AN EVALUATION OF THE INTEGRATION OF HIV COUNSELING AND TESTING IN OTHER PUBLIC HEALTH CARE SERVICES

BY

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DECLARATION

I, SEGOMOTSO MAGZIMAH NTLHAILE - LETWABA declare that the dissertation for the degree of Masters of Business Administration at the University of North-West hereby submitted, has not previously been submitted by me for a degree at this or any other university. That it is my own work in design and execution and that all material contained herein has been acknowledged.

Segomotso Magzimah Ntlhaile - Letwaba

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ABSTRACT

Over the past 20 years, voluntary counseling and testing programs (VCT) have helped millions of people learn their HIV status, yet more than 80% of people living with HIV in low and middle-income countries do not know that they are infected. HIV testing is a critical entry point to life-sustaining healthcare services for people living with HIV and AIDS and service delivery models need to be expanded to testing in antenatal care, sexually transmitted infection clinics, in-patient wards as well as free-standing client-initiated testing centres.

Uptake of counseling and testing remains low due to stigma, as well as perceptions about poor follow-up and treatment options available for people with HIV/AIDS. In addition, most men do not visit health centres unless they are very sick and as a result, the number of men requesting C&T remains low.

This study evaluated the current extent of integration and uptake of HIV counseling and testing in Southern district of the North West province in the different services, and also provides a yardstick for future evaluation of the impact of the proposed interventions.

The study was explanatory and quantitative in nature. Data was collected by means of questionnaires, observation and semi-structured interviews. Non-probability sampling was used to select a sample from public health fixed facilities in Southern district of the North West provincial department of health.

Findings showed that there is an urgent need to increase VCT services as well as to standardize and expand provider-initiated testing and

counseling so that more people learn about their HIV status. However, endorsement of provider-initiated HIV testing and counseling is not an endorsement of coercive or mandatory HIV testing.

It concluded that HIV counseling and testing is not well integrated with other clinical services. Most professional nurses, although trained on VCT, do not provide counseling and rely solely on lay counselors. As a result, HIV conseling and testing is not provided after hours and during weekends, making the service inaccessible.

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ORIENTATION

1.1 Introduction

The global aids epidemic continues to grow and there is concerning evidence that some countries are seeing resurgence in new HIV infection rates which were previously stable or declining. However, declines in infection rates are also being observed in some countries, as well as positive trends in young people's sexual behaviours(UNAIDS, 2006 : 1).

According to the latest figures published in the UNAIDS/WHO AIDS Epidemic Update (2006:1), an estimated 39,5 million people are living with HIV. There were 4,3 million new infections in 2006 with 2,8 million (65%) of these occurring in sub-Saharan Africa and important increases in Eastern Europe and Central Asia where there are some indications that infection rates have risen by more than 50% since 2004. In 2006, 2,9 million people died of aids-related illnesses.

New data suggest that where HIV prevention programmes have not been sustained and/or adapted as epidemics have changed, infection rates in some countries are staying the same or rising once more.

According to the Census report (2001), South Africa has an estimated population of 47 million, whereas the HIV prevalence was estimated to be 10,8% in 2005. The National Department of Health (NDOH) has developed or adapted a large number of standards, guidelines and protocols for HIV & aids comprehensive treatment, care and support services.

The standards have been communicated through training workshops and through a wide distribution of protocols and guidelines. But both health districts and health service outlets need support and mentoring in operationalizing these guidelines to ensure the creation of demand for services, quality counselling and testing (C&T), referral and linkages with antiretroviral therapy (ART) and community support groups.

Over the past 20 years, voluntary counselling and testing (VCT) programs have helped millions of people to come to know their HIV status, yet more than 80% of people living with HIV in low and middle-income countries do not know that they are infected (CDC, 2007). Efforts are urgently needed to increase the provision of HIV testing through a wider range of effective and safe options. HIV testing is a critical entry point to life-sustaining healthcare services for people living with HIV and aids and service delivery models need to be expanded to testing in antenatal care (ANC), sexually transmitted infection (STI) clinics, inpatient wards as well as free-standing client-initiated testing centres.

WHO and UNAIDS (2002: 16) encourage countries to increase VCT services as well as to standardize and expand provider-initiated (PI) testing and counselling so that more people come to know their HIV status. However, endorsement of provider-initiated HIV testing and counselling is not an endorsement of coercive or mandatory HIV testing.

The Monitoring Review (2004:51) reports the number of service points available to provide Counselling and Testing services countrywide was 3 072. The number of cases tested for HIV during 2003/2004 was 511 843. Approximately 600 000 were tested in 2005.

The District health Information System (DHIS) indicates that only 29 percent of antenatal clients tested for HIV in 2005. The HIV testing rate among TB patients is almost negligible.
There are multiple entry points into the care delivery system, including voluntary counselling and testing, the prevention of mother-to-child transmission (PMTCT) program, facilities offering reproductive health and sexually transmitted infections (STI) services, primary health care clinics (PHC), tuberculosis (TB) clinics, inpatient hospital settings and prisons.

Following diagnosis and staging of HIV infection, individuals may be referred for antiretroviral therapy and/or prophylaxis for opportunistic infections or routine follow-up and monitoring for patients with less advanced diseases. However, patients will still have the right to decide on the treatment of their choice.

It is imperative that health service outlets increase access to high quality provider-initiated HIV Counselling and Testing (PI-C&T) in the Republic of South Africa. There are non-government organizations (NGOs) with the main task of providing technical assistance and support to healthcare service outlets in integrating PI-C&T with key clinical services including antenatal care, tuberculosis, sexually transmitted infections and family planning.

The study was conducted in Southern region of the North West province where support is being provided by NGO's in terms of strengthening the VCT project in the province.

1.2 Objectives

The objectives of the study are:

- To assess the operational quality of VCT services in terms of utilization, accessibility, human resource capacity and skills, infrastructure and functional efficiency

- To provide baseline information and formative recommendations that will act as a yardstick for future evaluation and improvement of quality and utilization of PI-C&T services
- To improve capability and skills of health workers in VCT

- To increase the number of antennal care clients, TB and STI clinic attendees and general population who receive high quality VCT services

1.3. Scope of the study

The North West Province has 3,6 million people (Census 2001). Roughly 65% of people in the province live in non-urban areas. The population density is 31 people per square kilometre. The province's low population density has several implications with regard to rendering health services, particularly to small communities in rural areas.

The department has to operate a number of mobile clinics to render health services to communities far from fixed clinics. The population distribution per health regions is as follows: Bojanala (44%), Central region (20%), Bophirima (18%) and Southern (18%).

The distribution of the population per age group is as follows: Under 15 yrs (34%), 15-44 (49%), 45-64 (12%) and 65+ (5%). The distribution shows that the province has a young population, which is typical of most developing countries.

Particular focus was on the Southern district of the North west Province which is urban at 16 primary health care facilities that are distributed as follows:

- Potchefstroom, four facilities
- Ventersdorp, three facilities
- Maquassi hills, eight facilities
- Matlosana, one facility

1.4. Importance of the study

Currently, most health service outlets are offering client-initiated C&T services, also referred to as VCT. In many facilities, the VCT services are offered in separate clinics at times in refurbished containers located outside the clinics. Uptake of VCT remains low due to stigma as well as perceptions concerning poor follow-up and treatment options available for people with HIV & aids. Also, VCT has not been well integrated with antenatal care, TB and STI services, with the result of high number of missed opportunities. The study aims at integrating VCT services into key health services in order to increase access to counselling and testing in both districts.

1.5 Study environment

In the North West Province, the roll-out of project activities begins with high priority districts. Initially, the roll-out starts in one urban district and gradually expands to one rural district, thereby covering two districts by the end of 2007. The districts were identified in consultation with the provincial and local departments of health.

A district-based VCT expansion strategy is promoted, whereby each district health office takes the lead in coordinating VCT expansion strategies in partnership with other non-government and private entities. The district health offices work towards broad-based service delivery interventions along with increasing the acceptance of VCT services.

1.6 Clarification of concepts

Client-initiated HIV testing and counselling (also known as Voluntary Counselling and Testing, or VCT) involves individuals actively seeking HIV testing and counselling at a facility that offers these services. It usually emphasizes individual risk assessment and management by counsellors, addressing issues such as the desirability and implications of taking an HIV test and the development of individual risk reduction strategies. It is conducted in a wide variety of settings including health facilities, stand-alone facilities outside health institutions, through mobile services, in community-based settings and even in people's homes (WHO, 2007:19).

Provider-initiated HIV testing and counselling refers to HIV testing and counselling which is recommended by health care providers to persons attending health care facilities as a standard component of medical care. The major purpose of such testing and counselling is to enable specific clinical decisions to be made and/or specific medical services to be offered that would not be possible without knowledge of the person's HIV status. Provider-initiated HIV testing and counselling is neither mandatory nor compulsory. WHO and UNAIDS do not support mandatory or compulsory testing of individuals on public health grounds. It incorporates the informed right of the patient to decline the recommendation of an HIV test (WHO, 2007:19).

In the case of persons presenting at health facilities with symptoms or signs of illness that could be attributable to HIV, it is a basic responsibility of heath care providers to recommend HIV testing and counselling as part of the patient's routine clinical management. This includes recommending HIV testing and counselling to tuberculosis patients and persons suspected of having tuberculosis.

Provider-initiated HIV testing and counselling also aims at identifying unrecognized or unsuspected HIV infection in persons attending health facilities. Health care providers may therefore recommend HIV testing and counselling to patients in some settings even if they do not have obvious HIV-related symptoms or signs. Such patients may nevertheless have HIV and may benefit from knowing their HIV-positive status in order to receive specific preventive and/or therapeutic services. In such circumstances HIV testing and counselling is recommended by the health care provider as part of a package of services provided to all patients during all clinical interactions in the health facility. It is emphasized that, as in the case of client-initiated HIV testing and counselling, provider-initiated HIV testing and counselling is voluntary, and the "three C's", namely informed consent, counselling and confidentiality, must be observed.

Substantial debate has taken place on whether provider-initiated HIV testing and counselling in health facilities should employ so-called "opt-out" or "opt-in" approaches.

With "opt-in" approaches patients must affirmatively agree to the test being performed after pre-test information has been received. Informed consent is analogous to that required for special investigations or interventions in clinical settings such as liver biopsy or surgical interventions (WHO, 2007:19).

With "opt-out" approaches, individuals must specifically decline the HIV test after receiving pre-test information if they do not wish the test to be performed. This approach to informed consent is analogous to that required for common clinical investigations such as chest X-rays, blood tests and other non-invasive investigations. In most circumstances the health care provider's recommendation will lead to the procedure being performed, unless the patient declines (WHO, 2007:20).

Consistent with WHO policy options developed in 2003 and with the 2004 WHO/UNAIDS Policy Statement on HIV Testing, an "opt-out" approach to provider-initiated HIV testing and counselling is adopted. However, in some circumstances such as in health facilities that serve highly vulnerable populations, "opting" approaches merit consideration. Whether patients "opt-in" or "opt-out", the end results should be the same, namely an informed decision by the patient to accept or decline the health care provider's recommendation of an HIV test.

- **TB** refers to tuberculosis. It is one of the opportunistic infections that set in once the person is HIV positive.
- **STIs** refer to sexually transmitted infections
- **FP** refers to family planning. It includes methods that are used to prevent pregnancy such as condoms and contraception.

- **ANC** refers to antenatal care. It is health care that is given to expectant mothers at primary health care level
- **PMTCT** refers to the prevention of mother-to-child transmission of HIV. It is also known as vertical transmission.

1.7 Plan of the study

Chapter 1 introduces the reader to an understanding of the objectives and the importance of the study. The theoretical foundation and literature review is given in Chapter 2. In Chapter 3 the research problem is formulated. Chapter 4 covers the research design and analysis. In Chapter 5 the response rate is dealt with and the research results are reflected. The research results are discussed, conclusions are drawn and recommendations made in Chapter 6.

CHAPTER TWO

THEORETICAL FOUNDATION AND LITERATURE REVIEW

2.1 Introduction

Chapter 1 introduced the reader to an understanding of the objectives of the study. The importance, scope and the environment of the study were dealt with. Concepts were clarified and it concludes with the plan of the study.

In Chapter 2, the theoretical foundation and literature review is dealt with. More specifically the following aspects are covered;

2.2 Implementation in all health facilities

In generalized epidemics where an enabling environment is in place and adequate resources are available, including a recommended standard of HIV prevention, treatment and care, health care providers should recommend HIV testing and counselling to all adults and adolescents seen in all health facilities. This applies to medical and surgical services, public and private facilities, inpatient and outpatient settings and mobile or outreach medical services.

HIV testing and counselling should be recommended by the health care provider as part of the normal standard care provided to the patient, regardless of whether the patient shows signs and symptoms of underlying HIV infection or the patient's reason for presenting to the health facility.

2.3 Priorities for implementation

In generalized epidemics, resource and capacity constraints may require a phased implementation of provider-initiated HIV testing and counselling, with certain health facilities or patient groups initially selected as priorities. Selection of priority health facilities or patient groups should be guided by an assessment of the local epidemiological and social context (UNICEF, 2007).

2.4 The importance of counselling

Surveys in heavily affected countries have shown that knowledge of HIV status is limited. The available data suggest that the global coverage of HIV testing and counselling remains unsatisfactorily low. Demographic and health surveys in 12 high-burden countries accounting for 47% of adults and children living with HIV/AIDS in sub-Saharan Africa in 2005 showed that, among the general population, the median percentages of men and women who had been tested for HIV and had received the results were 12% and 10% respectively (Stover et al,2006:45-50).

