI	Acute respiratory infections
ART	Anti-retroviral therapy
ASRC	Africa Strategic Research Corporation
ASSA	Actuarial Society of South Africa
ATC	Anatomical therapeutic chemical classification
AUDIT	Alcohol Use Disorders Identification Test
BP	Blood pressure
BMI	Body mass index
CAGE	Cut down, Annoy, Guilt, Eye-opener (Alcohol dependence)
CARe	Centre for Actuarial Research
CMR	Child mortality rate
CDAW	Convention for the elimination of All Forms of Discrimination Against Women
COPD	Chronic obstructive pulmonary disease
CSPro	Census and Survey Processing System
DoH	Department of Health
EC	Emergency contraception
EDL	Essential drug list
GEAR	Growth, Employment and Redistribution
HBV	Hepatitis B
HGOI	Health Goals, Objective and Indicators
HIV	Human immunodeficiency virus
HSRC	Human Sciences Research Council
HS	Home solution
IMCI	Integrated Management of Childhood Illnesses

IMR	Infant mortality rate
IATT	Inter-Agency Task Team
LSM	Living Standards Measure
MRC	Medical Research Council
MTCT	Mother-to-child transmission
NDoH	National Department of Health
NGOs	Non-Governmental Organizations
NHIS/SA	National Health Information System of South Africa
OIs	Opportunistic Infections
PMTCT	Prevention of mother-to-child transmission programme
RA	Residence Assistant
RAU	Rand Afrikaans University
SADC	Southern African Development Community
SADHS	South African Demographic and Health Survey
SD	Standard deviation
SE	Standard error
Stats SA	Statistics South Africa
STI	Sexually transmitted infection
TB	Tuberculosis
TBA	Traditional birth attendant
TFR	Total fertility rate
UN	United Nations
UNAIDS	United Nations Programme on HIV/AIDS
USAID	United States Agency for International Development
VCT	Voluntary counseling and testing
WHO	World Health Organisation

CHAPTER ONE: INTRODUCTION

1.1 INTRODUCTION

Chapter one will provide the background to the study. This will be followed by the definitions of key terms, the research problem, justification for the study, purpose, research questions and, finally, the limitations of the study.

1.2 PMTCT BACKGROUND

The disease, HIV/AIDS, was first diagnosed in Los Angeles, USA, in 1981 when the doctors became very concerned when young gay men presented with unusual skin cancers called Kaposi's sarcoma and pneumocystic carinii pneumonia. These young gay men were dying and their condition appeared to be linked to an immune system deficiency.

The virus, Human Immunodeficiency Virus (HIV) which causes AIDS, was discovered by Luc Montagnier of France and Robert Gallo of USA. The World Health Organization (WHO) then commenced to gather the statistics of incidence, prevalence as well as the spread of HIV. AIDS is an acronym with the following meaning:

- Acquired: obtained through infection
- Immuno: relates to the body's defense mechanism against infection
- Deficiency: lacking
- Syndrome: a collection of signs and symptoms which together constitutes a disease.
- AIDS: is a syndrome of opportunistic diseases and infections as well as certain cancers in people with the HIV.

Global HIV/AIDS estimates, as end of 2007

The latest statistics on the world epidemic of AIDS & HIV were published by UNAIDS/WHO in July 2008, and refer to the end of 2007.

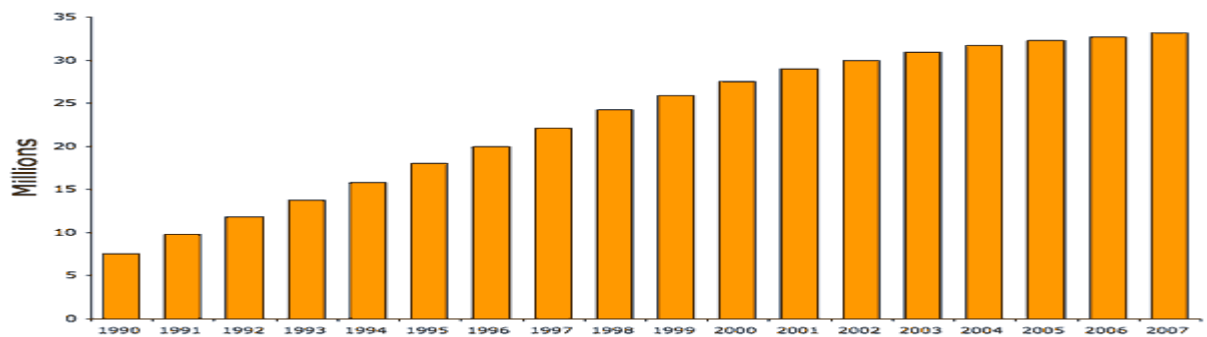
Table 1: AIDS & HIV estimations

	Estimate	Range
People living with HIV/AIDS in 2007	33.0 million	30.3-36.1 million
Adults living with HIV/AIDS in 2007	30.8 million	28.2-34.0 million
Women living with HIV/AIDS in 2007	15.5 million	14.2-16.9 million
Children living with HIV/AIDS in 2007	2.0 million	1.9-2.3 million
People newly infected with HIV in 2007	2.7 million	2.2-3.2 million
Children newly infected with HIV in 2007	0.37 million	0.33-0.41 million
AIDS deaths in 2007	2.0 million	1.8-2.3 million
Child AIDS deaths in 2007	0.27 million	0.25-0.29 million

(UNAIDS, 2008)

More than 25 million people have died of AIDS since 1981. Africa has 11.6 million AIDS orphans. At the end of 2007, women accounted for 50% of all adults living with HIV worldwide, and for 59% in sub-Saharan Africa. Young people (under 25 years old) account for half of all new HIV infections worldwide. In developing and transitional countries, 9.7 million people are in immediate need of life-saving AIDS drugs; of these, only 2.99 million (31%) are receiving the drugs.

Figure 1: Global trends



(UNAIDS, 2008)

The number of people living with HIV has risen from around 8 million in 1990 to 33 million today, and is still growing. Around 67% of people living with HIV are in sub-Saharan Africa (UNAIDS, 2008).

Regional statistics for HIV & AIDS, end of 2007

Table 2: Regional AIDS & HIV stats

Region	Adults & children living with HIV/AIDS	& Adults & children newly infected	Adult prevalence*	Deaths of adults & children
Sub-Saharan Africa	22.0 million	1.9 million	5.0%	1.5 million
North Africa & Middle East	380,000	40,000	0.3%	27,000
Asia	5 million	380,000	0.3%	380,000
Oceania	74,000	13,000	0.4%	1,000
Latin America	1.7 million	140,000	0.5%	63,000
Caribbean	230,000	20,000	1.1%	14,000
Eastern Europe & Central Asia	1.5 million	110,000	0.8%	58,000
North America, Western & Central Europe	2.0 million	81,000	0.4%	31,000
Global Total	33.0 million	2.7 million	0.8%	2.0 million

(UNAIDS, 2008)

Proportion of adults aged 15-49 who were living with HIV/AIDS, during 2007 more than two and a half million adults and children became infected with HIV (Human Immunodeficiency Virus), the virus that causes AIDS. By the end of the year, an estimated 33 million people worldwide were living with HIV/AIDS. The year also saw two million deaths from AIDS, despite recent improvements in access to antiretroviral treatment.

Based on a wide range of data, including the household and antenatal studies, UNAIDS/WHO in July 2008 published an estimate of 18.1% prevalence in those aged 15-49 years old at the end of 2007. Their high and low estimates are 15.4% and 20.9% respectively. According to their own estimate of total population (which is another contentious issue), this implies that around 5.7 million South Africans were living with HIV at the end of 2007, including 280,000 children under 15 years old. During 2007 alone, an estimated 1.5 million adults and children died as a result of AIDS in Sub-Saharan Africa. Since the beginning of the epidemic, more than 15 million Africans have died from AIDS. South Africa is currently experiencing one of the most severe AIDS epidemics in the world. At the end of 2007, there were approximately 5.7 million people living with HIV in South Africa, and almost 1,000 AIDS deaths occurring every day.

HIV prevalence among antenatal clinic attendees remains among the highest in the world. There is some evidence that many young women (more than 60%, according to one study) abstain from sex until their late teens (Buseh, 2004), but HIV infection levels rise rapidly once women become sexually active. One in two (49%) women aged 20–34 years attending antenatal clinics and women aged 25–29 years who participated in the 2006 population-based HIV survey were found to be HIV-positive; among pregnant teenagers (15–19 years), one in four (26%) were HIV-positive (Ministry of Health and Social Welfare Swaziland, 2006; Central Statistical Office Swaziland & Macro International, 2007). HIV infection levels in men reach similar heights, but in older age groups 44% of men aged 30–34 years and 45% of those aged 35–39 years were HIV-positive. Unusually high HIV prevalence is found also among older age groups, with about a quarter (28% of men and 24% of women) aged 50–54 years found to be HIV-positive (Central Statistical Office Swaziland & Macro International, 2007).

Half (49.2%) of the pregnant women aged 30–34 years tested for HIV at antenatal clinics in 2005 were found to be infected with HIV, as were 45% of those aged 25–29 years (Seipone, 2006). Infection levels in pregnant women varied across the

country—from a low of 21% in the village of Good Hope in the south to more than 40% in the city of Francistown and the village of Tutume (in the north east), and 47% in Selebi-Phikwe (a densely populated mining town in the east). Prevalence was unusually high among pregnant teenagers, 18% of whom tested HIV positive in 2005. However, this was the lowest infection level seen among pregnant women in that age group since the early 1990s, suggesting a possible decrease in new infections (Ministry of Health Botswana, 2006). Such an interpretation is supported by the continuing decline in HIV prevalence observed among young pregnant women. Among 15–19-year-old women attending antenatal clinics, prevalence decreased from 25% to 18% between 2001 and 2006, whereas among their 20–24-year-old counterparts it declined from 39% to 29% over the same period (Ministry of Health Botswana, 2006).

There is evidence that condom use among teenagers has increased. In 2001, 81% of unmarried men in their late teens (15–19 years) said they had used a condom the last time they had sex, compared with 95% in a 2004 survey (Central Statistical Office Botswana, 2001 & 2005). Among their unmarried female counterparts, the corresponding figures were 71% in 2001 and 82% in 2004. However, misconceptions about HIV persist, with almost a third (30%) of survey respondents in 2004 claiming that HIV can be acquired by supernatural means and more than half (50.5%) believing the virus can be transmitted by mosquitoes.

The ASSA 2003 model produces a similar estimate of 5.4 million people living with HIV in mid-2006, or around 11% of the total population. It predicts that the number will exceed 6 million by 2015, by which time around 5.4 million South Africans will have died of AIDS.

A number of factors have been blamed for the increasing severity of South Africa's AIDS epidemic, and debate has raged about whether the government's response has been sufficient. This page looks at the impact that AIDS has had on South Africa, the historical context of the epidemic, and the major issues surrounding the crisis.

Table 3: Estimated HIV prevalence among antenatal clinic attendees, by province

<i>Province</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>
	<i>prevalence</i>	<i>prevalence</i>	<i>prevalence</i>	<i>prevalence</i>	<i>prevalence</i>	<i>prevalence</i>
	<i>%</i>	<i>%</i>	<i>%</i>	<i>%</i>	<i>%</i>	<i>%</i>
<i>KwaZulu-Natal</i>	33.5	36.5	37.5	40.7	39.1	39.1
<i>Mpumalanga</i>	29.2	28.6	32.6	30.8	34.8	32.1
<i>Free State</i>	30.1	28.8	30.1	29.5	30.3	31.1
<i>Gauteng</i>	29.8	31.6	29.6	33.1	32.4	30.8
<i>North West</i>	25.2	26.2	29.9	26.7	31.8	29.0
<i>Eastern Cape</i>	21.7	23.6	27.1	28.0	29.5	29.0
<i>Limpopo</i>	14.5	15.6	17.5	19.3	21.5	20.7
<i>Northern Cape</i>	15.9	15.1	16.7	17.6	18.5	15.6
<i>Western Cape</i>	8.6	12.4	13.1	15.4	15.7	15.2
<i>National</i>	24.8	26.5	27.9	29.5	30.2	29.1

(WHO, 2008).

Table 4: Estimated HIV prevalence among antenatal clinic attendees, by age (UNAIDS, 2008)

Age group (years)	2001 prevalence %	2002 prevalence %	2003 prevalence %	2004 prevalence %	2005 prevalence %	2006 prevalence %
<20	15.4	14.8	15.8	16.1	15.9	13.7
20-24	28.4	29.1	30.3	30.8	30.6	28.0
25-29	31.4	34.5	35.4	38.5	39.5	38.7
30-34	25.6	29.5	30.9	34.4	36.4	37.0
35-39	19.3	19.8	23.4	24.5	28.0	29.6
40+	9.8	17.2	15.8	17.5	19.8	21.3

Because infection rates vary between different groups of people, the findings from antenatal clinics cannot be applied directly to men, newborn babies and children, this is why South Africa has sought also to survey the general population: Heterosexual contact Mother-to-child transmission (in the event of the pregnant mother being infected by HIV).