Data on the number of people living with HIV/AIDS who know their HIV-positive status are even more limited. Population-based surveys incorporating HIV tests undertaken in a small number of countries of sub-Saharan Africa revealed that the percentages of women living with HIV who knew their status before the surveys ranged between 12% and 25%, and that the corresponding values for men ranged between 8% and 24% (Stover et al, 2006:82).

Garcia et al (2006:362) indicate that in more than 70 surveyed low- and middle-income countries that reported data for 2005, only 10% of the pregnant women had received an HIV test. Testing coverage in pregnant women is low in several of the 10 countries with the highest estimated numbers of HIV-infected pregnant women. There are data suggesting a threefold increase in both HIV testing of TB patients and the detection of HIV/TB co-infection since 2003.

They continue to assert that globally, 86% of the estimated numbers of HIV-positive TB patients are not tested for HIV during their treatment. Provider-initiated HIV testing and counselling is emerging as an important strategy for expanding access to HIV and AIDS treatment and care for TB patients.

Continued scaling up of VCT services is necessary, but obstacles to uptake must be overcome. HIV testing and counselling is a critical entry point to both prevention and treatment services but inadequate access to and uptake of these services continues to handicap efforts to expand HIV prevention and ensure timely access to treatment and care.

Client-initiated voluntary counselling and testing (VCT) in which a client or patient specifically requests an HIV test, has helped many people to come to know their HIV status. However, the reach and uptake of these services remains inadequate. In many settings where health systems are poor and resources are limited the availability of testing and counselling services is constrained by shortages of skilled service providers, inadequate material resources, poor infrastructure and inadequate procurement and supply management systems (WHO, UNAIDS, UNICEF, 2007:59).

Social factors such as individual attitudes and personal perceptions of risk also have a considerable effect on the uptake of VCT (WHO, 2006:50). Stigma and negative reactions to disclosure create further barriers to testing, while gender inequalities contribute to delays in women coming to know their HIV status and increase the risk of discrimination and violence following disclosure of their HIV-positive status.

These obstacles can be diminished by: improving the conditions under which testing and counselling are provided; supporting providers so that they have the information and resources needed for providing quality testing, counselling and referral services; improving their ability to foresee and prevent violence; increasing the use of peer counsellors; and improving communication between providers and clients.

Uptake can also be increased if practical difficulties are removed, e.g. by enabling same-day results through the use of rapid tests, and if convenience for clients is increased, e.g. by offering testing and counselling at workplaces, in mobile clinics and during night hours. The health sector must expand its role in HIV testing and counselling. In addition to scaling up VCT services, additional approaches to HIV testing and counselling may help to substantially expand knowledge of HIV status.

Because health facilities represent a key point of contact with people who potentially have HIV, health care providers initiating testing and counselling is emerging as a key strategy for expanding access to HIV prevention, treatment and care services. Provider-initiated HIV testing and counselling may be performed as part of the clinical management of patients who present with symptoms or signs of illness that could be attributable to HIV, as with the testing of TB patients and persons suspected of having TB.

Health care providers may also recommend HIV tests to persons not presenting signs of HIV infection but who may benefit from knowing their HIV status. This includes the testing of pregnant women. WHO/UNAIDS guidance on provider-initiated testing and counselling in health care has been released and it is ready for implementation (WHO/UNAIDS, April 2007 :).

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2.5 The provider-initiated counselling and testing approach

Given the large volume of patients seen in clinical facilities and the human resource constraints, an integrated HIV counselling and testing service delivery model seems practical to increase HIV testing of pregnant women and other high-risk groups (family planning, sexually transmitted infections etcetera), new approaches have been initiated and have been found to work.

One such approach is the provider-initiated counselling and testing, often referred to as PI-C&T. Under PI-C&T, HIV counselling and testing is offered to all patients within the health care setting as part of the health care services provided, irrespective of the presenting illness. Unlike VCT, PI-C&T is a provider-centred approach while the latter is patient-centred. It is the obligation of the health planners and providers to apply this approach in order to
Increase access to HIV testing services including care and support.

2.5.1 Scaling up provider-initiated HIV testing and counselling

Health facilities represent a key point of contact with people with HIV who are in need of HIV prevention, treatment, care and support. However, evidence from both industrialized and resource-constrained settings suggests that many opportunities to diagnose and counsel individuals at health facilities are being missed. In Australia, a review of records at a Canberra sexual health centre revealed that more than half of the HIV-positive patients with delayed diagnoses had earlier been in touch with health services, and almost all of those had at least one factor that should have prompted health care providers to consider the need for HIV testing and counselling (WHO, December 2006:)

A study in Uganda showed that, among adults who were offered HIV testing at a hospital (more or less half of whom were subsequently found to be HIV-positive), 83% were unaware of their HIV status, even though 88% had been to a health unit in the previous six months (UNAIDS, December 2006:). Provider-initiated HIV testing and counselling presents an opportunity to ensure that HIV is more systematically diagnosed in health care facilities in order to facilitate patient access to needed HIV prevention, treatment, care and support services.

In the industrialized world, a number of European countries have introduced provider-initiated HIV testing and counselling in the context of prenatal care. Provider-initiated HIV testing and counselling appears to have resulted in considerable increases in testing uptake in the United States, United Kingdom, Hong Kong, Singapore, Norway and Canada, where the majority of clients (4/5 or more in most studies) agreed to be tested (UNAIDS/WHO, December : 2006).

Concerned by persistent late diagnoses of HIV infection and a high proportion of people with HIV who are unaware of their HIV status, and in light of evidence that people who are aware of their HIV status reduce risk behaviours, the United States Centres for Disease Control and Prevention issued revised guidelines (December: 2006) recommending "HIV screening" for all persons aged 13-64 years attending health facilities in the United States.

The report further indicates that several low-and middle-income countries have introduced provider-initiated HIV testing and counselling in a variety of settings, still relatively limited and studies in prenatal care settings in several low- and middle-income countries including Botswana, Kenya, Malawi, South Africa and Uganda. Data in some countries have shown that pregnant women were positively inclined to accept testing if they thought it could benefit their baby.

Evidence from both resource-rich and resource-poor settings indicates that the uptake of testing increases when testing is routinely discussed and offered, and where it is well-integrated with prenatal care. Findings from a growing number of studies in settings other than pre-natal care are also encouraging. Comparisons of data collected before and after the introduction of provider-initiated HIV testing and counselling consistently show significantly higher uptake, as documented in post-partum wards in Botswana; paediatric wards in Zambia; tuberculosis clinics as well as Ugandan paediatric wards, maternity wards and STI clinics (Kankasa et al, June: 2006).

Yoder et al (2006) indicate that in Mbarara hospital in Uganda, increased uptake of HIV testing appeared to be associated with clinical benefits for patients. People diagnosed HIV-positive after provider-initiated HIV testing and counselling was introduced were at an earlier clinical stage and had higher CD4 counts than those identified beforehand and were therefore more likely to be referred for treatment at an appropriate time.

Concerns exist that provider-initiated HIV testing and counselling could deter clients from accessing health services. Although limited, the available evidence does not support those fears. Steen et al (2007:484), asserts that the introduction of provider-initiated HIV testing and counselling in antenatal care clinics in Botswana appears to have caused neither reduction in the use of prenatal care nor decline in the proportion of people receiving test results and in Zimbabwe has had no negative effects on post-test counselling rates or the delivery of antiretroviral prophylaxis.

Studies, according to Corneli et al (July: 2005) have found patients to have generally positive attitudes towards provider-initiated HIV testing and counselling. When hospitalized patients in the United States were asked how they would feel about an unsolicited HIV test, most had positive responses. A comparison of three models of provider-initiated HIV testing and counselling in a tuberculosis clinic in Kinshasa, Democratic Republic of the Congo, found that more than two-thirds of clients preferred “opt-out” testing where the test would be performed unless they declined, notwithstanding common perceptions that it would be difficult to decline the test.

Concerns also exist that in some settings increased knowledge and disclosure of HIV status may be accompanied by increased stigma, discrimination, abandonment and violence. In a review of 17 studies, negative consequences of disclosure, including violence, were reported in 3% to 15% of cases with other studies reporting lower or higher frequencies - the latter in settings with high baseline domestic violence. A systematic review of partner notification in the United States found few negative consequences, while a study in Tanzania found that more or less half of the respondents reported receiving support from their partner (Marman et al, 2003).

Kankasa et al (June: 2006) highlighted that evidence from Kenya and Zambia shows that the majority of HIV-positive women reported positive outcomes with disclosure, including some who feared they would not receive support. On balance, the available evidence suggests that provider-initiated HIV testing and counselling can be an important addition to the range of approaches available for scaling up HIV testing and counselling and that it facilitates access to HIV treatment, prevention, care and support services.

However, concerns about the potential coercion of patients and adverse outcomes of disclosure underscore the importance of adequate training and supervision for health care providers, particularly in the processes of counselling, obtaining informed consent and maintaining confidentiality of HIV test results. Close monitoring and evaluation, especially in the implementation stages, will be needed to ensure that provider-initiated HIV testing and counselling is implemented in a way that minimizes adverse outcomes and maximizes benefits for patients.

2.6 Voluntary counselling and testing

Voluntary counselling and testing (VCT) is the process by means of which an individual undergoes counselling, enabling him or her to make an informed choice with regard to being tested for HIV (WHO, 2006:11). In recent years, voluntary HIV testing, in combination with pre- and post-test counselling, has become increasingly important in national and international prevention and care efforts. VCT as the term implies, is not compulsory; one can choose to have it done or not. But then, when one comes to think of it, there is this chance of having the quality of one's life improved when infected with the HIV, but the catch is that people must have their blood tested for the virus first.

So, lateral thinking would rather not let one perish in the dark than come in the open by having one's blood tested so as to have access to the drugs, special care and counselling services available in the country,

The knowledge of ones' status enables one to cast away fear, contain the situation and face it with a positive attitude, courtesy of a number of care service providers available in the country. With the proper counselling, advice on diet and other care services, the perception of HIV/AIDS is not that of a deadly disease but a chronic disease of which the full effect can only be cushioned by antiretroviral therapy (ARV's), amongst other things (UNAIDS,June:2004).

Health care providers are an essential part of the "opt-in" strategy, since counselling, because of the time it takes and resources it needs, is usually offered after health care providers conduct a risk assessment of their patients. It is not routinely offered. Even more importantly, we know that counselling and testing uptake depends not only on the information given to the patient, but also on who the counsellor is and how much time is devoted to the counselling session.

The risk assessment often reveals that the people to be tested are the health care provider's stereotypes of which individual is at risk (usually vulnerable and disadvantaged populations), and so many people who perhaps have been at risk but are afraid to ask for testing will not know their status for long periods of time. Routine offering of the test to every patient will dissipate the discrimination that is present when those tested only are those who the health care provider deems to be at risk.

Gaillard et al (2002) assert that knowledge of sero-status through VCT can be a motivating force for HIV-positive and -negative people alike to adopt safer sexual behaviour, which enables sero-positive people to prevent their sexual partners from getting infected and those who test sero-negative to remain negative. This intervention also facilitates access to prevention services for sero-negative people and is a key entry point to care and support services for those who are HIV-infected. This includes access to interventions to reduce mother-to-child transmission (MTCT) of HIV and interventions to prevent opportunistic infections.

2.6.1 Pre-test information and informed consent

A study in Nairobi concluded that providers of client-initiated HIV testing and counselling typically conduct an education session and a risk assessment, with a primary focus on prevention counselling for clients both prior to receiving and after having received their test results. In many health facilities, providers do not have the time to perform a detailed risk assessment. (Ministry of health: 2004). Because the objective of provider-initiated HIV testing and counselling in health facilities is the timely detection of HIV and access to health care services, pre-test information can be simplified. For example, individual risk assessment and risk reduction plans can be covered during post-test sessions rather than in the pre-test information session, tailored to patient's HIV status.

Depending on local conditions, pre-test information can be provided in the form of individual information sessions or in group health information talks. Informed consent should always be given individually, in private, in the presence of a health care provider.

2.6.1.1 Minimum information for informed consent

According to UNAIDS and WHO (June: 2004), When recommending HIV testing and counselling to a patient, the health care provider should at a minimum provide the patient with the following information:

- The reasons why HIV testing and counselling is being recommended
- The clinical and prevention benefits of testing and the potential risks, such as discrimination, abandonment or violence
- The services available in the case of either an HIV-negative or an HIV-positive test result, including whether antiretroviral treatment is available
- The fact that the test result will be treated confidentially and will not be shared with anyone other than heath care providers directly involved in providing services to the patient
- The fact that the patient has the right to decline the test and that testing will be performed unless the patient exercises that right
- The fact that declining an HIV test will not affect the patient's access to services that do not depend on knowledge of HIV status
- In the event of an HIV-positive test result, encouragement of disclosure to other persons who may be at risk of exposure to HIV
- An opportunity to ask the health care provider questions.

Patients should also be made aware of relevant laws in jurisdictions that mandate the disclosure of HIV status to sexual and/or drug injecting partners. Verbal communication is normally adequate for the purpose of obtaining informed consent.