Other modes of transmission make up a very small proportion in Southern Africa. In South Africa, approximately 5, 6 million people are living with HIV/AIDS which includes 327,000 children under the age of 14 years. More than 1,2 million have been orphaned by AIDS, above 20% of South African children may lose parents by 2012. Orphans and vulnerable children in the communities which have high rates of HIV/AIDS are usually exposed to violence, abuse and exploitation due to that their families and close relatives are destroyed by the effects of the disease. Lots of children do not have any other option except to drop out of school so that they get employed in hazardous jobs and take care of their sick family members.

Whilst there is no HIV cure, HIV can be controlled by the antiretroviral drugs which are able to extend the HIV positive person's life by ten years and above.

South Africa is the country that has the highest number of HIV positive people in the world. Where there is no treatment, HIV transmission from mother-to-child is approximately 35%. Mother –to-child transmission means the transmission of HIV from an HIV positive woman which happens during pregnancy, delivery or breastfeeding, to her infant. The term is utilized because of the immediate source of the HIV infection being the mother although it is not aimed at blaming the mother. More than 50% of HIV positive babies die before the end of their second year. With the existing South African government Prevention of mother-to child (PMTCT) programme, the transmission of HIV from the mother to the child is estimated at 21%.

According to the findings by GAB Laboratory Review (2003),
New mother –to-child HIV infections were 720,000 in 2001.

2,000 new infections each day. Background transmission risk being between 30-45%,

15-30% risk during pregnancy and delivery

10-20% additional risk post delivery via breast feeding

The transmission risk where there are some interventions in place:

20-25% risk without breastfeeding

15-25% risk with short course of ARV and breastfeeding

5-15% risk with short course of ARV without breastfeeding

1-5% risk with the combination short course of ARVs without breastfeeding

1% risk with 2 or 3 ARVs and Caesarean Section delivery without breastfeeding.

GAB Laboratory Review (2003) describes the advantages of Nevirapine in preventing perinatal HIV transmission in Africa administered as a single dose to the mother(200mg) in labor, single dose administered to the baby(2mg/kg;6mg) as follows:

- Rapidly absorbed after its oral administration
- Rapid transfer across the mother's placenta

- Rapid drop in HIV viral load
- Long lasting as its high levels will be sustained in the infant
- Low cost
- Limited or no side effects

GAB Laboratory Review (2003) gave the following ranges on the effectiveness of ARVs:

Short-course AZT/3TC was ranked as highly active.

Short-course AZT and NVP was ranked as more active than either regimen alone.

Prophylaxis to the infant, administered alone was ranked as either AZT or NVP partially effective.

Each year, around 370,000 children aged under 15 become infected with HIV. Almost all of these infections occur in developing countries, and more than 90% are the result of mother-to-child transmission during pregnancy, labour and delivery, or breastfeeding. Without interventions, there is a 20-45% chance that a baby born to an HIV-infected mother will become infected.

Most infant HIV infections could be averted. The problem is that very few of the world's pregnant women are being reached by prevention of mother-to-child transmission (PMTCT) services.

Despite the generalized nature of the epidemic in countries across Sub-Saharan Africa, many young people in the region still do not know how to protect themselves from HIV. Reports on levels of accurate information among youth about HIV/AIDS are startling: half of the teenage girls in sub-Saharan Africa do not realize that a healthy-looking person can be living with HIV/AIDS (Forman, 2003). HIV/AIDS is the fourth largest cause of death, globally, and the leading cause of death in Africa.

Despite its widespread reach, the epidemic is still in its early stages. Public health officials estimate that the illnesses and deaths to date represent only 10% of the eventual impact. Researchers project that by 2010 HIV/AIDS will reduce average life-expectancy in some southern African countries to around 30 years (World Health Organization, 2002). The United Nations 2004 global report on AIDS, which is being released worldwide, states that South Africa has the largest number of people living with AIDS, at 4, 8 million, and has a prevalence rate of 21, 5%. In Zambia 16, 5% of adults are living with HIV/AIDS, 21, 3% in Namibia, 14,2% in Malawi and 12,2% in Mozambique (World Health Organization, 2004).

Although proportionally more young people suffer from HIV/AIDS, the epidemic among young people remains largely invisible, both to young people themselves and to society as a whole. Young people often carry HIV for years without knowing that they are infected. As a consequence, the epidemic spreads beyond high-risk groups (to the broader population of young people, making it even harder to control). The first high-risk group is viewed as gays. This is confirmed by a UNAIDS (2002) study which found that more than a third of HIV-infected people in the U.S. (320 000) are living with full-blown AIDS.

Men who have sex with men (MSM) still comprise the majority of AIDS cases (42%). Heterosexual injection drug users account for 25% of new cases. Those infected by heterosexual contact with an infected partner make up 33% of new cases (UNAIDS, 2002).

The most effective way to prevent mother-to-child transmission of HIV involves a long course of antiretroviral drugs and avoidance of breastfeeding, which reduces the risk to below 2%. In developed countries the number of infant infections has plummeted since this option became available in the mid-1990s (World Health Organization, 2004).

Since 1999, it has been known that much simpler, inexpensive courses of drugs can also cut mother-to-child transmission rates by at least a half. The most basic of these comprises just two doses of a drug called Nevirapine – one given to the mother during labour and the other given to her baby soon after birth. These short-course treatments, combined with safer infant feeding, have the potential to save many tens of thousands of children from HIV infection each year.

Recognizing this potential, the member states of the United Nations set targets for preventing mother-to-child transmission in 2001, as part of a landmark agreement called the UNGASS declaration (UNAIDS, 2002).

The PMTCT programme becomes integrated within the Mother and Child Health programs and strengthens the antenatal care. It promotes the health of the mother and enhances the HIV primary prevention efforts in the communities.

The challenges for the PMTCT program are:

- Lack of comprehensive HIV package for HIV positive mothers
- Poor partner participation which is at about <1%
- Staff shortage in the institutions
- Poor integration of PMTCT/VCT/TB services.

It is necessary to have more information whether the system will be able to follow up the mother and the infant after delivery in order to monitor the growth of the infant.

1.3 RESEARCH OBJECTIVES

The main objective of this research study is to determine the reasons for negative attitude by pregnant women towards the P.M.T.C.T. Programme. To determine the negative attitude, the following sub objectives will be used:

- Assessing the respondents' level of education.
- Assessing the attitude of healthcare workers towards the PMTCT programme.

- Assessing the understanding of HIV/AIDS and its myths from pregnant women.
- Assessing the characteristics and profiles of the respondents.
- Assessing the attitudes of the respondents towards the HIV positive status.
- Assessing the level and availability of community support to pregnant women.
- Assessing the level of understanding and knowledge that pregnant women have of the P.M.T.C.T. programme which includes nevirapine medication.
- Assessing the knowledge of feeding options and choices with regards to exclusive breast feeding or exclusive formula feeding.
- Assessing if the pregnant women have the knowledge of family planning methods and choices if she becomes HIV positive.
- Establish the baby's financial support from the parents.

The aim of this research is to assist in the reduction of the negative attitudes by pregnant women towards the PMTCT programme thus improving the compliance to the programme.

1.4 RESEARCH PROBLEM

During antenatal care visits, there are pregnant women who demonstrate negative attitudes towards P.M.T.C.T. programme and believe that it does not work. Some mention that nevirapine kills babies. They are not prepared to participate to the programme. The few pregnant women who show interest to the programme and come forward to join it are laughed at and ridiculed.

The PMTCT statistics at Hambanathi Clinic is as follows: The total number of pregnant women who attended the ANC clinic from

April 2005 to April 2006	= 597
Total number of pregnant women who enrolled for VCT	= 94
Total number of pregnant women who tested HIV positive	= 44
Total number of pregnant women who tested HIV negative	= 50

The percentage of those pregnant women who enrolled for VCT is 16% of the total number of attendants.

The percentage of those pregnant women who tested HIV positive is 47% of those who enrolled for VCT.

1.5 RESEARCH QUESTION

Why pregnant women demonstrate negative attitudes towards the PMTCT programme?

1.6 DEFINITIONS OF KEY TERMS

In this section key terms used in the study are defined:

1.6.1 AIDS

Acquired Immune Deficiency Syndrome – is the slow dying stage of the person infected by HIV. According to the University of Zululand HIV/AIDS policy (2001:13), AIDS is defined as “a group of different diseases resulting from a breakdown in the body’s immune (defence) system. AIDS stands for A- Acquired, it is passed from person to person, it is not inherited, I – Immune, to do with the body’s defence against disease, D – Deficiency, not working properly, a breakdown and S – Syndrome, a collection of different diseases”.

1.6.2 HIV

Human Immunodeficiency Virus is the virus that leads to AIDS. Although there is controversy about this in South Africa, this study uses the term to denote the virus that leads to AIDS. HIV attacks the immune system's soldiers - the CD4 cells. When the immune system loses too many CD4 cells, the victim is less able to fight off infection and can develop serious opportunistic infections (OIs). A person is diagnosed with AIDS when he or she has less than 200 CD4 cells and/or one of 21 AIDS-defining OIs.

1.6.2.1 P.M.T.C.T. PROGRAMME

The PMTCT is a programme aimed at reducing the risk of transmission of HIV infection from the mother to the baby during the ante partum (in uterus), intrapartum (during delivery), post partum (during breastfeeding) period (van Dyk 2001:28-31).

1.6.2.2 VERTICAL TRANSMISSION

The vertical transmission is the route of transmitting the virus from the pregnant woman to the baby either whilst in uterus, during delivery or during breastfeeding.

1.6.2.3 WINDOW PERIOD

The window period is the stage after infection, when the body is just beginning to form the HIV specific antibodies. However, as they are so few in number, they are not detected on antibody tests e.g. Rapid tests.

1.6.2.4 RAPID TESTS

The Rapid tests are used to detect HIV antibodies and the HIV results become available immediately. Presently in use are the following test kits:

- Abbot Determine Test Kit.
- Smart check Test Kit.

1.6.2.5 VOLUNTARY COUNSELING AND TESTING

This is the cornerstone of the programme where pregnant women are counseled and tested in order to determine their HIV status. Counseling is compulsory and testing is currently voluntary.

1.6.2.6 PRE-TESTING COUNSELING

This is the counseling session that is done before testing where issues of HIV transmission, disease progression, mother-to-child-transmission, nevirapine

prophylaxis and infant feeding options are discussed. Pre-test counseling may be done by health care workers or trained lay counselors (van Dyk 2001:28-59).

1.6.2.7 POST- TEST COUNSELING

This is done after testing to disclose HIV test results to the client and management of herself thereafter. There is also ongoing post test counseling which takes place later on after about two weeks time, as the need arises.

1.6.2.8 NEVIRAPINE

Nevirapine is an antiretroviral medication that is issued to pregnant women who are HIV positive. Nevirapine is taken as a single dose, when the woman is in labour. A single dose is also administered to the infant within 72 hours post delivery. The aim is to reduce mother-to-child transmission (van Dyk 2001:57&73).

1.7 RESEARCH HYPOTHESIS

The hypotheses are tentative answers to a research question. Hypothesis needs to be stated so that it can be refuted or confirmed (Christensen 2004:106-108).

1.8 HYPOTHESIS

In view of the increasing number of the pregnant women who do not wish to enroll to the PMTCT programme, it is possible that pregnant women are not equipped with adequate information about the P.M.T.C.T. programme and its advantages.

1.9 SUMMARY

In this introductory chapter, the background to the study and definitions of terms, research problem, the purpose, the objectives and limitations of the study were given. The background to this study brought out the fact that the HIV/AIDS epidemic challenges the whole world and has left no part of the world untouched. The problem is worldwide, although the greatest concentration of HIV infections and AIDS related deaths is in developing countries, which includes South Africa. The broad context of this study focuses on PMTCT programme.

CHAPTER TWO: LITERATURE STUDY

2. 1 INTRODUCTION

Chapter Two reviews some of the literature on the pregnant women's attitudes towards the Prevention of Mother-to-Child Transmission Programme. It must be noted that most of the literature covers the origins of HIV/AIDS, mother to child transmission (MTCT); political and socio-economic debates; awareness and counselling and medical research around HIV/AIDS.

2. 2 MOTHERS AND CHILDREN BIRTH TRANSMISSION OF HIV/AIDS

Mother-to-child transmission (MTCT) is when an HIV positive woman passes the virus to her baby. This can occur during pregnancy, labour and delivery, or breastfeeding. Without treatment, around 15-30% of babies born to HIV positive women will become infected with HIV during pregnancy and delivery. A further 5-20% will become infected through breastfeeding. In 2007, around 370,000 children under 15 became infected with HIV, mainly through mother-to-child transmission. About 90% of these MTCT infections occurred in Africa where AIDS is beginning to reverse decades of steady progress in child survival. In high income countries MTCT has been virtually eliminated thanks to effective voluntary testing and counseling, access to antiretroviral therapy, safe delivery practices, and the widespread availability and safe use of breast-milk substitutes. If these interventions were used worldwide, they could save the lives of thousands of children each year (Children, HIV and AIDS, 2008: 1).

Effective prevention of mother-to-child transmission (PMTCT) requires a three-fold strategy. Preventing HIV infection among prospective parents:

- Avoiding unwanted pregnancies among HIV positive women
- Preventing the transmission of HIV from HIV positive mothers to their infants during pregnancy, labour and delivery (Children, HIV and AIDS, 2008: 1).

2. 3 ANTIRETROVIRAL DRUGS AND TREATMENT FOR THE MOTHER TO-CHILD TRANSMISSION

Women who have reached the advanced stages of HIV disease require a combination of antiretroviral drugs for their own health. This treatment, which must be taken every day for the rest of a woman's life, is also highly effective at preventing mother-to-child transmission (PMTCT). Women who require treatment will usually be advised to take it, beginning either immediately or after the first trimester. Their newborn babies will usually be given a course of treatment for the first few days or weeks of life, to lower the risk even further.

Pregnant women who do not yet need treatment for their own HIV infection can take a short course of drugs to help protect their unborn babies. The main options are outlined below, in order of complexity and effectiveness.

2. 3.1 SINGLE DOSE NEVIRAPINE

The simplest of all PMTCT drug regimens was tested in the HIVNET 012 trial, which took place in Uganda between 1997 and 1999. This study found that a single dose of nevirapine given to the mother at the onset of labour and to the baby after delivery roughly halved the rate of HIV transmission. As it is given only once to the mother and baby, single dose nevirapine is relatively cheap and easy to administer. Since 2000, many thousands of babies in resource-poor countries have benefited from this simple intervention, which has been the mainstay of many PMTCT programmes.

2. 3.2 WHEN IS SINGLE DOSE NEVIRAPINE APPROPRIATE?

A significant concern about the use of single dose Nevirapine is very effective. Around a third of women who take single dose Nevirapine develop drug resistant HIV, which can make subsequent treatment involving Nevirapine and efavirenz (a related drug) less effective. Studies have found that drug resistance resulting from single dose Nevirapine tends to decrease over time; if a mother waits at least six months before beginning treatment then it may be less likely to fail.^{10 11}

Nevertheless, in some cases the drug resistant HIV persists for many months in some parts of the body, even if it cannot be detected in the blood, and this may undermine the longer term effectiveness of treatment.

Whenever possible, women should receive a combination of drugs to prevent HIV resistance problems and to decrease MTCT rates even further.

Among babies infected with HIV and exposed to single-dose nevirapine, around half have drug resistance at 6-8 weeks old. Other infants may become infected with drug resistant HIV through breastfeeding.

Because of concerns about drug resistance and relatively low effectiveness, there is now general agreement that single dose nevirapine should be used only when no alternative PMTCT drug regimen is available. Whenever possible, women should receive a combination of drugs to prevent HIV resistance problems and to decrease MTCT rates even further.

Nevirapine, however, is still the only single dose drug available to prevent MTCT. Other "short course" treatments require women to take drugs during and after pregnancy as well as during labour and delivery. This means they are much more expensive and more difficult to implement in resource poor settings than nevirapine, which can be used with little or no medical supervision at all. So, for now, single dose nevirapine remains the only practical choice for PMTCT of HIV in areas with minimal medical resources.

2.3.3 COMBINING AZT WITH SINGLE DOSE NEVIRAPINE

According to World Health Organisation (WHO) guidelines, the regimen currently recommended for preventing mother-to-child transmission (PMTCT) in resource-limited settings uses a combination of AZT and single dose nevirapine. This approach is much more difficult to administer than single dose nevirapine on its own, but it is also significantly more effective, and is less likely to lead to drug

resistance. AZT was first shown to reduce MTCT rates in 1994, and is the best-studied drug for this purpose.

The woman should begin taking AZT after 28 weeks of pregnancy (or as soon as possible thereafter). During labour she should take AZT and 3TC, as well as a single dose of nevirapine. Her baby should receive a single dose of nevirapine immediately after birth, followed by a seven-day course of AZT. The mother should continue taking AZT and 3TC for seven days after delivery, to cut the risk of drug resistance still further.

The WHO (2006) says that PMTCT programmes are "strongly encouraged" to implement the above regimen. However, they acknowledge that in some settings it may still be necessary to use simpler options, as shown in the table below.

2. 4 THE GLOBAL FUND

The Global Fund to Fight AIDS, Tuberculosis and Malaria is a public-private partnership that distributes grants worldwide to fund HIV/AIDS prevention and treatment programmes. Grants are distributed over two years and most countries receive some grants to fund PMTCT programmes. Between 2004-2008 16% of PEPFAR funding went to support the Global Fund which in 2008 worked out as \$ 840 million being given by PEPFAR.

While the Global Fund provides around 20% of international resources, it was also announced at the Mexico AIDS conference this year that 271,000 HIV positive pregnant women had been reached with prophylaxis for PMTCT through the Global Fund in the last year.

Paediatric HIV remains a significant public health issue in most resource-limited settings, especially in HIV high burden countries. At the end of 2006, 2.3 million children under the age of 15 were estimated to be living with HIV and 15 million

orphaned due to HIV/AIDS. In 2006, there were 530,000 children who were newly infected with HIV, with well over 90% through mother-to-child-transmission.

In a number of countries, HIV and AIDS is the number one cause of death in children under 5 years, and globally 380,000 children in 2006 under 15 years died as a direct result of AIDS. Despite the existence of numerous political commitments, a set of evidence-based, affordable interventions to prevent infections in infants and the knowledge of how to implement them, coverage of PMTCT services, including HIV testing and counseling and antiretroviral (ARV) prophylaxis was very low. Eight years into the implementation of PMTCT programmes, momentum is now building in many resource-limited countries and progress is being made towards national coverage of PMTCT services. Furthermore, there have been significant advancements in scaling-up paediatric antiretroviral treatment (ART) in the last two years. Despite this encouraging progress, several of these countries lag far behind the 2010 UNGASS PMTCT goal of 80%. This report is a contribution to the global tracking of progress being made and a documentation of where countries and partners are in translating global commitments into national action. More over, it intends to contribute to reenergizing the global PMTCT and paediatric HIV care and treatment agenda and galvanizing the international commitment to universal access to PMTCT and paediatric HIV care and treatment services.

The latest HIV data collected at antenatal clinics in **Angola** indicate that HIV prevalence among pregnant women was similar in 2004 and 2005. Median national HIV prevalence was estimated at 2.4% in both 2004 and 2005 (CDC USA, 2006). Because only 40% of pregnant women access antenatal services (which are located mainly in urban or peri-urban areas), these data provide an incomplete picture of Angola's HIV epidemic. Nevertheless, HIV infection levels among antenatal clinic attendees in 2004–2005 varied from less than 1% in Bié province (in the centre of the country) to 2.7% in the capital, Luanda, 4.2% in Huila province (in the south) and 11% in the neighbouring Cunene province (which borders **Namibia**) (CDC

USA, 2006). Earlier surveys have revealed a high HIV prevalence of 33% among female sex workers in Luanda (VIH & SIDA Angola, 2002) and 9% among male and female independent miners in Lunda Norte province (which borders the **Congo**) (CDC USA, 2006). The lack of decline in prevalence could be explained by HIV infection trends among young people, mostly in urban areas. Women aged 15–24 years accounted for almost a third (30%) of all HIV infections recorded in the 2006 antenatal clinic survey, and prevalence in this age group rose from 1.9% in 2005 to 2.5% in 2006. This could reflect an increase in HIV incidence, since infections in that age group are likely to have been acquired relatively recently. These data emphasize the need to strengthen prevention efforts that focus especially on younger Ghanaians (Ministry of Health Ghana, 2007).

In **Côte d’Ivoire**, the latest Demographic and Health Survey estimated national adult HIV prevalence to be 4.7% (ORC Macro, 2006), which is lower than earlier estimates that were based primarily on HIV data collected at antenatal clinics in the provincial or district capitals. HIV surveillance among pregnant women suggests that prevalence is declining, at least in urban areas, where prevalence fell from 10% in 2001 to 6.9% in 2005 (AIDS epidemic update, 2007). As in **Burkina Faso** and **Mali**, mortality of people infected several years ago is a contributing factor to the decline in HIV prevalence. National adult HIV prevalence has remained stable in **Senegal** and was an estimated 0.9% [0.4%–1.5%] in 2005 (UNAIDS 2006). However, infection levels of 2% and 2.2% among adults tested in a population-based survey have been found in the Kolda and Ziguinchor regions, respectively, in the south-west (Ndiaye & Ayad, 2006). Here, too, most HIV transmission seems still to be linked to unprotected paid sex: in Ziguinchor, for example, HIV prevalence as high as 30% has been found among female sex workers (AIDS epidemic update, 2007). Meanwhile, in the **Gambia**, divergent epidemic trends of HIV-1 and HIV-2 have been observed. A 16-year study among research clinic patients found that prevalence of HIV-1 rose from 4.2% in 1988–1991 to 18% in 2001–2003, while prevalence of HIV-2 declined from 7% to 4% over the same period. There was no apparent trend of dual infection of HIV-1 and HIV-2 in

patients, with prevalence remaining around 1% during the same period (van der Loeff et al., 2006). The divergent trends may be explained by the lower sexual transmission rate of HIV-2, which is estimated to be a third of HIV-1 (Gilbert et al., 2003).

Despite many HIV/AIDS education and awareness initiatives, the statistics of HIV positive women remains very high. Most pregnant women discover that they are HIV positive when they are already pregnant, some of them being pregnant for the first time. First pregnancy is supposed to be a precious gift, but not, due to the effects and burden of HIV/AIDS.

In October 2008, Statistics South Africa published the report "Mortality and causes of death in South Africa, 2006". This large document contains tables of how many people died from each cause according to death notification forms. The report reveals that the annual number of registered deaths rose by a massive 91% between 1997 and 2006. Among those aged 25-49 years, the rise was 170% in the same nine-year period. Part of the overall increase is due to population growth. However, this does not explain the disproportionate rise in deaths among people aged 25 to 49 years. In 1997, this age group accounted for 29% of all deaths, but in 2006 it accounted for 42%.

The influence of population growth can be removed by looking at death rates per 100,000 people, which are provided by Statistics South Africa in another report called "Adult mortality (age 15-64) based on death notification data in South Africa: 1997-2004". These data show that between 1997 and 2004, the death rate among men aged 30-39 more than doubled, while that among women aged 25-34 more than quadrupled. The changes are even more pronounced when deaths from natural causes only are examined. Over the same period there was relatively little change in the death rates among people aged over 55 and those aged 15-20. In their report, Statistics South Africa call such developments "astounding", "alarming" and "disturbing".

The HIV/AIDS still remains the most devastating disease globally, with its impact being experienced by the individuals, the entire family, the society and the work place. There is neither cure nor vaccine for HIV/AIDS as yet. Globally, the disease is destroying children's opportunities for healthy adult lives. Mother-to-child transmission of HIV infection plays a key role in the growth of this pandemic disease.

Up to this day, there are pregnant women who still have negative attitudes towards the prevention of mother-to-child transmission (P.M.T.C.T.) programme. In order to provide a possible solution to the above problem, the central investigation in this research study is focusing on finding out the reasons why there are negative attitudes by pregnant women towards the P.M.T.C.T. programme.

The HIV infection rate amongst the women who attend antenatal clinics in South Africa is increasing dramatically. The worrying aspect is that there is no indication that this increase in HIV infection rate will decrease, in fact, it is likely that the infection rate will continue to increase in the same fashion unless something effective is done. The high rate of pregnant women with HIV has huge implication for the HIV infection rate in children (Christensen 2004:32-33).

An important finding from this survey is that the proportion of women who reported that their last live birth occurred in a health facility increased to 89 percent from the 83 percent reported in the 1998 survey. Much of this increase has occurred in the non-urban areas with an increase from the 74 percent reported in 1998 to 83 percent in 2003. Only 6.5 percent of deliveries were reported as having occurred at home.

In particular there were sharp falls in proportion of home deliveries in Mpumalanga (23 to 7 percent), Eastern Cape (25 to 16 percent), Free State (13 to 3.5 percent), Northern Province (19 to 10 percent), KwaZulu-Natal (14 to 5 percent) and North West (12 to 5 percent). The proportion of women who delivered at home was

related to the level of education with home deliveries for 20 percent of the women with no education compared to 2.5 percent of the women with higher education. The proportion of home deliveries was highest amongst the non-urban African women (13 percent) and lowest among Indian women (less than one percent).

Amongst women who delivered their last newborn outside of a health facility 80 percent reported receiving no post-natal check-up and only 13 percent received a check-up within 2 days. For all prevention methods, knowledge of the correct prevention methods is lowest in the youngest age group (15-19 years) and in the oldest age group, in both men and women. Non-urban residents reported lower knowledge of methods to reduce the risk of acquiring HIV for all prevention methods. Provincial differences are marked with women in several provinces indicating a far lower recognition of the three risk factors given.