Some patient groups such as populations most at-risk of HIV transmission and women may be more susceptible to coercion to be tested and to adverse outcomes. In such cases, additional measures to ensure informed consent may be appropriate beyond the minimum requirements defined in this document. The health care provider may need to particularly emphasize the voluntary nature of the test and the patient's right to decline it. Additional discussion of the risks and benefits of HIV testing and disclosure of HIV status, and providing further information on the social support that is available to the patient, may also be appropriate.

2.6.2 Post-test counselling

Post-test counselling is an integral component of the HIV testing process. All individuals undergoing HIV testing must be counselled when their test results are given, regardless of the test result. Given that many inpatient and outpatient facilities are crowded, care should be taken to discuss results and follow-up care in a confidential manner. Results should be given to patients in person by health care providers or by trained lay personnel. Ideally, post-test counselling should be provided by the same health care provider who initiated HIV testing and counselling. Results should not be given in group settings (UNAIDS/WHO, June: 2004).

It is not acceptable practice for health care providers to recommend HIV testing and counselling to patients and to subsequently withhold or fail to convey test results. Although patients can refuse to receive or accept results of any test or investigation, health care providers should make every reasonable attempt to ensure that patients receive and understand their test results in a confidential and sympathetic manner.

2.6.2.1 Post-test counselling for HIV-negative persons

Counselling for individuals with HIV-negative test results should include the following minimum information:

- An explanation of the test result, including information concerning the window period for the appearance of HIV-antibodies and a recommendation to re-test in case of a recent exposure.
- Basic advice on methods to prevent HIV transmission
- Provision of male and female condoms and guidance on their use.

The health care provider and the patient should then jointly assess whether the patient needs referral to more extensive post-test counselling sessions or additional prevention support, for example, through community-based services.

2.6.2.2 Post-test counselling for HIV-positive persons

The focus of post-test counselling for people with HIV-positive test results is psychosocial support to cope with the emotional impact of the test result; to facilitate access to treatment, care and prevention services; to prevent transmission; and disclosure to sexual and injecting partners. Health care providers, according to WHO/UNAIDS guidelines (June: 2004), should:

- Inform the patient of the result simply and clearly, and give the patient time to consider it
- Ensure that the patient understands the result
- Allow the patient to ask questions

- Help the patient to cope with emotions arising from the test result
- Discuss any immediate concerns and assist the patient to determine who in her/his social network may be available and acceptable to offer immediate support
- Describe follow-up services that are available in the health facility and in the community, with special attention to the available treatment, PMTCT and care and support services
- Provide information on how to prevent transmission of HIV, including provision of male and female condoms and guidance on their use
- Provide information on other relevant preventive health measures such as good nutrition, use of co-trimoxazole and, in malarious areas, insecticide-treated bed nets
- Discuss possible disclosure of the result, when and how this may happen and to whom
- Encourage and offer referral for testing and counselling of partners and children
- Assess the risk of violence or suicide and discuss possible steps to ensure the physical safety of patients, particularly women
- Arrange a specific date and time for follow-up visits or referrals for treatment, care, counselling, support and other services as appropriate (e.g. tuberculosis screening and treatment, prophylaxis for opportunistic infections, STI treatment, family planning, antenatal care and access to sterile needles and syringes).

2.6.2.3 Post-test counselling for HIV-positive pregnant women

Post-test counselling for pregnant women whose test results are HIV-positive should address the following:

- Childbirth plans

- Use of antiretroviral drugs for the patient's own health, when indicated and available, and to prevent mother-to-child transmission
- Adequate maternal nutrition, including iron and folic acid
- Infant feeding options and support to carry out the mother's infant feeding choice
- HIV testing for the infant and the follow-up that will be necessary
- Partner testing

2.6.3 Scaling up client-initiated HIV testing and counselling

Client-initiated approaches have been the primary model for providing HIV testing and counselling. Coverage of client-initiated HIV testing and counselling services is inadequate in both high-income and resource-constrained settings. WHO and UNAIDS (April: 2007) strongly support the continued scaling up of client-initiated HIV testing and counselling. Uptake of client-initiated HIV testing and counselling has been hampered by many of the same factors that limit uptake of other HIV-related services, including stigma and discrimination, limited access to treatment, care and health services in general as well as gender issues.

A four-country survey in Asia (Paxton et al, 2005:17) showed that women were more likely to seek HIV testing and counselling because their partner was ill, representing failures of diagnosis, prevention, treatment and care. Underestimation of personal risk for HIV is also a frequent obstacle to uptake of client-initiated HIV testing and counselling, especially on the part of men. Innovative approaches that reduce practical obstacles can increase access to and uptake of client-initiated HIV testing and counselling.

The advent of rapid tests, according to Were et al(2003:1569), has reduced the time between taking tests and obtaining results, and where HIV testing and counselling is available in settings that are convenient to clients – such as at workplaces, in mobile clinics and during night hours – uptake increases markedly. Home-based HIV testing and counselling, often conducted as part of Demographic Household Surveys but increasingly as part of prevention and treatment interventions, is also emerging as a promising approach.

2.6.4 Health services for most-at-risk populations

Specific population groups in all epidemic types are at higher risk for HIV. These may include sex workers and their clients, injecting drug users, men who have sex with men, prisoners, migrants and refugees. These populations often suffer worse health problems and have more difficulty accessing quality health services. (Stein and Nyamathi, 2000:343)

Strategies are needed to increase access to and uptake of HIV testing and counselling for these groups, particularly through innovative client-initiated approaches such as services delivered through mobile clinics, in other community settings, through harm reduction programmes or through other types of outreach. Prisoners should be able to access client-initiated HIV testing and counselling at any time during incarceration without being subject to mandatory HIV testing (Stein and Nyamathi, 2000:348).

Efforts to expand access to client-initiated HIV testing and counselling for most-at-risk populations should include social mobilization and education initiatives to encourage people to come to know their HIV status and to access services. Because of their special health needs populations most at risk for HIV may be more likely to attend specific health services, such as acute care, STI or drug dependence treatment services.

Consideration should therefore be given to recommending HIV testing and counselling to all patients who attend those facilities or services if this is epidemiologically appropriate and socially acceptable. Plans for provider-initiated testing and counselling in such settings should prioritize the implementation of a supportive social policy and legal framework.
Populations most at risk of HIV transmission may be more susceptible to coercion, discrimination, violence, abandonment, incarceration or other negative consequences upon disclosure of an HIV-positive test result (Stein and Nyamathi, 2000:350).

Health care providers will usually require special training and supervision to uphold standards of informed consent and confidentiality for these populations. Additional discussion of the right to decline HIV testing regarding the risks and benefits of HIV testing and disclosure and on social support needs may be required. An "opt-in" approach to informed consent may merit consideration for highly vulnerable populations (Stein and Nyamathi, 2000:353).

Involving most-at-risk populations and their advocates in the development of HIV testing and counselling protocols and in the monitoring and evaluation of provider-initiated HIV testing and counselling programmes will help to ensure that the most appropriate and acceptable practices are followed. Health services should also ensure that mechanisms are in place for referral to prevention, care and support services provided by community-based organizations and civil society groups.

The World Health Organization has issued new recommendations for HIV testing, moving from the current "opt-in" HIV testing model to the "opt-out" HIV testing model. The basic difference between the two is that the "opt-out" testing strategy is provider-initiated, meaning that the health care provider, usually a physician, informs the patient that he or she will be tested for HIV, discusses the risks and possible outcomes and advises the patient that she or he has the right to reject testing with no negative consequences to him or her for taking this decision (WHO, June: 2007).

Unlike the "opt-in" strategy, where the patient must explicitly ask for the test, the new strategy also eliminates the need for a written informed consent form from the patient and comprehensive pre-test counselling.

Since testing became available for HIV, it has been subject to what is denominated *"HIV exceptionalism."* The constraints put on health care providers, regarding testing their patients for HIV, are not present for any other infectious agent. These constraints have multiple causes — among them the initial uncertainty of what testing positive for the virus meant, the fact that there were no possibilities for treatment available and, most importantly, the risk of stigma and discrimination faced by people who tested positive for HIV.

The human rights violations of HIV-positive individuals that have been a hallmark of the HIV pandemic revealed that society's understanding of the connections between health and human rights was virtually non-existent; the work of HIV activists is one of the important reasons for the understanding we have today of the right to informed consent and the respect for patient autonomy.

The new guidelines effectively overturn some of the constraints previously put on health care providers, mainly in the light of the epidemiological evidence that suggests that the number of people who are HIV-positive but do not know it, especially in developing countries, could be close to 80 percent. Many activists react negatively to this new testing strategy, chiefly on considerations that they may lead to new abuses of power by health care providers and the possible violations of human rights that may follow (Gary et al, 2006:1447).

On public health grounds, this change has been called for since the end of the 80's, perhaps earlier. Among the reasons given for this call for change are the possibility of a better epidemiological tracking of the infection, the positive effects derived from people knowing their HIV sero-status, the epidemiological identification of interrupters of transmission and so forth. This call has been repeated by public health specialists ever since. The increase in testing uptake by the population, triggered by the change in strategy, is well documented (Gary et al, 2006:1448).

The ethical issues behind this change in strategy are especially interesting, mainly with regard to individual autonomy, its balance with public health concerns and the role of health care providers. For example, it is now extremely difficult for any person in a developing country to be tested for HIV without having to undergo a "voluntary" counselling process. Gary et al (2006:1449) continue to argue that this is because the legal provisions in many health systems mandate that a complete counselling and signed informed consent be performed by the health care provider before testing the patient. Is this really necessary? Does everyone who wishes to know their HIV sero-status have to discuss with the health care provider whether or not they engage in risky behaviours and how to make them less risky?

The idea of voluntary counselling often assumes that there is a relationship of trust between the health care provider and the patient, when in fact in most developing countries patients are randomly assigned a health care provider by the public health system, which furthermore will probably change from one visit to the next.

The main problems associated with scaling up provider-initiated testing are the remaining social burdens and risks of being identified as HIV-positive. However, these problems must be addressed through the creation of policies that ensure patient confidentiality and the enactment of laws that protect persons from stigma and discrimination (WHO, UNAIDS, UNICEF, April :2007).

It will be up to civil society, to keep pressuring the government for more and better policies that protect rights and enhance the possibility to enjoy them. Policies that base their protection of people in the possibility of staying ignorant about their sero-status do not represent progressive ideals.

A defence of people's rights not only entails the protection of these from outside interference, but also calls to people to be responsible and protect every one else's rights. Routine HIV testing is a good development in the struggle to stop HIV, and is consistent with furthering patients' autonomy and recognizing the connections between health and human rights.

2.6.4.1 Symptomatic patients

Presentation to a health facility with symptoms or signs of disease implies a desire for diagnosis, treatment and care. In all types of HIV epidemics, health care providers should recommend HIV testing and counselling as part of the standard care to all adults, adolescents or children who present at health facilities with signs, symptoms or medical conditions that could indicate HIV infection. These include, but are not necessarily limited to, tuberculosis and other conditions specified in the WHO HIV clinical staging system. Many other common minor complaints may also be indicative of underlying HIV infection.

2.6.4.2 STI services:

According to Semafumu (June : 2006), in generalized epidemics, HIV is primarily transmitted through heterosexual sex, and the presence of a sexually transmitted infection (STI) can increase the risk of HIV acquisition or transmission. STI clinics are an important venue for increasing knowledge of HIV status among both men and women who are sexually active and for increasing access to HIV prevention, treatment and care.

Accordingly, HIV testing and counselling should be recommended to all persons presenting at STI or sexual health services in generalized epidemics, or who present at other types of health services with an STI. Patients diagnosed with an STI should be encouraged to propose HIV testing and counselling to their partners. Such testing can be done either in the health facility, for example following counselling of the couple or through referral of the partner to client-initiated HIV testing and counselling services.

Evidence accumulated over the past two decades points to a strong association between STIs, particularly genital ulcer diseases (GUDs) and increased risk for the sexual transmission of HIV. To prevent the morbidity of STIs and to decrease HIV incidence, many approaches to preventing and controlling STIs have been implemented and proven efficacious.

The prevalence of certain major STIs (e.g. chancroid, syphilis, and gonorrhoea) has dropped in many parts of the world. Simultaneously, however, there appears to have been an absolute increase in the incidence of herpes simplex virus type 2 (HSV-2) infection which has become the predominant cause of GUDs (Semafumu, June : 2006).

STI prevention and care services contribute to the achievement of universal access to HIV prevention, care and treatment by promoting correct and consistent use of condoms, behavioural change, the empowerment of vulnerable populations, and STI management itself. While there is a need to scale up STI services, screening and education for symptoms recognition must also be improved.
Genital herpes has been associated with a twofold to threefold increased risk of HIV acquisition and with up to a fivefold increase of HIV transmission per sexual act, and may account for 40%–60% of new HIV infections in populations where there is a high prevalence of HSV-2.

Despite the recognized role STIs play in increasing HIV transmission, there has been uncertainty as to whether STI control leads to decreased HIV incidence. A meeting of experts in Geneva outlined the conditions under which STI treatment and other STI control interventions had an impact on HIV transmission at the individual and population levels, and the programmatic implications for STI and HIV programmes at the country level (Stover et al, 2006:45). Experience in various settings has demonstrated the impact strengthened STI services can have on rates of STIs, especially among populations at increased risk of acquiring these infections, including HIV.

In Botswana, for example, the prevalences of gonorrhoea, syphilis and chlamydia among family planning clients in 1993, before intensified treatment interventions for STIs were introduced, were 6,9%, 18% and 19,6% respectively. In 2002, following enhanced national treatment interventions for STIs, but possibly influenced by other factors, the corresponding prevalences were 2,6%, 1,5%, and 12,3% (De Cock, 2006:43-45).

In Cotonou, Benin, before STI interventions in 1993, the prevalences of HIV, gonorrhoea, syphilis and chlamydia among sex workers were 53%, 43%, 9% and 8% respectively. By 2005, following the implementation of continuous interventions for STIs, HIV prevalence was 33%, the syphilis rate was below 1%, and the prevalence rates of gonorrhoea and chlamydia were 2,8% and 3,4% respectively. Genital herpes can also be treated (McDonald et al, 2006: 291).

Current WHO treatment guidelines discuss conditions under which treatment should be available, and a WHO recommended that HIV-positive people be particularly targeted for education so that they can detect this mostly asymptomatic infection and, if necessary, access treatment and suppressive therapy (WHO, December: 2006). McDonald et al (2006: 291) continues to argue that research recently published shows that treatment of HSV-2 infection in HIV-infected individuals also lowers the plasma HIV RNA level to an amount that is likely to have a significant beneficial impact on the course of HIV infection. The problem of genital herpes reflects the challenge of increasing the proportion of people who can recognize STI infections and seek services for care. It is probable that the majority of men and women with almost every STI are asymptomatic.

Furthermore, even if symptoms exist, findings from the district health system (DHS) surveys indicated that the proportions of men with suspected STIs who sought care from trained personnel varied between countries from about 10% to 70%, with a median of about 50%; thus only a small proportion of men with an STI obtained professional services. Women, more often asymptomatic than men, also have little knowledge of STI symptoms. In countries surveyed, less than half of ever-married women could name even one STI symptom in either a woman or a man. The proportion of women who receive care for STIs is therefore likely to be even lower than that of men (McDonald et al, 2006: 292).

STI prevention and care services contribute to the achievement of universal access to HIV prevention, care and treatment by promoting the correct and consistent use of condoms, behavioural change, the empowerment of vulnerable populations and, of course, the management of STIs. In addition to scaling up STI services, it is necessary to improve screening and education for symptom recognition.

Reliable STI prevalence data and HIV prevalence data, together with behavioural data that might explain trends in either, i.e. second-generation HIV surveillance, will be needed to optimize STI control and HIV prevention efforts in different settings (McDonald et al, 2006: 294).

2.6.4.3 Mother-to-child transmission

Pregnant women with HIV are at risk of transmitting HIV to their infants during pregnancy, birth or breast-feeding. Without any interventions, between 20% and 45% of infants may become infected. Of the estimated 2,3 million (1,7−3,5 million) children aged younger than 15 years living with HIV, well over 90% are thought to have become infected through mother-to-child transmission. Despite numerous statements of political commitment, a well-defined set of interventions and the know-how required for implementing them, the vast majority of pregnant women in need of PMTCT services are not receiving it (Etiebet M et al, 2004: 37).

In 2005, only about 220 000 of the more than 2 million pregnant women estimated to be living with HIV received antiretroviral prophylaxis for PMTCT, representing an estimated coverage rate of 11% (8%−16%). Over 85% of HIV-infected pregnant women live in sub-Saharan Africa. The 10 countries with the highest numbers of HIV-infected pregnant women account for two-thirds of women requiring PMTCT interventions in low- and middle-income countries and, except for India, are in this region (UNAIDS, December, 2006).

The coverage of antiretroviral prophylaxis is still relatively low in these 10 countries; only in South Africa is such prophylaxis being received by more than 25% of the pregnant women who are estimated to be HIV-infected. Data obtained in 2005 from countries in sub-Saharan Africa indicate that the proportion of HIV-infected pregnant women receiving antiretroviral prophylaxis varied from below 1% to 54%, and that the overall regional coverage was 11% (8%−15%) (UNAIDS, December: 2006).

The corresponding estimated values were 75% (38%−95%) for Eastern Europe and Central Asia, 24% (13%−46%) for Latin America and the Caribbean, 5% (3%−10%) for East, South and South-East Asia, and less than 1% for North Africa and the Middle East. More than 100 countries have established PMTCT programmes but most of these have not been scaled up to meet the need for services. The most recent data from 2005 show that only seven countries provide antiretroviral prophylaxis to 40% or more of HIV-infected pregnant women (WHO, UNAIDS. 2006: 49).

HIV testing and counselling is essential for identifying women who can benefit from treatment either immediately or later, or from interventions to prevent HIV in their infants. Entry to such programmes is initially determined by the proportion of HIV-infected pregnant women identified, often through an HIV test in antenatal care settings.

In more than 70 surveyed low- and middle-income countries that reported data for 2005, only 10% of the pregnant woman had received an HIV test. In sub-Saharan Africa the percentage was 9%, while there was higher coverage in Latin America and the Caribbean (46%) and in Eastern Europe and Central Asia (75%) (UNAIDS, December: 2006).

The high coverage in Eastern Europe was considerably influenced by the large proportion of women attending ANC who received HIV testing in the Russian Federation (about 90%). Testing coverage in pregnant women is low in many of the 10 countries with the highest estimated numbers of HIV-infected pregnant women. The seven countries with the highest PMTCT antiretroviral treatment coverage have relatively high percentages of pregnant women receiving an HIV test. Through testing, pregnant women who can benefit from PMTCT interventions are identified and can be referred to access key services (UNAIDS, December: 2006).

Comprehensive PMTCT services are lacking in most low- and middle-income countries. Whereas HIV transmission from mothers to infants has been virtually eliminated in industrialized countries, only limited progress has been made in scaling up comprehensive PMTCT services in low- and middle-income countries.

Even though there is a well-defined set of interventions and the know-how to implement them, global coverage remains low, and many countries have not yet scaled up beyond initial pilot sites to national level programmes that integrate HIV/AIDS prevention, care and treatment for women and children, including PMTCT services, with antenatal, maternal, neonate and child health services (UNAIDS, December: 2006). Poor coordination of donors and implementers, poor health systems and inadequate involvement of communities, male partners and civil society organizations have also contributed to the slow pace of scaling up.

UNAIDS (December : 2006) further asserts that it is necessary to scale up a comprehensive set of evidence-based interventions in order to achieve universal access to PMTCT. This includes more systematic identification of HIV-positive pregnant women, especially in health care settings; the prevention of unintended pregnancies; the provision of antiretroviral drugs for treating pregnant women and preventing MTCT; safer obstetric practices; family planning; and infant feeding counselling and support. A more vigorous effort should be made to follow up HIV-exposed children and to determine the HIV status of all children born to mothers living with HIV/AIDS so that appropriate care and support can be provided.

Available guidance and know-how concerning PMTCT should be translated into action. New guidelines on antiretroviral drugs for treating pregnant women and preventing HIV infection in infants recommend that all HIV-infected pregnant women receive antiretroviral treatment if indicated. These guidelines should help to standardize care.

If treatment is not yet indicated for a mother, WHO recommends the use of a more efficacious regimen as prophylaxis (zidovudine + lamivudine + nevirapine) rather than the formerly recommended single-dose nevirapine still used in some countries. The global strategy on PMTCT and paediatric HIV care currently being developed by a UN Interagency Task Team will provide guidance to countries seeking to accelerate the scale-up of high-impact PMTCT interventions. Countries should now translate into action their numerous political commitments to prevent mother-to-child transmission (UNAIDS, December: 2006).

A proportion of women coming for their first antenatal visit who are tested for HIV is 43, 4% (NDOH, 2006:1). Avoiding transmission of HIV from mother to child after birth has become one of the hugest challenges in HIV prevention. Approaches to date to reduce or prevent postnatal transmission through breast-feeding have included the avoidance of all breast-feeding through the use of exclusive replacement feeds, or exclusive breast-feeding for a limited period.

Given the implications that infant feeding choice may have for child survival, infant feeding counselling and support is one of the most important components of PMTCT programs. In many countries, shortcomings have been found in the implementation of the WHO guidelines. Inadequate training of health workers, particularly infant feeding counsellors, concerning the relative risks associated with infant feeding in the context of HIV, lack of culturally sensitive counselling tools, and the stigma associated with replacement feeding, all make appropriate and effective infant feeding counselling difficult.

A recent study from South Africa (Etiebet et al, 2004: 37) has confirmed earlier findings that exclusive breast-feeding results in a lower rate of postnatal HIV transmission compared to mixed feeding. This study, undertaken in a rural area in KwaZulu-Natal Province found a cumulative postnatal HIV transmission risk of 4,04% after five months of exclusive breast-feeding. Infants who were fed both breast and formula milk at age twelve weeks were twice as likely as exclusively breast-fed infants to be infected.

Although a recommendation of HIV testing and counselling will most often be made to symptomatic patients during acute medical care, individuals with a medical condition or symptoms suggestive of HIV may also be seen in other clinical settings. Failure to recommend HIV testing and counselling to a patient with symptoms which may be HIV-related is substandard medical practice.

2.6.4.4 Symptomatic and HIV-exposed children

According to Nawavvu et al (June : 2006), determining the HIV status of children exposed to HIV during pregnancy, labour or breast-feeding is an important part of follow-up services in programmes for the prevention of mother-to-child HIV transmission. HIV testing and counselling should therefore be recommended for all HIV-exposed

infants or infants born to HIV-positive women as a routine component of the follow-up care for these children.
In the first 18 months of life, methods of HIV testing that rely on the detection of the HIV virus or its products (virological testing) are required, since HIV antibody testing might not reliably confirm the true HIV status of the infant. Virological methods are usually more expensive and technically demanding. Because of the rapid progression of immunodeficiency in children and the non-specificity of clinical signs, HIV testing and counselling should also be recommended for children presenting with suboptimal growth or malnutrition in generalized epidemics and may be considered for children under certain circumstances in other epidemic settings for instance when malnourished children do not respond to appropriate nutritional therapy.

Decisions regarding HIV testing for children may usefully be guided by clinical algorithms such as the one used for the Integrated Management of Childhood Illness (IMCI).

2.6.4.5. Antenatal, childbirth and postpartum health services

HIV testing and counselling as early as possible during pregnancy enables pregnant women to benefit from prevention, treatment and care and to access interventions for reducing HIV transmission to their infants. A substantial proportion of women present at health facilities at the time of labour without having previously accessed antenatal HIV testing and counselling.

Although antiretroviral prophylaxis for PMTCT is most effective when given during pregnancy, labour and in the early postpartum period, it has also been shown to be effective when started at the time of labour and/or in the infant shortly after childbirth. Therefore HIV testing and counselling should be recommended to all women of unknown HIV status in labour or, if this is not feasible, as soon as possible after delivery (Thior et al, 2007:296).

If an HIV test has not previously been performed, HIV testing and counselling should also be recommended to women in the postpartum period, preferably early in this period, to enable them to receive HIV-related services for themselves and the infant, including infant feeding counselling and support, and diagnosis of the infant, if appropriate.

Antiretroviral prophylaxis and infant feeding counselling are important interventions for the prevention of mother-to-child HIV transmission and must be available as part of the standard care for pregnant women who are diagnosed HIV-positive as a result of provider-initiated HIV testing and counselling. Rapid HIV testing is also important in these settings so that interventions can be delivered in a timely manner (Thior et al, 2007:297).

It is important to ensure that women identified as HIV-negative receive any necessary, immediate support to prevent becoming infected during the course of pregnancy and the breast-feeding period, as the risk of mother-to-child transmission is high if women seroconvert during these times.

Thior et al (2007:296) further states that women diagnosed HIV-positive should be encouraged to propose HIV testing and counselling to their male partners. Such testing can be done either in the health facility for example, following counselling of the couple, or through referral of the partner to client-initiated HIV testing and counselling services.

2.6.4.6 HIV testing and counselling for TB patients

Tuberculosis presents major threats and opportunities for the response to HIV/AIDS. Efforts to improve joint planning between HIV and TB programmes have also strengthened in recent years. According to UNAIDS (2007: 60), In 2005, 22,4% of TB notifications were tested for HIV, and some 52% of these were HIV-positive. Of those who tested positive, all were reported to have started on co-trimoxazole preventive therapy and 33% were reported to have started on antiretroviral therapy. The national TB programme also reported that, of 223 632 people living with HIV, 18% were screened for TB and that 37% of these were diagnosed with TB.

The emergence of extensively drug-resistant tuberculosis (XDR TB) in settings of high HIV prevalence, notably in Southern Africa, is a serious threat to public health. (De Cock, 2006:61). Overall efforts to ensure that people living with HIV/AIDS have adequate access to high-quality TB prevention, diagnostic and treatment services are insufficient. Prioritizing access to high-quality TB prevention, diagnostic and treatment services will prevent the development and spread of drug-resistant TB and prolong the quality and quantity of life for people living with HIV/AIDS.TB and HIV/AIDS programmes are increasingly collaborating to overcome the health system barriers to achieving their common goals, but opportunities are still being missed.

In generalized epidemics according to Semafumu et al (June: 2006), HIV is primarily transmitted through heterosexual sex, and the presence of a sexually transmitted infection can increase the risk of HIV acquisition or transmission. STI clinics are an important venue for increasing knowledge of HIV status among both men and women who are sexually active and increasing access to HIV prevention, treatment and care.