Limpopo, KwaZulu-Natal and Eastern Cape reported the lowest proportion of women that know that HIV infection can be reduced by using condoms, having sex with just one partner or both. These data cannot be compared to the 1998 survey as this is the first time this information has been solicited. The HIV antenatal prevalence in 2003 (Department of Health, 2004), the same year as the second SADHS, shows that the provinces in which recognition of ways of acquiring HIV infection is lowest are actually the provinces with the highest rates of HIV infection (Limpopo 18 percent, KwaZulu-Natal 38 percent and Eastern Cape 27 percent). In men the provincial pattern is similar to women with Eastern Cape and Limpopo showing lower knowledge of prevention methods. Men in KwaZulu-Natal however, unlike the female respondents in the same province, were more knowledgeable about ways of acquiring HIV infection than all other provinces for all three indicators.

Education level showed the greatest differences in knowledge of risk reduction strategies. This is particularly marked in women, where less than half of women with no education report that risk of HIV infection could be reduced with either of

the two risk reduction strategies. In men, although having had no education resulted in the lowest knowledge of ways of risk reduction, it is still reasonably high for use of condoms and for limiting sex to one uninfected partner (71 percent in both cases). African non-urban men and women showed the lowest recognition of risk factors compared to other population groups and women reported lower responses than men across all population groups.

2.5 ACCEPTING ATTITUDES TOWARDS THOSE LIVING WITH HIV/AIDS

For the first time in the 2003 SADHS survey a question was asked which explored acceptance towards people living with HIV or AIDS in a number of particularly sensitive areas. As HIV prevalence has been increasing, the number of people living with HIV or AIDS has increased and so there is a need to understand how strong the stigma of the infection and disease is in the population. Accepting attitudes may indicate better knowledge and understanding of HIV and AIDS. It may also be a result of more people being affected by family members disclosing their status or a result of caring for those living with HIV or AIDS. A number of statements were presented to women respondents around interaction with and attitudes towards those infected with HIV. The majority of women (85 percent) reported that they would be willing to care for a family member with HIV or AIDS at home (Table 5.4).

Differences were observed across selected characteristics of women willing to do this. Across the provinces, KwaZulu-Natal shows the lowest proportion of women (71 percent) reporting that they would care for family members. As the province with one of the highest rates of HIV infection, this is of some concern. Women with no education also reported a lower level of agreement to this response (79 percent). Women were asked if they would be prepared to buy fresh vegetables from a vendor they knew to be infected with HIV; overall almost three-quarters (73 percent) said yes. Significantly fewer women with no education (49 percent) compared to 83 percent of those with higher education were comfortable with

buying fresh vegetables from an infected person. Non-urban women were also less likely to report preparedness to buy fresh vegetables from an HIV positive vendor reported lower levels of agreement (62 percent) compared to urban women (78 percent).

Most women (82 percent) believe an HIV positive teacher should be able to continue teaching. Again this measure of acceptance is affected by education with increasing acceptance as women's education increase (61 percent – 89 percent). The lowest level of accepting attitudes is in the disclosure of the HIV status of a family member. However, nearly two-thirds of women (60 percent) indicate they would not necessarily want an HIV positive family member's HIV status to remain a secret. More educated women were more likely to have accepting attitudes of positive status increases with education.

There is also considerable variation across the provinces with only half (51 percent) of women in KwaZulu-Natal accepting a family member's HIV positive status to be known compared to 79 percent in the Eastern Cape. Overall, more than one-third of women (38 percent) express acceptance on all four measures, with education playing the most significant role on all four measures. Only 22 percent of women with no education compared to 51 percent of those with higher education express acceptance on all four measures.

2.6 HIV TESTING

At the time of the survey, voluntary counseling and testing (VCT) was available in the public and private sector. In 2003, in the public sector the Prevention of Mother-to-Child Transmission (PMTCT) programme was being expanded throughout all the provinces. In total, 30 percent of women report that they have been tested for HIV (Table 5.6), however, around a third of women tested report that they did not get the results of their test. Although fewer men (23 percent) report they had been tested for HIV, a far higher proportion reported that they had received their results.

Despite the fact that more women have been tested, this gender difference in getting HIV test results has resulted in similar proportions, approximately 20 percent, of both men and women knowing their HIV status. A small proportion of men (6 percent) and women (8 percent) do not know if they had been tested for HIV. Both men and women in urban areas were twice as likely to have been tested as those living in non-urban areas. There are marked provincial differences in testing, with Western Cape reporting the highest level for both men and women. Rates are lowest in KwaZulu-Natal and among men and women in Limpopo. As seen in previous tables, education played a strong role in testing status with increasing levels of HIV testing reported with increasing education level.

The proportion of men who were tested and had received their result ranged from 8 percent to 43 percent, and the proportion of women ranged from 9 percent to 37 percent. HIV testing rates were highest in the white and Indian population groups and lowest in the non-urban African population. Among those who were tested, differences were noted in the proportions of men and women who received their results. The proportions of women not receiving the results of their test varied from around a quarter in the Western Cape to over a half in Limpopo. Women in urban areas were more likely to receive their results compared to non-urban areas. The likelihood of getting results of an HIV test also increased with educational status, with approximately half the women with no education not getting their test results compared to less than third in the highest education level.

2.7 ATTITUDES TOWARD NEGOTIATING SAFER SEX

Safer sex needs to be negotiated between partners and communication about sex can be awkward and embarrassing for some women. For the first time in the 2003 SADHS attitudes towards women's ability to negotiate safer sex with their husbands/boyfriends were explored. Women were asked, *"Please tell me if you think it is OK for a wife/girlfriend to refuse to have sex with her husband/boyfriend when she knows he has a disease that can be transmitted through sexual contact"*

And similarly: *“When a wife/girlfriend knows her husband/boyfriend has a disease that can be transmitted through sexual contact, is it OK for her to ask that they use a condom?”* For men, the information was only collected on women being able to propose condom use. The majority of women (79 percent) believe that a wife/girlfriend can refuse to have sex with her husband/boyfriend and 83 percent say she can propose condom use if her husband has a sexually transmitted infection (STI). A similar proportion of men (84 percent) agree that a woman can propose condom use if her husband/boyfriend has an STI.

Background characteristics showed minimal variation in responses between women and men by age group and marital status. Divorced, separated and widowed men and women reported the highest levels of agreement with the statement that a woman can refuse sex and propose condom use. It also shows that a lower proportion of non-urban women (73 percent) believe that a woman can refuse sex compared to 82 percent of women resident in urban areas. There were marked differences by province with almost all women in both the Western and Northern Cape reporting that a woman could refuse sex. Provinces with the lowest proportion of women who believe that a woman can refuse sex when her husband/boyfriend has an STI are North West (71 percent), Eastern Cape (71 percent) and Mpumalanga (67 percent). North West had the lowest proportion of men (62 percent) who said a woman could propose condom use. Education played a strong role in agreement to the two statements with 71 percent of both men and woman who had no education saying a woman could propose condom use compared to 90 percent of men and 92 percent of women with higher education. The greatest difference was found between women with no education (67 percent) and the most educated group (90 percent) who said a woman could refuse sex with her partner if he had an STI. This information points to a wide gap in negotiation skills between poorly educated women and those who have attained a high educational level.

2. 8 HIV PREVENTION DURING ANTENATAL PERIOD

The implementation of the Prevention of Mother-to-Child Transmission (PMTCT) Programme through antenatal HIV testing in the public sector in South Africa commenced in May 2001 in 18 national sites and 260 access points (clinics and hospitals) which offered antenatal and perinatal services. The number of access points increased from 153 in July 2001 to 260 in December in 2001. In July 2002 approximately 29 percent of PHC facilities were PMTCT sites (Ramkissoo *et al.*, 2004). In the 2003 SADHS, information on testing in the PMTCT programme was collected for the first time. Women were included in the analysis if they had given birth since January 2002 which means they would have potentially been exposed to the programme in that latter half of 2001. In total 56 percent of women reported that they were tested for HIV during their antenatal visit. This is high considering that the programme was not widely available prior to the data collection for the 2003 survey. HIV testing rates are considerably lower in non-urban areas with less than half of women (43 percent) being tested compared to two-thirds (63 percent) in urban areas. Provinces varied considerably in level of testing with only 34 percent of women in the North West receiving HIV testing compared to 61 percent in the Western Cape and 70 percent in Gauteng.

Education plays a strong role in testing status with an increase in HIV testing with increasing educational level. Women with only grade 1-5 education have the lowest testing rates (44 percent) compared to 75 percent in the highest education group. The HIV testing in the public sector PMTCT programme is voluntary. Women are normally given group counseling in which they are told the benefits of testing after which they choose whether they wish to be tested. In the 2003 SADHS, women were asked how the test was offered to them or if they themselves asked for the test. Two-thirds said they were offered the test and they accepted, while some women asked for the test (18 percent) and 15 percent felt it had been a requirement.

There are differences by province in the way the test was offered with a third (36 percent) of women in Mpumalanga stating the test was required compared to only 3

percent in Gauteng. To ensure continuous participation in the PMTCT programme it is important that women who are tested receive their results. In the survey, most women who said they had been tested reported receiving the results of their HIV test (84 percent). Women in urban areas were more likely to know their HIV status (90 percent) compared to (70 percent) of non-urban women. At least 90 percent of women received their results in four provinces while several other provinces performed poorly in this regard.

The PMTCT programme encompasses three key components: Primary prevention of HIV, prevention of unplanned and or unwanted pregnancy and prevention of mother-to-child transmission during pregnancy. It can be seen that most women (80 percent) said the health provider discussed prevention of HIV during their antenatal care visit. Some provinces performed better than others with a number of provinces reporting rates over 80 percent. Eastern Cape showed the lowest level of client-provider discussion (63 percent). Discussion of HIV prevention increased with level of education. White women were the least likely to have talked to a health provider about means of prevention (60 percent).

Discussion around family planning was high (87 percent) and showed few differences by age and residence. There were some differences by province the lowest level of 75 percent found in the Eastern Cape.

The most common route of transmission of HIV to children is from their mothers, either while infant is in uterus or during delivery or breastfeeding. This is known as vertical transmission. Because the incidence of HIV increases in the pregnant population, the vertical transmission is also going to increase. The prevention of vertical transmission of HIV is possible through the use of Nevirapine prophylaxis (Cozby, 1981:72-73; van Dyk, 2001:73).

Statistics of children who were newly infected with HIV below 15 years old during year 2000

Country	Number
<i>North America</i>	< 500
<i>Western Europe</i>	< 500
<i>Eastern Europe & Central Asia</i>	600
<i>Caribbean</i>	4200
<i>North Africa & Middle East</i>	11000
<i>South & South-East Asia</i>	65000
<i>East Asia & Pacific</i>	2600
<i>Latin America</i>	7300
<i>Sub-Saharan Africa</i>	520000
<i>Australia & New Zealand</i>	< 100
TOTAL	<600000

(UNAIDS, 2000).

By the end of 2005, an estimated 40, 3 million people were already infected with HIV, up from an estimate of 37, 5 million in 2003. Approximately 17, 5 million people with HIV are women and 2, 3 million are children under 15 years old. More than three million people died of AIDS-related illnesses in 2005; out of these, more than 500,000 were children (UNAIDS/WHO, 2005).

It is important to remember that most children acquire HIV from their mothers. It is clear from this statistics that the burden of childhood infections is highly noticed and prevalent in Sub-Saharan Africa.

2.9 ANTIRETROVIRAL (ARV) AGENTS GIVEN AFTER HIV EXPOSURE TO THE VIRUS CAN PREVENT HIV INFECTION

Globally, there are various studies that were conducted in support of the statement that antiretroviral medications have been proved that they can prevent the mother-to-child transmission of HIV infection. Some researches were done in SA, Uganda, Tanzania, Nairobi, USA and UK.

The PACTG076 trial on ARVs was conducted in the USA in 1994. Some other trials followed the USA trial with the main purpose of exploring cheaper antiretroviral prophylaxis. Those studies resulted in the use of post-exposure prophylaxis (PEP).

PETRA STUDY was done in SA, Uganda and Tanzania. This study explored the possibility that the administration of two antiretroviral agents (AZT & 3TC) over a shorter duration in a breastfed population may have better results than AZT alone with a marginal price increase. The timing of post-exposure prophylaxis was also explored (Gray, 2000).

The patients in this study were divided into four different groups:

- Group A: AZT + 3TC were administered orally at 36/52 weeks of gestation, intra-partum orally and one week orally postpartum to the mother and child.
- Group B: AZT + 3TC were administered orally at the onset of labour and one week postpartum to the mother and child.
- Group C: AZT + 3TC were administered orally intra-partum only.
- Group 4: Placebo (no antiretroviral).

It was discovered that in Group A, there was a 50% reduction in HIV infected newborns at six weeks of age.

Group B had 40% reduction in HIV infected infants at six weeks.

Group C and Group D had no decrease in the transmission rate of HIV to the infant when the infant was tested at six weeks of age.