Accordingly, HIV testing and counselling should be recommended to all persons presenting at STI or sexual health services in generalized epidemics, or who present at other types of health services with an STI. Patients diagnosed with an STI should be encouraged to propose HIV testing and counselling to their partners. Such testing can be done either in the health facility, for example following counselling of the couple, or through referral of the partner to client-initiated HIV testing and counselling services.

Medical inpatient and outpatient facilities, including tuberculosis clinics in generalized epidemics hospital medical wards usually have a high concentration of patients with HIV who would benefit from diagnosis, treatment and care, because not everyone with severe HIV-associated immunodeficiency has obvious clinical symptoms or signs of disease (Semafumu et al, June: 2006).

HIV testing and counselling should be recommended to all patients admitted to hospitals and other inpatient facilities in generalized epidemic settings. This includes patients suspected of having, diagnosed with or being treated for tuberculosis. Although outpatients are generally less ill than inpatients, HIV testing and counselling should also be recommended to all persons attending medical outpatient facilities in generalized epidemic settings.
Tuberculosis patients in settings of high HIV prevalence have high rates of HIV co-infection. Ensuring that TB patients receive HIV

testing and counselling should therefore be a high priority for the health sector. De Cock (2006:62), further states that data suggest that since 2003 there has been a threefold increase in both HIV testing of TB patients and detection of HIV/TB co-infection. Nevertheless, the total coverage of HIV testing and counselling for TB patients is still very low globally and, since TB patients are already in the health care system, represents a major missed opportunity for HIV prevention, treatment and care.

In 2005, 7% of TB patients were tested for HIV world-wide, of whom 23% tested HIV-positive. Furthermore, countries with generalized HIV epidemics reported that only 13% of all TB patients were tested for HIV, of whom 48% were HIV-positive. Thus, by not offering HIV testing to all TB patients in countries with generalized HIV epidemics, an opportunity is being missed to inform approximately 460 000 HIV-positive TB patients of their status and ensure access to comprehensive HIV treatment, care and support. Globally, 86% of the estimated numbers of HIV-positive TB patients are not tested for HIV during their treatment (De Cock, 2006:62).

Corneli et al, (July: 2005) assert that a rapid expansion of HIV testing among TB patients linked to provider-initiated testing and counselling has recently occurred in some African countries. For example, in Rwanda in 2004, 46% of the TB patients were tested for HIV and by late 2006 this had increased to 81%. In Kenya in 2005, 32% of these TB patients were tested for HIV; this had increased to 64% by 2006. In Malawi in 2005, some 48% of TB patients were tested for HIV, of whom 69% were found to be HIV-positive.
Testing patterns vary between regions. Only 10% of the TB patients were tested for HIV in sub-Saharan Africa, which carries 80% of the global HIV burden of TB, whereas 26% of the TB patients were tested

for HIV in Latin America and the Caribbean and 38% were tested in Europe and Central Asia. Of the patients tested for HIV in TB programmes, approximately 51% were found to have HIV in sub-Saharan Africa, whereas the corresponding values were 17% in Latin America and the Caribbean respectively and 19% in Asia. Provider-initiated HIV testing and counselling is an important strategy for expanding access to HIV/AIDS treatment and care for TB patients (Corneli et al, July: 2005).

2.7 The South African government is considering whether to make HIV tests routinely available at public health facilities

Individuals wishing to know their HIV status currently undergo voluntary counselling and testing but only 850,000 South Africans - in a population of around 47 million - have been tested in the past four years. Views on testing have begun to shift. Botswana became the first African country to introduce routine testing in its health sector in 2006, with Malawi and Lesotho following suit (Steen et al, 2007:484).

The hope is that by offering HIV testing as a routine part of treatment, more people will be encouraged to discover their status and, over time, stigma will lessen. UNAIDS and the World Health Organization have issued a new policy on testing in support of this approach, which includes the right of patients to 'opt out'.

At present South Africa does not have a policy on routine testing, and would have to carefully consider what needs to be implemented. Health department officials met to discuss whether routine testing would be an appropriate strategy. Hospitals and clinics already routinely offered HIV tests to patients in high-risk groups, such as people with tuberculosis, sexually transmitted infections, pregnant women and migrant workers. The government was hoping to learn lessons from Botswana (Department of health, 2006).

According to Weiser (2006:261), routine testing was introduced in Botswana in 2003, when less than 8 percent of its population of 1,6 million knew their HIV status. Officials claim that the number of individuals willing to be tested has risen by up to 90 percent since then, with few making use of their right to 'opt out'. However, the Botswana Network on Ethics, Law and HIV/AIDS (BONELA) has criticized the government for failing to launch a public information campaign on the new policy, arguing that routine testing was only acceptable if patients knew they could refuse.

South Africa has a generalized HIV epidemic and the highest number of people living with HIV/AIDS. (UNAIDS, 2006:59-60). In 2005, between 4,9 million and 6,1 million people, including 240 000 children younger than 15 years, were living with HIV. Recent data show a continuing rising trend in HIV prevalence among pregnant women attending antenatal clinics. However, prevalence among young people appears to be stabilizing. There is significant regional variation in the epidemic, the highest prevalence rates occurring in KwaZulu-Natal and Mpumalanga and the lowest in the Western Cape, Northern Cape and Limpopo.

South Africa announced a draft National HIV/AIDS Plan for 2007−2011 (December:2006). The Plan and its related targets are still being developed and will be released in the coming months. The delivery of health services is decentralized, and the provinces have developed their own HIV/AIDS programmes. Health services are also delivered by a large private sector and a network of civil society organizations.

Access to treatment and care for people living with HIV/AIDS has increased in the past few years. South Africa introduced antiretroviral therapy provision in the public sector in 2004. Treatment scaling up began slowly: between 37 000 and 62 000 people were receiving treatment at the end of 2004, including a private sector estimate of more than 35 000. At the end of 2005 there were between 178 000 and 235 000 people receiving treatment, including a private sector estimate of 90 000 (Department of health: 2007).

These numbers were still far below the estimated need. Growing national and international concern about the response led to a renewed political commitment by the South African Government in late 2006 to roll out treatment. The number of people receiving treatment through the public sector expanded significantly in 2006, and it was estimated that some 325 000 were doing so at the end of the year.

2.7.1 Progress in the provision of PMTCT services.

The national programme for the prevention of mother-to-child transmission began in 2001. Between 2004 and 2005 the percentage of HIV-positive pregnant women who received antiretroviral prophylaxis increased from 22% to 30% (27%–33%). However, seeing that HIV infection rates among pregnant women attending public antenatal care clinics in 2005 were as high as 30,2%, 159 efforts to scale up PMTCT services should be further intensified (UNAIDS, 2006:60).

Services for voluntary testing and counselling are widely available in South Africa through public sector clinics, hospitals, non-government organizations and private practitioners. While knowledge of HIV status among South Africans is higher than in most other high-burden countries, it is nevertheless low. A national household survey conducted in 2005 found that 30,3% of the respondents had previously been tested for HIV and that the primary reasons for not being tested were related to a low perception of risk. The study revealed an increase in the uptake of testing and counselling over time; over two-thirds of previously tested respondents had undertaken the test again in the preceding two years (Department of health: 2006).

Efforts to improve joint planning between HIV and TB programmes have also strengthened in recent years. In 2005, 22,4% of TB notifications were tested for HIV, and some 52% of these were HIV-positive. Of those who tested positive, all were reported to have started on co-trimoxazole preventive therapy and 33% were reported to have started on antiretroviral therapy. The national TB programme also reported that, of 223 632 people living with HIV, 18% were screened for TB and that 37% of these were diagnosed with TB (Department of health: 2006).

As the country scales up the provision of essential HIV/AIDS services towards universal access, it faces the challenges of training additional human resources and retaining existing personnel within the public health care system. The recent momentum in scaling up treatment must continue. An increased focus on HIV prevention is needed, as well as an expansion of delivery points for HIV testing and counselling linked to prevention, care and treatment services. (Department of health: 2006).

Moreover, it is necessary to address issues related to stigma, the fear of treatment of side-effects, and quackery. South Africa faces new opportunities and challenges in its efforts to control the spread of HIV. The results of the South Africa Orange Farm Intervention Trial published in late 2005 revealed a reduction of at least 60% in HIV infection among circumcised men (Department of health: 2006). If male circumcision is to be offered more widely as a means of preventing new infections, the safe and appropriate delivery of circumcision services must be ensured. There is also an emerging challenge of extremely drug-resistant TB, and this has the potential to undermine HIV/AIDS control efforts.

- **Services for adolescents**

In generalized epidemics, adolescents (10-19 years of age), particularly girls, are at high risk of acquiring HIV. Adolescent-provider encounters in clinical settings are an opportunity for giving information and counselling on sexual and reproductive health. It is therefore recommended that adolescent health services be considered a priority for the implementation of provider-initiated HIV testing and counselling in generalized epidemics. Special attention should be given to issues around informed consent in adolescents (Department of health: 2006).

- **Reproductive health services, including family planning**

Knowledge of HIV status may increase a woman's ability to make voluntary and informed decisions concerning the number, spacing and timing of pregnancies, including the use of contraceptive methods. It is therefore recommended that provider-initiated HIV testing and counselling be integrated with reproductive health services in generalized epidemics.

Patients diagnosed HIV-positive in these services should be encouraged to propose HIV testing and counselling to their male partners. Such testing can be done either in the health facility, for example following counselling of the couple, or through referral of the partner to client-initiated HIV testing and counselling services.

2.8 Provider-Initiated-Counselling and Testing model

Figure 2.1 represents a model of the provider-initiated approach in the clinical setting. According to this model, many patients will need to wait for some period of time after checking into the clinic and before seeing the provider. This is an opportunity to tell the patients that it is recommended that all patients be tested for HIV and to provide them with information concerning HIV.

Providing patient education before the patient sees the provider will help smooth the way. There are several options for pre-test education and information prior to being seen by the provider.
Clinics may choose one or more of these following options:

- Group education by a health educator, such as a nurse, or by a peer educator. People living with HIV/AIDS can be trained as peer educators and are often very effective in this role. Group education means that all patients are gathered together as a group to hear a brief education lecture by a health educator or nurse.
- Brochures can be given to patients when they check in to read them in the waiting room.
- Posters can be placed in waiting rooms and throughout the clinic, noting the importance of knowing one's HIV status.

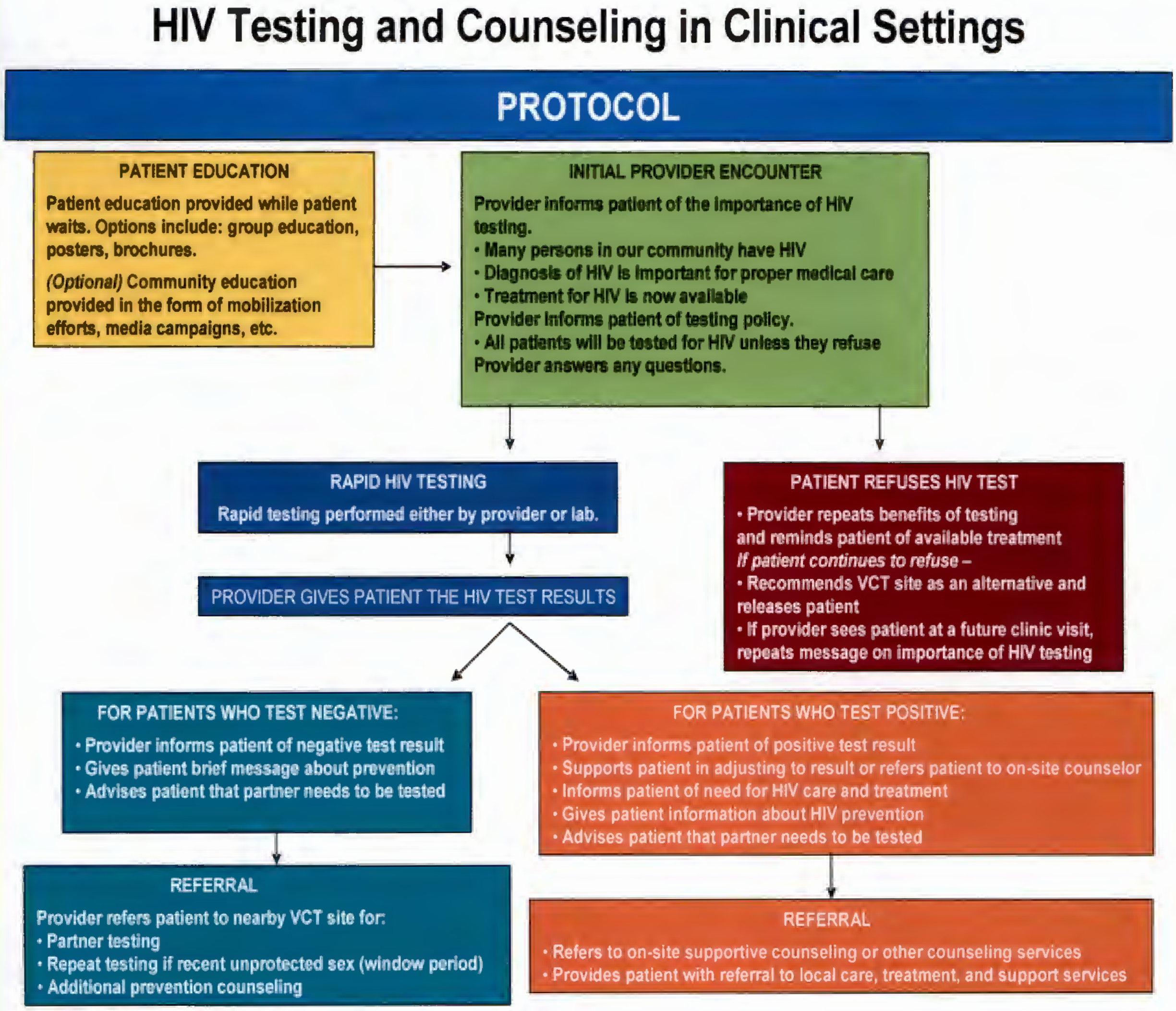

Figure 2.1. The provider initiated counselling and testing model.

Source: Adapted from Centre for Disease Control training manual (2007:7)

Figure 2.2 below represents a model for ethical decision making in health care which describes the practice of the health care professional, ethical decision making steps and the framework for ethical decision making.

Figure 2.2 A model for ethical decision-making in health care

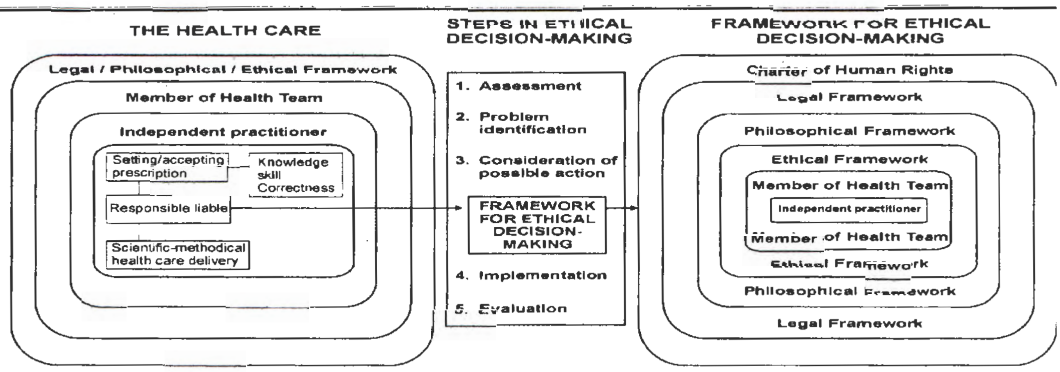

Figure 2.2. A model for ethical decision-making in health care
Source: NSDT 111 Study guide (2007:116)

Silva (1990) in Klopper (2007:117), in application of the above model, outlines steps in ethical decision making as follows:

- **Assessment**

In this step, the health care professional utilizes several methods to gather data on the ethical situation.

- **Problem identification**

During this step the ethical problem is formulated from the data that were gathered during assessment. The problem can be regarded as valid if the data are reliable and support the problem

- **Consideration of possible actions**

Once the problem has been identified, the different actions can be critically considered. In this respect, critical means that the right or wrong of every possible action is evaluated within the following framework:

- Charter of human rights
- Legal framework
- Philosophical framework
- Ethical framework

In respect of some ethical problems, one framework may present more clarity than other frameworks. It is, however, important to critically evaluate the possible actions within each framework.

- **Implementation**

When the best possible action is decided on after critical consideration, but action is executed.

- **Monitoring and Evaluation**

The effectiveness of the action taken must be evaluated. If the problem has not been resolved, the process of decision making must take place once again. Monitoring and evaluation should form an essential and ongoing part of programmes to implement provider-initiated HIV testing and counselling. National monitoring and evaluation of provider-initiated HIV testing and counselling services should allow programme managers to:

- Monitor progress in implementation, including procedures for obtaining informed consent, ensuring confidentiality and providing counselling
- Identify problems and refine and adapt implementation strategies

- Assess the effectiveness and impact of provider-initiated testing and counselling in terms of:
    - increasing access to HIV testing and counselling, and increasing access to testing results
    - increasing access to and uptake of HIV-related prevention, treatment, care and support services
    - decreased morbidity and mortality
    - increased HIV awareness and treatment literacy
    - social impact (e.g. on rates of disclosure; on stigma and discrimination; and adverse outcomes).
- Assess cost-effectiveness and sustainability.
- Assess the quality of related laboratory services
- Assess the reasons why HIV testing and counselling is being recommended.

Monitoring and evaluation planning should, where possible, aim at utilizing existing structures or mechanisms for collecting relevant indicators, rather than setting up independent systems. Standardized and simple data collection tools will enable comparability between sites and reduce burden on health personnel.

Appropriate training in data collection should be provided to health care providers and administrators. As the amount of data in routine monitoring will always be limited, it is recommended to complement routine monitoring with focused evaluations on specific aspects of implementation.

For example, quality assurance should be undertaken at the health facility level. Regular evaluations of health care provider performance and patient satisfaction (testing processes, pre-test information, consent process, post-test counselling) can help improve the effectiveness, acceptability and quality of HIV testing and counselling services.

Health facilities are encouraged to partner with non-government organizations and civil society groups in monitoring and evaluating provider-initiated HIV testing and counselling to ensure service quality and acceptability, including the maintenance of high ethical standards and human rights norms.

The evaluation process, as outlined in figure 2.3 below, may be applied in this instance to ensure continuity, as evaluation is not a once off event, but a process.

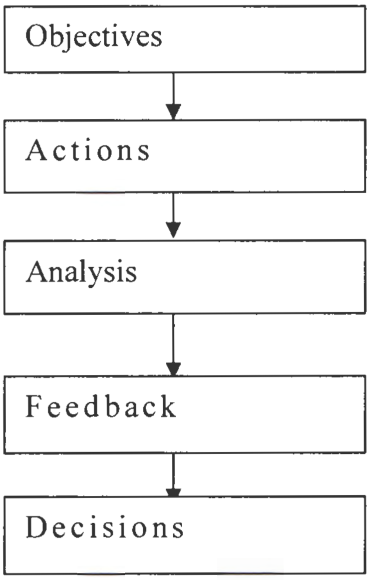

Figure 2.3 The evaluation process

The evaluation process in Figure 2.3 above depicts the process model that is represented by evaluation and feedback. Steps are conducted independently and continuous feedback is critical.

2.9 Conclusion

Chapter 2 dealt with the approaches to counselling, namely the provider-initiated approach and the voluntary counselling and testing approach. Mother-to-child transmission, as well as the importance of counselling were discussed. The chapter was concluded with a discussion of the provider-initiated approach model as well as the importance of monitoring and evaluation.

CHAPTER THREE

THE PROBLEM STATEMENT

3.1 Introduction

The previous chapter dealt with the theoretical foundation and literature survey relating to counselling and testing. Literature regarding mother-to-child transmission was also documented. The survey suggests that the different counselling and testing approaches should be looked into and the most appropriate one be implemented, given the high prevalence especially in mother-to-child transmissions. In this chapter the problem is firstly formulated in general terms, and then in the form of research questions in line with the objectives as spelled out in Chapter 1.

3.2 Problem statement

A decade ago, HIV/AIDS was regarded primarily as a serious health crisis. Estimates in 1991 predicted that in sub-Saharan Africa, by the end of the decade, 9 million people would be infected and 5 million would die – a threefold underestimation. Today, it is clear that AIDS is a development crisis, and in some parts of the world it is rapidly becoming a security crisis as well(WHO, 2007).

There is now compelling evidence, according to UNAIDS (December: 2006) that the trend in HIV infection will have a profound impact on future rates of infant, child and maternal mortality, life expectancy and economic growth. These unprecedented impacts at the macro-

level are matched by the intense burden of suffering among individuals and households.
Due to increased HIV prevalence there is growing consensus in the country to increase VCT uptake among antenatal care, TB and other service outlet clients. It is believed that knowing one's status will help HIV-positive clients lead positive lives without putting others at risk, and that those who are HIV-negative could stay negative by adopting low-risk behaviours.

Once clients have been provided with pre-test counselling, they are tested for HIV. Following this, post-test counselling is provided. Clients who test HIV positive are now tested for CD4 count, and if it is below 200 mm they are enrolled in the ARV program to increase their life expectancy. This cannot be done if they do not know their HIV status; hence counselling and testing remains the entry point.

Research question 1: What is the operational quality of VCT services in terms of utilization, accessibility, human resource capacity and skills, infrastructure and functional efficiency?

Research question 2: How can the future evaluation and improvement of quality and utilization of PI-C&T services be assessed?

Research question 3: How can the capability and skills of health care workers in VCT be improved?

Research question 4: What will increase the number of antenatal care clients, TB and STI clinic attendees and general population who receive high quality VCT services?

3.3 Conclusion

Chapter 3 dealt with the problem statement. First it was stated in general terms and thereafter in the form of four research questions. In the subsequent chapter an exposition is given of the research design and an analysis is made of the data.

CHAPTER FOUR

RESEARCH DESIGN AND ANALYSIS

4.1 Introduction

The theoretical foundation and literature review form the basis of Chapter 3 which deals with the formulation of the problem. This chapter spells out the research design and analysis used for this study. The aspects receiving special attention are sampling, the measuring instrument and data analysis.

4.2 Research design

Brink (2002:100) defines the research design as a set of logical steps taken by the researcher to answer the research question. It forms the blueprint, pattern or recipe for the study and determines the methods used by the researcher to obtain subjects, collect data, analyse data and interpret the results. The study uses a qualitative technique, by collecting information from primary sources of data in facilities, without formal structured instruments. The advantage is that an inductive and interactive process of inquiry between the researcher and data is used, rather than the deductive approach which has a predetermined conceptual framework.

4.3 Measuring instrument

The study is executed mainly through the application of structured questionnaires as they are easy instruments to test for validity and reliability. The facility managers are interviewed using the very questionnaire and data is collected on the spot.

The following data collection methods are used:

a) Direct Observation:

Welman and Kruger (1999:199), defines direct observation as a process by means of which participants are observed directly by the researcher. In the final analysis the observer is the measuring instrument in direct, systematic observation.

Advantages are firstly, that the behaviour which is to be studied is recorded first-hand as compared to interviews and questionnaires in which information is presented second-hand. The researcher does therefore not have to rely on the participants' possible misleading reports about the relevant behaviour, but instead observe it directly.

Potential drawbacks or disadvantages of this method are that the presence of the observer, usually a stranger to the respondent, may influence the behaviour to be observed, resulting in reactive measurement.

Secondly, the observer is not expected to record all the behaviours they observe, but only those that are regarded as indicators of the dependant variable in question.

The observer records ongoing activities and processes, using a detailed observation tool/checklist at a service point.

b) Document Review:

To review clinic records and documents on monthly basis starting from October 2006 to December 2007 to obtain an indication of the use of services.

Table 4.1 depicts the summary of the data collection framework used in this study.

Table 4.1: Summary of the Data Collection Framework:

Study method	**Data collected**	**Sample size**	**Tool Used**
Interviews with Facility managers,	Operational times/convenient hours, range of services, processes, functional efficiency, human resource capacity and skills,	Facility managers	Structured questionnaire
Interviews with service providers	Systems support, coordination, views on the program	Service providers	Semi-structured interview questionnaire
Interviews with Lay Counsellors	Systems support, supervision, perception of access, utilization, views on the program and integration	Lay counsellors	Semi-structured interview questionnaire
Observation and record review	Access, clinic layout, space, privacy, equipment, staffing, client volume, policy and VCT procedures and records	16 primary health care facilities	Checklist
Work-flow	Utilization of space and movements of clients in the facility	16primary health care facilities	Map of client flow

4.4 Validity and Reliability

Reliability and validity of research findings are of vital importance in all studies. According to Brink (2002:124), reliability is concerned with the consistency, stability and repeatability of the informants' accounts as well as the investigator's ability to accurately collect and record information.

Validity, also an important characteristic of an instrument, is the degree to which an instrument actually measures what it is supposed to measure. It is of concern, since the question or problem under study constitutes socially disapproved actions (Chadwick, 1984: 47).

Data collection tools were pre-tested at a site outside the study sample to ensure validity and reliability and amended prior to use. The baseline assessment was conducted by an experienced researcher who was also responsible for data analysis. Furthermore, she was responsible for quality control of data captured. Data was then collected on monthly basis onwards, using the same standardised tools.

4.5 Sampling

Sampling refers to the process of selecting the sample from a population in order to obtain information regarding a phenomenon in a way that represents the population of interest (Brink, 2002:133). In sampling terminology, the element is the most basic unit on which information is collected. The element or unit of analysis in this research is individuals, but other entities can form the basis of a sample or population such as documents, blood, events or groups of people.

There are two basic sampling approaches, according to Brink (2002: 134), and they are discussed below:

4.5.1 Probability or random sampling

With probability or random sampling, each element or unit has the same chance, likelihood or probability of being chosen for the sample, thus each member of the population has an equal chance of being selected. The sample is much more certain to be representative of the population. It also permits the researcher to estimate the sampling error, reduces bias in sample, and makes it possible for the researcher to use inferential statistics correctly.

4.5.2 Non-probability sampling

This approach may or may not accurately represent the population. It is usually more convenient and economical and allows the study of populations when they are not amenable to probability sampling, or when it is not possible to locate the entire population. It uses the judgement of the researcher to select those subjects who know the most about the phenomenon and who are able to articulate and explain nuances to the researcher.