This trial highlighted the impact that breastfeeding had, on the effect of PEP. The infants are protected from the exposure to HIV infection during birth by the ARVs that are administered to the mother and the child in the peri partum period. In the presence of an on going exposure to the virus through breastfeeding, it appears that the benefits of the ARV agents administered as PEP get lost. Those infants that are

saved from HIV infection during birth are later infected through breastfeeding (Gray, 2000).

2. 10 HIVNET

Uganda tried Nevirapine (NVP) for the first time as opposed to AZT/3TC for the purpose of PEP. In that research, mothers were divided into two groups.

Group 1: NVP 200mg orally was administered immediately at the onset of labour and 2mg/kg to the infant within 48 hours of delivery.

Group 2: AZT 600mg orally was administered immediately at the onset of labour, then, 300mg was administered three hourly during labour and 4mg/kg for one week to newborn infant.

It was found that at birth and early in the infant's life, the transmission rate amongst the two different groups was similar, but as time went on and infants were exposed to breast milk, the group that received NVP had a lower rate of mother- to- child transmission. It is possible that there is something about NVP that protects infants against infection beyond peri-partum period when it is administered. The NVP programme that was initiated used the HIVNET 012 regimen (Kiarie et al., 2003:65-71).

The studies that were conducted in Europe and USA revealed a 50% decrease in MTCT of HIV infection if an elective caesarian section (C/S) is performed. A study that was conducted in Nairobi revealed that breastfeeding increases the risks of HIV transmission by 15-17%. The transmission rate of HIV in breastfed compared to bottle fed infants up to six months of age is similar. After six months, the rate of HIV infection transmission in infants increases if they are being repeatedly exposed to the HIV positive mother's breast milk if compared to the formula feed.

If a mother chooses to formula feed her infant, then, she needs to be able to sustain formula feeding. She needs to be able to afford formula preparations and have easy

access to it. It needs to be clearly understood that mixed feeding which is breast milk and anything else, which can be water, juice, other mixtures, etc. is the worst option and should never be practiced.

The best option that is practiced in developed countries (USA and UK) involves treating the mother with highly active antiretroviral therapy and C/S, no breastfeeding. To this end, the transmission rate is less than 2%. Where C/S is not performed, but antiretroviral are given and infants are not breastfed, the HIV transmission rate is 5-7%.

In developing countries where there is no intervention and most infants are breastfed, the transmission rate is around 35% (Kiarie et al., 2003:65-71). There is a survey that was conducted in 1999, where 16841 women participated from 487 clinic sites. The findings revealed that the prevalence of HIV amongst pregnant women was estimated at 22.4%. Based on this survey, it was estimated that the HIV infection in the general population is as follows:

- Men: 1.9 million
- Women: 2.2 million
- Infants: 94608

The high prevalence amongst pregnant women and the projected rates on the general population suggest the increasing need for the effective interventions and programmes that will impact on the HIV/AIDS epidemic (Makubalo, Levin & Maluma, 1999).

The interim findings of the national PMTCT Pilot sites suggest that the counseling and support for safe feeding practice is necessary. The follow up care for mother and babies after delivery should be stepped up. The quality and effectiveness of the PMTCT programme rests on the efficiency of the Public Health System as a whole and not just the dedicated management of the PMTCT programme itself (Nicholson Jillian et al: 2008).

The SA Bureau for Economic Research has predicted the following:

By 2015, the SA labour force will decrease by 21%,

- 16.8% decline in highly skilled workers
- 19.3% drop in skilled workers
- 22.2% decline in semi/unskilled workers.

A recent survey revealed that one in five South Africans between 15-24 years are HIV infected, with the epidemic disproportionately affecting women (South Africa 2004).

2.11 ATTITUDE OF HEALTHCARE WORKERS TOWARDS PMTCT PROGRAMME

The strict, absolute confidentiality and privacy needs to be maintained at all cost. The patient's details must not be discussed with the second person unless that is necessary for the benefit of the patient towards his/her care (Evian 2003:314). Due to the stigma attached to HIV/AIDS, women may be scared to register for PMTCT programme if they do not have trust in the health facility and fear that it cannot treat their information with privacy and dignity (Leonard et al.2001:18).

HIV test results are private and confidential; it is only the HIV counselor and the client herself who will know the results, unless the client herself decides to divulge the information to the public. Anyone who divulges the client's information without her consent breaks the law (Project Literacy 2001:42, 43, &49).

2.12 UNDERSTANDING OF HIV/AIDS AND ITS MYTHS BY PREGNANT WOMEN

The mother- to- child transmission of HIV is the main cause of HIV infection in children who are below 15 years old. Approximately 5, 1 million children have been infected by HIV globally. HIV/AIDS is blamed for deaths of more than three million children worldwide (UNAIDS 2000).

Where HIV is not prevented, the developing countries are at risk of having their infants being born from HIV positive mothers and becoming infected with the HIV infection. The risk ranges from 25 to 35 percent (UNAIDS 2000).

As much as Africa accounts for 10% of the world's population, it is home to 90% of all HIV infected people (UNAIDS 2000). There are strategies put in place to prevent infants from contracting HIV from their mothers which include the use of contraception to prevent pregnancy, termination of pregnancy, administration of nevirapine to the mother at the onset of labour and to the infant within 72 hours after birth (Leonard 2001:35&36).

A person can get infected by HIV through the following ways:

- Having unprotected sex
- Sharing the same needle to inject something into oneself
- Blood-to-blood contact , this means that an infected blood gets into somebody through an open wound
- Passing on the virus at the time when a pregnant HIV infected woman gives birth or through breast milk when an HIV infected mother breast feeds the baby.

Approximately 25 to 30% of HIV positive mothers will transmit HIV to their babies. About 60% of transmitted infection is during childbirth, 10-20% during pregnancy and 20-40% during breast feeding.

The virus is only alive if it is inside an infected person's body in the blood, sex juices and breast milk. The HIV is not found outside the skin or in the air, which means that no-one can become infected from toilet seats, insect bites including mosquitoes, or a sneeze or cough from an HIV positive individual. HIV infection cannot be transmitted through touching or hugging HIV positive person, nor by sharing plate, eating utensils or food with the HIV positive person (Evian 2003:160; Mather 2005:15 & Project Literacy 2001:15;23).

Studies have shown no evidence of HIV transmission through insect bites as when a mosquito bites a person; it only injects the saliva, not HIV which cannot survive and reproduce in insects (Tocci 2001:89). The people who are more at risk of HIV infection are those who share unprotected sexual relationships with HIV infected individuals. The use of barrier methods of contraception e.g. condoms, reduce the risk of the infection (Geddes & Grosset 2000:27).

2.13 SUMMARY

Chapter Two has examined the literature related to the pregnant women's attitudes towards the Prevention of Mother-to-Child Transmission Programme. It must be noted that most of the literature covers the origins of HIV/AIDS, mother to child transmission (MTCT); political and socio-economic debates; awareness and counselling and medical research around HIV/AIDS and other related issues.

The following chapter will focus on the research methodology which will cover the research design, sampling, data gathering and description of the analysis.

CHAPTER THREE: RESEARCH METHODOLOGY

3. 1 INTRODUCTION

In the present study the descriptive survey method was used to gather and process the collected data. According to Fraenkel and Wallen (1993), survey methods are often opted for when researchers are interested in the behaviour and/or opinions of a large group of people about a particular topic or issue. Furthermore, the major purpose of a survey is to describe the characteristics of a population in terms of its distribution, for example age, race, religious preference and attitudes, and to determine the relationships among the variables. Fraenkel and Wallen (1993: 343) outline three common characteristics of the majority of survey research, namely:

- The fact that the data is collected from a group of people in order to describe some aspects or characteristics (such as attitudes, beliefs, abilities) of the population of which that group is a part.
- The main way in which the data is collected is through asking questions.
- Data is collected from a sample rather than from every member of the population.

In order to determine the reason for negative attitude towards P.M.T.C.T. programme as demonstrated by pregnant women, combined methods of non experimental research approach, the case study was utilized for gathering data. The informants were selected randomly as they come to the clinic. Qualitative research was used to gain insight into people's attitudes, behaviours, concerns, motivations, aspirations and lifestyles (Christensen 2004: 32-37). Qualitative because sample size was predetermined and data was collected through interaction with the research participants (Christensen 2004: 32-37).

3.2 POPULATION OF THE STUDY

The population studied were the clients who attended ANC clinic at Hambanathi Clinic (next to Tongaat), 30 pregnant mothers were selected for interview, which depended on the age and willingness to participate in the study. They constituted the age that is viewed by different studies as mostly likely to be affected by the virus.

3.3 SAMPLE SIZE

A sample is a finite part of a statistical population whose properties are studied to gain information about the whole (Webster, 1985: 28). When dealing with people, it can be defined as a set of respondents (people) selected from a larger population for the purpose of a survey. Sampling is the act, process, or technique of selecting a suitable sample, or a representative part of a population, for the purpose of determining parameters or characteristics of the whole population.

Probability sampling was used for this study. Huysamen (1994) distinguishes between probability and non-probability samples: examples of probability sample include random samples, cluster samples and stratified samples. In probability sampling, the size of the population under investigation is known to the researcher. Other characteristics of probability sampling are, for example: every individual and unit has a chance of being sampled and the researcher can make generalizations to the larger population. McMillan and Schumacher (1993:161) state that, in simple random sampling, subjects are selected from the population so that all members have the same probability of being selected. Therefore, the probability exists that any element or subject in the population can be included in the sample.

Simple random sampling was used in the study to choose the residential students. Gay (1991:88) and Powell (1993:65) recommended random sampling as the best means of drawing representative, or unbiased samples from a population. The advantage of this sampling is that it increases representativeness, ensuring that any

key feature of individuals in the population is included in the same proportions in the sample (Fraenkel and Wallen, 1993). A non random sampling, where the convenience method was used as pregnant mothers who were attending antenatal care clinic were research respondents. From the clients who attended ANC clinic at Hambanathi Clinic, 30 pregnant mothers were selected for interview, which depended on the age and willingness to participate in the study.

The first group had 15 participants who were between the age of 15 and 20 years. The second group had 15 participants who were between the age of 21 and 25 years. There were no access problems as respondents were attending the antenatal care clinic.

Due to time and financial constraints, the sample was limited to 30 pregnant mothers. The sample size was selected from Powell's guide to sample size (Powell, 1985: 81).

3.4 DATA COLLECTION INSTRUMENT

The use of interview schedules through face to face interviews was used for collecting the data needed for the study. The face to face interviews are considered more appropriate method for collecting data because they allow follow up and eye contact with the informants (Busha and Harter, 1980: 91).

3.4.1 Interview schedules through face to face interviews

Lancaster (1977) pointed out that most researchers have used questionnaires as a major source of data collection, although statistics, correspondence and interviews have been used in various combinations. This study has chosen to follow the procedures of using interview schedules through face to face interviews, which Wood (1971), indicated are not used most frequently for the study of information transfer. Gay (1992) stated that self-administered questionnaires eliminate or avoid biases in cases where the researcher is not present, but does not allow eye contact and follow up on issues of clarity as it would be the case with face to face

interviews. Although it is believed that, furthermore, self-administered questions open there room for privacy and confidentiality (Gay, 1992), the important considerations in this study, was sensitivity and potentially embarrassing questions relating to HIV/AIDS which was being observed, as the researcher clearly explained and told informants about confidentiality and ethical issues of the study prior to interviews and the concern form was signed; thus 30 pregnant mothers were instructed not to write their names on the questionnaire and were encouraged to be open in answering the questions. Interview schedules through face to face interviews were used for the study.

3.4.2 Pre-testing

Interview schedules were tested to three (3) pregnant mothers who attended ANC clinic at Hambanathi Clinic, in October 2005. Fraenkel and Wallen (1993) see pre-testing as an important process in data collection; because it gives a clear understanding of possible problems with the research tool and gives the researcher a chance to refine the approach that will be easily understood by respondents. A pre-test of using interview schedules can reveal ambiguities, poorly worded interview schedules. It also indicates whether or not the instructions to the respondents are clear. Gay (1981) warns against complex tools for data collection, to avoid ambiguity, vagueness and misinterpretation in general. In terms of the present study, the interview schedules were kept short and to the point to avoid complexity and ambiguity.

In the pre-test, respondents were asked to give their comments regarding clarity, language, length and the appropriateness of the questions asked interms of embarrassment. Some minor problems were identified and were addressed prior to distribution to interview schedules.

3.5 DATA COLLECTION PROCEDURE

Information was gathered using interview schedules through face to face interviews. The questions pertaining to breastfeeding and the prevention of HIV transmission to children were sourced from Chopra et al. (2005) and Seidel, Sewpal & Dano (2000). The response rate attained was 100% because of the face to face interviews. Open ended questions were used so that each respondent would be free to voice her own views. The completion of interviews was done within a week period, in October 2005.

3.6 DATA ANALYSIS AND PRESENTATION

Since the purpose of gathering data is to solve a research problem, the collected data must be analysed. Leedy (1989) spoke of the need for a researcher to be able to interpret and analyse data as to draw information that can lead to decision-making. Data analysis was done manually and few graphs were formulated through the use of Excel. Responses to interview schedules were categorised and quantified for input into Excel. Frequencies and percentages were used for easier reading and comparison of figures. Findings were represented in the form of tables and graphs. Demographic data concerning respondents were presented in graphs and charts.

3.7 EVALUATION OF THE METHODOLOGY

The descriptive survey method used in this study was appropriate, because of its relatively low cost in terms of time and money when compared to other methods that could have been used. The method allowed simple random sampling, which helped to ensure representivity of the sample. The data collection took place over a period of one week.

The use of the face to face interviews, through open-ended questions, allowed for freedom of expression on the part of respondents. Closed-ended questions were also beneficial in the study as they limited the length of responses and standardized responses. However, the use of the interview schedules does permit follow-up, in

terms of, for example, clarifying ambiguous responses. When evaluating a particular research method, issues of validity and reliability become another important factor.

3. 8 VALIDITY AND RELIABILITY

According to Newell (1993: 99), validity in the study refers to its ability to measure what it sets out to measure and to the accuracy of the information. Leedy (1997: 160) stipulates the different forms of validity, such as face validity, criteria and construction validity. Leedy (1993: 105) says that “reliability refers to the accuracy of the instrument”, which requires elimination of bias from the interviewer aspect; this was done through the pre-testing of the research guideline. Once data had been collected, statistical analysis and graph became necessary in order to reach the conclusions concerning the outcome of the research and to determine whether the stated hypothesis had been supported or rejected (Christensen2004: 376-383).

According to Bell (1999:104), validity is a complex concept, with many variations and subdivisions, and measuring its extent can be very involved.

Validity “tells us whether an item measures or describes what it is supposed to measure or describe” (Bell, 1999:104). There are many ways of ensuring validity (Cohen, Manion, Morrison, 2003: 105-6), one of which is to devise and use an appropriate instrument (Cohen, Manion, Morrison, 2003:116). Interview schedules were tested to three (3) pregnant mothers who attended ANC clinic at Hambanathi Clinic, in October 2005 and in order to ensure validity, interview schedules were adjusted on the basis of the responses and comments received from the pre-test. An effort was made to ensure that the questions asked related closely to the objectives of the study. In terms of the present study, it could be argued, given the very good response rate achieved, that the results can be generalized to antenatal clinics in KwaZulu-Natal, or any other province in South Africa. To what extent these results can be generalized to pregnant women in other countries is debatable and any generalization to outside South Africa must be done with caution.

3. 9 SUMMARY

Chapter Three focused on the research methodology in the study. The sampling method used was discussed. The procedures used to collect and analyse data were presented and explained. The descriptive survey method was used to gather data, which was collected over a period of a week. The sample from the clients who attended ANC clinic at Hambanathi Clinic, 30 pregnant mothers were selected for interview, which depended on the age and willingness to participate in the study.

Before the study was carried out, pre-testing was done to eliminate possible ambiguity and poorly worded questions. The data collected was analysed on SPSS. Finally the method was evaluated and the issues of validity and reliability of the data collection method were discussed. Chapter four will take us through the data presentation and analysis where the information that was gathered is presented and interpreted.

CHAPTER FOUR: DATA PRESENTATION AND ANALYSIS

4.1 INTRODUCTION

Chapter Four presents an analysis of the collected data and the interpretation of the findings is also presented.

The data gathered was about personal details of the respondents from Thabani Magwaza (Hambanathi) Clinic which is situated at Hambanathi Township (next to Tongaat in KwaZulu Natal), level of education of the respondents, attitude of healthcare workers towards PMTCT programme, baby's financial support from the parents, understanding and knowledge of PMTCT programme that includes nevirapine, feeding options and choices, knowledge of family planning methods and choices, understanding of HIV/AIDS and its myths by the pregnant women, attitude of the respondents towards HIV positive status, availability of community support to the HIV infected individuals as well as HIV/AIDS related programmes such as PMTCT and the characteristics and profiles of the respondents.

4.2. LEVEL OF EDUCATION FOR THE RESPONDENTS

The girls drop out of school as young as 15 years old because of pregnancy.

Respondents who did not complete Grade 7 who were 15-20 years = 33%

Respondents who did not complete Grade 7 who were 21-25 years = 40%

Respondents who did not complete Grade 12 who were 15-20 years = 60%

Respondents who did not complete Grade 12 who were 21-25 years = 47%

Respondents who completed Grade 12 who were 15-20 years = 7%

Respondents who completed Grade 12 who were 21-25 years =13%

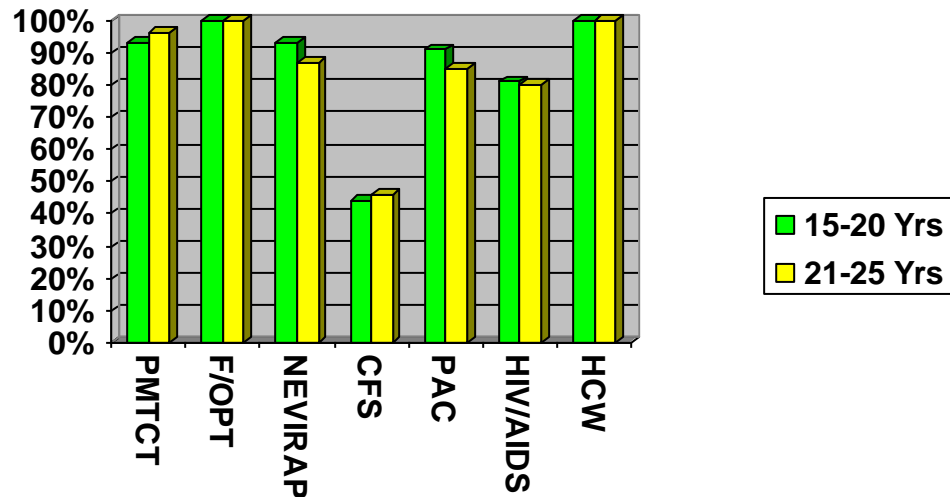
The poor level of education is believed to go hand in hand with poverty and high population rates. Both groups had 7% of respondents who were pregnant for the third time.

4.3 THE ATTITUDE OF THE HEALTH CARE WORKERS TOWARDS PMTCT PROGRAMME

Sometimes the PMTCT clients complain of the attitude of health care workers and report that as the reasons for non enrolment to the programmes. For this work, both groups felt that health care workers had 100% positive attitudes towards the PMTCT programme and its members.

4.4 THE UNDERSTANDING OF HIV/AIDS AND MYTHS FROM PREGNANT WOMEN

Figure 3: Understanding of HIV/AIDS



Abbreviations used in Figure 3:

PMTCT-knowledge of prevention of mother-to-child transmission

F/OPT –knowledge of feeding options

NEVIRAP-knowledge of nevirapine

CFS –community and family support

PAC –positive attitude of the clients

HIV/AIDS-knowledge of HIV/AIDS

HCW –positive attitude of health care worker

The understanding of HIV/AIDS and myths amongst the 15-20 years group = 81%

The understanding of HIV/AIDS and myths amongst the 21-25 years group = 80%

The above mentioned information tells us that both groups have adequate information on HIV/AIDS.

4.5 THE CHARACTERISTICS AND PROFILES OF THE RESPONDENTS

Amongst the measures a person would take if she is found to be HIV positive, a percentage for yes to condom use is as follows:

Table 5: Characteristics of the client

	15-20	21-25
Measures a person would take if she is found to be HIV Positive		
Abstain – Yes	53%	47%
Look for Medical Care – Yes	100%	100%
Avoid Pregnancy - Yes	100%	100%
Commit Suicide - Yes	-	7%
Care for Self - Yes	100%	100%
Use Condoms - Yes	87%	93%
Avoid Marriage - Yes	33%	20%
Get Divorced – Yes	13%	13%
Measures a person would take if she is HIV negative		
Avoid with HIV – Yes	93%	100%
Abstain – Yes	53%	60%
Start using Condoms – Yes	93%	100%
Avoid risky behavior - Yes	100%	100%

Both groups show that they are aware that condom use prevents the sexual partners from contracting HIV infection.

Safe sex means to do what is necessary to protect both sexual partners from contracting a sexually transmitted infection (STIs). Each person needs to have one sexual partner and not practice promiscuity by having sex with several different partners (Tocci 2001:125).The most common way of having safe sex is to wear a condom where the virus is unable to get through, if used properly (Project Literacy 2001:24).When used consistently and correctly, latex condoms have shown to provide up to 99% protection against most STIs, including HIV (Tocci 2001:127).

An HIV positive individual cannot be separated from an HIV negative person through the naked eye without performing an HIV test, as a person with HIV can have the virus for many years without feeling ill. Such people can feel fit and healthy while passing on the virus to others without knowing about its presence. HIV infected individual can live and work productively (Project Literacy 2001:17-20).

The HIV positive person needs to change his/her sexual habits to avoid infecting the sexual partner. Amongst the decisions that need to be taken, the one about having children needs to be carefully considered because of the risk of infecting the unborn baby and the possibility of the parents dying before the child grows up, more especially where the drugs to prevent mother-to-child transmission are not available (Evian 2003:50).

When an HIV test results are negative, the person needs to remain HIV negative. The necessary precautionary measures need to be taken in order to prevent further infection. The seriousness of HIV infection must be appreciated and the decision to practice safer sex needs to be made (Evian 2003:54).

Having HIV does not mean that the infected individual cannot have sexual intercourse, but, that he/she cannot have unprotected sexual intercourse without the risk to both of the sexually related partners. The HIV infected person should never have any kind of sex, be it oral, anal or vaginal, without using a latex condom. It must be borne in mind that condoms are not perfect as they are prone to breakage. The only safe way to completely avoid transmitting and contracting HIV infection is to abstain from sex (Kelly 1998:53).

HIV positive person can get married. To have HIV infection does not mean that all other parts of the HIV positive person's life must come to an end. There are so many marriages where one or both partners are HIV positive. It is necessary to let

the partner know about the HIV positive status before important decisions, like marriage, are made (Kelly 1998:54).

What happens in other terminal illnesses also happens to HIV/AIDS patients, to commit suicide. Some of them get assistance from professional people. An underground network of physicians in San Francisco has made lethal doses of opiates or barbiturates available for terminal AIDS patients to take when they have decided to pass on (Neale 1998:399). Post HIV positive test, most people of both sexes continue to engage in sexual relationships although it is normal to avoid sex during the first week or month. Some even say that they will never have sex again (Grodeck 2003:33).

When a person has just discovered that he/she is HIV positive, the search for Mr. or Ms. Right may be impossible. There may be fears of rejection and the feeling of being a biohazard. Some people decide to opt out of dating. Such responses are normal immediately after the HIV diagnosis and they subside as time goes on. HIV infection should not hinder the person from continuing with romance. Lots of HIV positive people carry on having successful relationships, marriages and families (Grodeck 2003:93).

The reasons why latex condoms should be used as often as possible are because: Condoms protect individuals from lots of STI's that can damage the immune system and shorten the people's lives.

Condoms can reduce the chances of contracting the genital herpes or warts. Condoms can protect a person from being infected with strains of HIV that may be worse than that the person already has (Grodeck 2003:103).

Suicide, in reality, is a messy, painfully, degrading and very expensive way to obtain attention although such thoughts are normal for anyone facing a major medical condition including HIV/AIDS. What is better is to ask for help when one

begins to feel overwhelmed by any emotion (Grodeck 2003:118). There may be a time when the HIV positive person needs some medical advice such as health insurance, social security benefits, doctors, etc. The best way is to contact an AIDS Service Organization which becomes a life saver. Such organizations specialize in providing services to HIV positive people (Grodeck 2003:175).

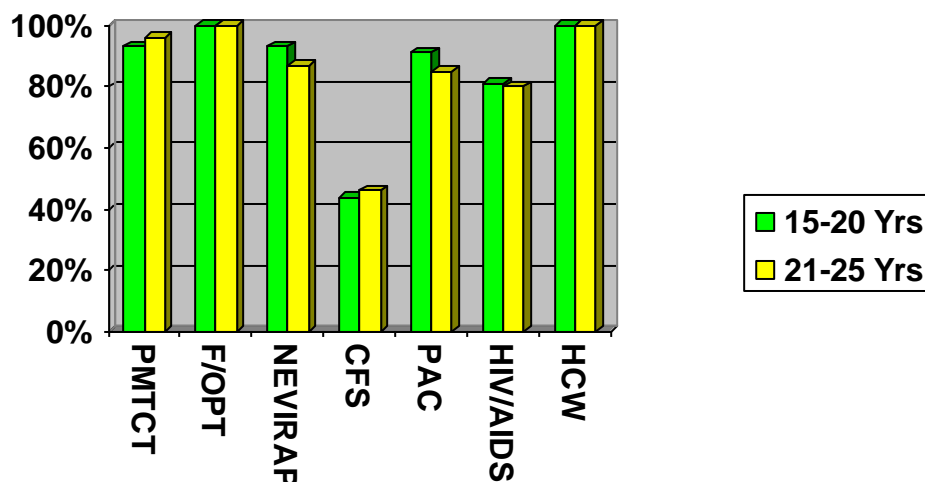
4.6 THE ATTITUDE OF RESPONDENTS TOWARDS THE HIV POSITIVE STATUS

Both groups felt that:

- They will be able to disclose their HIV status to another person if they are found to be HIV positive.
- The information gained from PMTCT programme is of benefit.
- They can influence another person to be in the PMTCT programme if they are also enrolled.
- PMTCT is not a time consuming programme.
- There are no negative aspects of the PMTCT programme.