Probability sampling was the approach used as it makes it possible for the researcher to obtain findings that can be generalised to the population. This approach ensures representativeness in that the sample must be like the population in as many ways as possible. It replicates the population variables in approximately the same proportion as they occur in the target population.

The study was conducted in 16 pre-selected health facilities in Southern district of the North West Province. At health facility level the study included the facility manager/clinic supervisor, a professional nurse who provides the service and a lay counsellor.

4.6 Data analysis

Before the analysis of the relationships among variables, the variables to be used have to be chosen so as to meet the objectives of the study. Quantitative data was entered on statistical package EPI info 6 and analysed using EPIINFO and STATA as appropriate. A checklist and record reviews were analysed on a Microsoft Excel spreadsheet. Data was analysed per facility, district and province and was represented in tables and graphs.

4.7 Ethical considerations

Permission to conduct the study was obtained from the Provincial Department of Health. Information collected from the staff and the clients remain anonymous and confidential. Interviewees were informed about the study and their right to choose to participate or withdraw from the study at any point during the interviews without any consequences. Confidentiality and privacy of individually expressed views were maintained.

Ethical principles were adhered to in this study through the following strategies:

- Justice – All the respondents had the right to fair selection and treatment.
- Beneficence – The well-being of respondents was secured. No harm was inflicted on them.
- Confidentiality- The researcher protected data gathered within the scope of the project from being divulged or made available to any other person except authorities.
- Privacy - The researcher respected the right to privacy of respondents that information collected from them will remain private.
- Informed consent - The type of information needed by the researcher, the degree of understanding required of the subject in order to give consent as well as the fact that the subject had a free choice in giving consent were clarified.
- Trust - Trust between the researcher and respondents was of great importance throughout the entire study. Every attempt possible was made to gain the trust of the respondents during the course of the survey.

4.8 Conclusion

This chapter dealt with the research design and analysis. The results of the study are presented in the following chapter.

CHAPTER FIVE

RESEARCH RESULTS

5.1 Introduction

Chapter 4 covered the research design and analysis. In Chapter 5 the response rate is dealt with and the results of the study are presented and interpreted in relation to the objectives of the research which were spelled out in Chapter 1.

5.2 Presentation of results

5.2.1 Assessing the operational quality of VCT services in terms of utilization, accessibility, human resource capacity and skills, infrastructure and functional efficiency

In general, all facilities provide HIV C&T services and all have community counsellors who provide the bulk of the C&T service during the week. The referral rate of STI clients is very low (1%) in this district, but 93% of ANC clients were referred for HIV C&T during their first visit. FP saw the highest number of clients per month, yet less than 1% of these clients were referred for HIV C&T.

5.2.2. Improving capability and skills of health workers in VCT

There are large volumes of patients per clinic which result in human resource constraints. Most professional nurses, although they have been trained in providing VCT, were not providing the service and were relying solely on lay counsellors to do so. As a result HIV C&T was not provided after 16:00 when the lay counsellors were off duty. There was poor recording and reporting of HIV statistics and poor referral systems for clients who tested HIV-positive. Gender was not indicated in most registers and the VCT registers were not standardized across the district.

5.2.3 Providing baseline information and formative recommendations that will act as a yardstick for future evaluation and improvement of quality and utilization of PI-C&T services

Some of the main findings/challenges identified from the site visits are:

- Some facilities had still not implemented changes that were recommended after the feedback session.
- Clients who do not accept testing were still not recorded in the VCT registers.
- Some clinics still did not have the new VCT registers.
- Referrals of STI and FP clients for HIV C&T still remained poor but referrals among TB and ANC clients had improved.

5.2.4 Increasing number of antenatal care clients, TB and STI clinic attendees and general population who receive high quality VCT services

5.2.4.1 Data Results

STI Data

According to Figure 5.2.1 below, only 15 facilities had complete STI data that could be analyzed. The referral rate of STI clients to HIV C&T services is very low. Out of 728 clients seen at the STI clinics, only 10 (1,3%) were referred for HIV C&T.

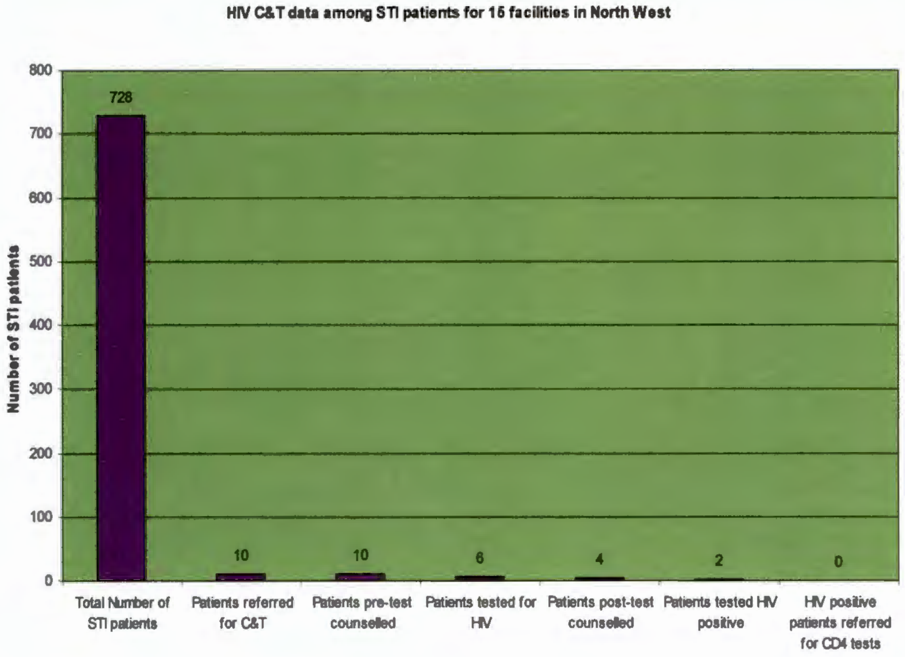

Figure 5.2.1: STI Data

Two (33%) of the clients who agreed to be tested and were tested were HIV positive. These numbers are, however, too small to be able to draw any conclusions, since this might not be a true reflection of the HIV prevalence amongst STI patients.

ANC Data

Figure 5.2.2 below depicts that only 12 facilities had complete ANC data. Youth centres do not provide this service. Of all the health care service areas in the facilities analyzed, the ANC clinics were most efficient at referring the majority of their clients for HIV C&T. All ANC clients were spoken to concerning HIV C&T at least once during their visits, and from our data we found that 93% of all ANC clients were referred for HIV C&T during their first visit.

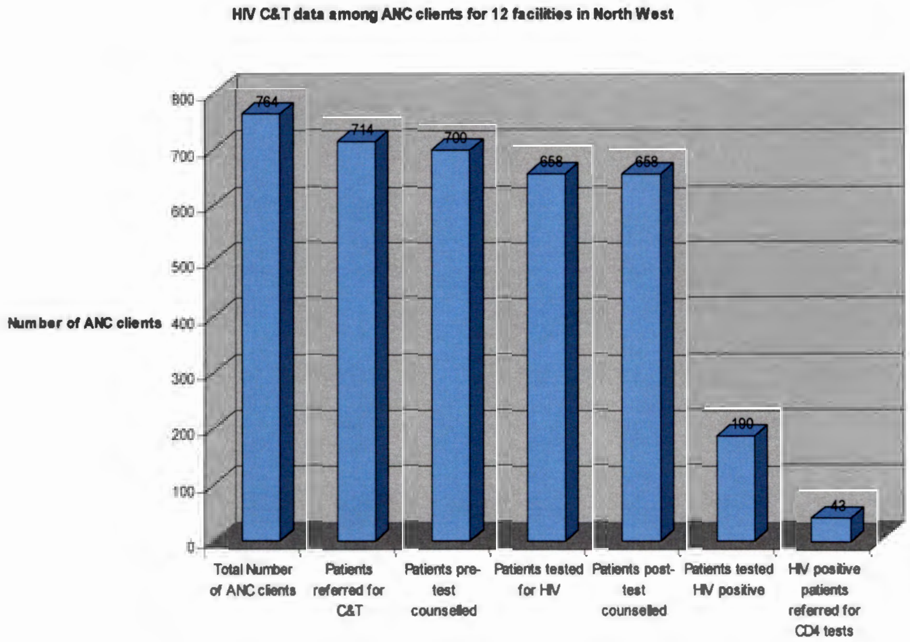

Figure 5.2.2: ANC Data

The National HIV and Syphilis Sero-Prevalance Survey in South Africa revealed that the prevalence rate amongst ANC attendees in the North West was 31,8% in 2005. (NDOH, October 2005). Data from the 12 facilities that had complete data put the prevalence rate at 29%. This is very close to that of the provincial prevalence amongst ANC clients.

TB Data

Information from 14 facilities was analyzed in this section, seeing that not all facilities provided TB services. South Africa has one of the highest estimated TB rates in the world, ranking fifth among high-burden countries. It is estimated that approximately 60% of TB the patients are co-infected with HIV.

HIV testing for all TB clients should therefore be a necessary part of the standard care in these clinics. Figure 5.2.3 indicates that only 152 (40%) out of 379 TB clients were referred for HIV testing and of those referred for testing, 46% were co-infected with HIV.

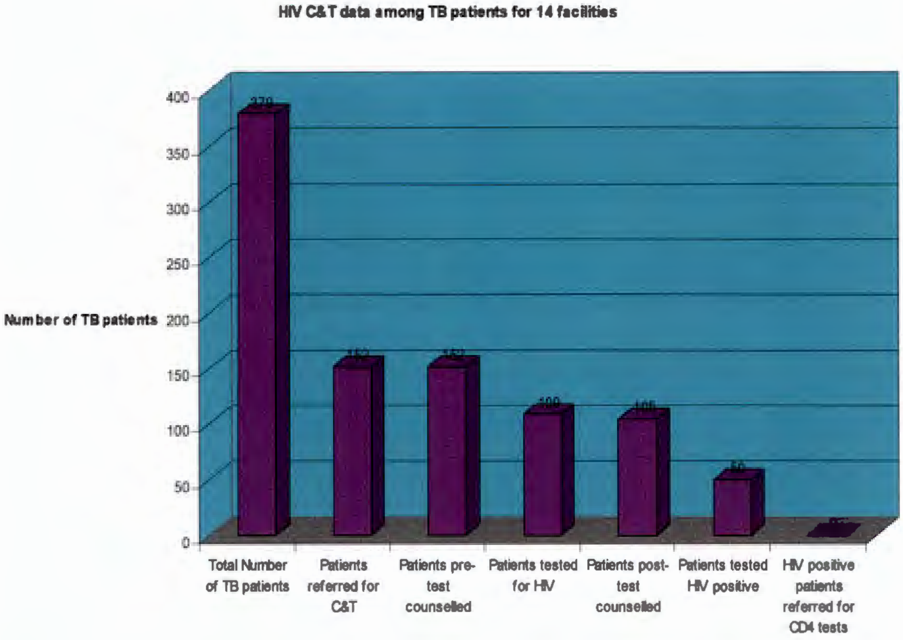

Figure 5.2.3: TB data

All 16 facilities provide FP services. Figure 5.2.4 indicates that this service sees the highest number of clients per month, yet only referred less than 1% of their clients for HIV C&T. These are high-risk clients, since all are sexually active and many had come to the clinic for either injectable or oral contraception and were not using condoms. This is an area where integration of HIV C&T has to be prioritized.

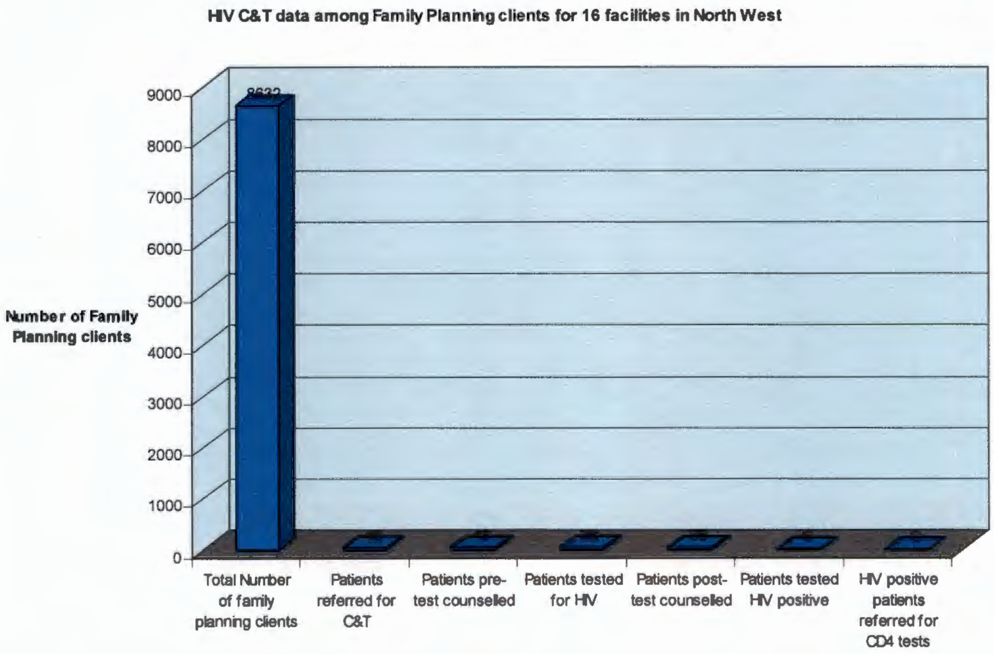

Figure 5.2.4: Family Planning Data

Figure 5.2.5 reflects that all 16 facilities had VCT data. The category referred to as "Other Medically Referred" clients is that of clients who were referred from medical services other than TB, ANC, STI or FP or cases where it was not indicated where the client was referred from. (It is therefore possible that some of these clients were actually referred from TB, ANC, STI and FP clients but the information was not recorded in the registers.) The HIV prevalence rate in this group is 37%.