The percentages of the respondents' attitudes towards the above issues are as follows:

Figure 6:



The HIV positive person decides herself to disclose her status. She will disclose her HIV positive status due to the following reasons:

The right for other individuals to know,

to gain emotional support,

to be able to get medical resources,

intimacy,

honesty.

People's feelings about disclosing HIV status

40% reported to be undecided about disclosing.

31% would not inform some individuals.

28% would make their status known by somebody.

21% already wished they never told somebody (Grodeck, 2003: 65-66).

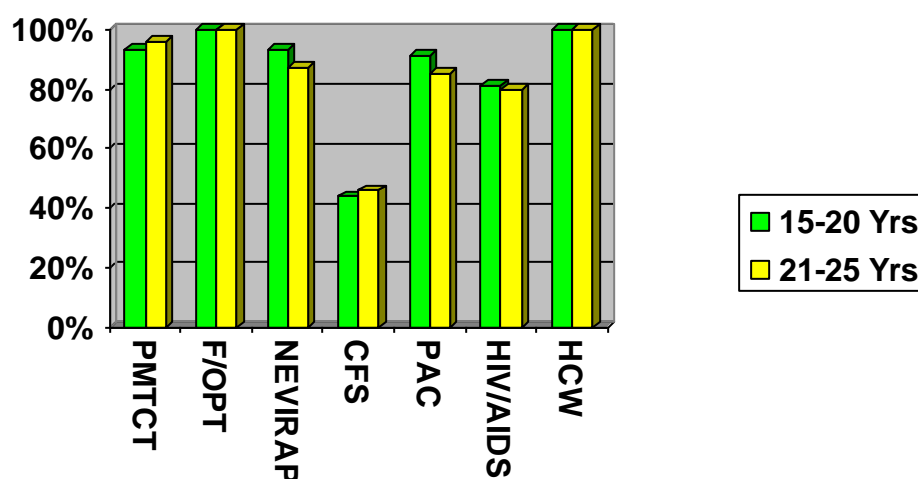
When the HIV positive person has accepted her status, she can decide to tell other people about it, which could urge those who are living with HIV/AIDS to present themselves to gain or render support. A support group can even be formed in the community through disclosure (Project Literacy 2001:43).

4.7 AVAILABILITY OF COMMUNITY SUPPORT TO HIV INFECTED INDIVIDUALS

The families and communities are considered as pillars of strength within their members during the times of difficulty. They are expected to provide support for the survival of the needy members.

The percentage of the community support was rated as follows:

Figure 7: Community and Family Support



Both groups felt that there is poor support of HIV positive individuals as well as the PMTCT programme within their families and communities.

Informing the parents of the positive HIV status is the hardest thing to do. But since the parents may need to pay for HIV related costs, they have a right to know. It may be difficult to keep the HIV status as a secret from the people one lives with. Such stress can weaken one's immune system and further sicken the infected individual. HIV positive person is part of a family, one of the functions of a family is to provide love, nurturing and support (Kelly 1998:57).

Women have low social status in traditional societies which makes it difficult for them to decide about sexual and reproductive health. Issues on pregnancy are

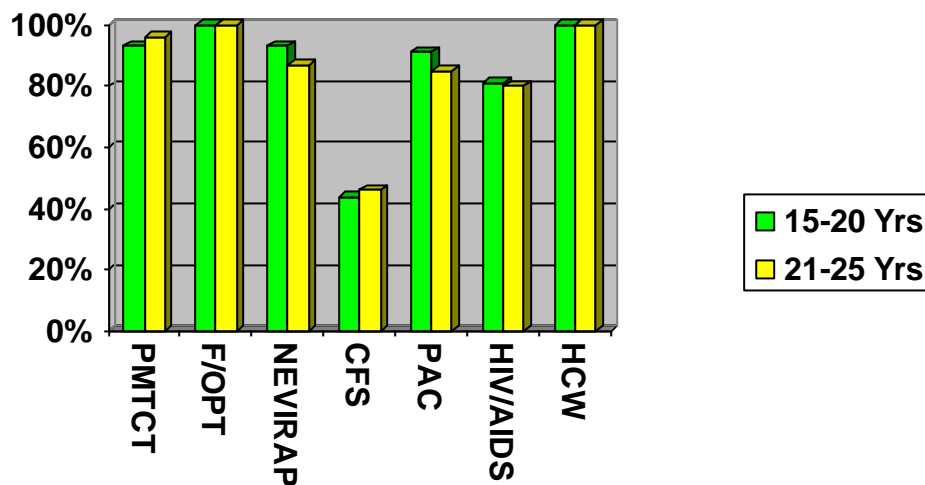
usually decided by their husbands and in-laws. It is recommended that a woman should share her HIV positive results with her family members for their support. The problem is that, that may lend her to stigmatization, ostracism, divorce, loss of economic support as well as physical abuse. If she does not tell the family about her status, that will also make it difficult for her to participate and benefit from the PMTCT programme (Leonard 2001:18).

4.8 UNDERSTANDING AND KNOWLEDGE OF PMTCT PROGRAMME AND NEVIRAPINE

For the PMTCT programme to work and be acceptable, it needs to be known by its clients.

The percentage of the respondents who explained what PMTCT is, satisfactorily, is as follows:

Figure 8: Knowledge of PMTCT Programme and Nevirapine



Both groups demonstrated excellent understanding of the PMTCT programme and nevirapine.

It helps the individual to know about their HIV status so that they make important choices for self and others. Amongst the important choices, medications for opportunistic infections, ARVs, behavior change, etc, are included (Project Literacy 2001:40).

The Constitutional Court printed out that nevirapine is safe to be used by mother and the child at birth. Since the Constitutional Court Judgment, tens of thousands of mothers and children have been issued with the single dose of nevirapine regimen in South Africa (Cameron 2005:116-117).Nevirapine is a medication that helps to lower the risk of an HIV positive mother from infecting her unborn infant with the HIV infection(Project Literacy 2001:80).

For HIV negative women, sometimes they learn of their HIV status for the first time. The PMTCT programme renders the opportunity for the HIV negative women to devise the realistic primary prevention strategies (PAHO/WHO-UNICEF-CENSIDA 2002:3).

For HIV positive women, the PMTCT programme helps them to be able to prevent the transmission of the virus from them to their infants before, during and after delivery. They are also equipped with the information to treat opportunistic infections, nutritional practices, to follow the healthier lifestyle and to prevent other strains of HIV that can be contracted through sexual intercourse (PAHO/WHO-UNICEF-CENSIDA 2002:3).

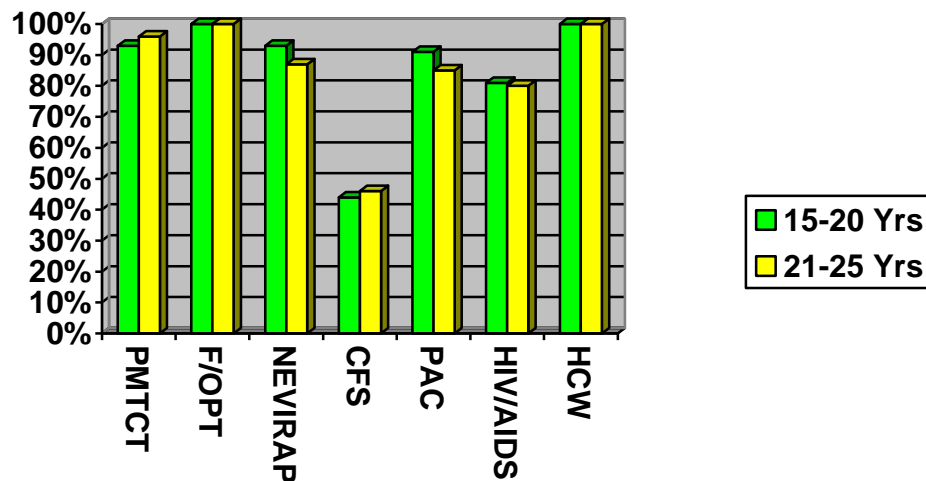
The two eminent scientists, Mc Intyre and Gray, stated that the trials of antiretroviral interventions, nevirapine, included thousands of African mothers and infants. There was no significant toxicity or serious side-effects in mothers or infants observed/noted/reported. Such findings were confirmed by all the relevant scientific literature as well as by the research done by South Africa's Medicines Control Board which officially found the nevirapine to be safe and efficient (van

Niekerk 2003:13). The efficacy of nevirapine was found to be 47% (van Niekerk 2003:6).

4.9 FEEDING OPTIONS AND CHOICES

There are two feeding options that are available for the PMTCT programme which are exclusive breastfeeding for the first six months of the baby's life and exclusive baby formula feeding. This means that if the baby is fed on breast milk, it should be the breast milk only, no formula feed, no juices, no water, for the first six months. If the formula feed is chosen, the same principle applies, no mixing of chosen feed with something else.

Figure 9: Feeding options and choices



Both groups show adequate knowledge of the feeding options 100%. It becomes difficult for the HIV infected woman to choose how and what to feed the infant where there are poor resources. It is necessary to weigh the risk of transmitting HIV to a baby who is breast fed against the benefits of breast milk to nourish and protect the baby from illnesses. For formula feed to be of benefit to the baby, it must be safe and affordable so that the baby does not end up with the risks of other life-threatening infections. A woman needs an adequate knowledge of benefits and risks of breastfeeding and formula feed where a decision needs to be taken on infant feeding (Leonard 2001:19).

Some cultures view breastfeeding mother as a good mother. Breastfeeding has been promoted as the best in those countries that practice the same culture, the message not to breastfeed makes stigmatization worse. The practice of not to breastfeed renders a woman to early return to fecundity thus increasing the risks of early unplanned pregnancy. A decision to breastfeed or not usually involves most family and community members.

Some studies show that HIV infection is at approximately 30% in women aged 20-29; it can reach 35% where breastfeeding is practiced. Where there are approximately 800 000 births per year in South Africa, this means that 70 000 babies get infected yearly. Even those children that escape HIV infection at birth, if their mothers are HIV positive, become infected with HIV infection during breastfeeding (van Niekerk 2003:4).The rates on HIV transmission through breast milk varies between 12-43% as per the African study; meaning that about one-third of MTCT can be attributed to breastfeeding (Seidel, Sewpaul & Dano 2000).

4.10 KNOWLEDGE OF FAMILY PLANNING METHODS AND CHOICES

The respondents were asked the question on family planning which wanted to find out if the benefits of sterilization were obvious, incase a woman tests HIV positive. The respondents were asked if they would consider sterilization if they were HIV positive.

The percentage of the respondents that answered positively is as follows:

Table 6: Family Planning

	15-20	21-25
1. What Family Planning method will you consider if you were HIV Positive:		
Pill	13%	-
Injection	20%	-
Condom Only	20%	33%
Loop	-	-
Sterilization	40%	67%
None of the Above	7%	-
2. Did you plan to fall pregnant?	20%	53%
Yes	80%	47%
No		
3. What were your aims?	20%	53%
To conceive	60%	27%
Do not Know	20%	20%
Used Condoms		

The older group of respondents was better equipped with information on family planning methods, particularly sterilization, as the safest method to prevent further pregnancies if one is found to be HIV positive. The study conducted by Rutenberg (2005) found the positive attitudes in the use of condoms by HIV positive women, that when condoms are used consistently by HIV positive women, they do protect sexual partners against HIV transmission, re-infection with other strains, STIs and unplanned pregnancies (Rutenberg 2005:1).

HIV positive women with the low CD4 counts of below 200 cells/mm³ or <15%, are more likely to infect the infants with HIV infection than those who are in the

asymptomatic phase of the infection. If the mother gets infected with HIV infection during pregnancy and breastfeeding, there are more chances that she will transmit the HIV infection to the baby (Evian 2003:224). That means that the pregnant mothers need to know of this risk and be given adequate education of safer sexual practices, to use condoms if their partners are HIV infected or if the partner's HIV status is not known (Evian 2003:224).

4.11 THE BABY'S FINANCIAL SUPPORT FROM THE PARENTS

The percentage of those respondents who verbalized that they will apply for the child support grant is as follows:

Establish the baby's financial support	15-20	21-25
1. Working Mothers	7%	33%
Working partners (Babies Fathers)	73%	80%
2. If both parents are not working, who will support the baby:-		
2.1. Grant	-	13%
2.2. Baby's Parents	73%	74%
2.3. Baby's Grandparents	27%	13%
3. Clients who are ready to apply for child support grant.	80%	87%
4. Is the child support grant sufficient?		
Yes	40%	20%
5. How much can be enough?		
R200.00	7%	7%
R250.00	-	26%
R300.00	33%	20%
R350.00	-	7%
R400.00	7%	20%
R500.00	13%	-
Those who need more money for grant	60%	80%
Those who are happy with the current amount of grant	40%	20%

Governments need assistance to develop long-term plans, strategies and structures for the protection, care and support of orphans and other children affected by HIV/AIDS (Mitigating the Effect of HIV on Children and Orphan, 2008: 3). Critical areas include provision of health care, including paediatric and children's ARV treatment, access to education, social protection and food and nutrition (UNAIDS 2002). In addition initiatives are needed to keep the mothers and parents alive and prevent the transmission of HIV from mothers to children. Finally, the capacity of communities to support the growing numbers of orphans must be strengthened (Mitigating the Effect of HIV on Children and Orphan, 2008: 3).

In order to explore and cover most issues pertaining to the reasons for the negative attitudes towards the PMTCT programme, it became necessary to consider the information on the baby's financial support as well. The rise in the number of single parents is not limited to the Western world. In South Africa in 1998, over a fifth of all households were run by single parents (WHO, 2000). As is true everywhere, single parenthood results from separation or divorce, death, and pregnancy outside of wedlock (WHO, 2000). In addition to widespread problems with AIDS, South Africa continues to experience increasingly high rate of teenage pregnancy (WHO, 2000).

This means that single mothers are bearing the brunt of serious poverty early in life without the benefit of support systems. The more traditional South African communities still believe that mothers should be responsible for rearing the children and giving care within the home. And they have the added burden of caring for family and children affected by HIV/AIDS (UNAIDS, 2002).

A 2000 report on the "State of South Africa's Population" showed that the need for contraception for adult women and teenagers in rural areas far outstrips the availability of contraceptive education and supplies. Calling for programs that will give rural teenagers and women greater control over their reproductive lives, the

report blamed the shortage in contraception for most of the teenage pregnancies (many a result of rape) (UNAIDS, 2002).

Across the world, but particularly in Sub-Saharan Africa, HIV and AIDS is destroying families and communities, the primary safety net for children. More than 15 million children have lost one or both parents to AIDS and millions live with sick or dying family members. More than 2 million children are now living with HIV. Children affected by HIV/AIDS are among the most vulnerable and in need of protection from sexual exploitation, trafficking and child labour (Mitigating the Effect of HIV on Children and Orphan, 2008: 2).

It is estimated that by 2010 the number of orphans will have risen to 20 million due to AIDS, and caring for a rising number of orphans in Africa puts a heavy burden on children, households and communities (Mitigating the Effect of HIV on Children and Orphan, 2008: 1). Few national governments have the capacity, adequate legislation or national policies to meet these needs, and at present most households caring for orphans and vulnerable children, including child-headed households, do not get any support (UNAIDS, 2002). In many cases, orphans are cared for by grandmothers who themselves are needy and unable to generate resources to support the children (Mitigating the Effect of HIV on Children and Orphan, 2008: 1).

4.12 SUMMARY

Chapter Four dealt with the presentation and interpretation of the findings on the pregnant women's attitudes towards the Prevention of Mother-to-Child Transmission Programme. The results were presented in the form of charts and tables. This study concurs with the stated hypothesis that the increasing number of the pregnant women who do not wish to enroll to the PMTCT programme, it is possible that they are not equipped with adequate information about the P.M.T.C.T. programme and its advantages, but contrary the data analysis has revealed that poor

literacy, poverty and poor support from the families and communities are the reasons for the negative attitudes towards the PMTCT programme.

CHAPTER FIVE: CONCLUSION, RECOMMENDATIONS AND FURTHER RECOMMENDATIONS

5.1 INTRODUCTION

Chapter five reviews the research purposes and the research questions and provides an overview of the study. The conclusions and recommendations of the study and the researcher's suggestions for further research will be presented.

5.2 CONCLUSION

These are research conclusions:

- There is a poor level of education amongst the pregnant women.
- Most pregnant women respondents depend on the state child support grant to support their children.
- The pregnant women who are younger group of respondents does not consider sterilization as the safest method to prevent further pregnancies, should one is found to be HIV positive.
- Respondents felt that their communities and families do not support HIV infected individuals as well as HIV/AIDS related programmes, such as PMTCT.

The objective of this study was to find out the reasons why pregnant women demonstrate negative attitude towards PMTCT programme. The stated hypothesis was that, it is possible that pregnant women lack adequate information about the PMTCT programme. The surveyed studies revealed that 600 000 children were below 15 years during year 2000 were infected with HIV infection. By the end of 2005 the rate increased to 2, 3 million children under the age of 15 years who were infected with HIV, and more than 500,000 children died of AIDS-related illnesses. A reliable intervention is required to save children who are the future nation.

Today's children are tomorrow's workforce. If nothing is done about the pregnant women's negative attitudes towards the PMTCT programme, so that they deliver healthy babies who are free from HIV infection, there will be no future employees, thus the decline in the global economy.

5.3 RECOMMENDATIONS

The following improvements are necessary:-

- Increase community awareness of the PMTCT programme and its benefits through health education, the media and distribution of information pamphlets.
- Create opportunity at the clinic for ongoing counseling and the establishment of the PMTCT support groups in the community.
- Improve the links between community leaders and health care providers in order to encourage the dissemination of the information on PMTCT programme to the community.
- Visit the schools with the aim of educating the children about HIV/AIDS and the PMTCT programme which may help to reduce teenage pregnancies.

5.4 FURTHER RECOMMENDATIONS

- Both PMTCT and Safe Motherhood (SM) program planners may not always prioritize behaviour change interventions (BCI)... Common behavioural objectives of PMTCT and SM programs - emphasis behaviours - and logical ways to integrate promotion of joint objectives are proposed.
- In addition to improving obstetric practices in maternity facilities, a set of simple, realistic obstetric behaviors to reduce MTCT during home births should be a component of all PMTCT programs in settings where home births predominate.

- Timely use of skilled obstetric care and reducing delays in seeking, reaching and receiving skilled childbirth care should be part of behavior change objectives of PMTCT programs.

- A formal evaluation of the PMTCT programme will demonstrate to what extent the programme contributed to changes in the indicators. Formal evaluations should be conducted intermittently to try to examine the ways in which the PMTCT programme is causing these changes.

- Are women who do not breastfeed their children stigmatized? And, Are there infant feeding support groups for HIV-positive women and their families?

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APPENDIX 1: LETTER OF CONDUCTING A RESEARCH

P.O.Box 6173
ZIMBALI
4418
22 June 2006

The Nursing Service Manager
Verulam Clinic
VERULAM

REQUEST FOR CONDUCTING A STUDY AT HAMBANATHI CLINIC

I kindly request the permission to conduct a study on pregnant women at Hambanathi Clinic from 24 to 28 July 2006. I am a Master's student at the University of Stellenbosch. I am doing a research on the pregnant women's attitudes towards the prevention of mother-to-child transmission programme. I am specifically looking on the pregnant mothers who attend antenatal care at Hambanathi Clinic.

My reason for choosing this specific topic is because there are still HIV positive mothers who fall pregnant and deliver HIV positive babies although the South African government has rolled out the prevention of mother-to-child transmission programme which is aimed at saving the babies by means of the administration of Nevirapine to HIV positive mothers and their babies.

This research is in partial fulfilment of the requirements for an MPHIL in Management of HIV/AIDS in Workplace qualification from the University of Stellenbosch. The respondents' information will be kept confidential. The interview will be in the form of questionnaires and face-to-face incase there are clarifications that are required by the respondents.

The study will take about 45-60 minutes. I hope my request will meet your most favourable consideration.

Thank you.

Yours faithfully,

A handwritten signature in black ink, appearing to read "Mtsali". The signature is fluid and cursive, with a large initial letter 'M'.

H.N.MTSHALI

APPENDIX 2: CONSENT FORM FOR RESPONDENTS

My name is Nompumelelo Mtshali; I am a Master's student at the University of Stellenbosch. I am doing a research on the pregnant women's attitudes towards the prevention of mother-to-child transmission programme. I am specifically looking on the pregnant mothers who attend antenatal care at Hambanathi Clinic. There are still HIV positive mothers who fall pregnant and deliver HIV positive babies although the South African government has rolled out the prevention of mother-to-child programme which is aimed at saving the babies by means of the administration of Nevirapine to HIV positive mothers and their babies.

This research is in partial fulfilment of the requirements for an MPhil in Management of HIV/AIDS in Workplace qualification from the University of Stellenbosch. **Your responses will be kept confidential.** The interview will last for 45-60 minutes of your time.

APPENDIX 3: INTERVIEW SCHEDULES FOR DETERMINING THE REASONS FOR NEGATIVE ATTITUDES TOWARDS PMTCT PROGRAMME AMONGST THE PREGNANT WOMEN AGED BETWEEN 15 AND 25 YEARS.

Respondents are pregnant women aged between 15 and 25 years old who are currently attending ante natal clinic at Hambanathi Clinic. It will be face-to-face interview.

1. Age group 15-20 or 21-25 (tick the appropriate group).

15-20 21-25

2. Number of previous pregnancies.....

3. What does prevention of mother to child transmission mean to you?

Answer-

4. Where did you hear about this programme? Tick the appropriate answer from the following:

5. Media.... health worker.... Clinic.... Other....

6. What are the feeding options that you have if you are HIV positive?

Answer-

7. What option would you choose?

Answer-

8. Are there any negative aspects?

Answer-

9. Who do you think should take Nevirapine tablet?

Answer-

10. Was the health care worker approachable? If not, why?

Answer-

11. Is privacy and confidentiality maintained? If no, explain?

Answer-

12. Do you think that you are able to disclose your status to another person if you are HIV positive, e.g. Partner, family member, friend?

Answer-

13. Is the information gained from the PMTCT Programme beneficial or not? If not, explain.

Answer-

14. If you were on the programme, would you influence or support another person to be on this programme? Explain.

Answer-

15. Is the PMTCT Programme a time consuming programme? Explain.

Answer-

16. Do you feel that you are treated differently from other clients whilst on the programme?

Answer-

17. Are there any sensitive issues that are interfering with your decisions in the PMTCT Programme?

Answer-

18. What suggestions can you offer to improve the programme and make it more acceptable?

Answer-

19. What family planning method will you consider if you were HIV positive? Choose from the following and tick the appropriate answer

- Pill
- Injection
- Condoms only
- Loop
- Sterilization
- None of the above

20. If you are on the programme, when will your baby be tested to determine if he or she is HIV positive or negative?

Answer-

21. How often do you think you should have counselling? Choose between the following options and tick the appropriate answer.

- On-going counselling
- Before and after testing for HIV only

22. How often should you attend the follow up clinic after the baby is born?

Answer-

23. Are there any myths regarding HIV and pregnancy or the use of Nevirapine? If yes, explain.

Answer-

24. Do you think that it is important to complete the PMTCT Programme once you have started it?

Answer-

25. In what way do you think that this programme will benefit you and your baby?

Answer-

26. Are you working?

Answer-

27. Is your partner working?

Answer-

28. If both of you are not working, who will support the coming baby?

Answer-

29. Are you ready to apply for child support grant?

Answer-

30. Did you plan to fall pregnant?

Answer-

31. Since you did not use contraceptive methods, what were your aims?

Answer-

32. Is the child support grant sufficient for children?

Answer-

33. If the answer is no to the previous question, why are you saying it is not enough?

Answer-

34. How much child support grant will be enough?

Answer-

35. Can your child's father support you through out the PMTCT Programme?

Answer-

36. Can your in-laws support you through out the PMTCT Programme?

Answer-

37. How does the community view the PMTCT Programme?

Answer-

38. Do condoms protect partners from being infected by HIV during sexual intercourse?

Answer-

39. Do mosquitoes transmit the HIV infection from the infected to the uninfected individuals?

Answer-

40. Will you be infected with HIV infection, sexually, if you have only one partner who is faithful?

Answer-

41. Does abstaining protect people from HIV infection?

Answer-

42. Can an HIV negative person get HIV infection by having a meal with HIV positive person?

Answer-

43. Can a person get HIV infection if he or she receives injection using the needle that was used by someone else?

Answer-

44. Do you think that a healthy-looking person can be a carrier of HIV infection?

Answer-

45. Can a pregnant woman transmit HIV infection to her unborn child?

Answer-

46. Can an HIV positive woman transmit the HIV infection to her newborn baby through breastfeeding?

Answer-

47. Tick the appropriate answer applicable to you from the following answers to the following question 47 and 48

If you are HIV positive, will you:

- Abstain from sex?
- Look for medical care?
- Avoid pregnancy?
- Commit suicide?
- Care for yourself?
- Use condom?
- Avoid marriage?
- Apply for divorce?

48. If you are free from HIV infection, will you:

- Avoid risks that will expose you to HIV infection?
- Abstain from sex?
- Start using condoms?