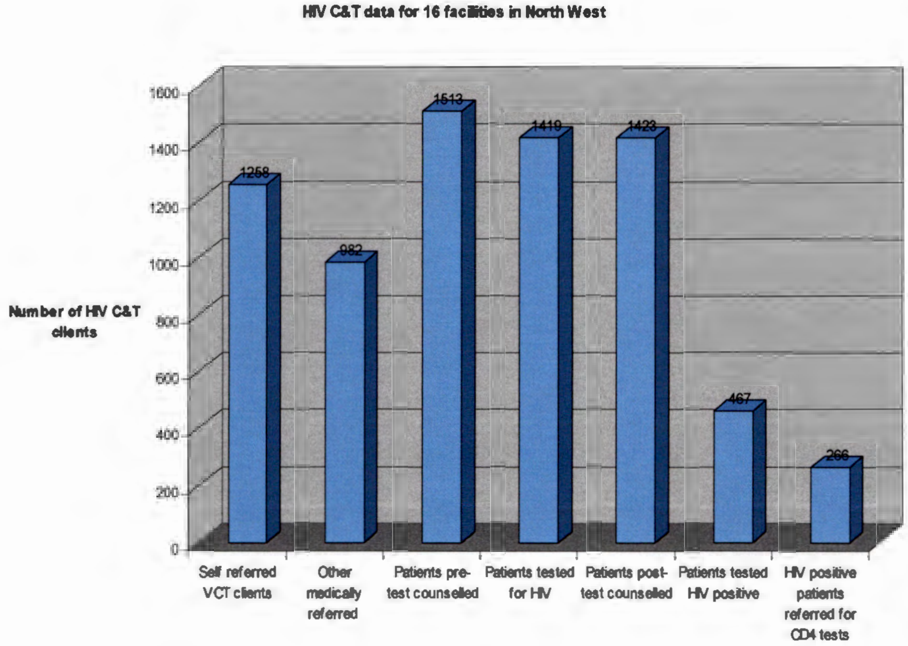

Figure 5.2.5: VCT and "Other Medically Referred" Data

HIV referral rates from different service areas and the prevalence rates among their clinic attendees.

Figure 5.2.6 indicates that the highest rate of ANC clients was referred (93%), followed by TB clients at 40%. STIs and FP clients are of great concern, as they represent a referral rate of 1% and 0,5% respectively. The positivity rate is high among TB clients at 45%, followed by STIs at 33%, then ANC at 29% and finally, FP at 16%. This brings the general picture of VCT positivity rate to 37%.

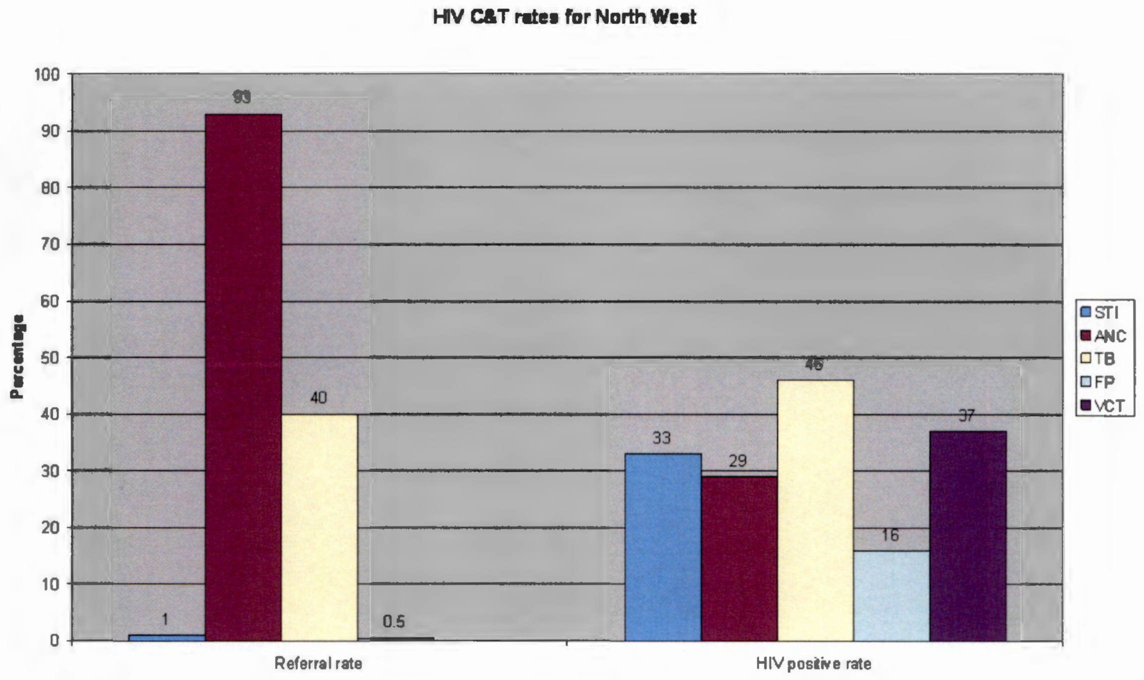

Figure 5.2.6: HIV referral rates from different service areas and the prevalence rates among their clinic attendees.

5.3 Conclusion

Chapter 5 dealt with the results of the research. It assessed the operational quality of VCT services in terms of utilization, accessibility, human resource capacity and skills, infrastructure and functional efficiency. It also provided baseline information and formative recommendations that will act as a yardstick for future evaluation and improvement of quality and utilization of PI-C&T services. It also looked into improving capability and skills of health workers in VCT and increasing number of antenatal care clients, TB and STI clinic attendees and general population who receive high quality VCT services.

CHAPTER SIX

DISCUSSION, RECOMMENDATIONS, CONCLUSIONS AND THE STUDY LIMITATIONS.

6.1 Introduction

In Chapter 1 the objectives of the study were highlighted and the importance of the research emphasised. Chapter 2 (theoretical foundation and literature review) formed the basis of the problem that is defined in Chapter 3. In Chapter 4 an exposition of the investigation was given and the research results were presented in Chapter 5. The results of the study are discussed in the current chapter, Chapter 6, conclusions are drawn and the chapter concludes with recommendations to be implemented.

6.2 Discussion

There is a need to address not only immediate risk, but also deep-rooted causes of vulnerability to HIV infection. Scaling up national HIV prevention efforts must emphasize both full accesses to proven and effective strategies for populations at higher risk to reduce vulnerability and impact and promote broader social change to reduce HIV vulnerability. Both are essential to producing a lasting and meaningful impact.

Improving the effectiveness of efforts to contain and reverse the spread of HIV requires that planners:

- Identify populations at higher risk of HIV infection
- Define what prevention measures are essential for these populations
- Ensure adequate delivery of essential prevention measures to the identified populations
- Act on the drivers of the epidemic, including harmful social norms and laws, gender inequality and neglect of human rights

In general, all facilities provide HIV C&T services and all have lay counsellors who provide the bulk of the C&T service during the week. The referral rate of STI clients is very low (1%) in this district, but 93% of ANC clients were referred for HIV C&T during their first visit. FP saw the highest number of clients per month, yet less than 1% of these clients were referred for HIV C&T. Other challenges included the following:

- Large volumes of patients and human resource constraints – each healthcare worker saw an average of 60-80 patients per day.
- HIV C&T is not well integrated with other clinical services.
- Most professional nurses, although trained on VCT, do not provide counselling and rely solely on lay counsellors. As a result HIV C&T is not provided after 16:00 (after lay counsellors have gone off duty).
- One clinic did not have the VCT statistics of two months. The counsellor indicated that they were taken by the HIV AIDS coordinator who did not make copies.
- Even though CD4 count records are kept in most clinics, they do not have a column to indicate the clients' diagnosis.
- Referral from other programs to VCT was not indicated in the VCT register.

- Gender is not indicated in some records (CD4 and ARV registers).
- Dates when clients were seen and tested for HIV are not recorded in some VCT registers (only names of clients were recorded).
- Many gaps (missing data) were identified in the registers and general record keeping is still a challenge in many facilities.
- VCT registers are not standardized across the district. (More than 3 different registers were identified.)

6.3 Recommendations

6.3.1 Facility-based recommendations

- There is an urgent need for expanding HIV C&T, particularly in TB, STI and FP services.
- VCT registers need to have a column for the clients' diagnosis (e.g. TB, STIs).
- More professional nurses need to offer counselling and testing to their clients and not rely solely on the lay counsellors to provide the service.
- All clients entering the facility need to be offered HIV C&T, and if they choose not to be tested it should also appear on the VCT register. (A separate column must be added in order to indicate those who were provided the service but opted not to have the testing done.)
- All CD4 and ARV referrals should indicate the diagnosis of the client (may be done in the VCT register).

6.3.2 Management recommendations

- The VCT Program needs to have its own standardized register province-wide
- Develop training material based on the Centre for Disease Control PI-C&T material.
- Train both facility staff and lay counsellors in recording, compiling and reporting C&T data and on PI-C&T.
- Develop tools to assist staff in monitoring and evaluating their progress in quality improvement of C&T.
- Provide onsite mentoring to both lay counsellors and facility staff on data management and on how to improve C&T services.
- Create a means for the facility staff to provide feedback to the district level and vice versa on C&T issues.

To ensure efficiency in the training program, the critical events model will be applicable and it is outlined below as figure 6.1.

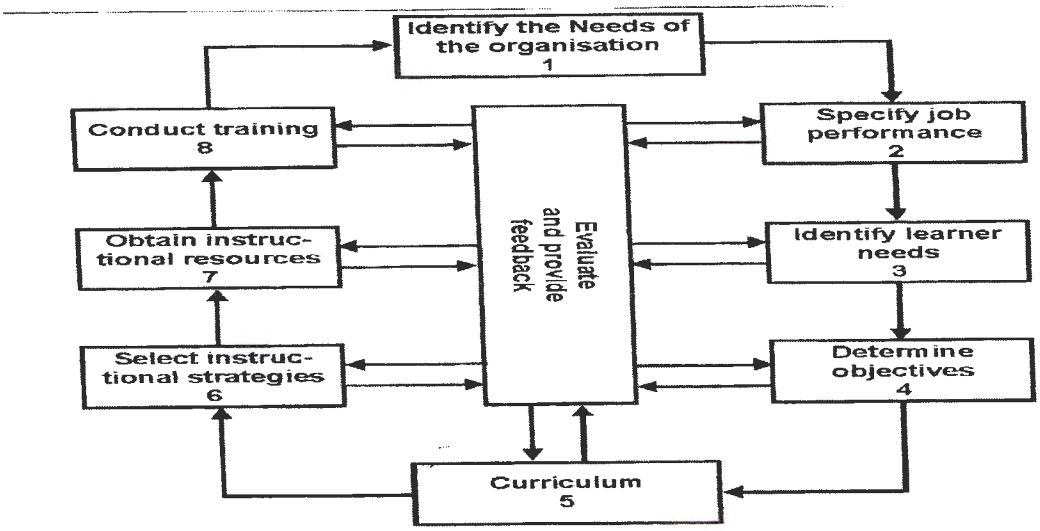

Figure 6.1. The critical events model

Source NSET 321 study guide (2007:85)

Figure 6.1 represents the Critical Events Model which is essentially useful for training and for learning programs related to the job that the individual is doing. It is an open model that recognises that individuals are complex. It allows the design process to be halted when something other than a learning response is more appropriate. It is more useful where rapid change is a norm.

6.4 Conclusion

Chapter 6 dealt with conclusions and recommendations. It summarized the foundations of the study and then stated the recommendations, both for facilities and management, based on the findings.

6.5 Summary

HIV prevention programmes are not reaching the people most at risk of infection, such as young people, women and girls, men who have sex with men, sex workers and their clients, injecting drug users, and ethnic and cultural minorities. The issue of women and girls within the AIDS epidemic needs continued and increased attention. Women continue to be more likely than men to be infected with HIV and are also more likely to be the ones caring for people infected with HIV.

It is imperative that government continues to increase investment in both HIV prevention and treatment services to reduce unnecessary deaths and illness from this. The levels of knowledge of safe sex and HIV remain low in many countries, as well as perception of personal risk. Even in countries where the epidemic has a very high impact, such as Swaziland and South Africa, a large proportion of the population do not believe they are at risk of becoming infected.

Knowing the epidemic and understanding the drivers of the epidemic such as inequality between men and women and homophobia is absolutely fundamental to the long-term response to AIDS. Action must not only be increased dramatically, but must also be strategic, focused and sustainable to ensure that the money reaches those who need it most.

6.6 Limitations of the study

The study was limited to a small area and a small group of the population and therefore the results may not be representative enough. The study concentrated on the Southern district of the North West Province. Generalisation of findings to the entire province should be done with caution as they may not be representative enough.

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