

# **Factors Influencing the Uptake of HIV Voluntary Counseling and Testing in Namibia**

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**Namibia**

45<sup>th</sup> International Course in Health Development

September 22, 2008 – September 11, 2009

KIT (ROYAL TROPICAL INSTITUTE)

Development Policy & Practice/

Vrije Universiteit Amsterdam

## **Factors influencing the Uptake of HIV Voluntary Counseling and Testing in Namibia**

A thesis submitted in partial fulfillment of the requirement for Degree of Master of Public Health

by

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Declaration:

Where other people's work has been used (either from a printed source, internet or any other source) this has been carefully acknowledged and referenced in accordance with departmental requirements.

The thesis "**Factors influencing the uptake of HIV voluntary counseling and testing in Namibia**" is my own work.

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45<sup>th</sup> International Course in Health Development (ICHD) September 22,  
2008 – September 11, 2009  
KIT (Royal Tropical Institute)/Vrije Universiteit Amsterdam  
Amsterdam, The Netherlands

September 2009

Organized by:

KIT (Royal Tropical Institute), Development Policy & Practice  
Amsterdam, The Netherlands

In co-operation with:

Vrije Universiteit Amsterdam/Free University of Amsterdam (VU)  
Amsterdam, The Netherland

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## LIST OF ABBREVIATIONS

|       | <b>ABBREVIATIONS</b>  |
|-------|---|
| AIDS  | Acquired Immunodeficiency Syndrome                                    |
| ANC   | Ante Natal Care   |
| ART   | Antiretroviral therapy  |
| FBO   | Faith Based Organization  |
| GNP   | Gross National Product  |
| GRN   | Government of the Republic of Namibia                                 |
| HAART | Highly Active Antiretroviral Therapy                                  |
| HIV   | Human Immunodeficiency Virus  |
| ICHD  | International Course in Health Development                            |
| IDU   | Injecting Drug User   |
| LGBT  | Lesbian, Gay, Bisexual and Transgender                                |
| M&E   | Monitoring and Evaluation   |
| MAPP  | Military Action and Prevention Programme                              |
| MOHSS | Ministry of Health and Social Services                                |
| MRLGH | Ministry of Regional, Local Government, Housing and Rural development |
| MTP   | Medium Term Plan  |
| NACOP | National AIDS and STI Control Programme                               |
| NDHS  | Namibia Demographic and Health Survey                                 |
| NIP   | Namibia Institute of Pathology  |
| NPC   | National Planning Commission  |
| OI    | Opportunistic Infection   |

|        |  |
|--------|--|
| OVC    | Orphans and vulnerable children                          |
| PEPFAR | President's Emergency Plan for AIDS Relief               |
| PHC    | Primary Health Care Directorate                          |
| PITC   | Provider Initiated Testing and Counseling                |
| PLWHA  | People living with HIV and AIDS                          |
| PMTCT  | Prevention of mother to child transmission               |
| SIAPAC | Social Impact Assessment and Policy Analysis Corporation |
| SMA    | Social Marketing Association                             |
| STI    | Sexually Transmitted Infections                          |
| STP    | Short Term Plan  |
| TB     | Tuberculosis   |
| TRP    | The Rainbow Project                                      |
| UNAIDS | Joint United Nations Programme on HIV/AIDS               |
| UNDP   | United Nations Development Programme                     |
| UNFPA  | United Nations Population Fund                           |
| UNICEF | United Nations Children's Fund                           |
| USAID  | United States Agency for International Development       |
| VCT    | Voluntary Counseling and Testing                         |
| WHO    | World Health Organization                                |

## **ACKNOWLEDGEMENT**

I would like to thank the Ministry of Health and Social Services which through the Global Fund against AIDS, TB and Malaria scholarship made it possible for me to be part of the 45<sup>th</sup> ICHD/MPH course.

I am grateful to my husband and mentor who without hesitation has encouraged me to take up the study and who single handedly taken over all the household responsibilities and taking care of the children. Your ongoing support has enabled me to finish this course.

My children Vernitho, Amory and Amy thank you for being so understanding and for letting me go without complaining.

I am indebted to my thesis advisor for her patience, guidance and valuable input during the process of writing this thesis. I am also thankful to the input received from my back stopper.

My gratitude goes to the course coordinators and the various facilitators who shared their knowledge during the course. To the course secretaries, Rinia and Linda thank you for taking time to attend to all my requests.

I want to thank my classmates, who shared their knowledge and experience in so many different ways. John and Agnes, thank you for your love and support.

I would like to express my gratefulness to my parents and family members for assisting with the children. My gratitude also goes to all my friends for their prayers and encouragement.

Elize, my best friend thank you for being there for me. Your love and support have made me get through this emotional year.

Sincere thanks to the Dahlke family, their place has become a home away from home during my stay in Amsterdam.

To Jeroen van Gorkom and family, thank you for your hospitality and support.

Last but not least my colleagues at DSP who have taken on extra duties during my absence and for the information provided during the course of my study.



## **ABSTRACT**

Namibia is a big country with an estimated population of 2.1 million people living on a surface area of 824 000 km<sup>2</sup>. The country has a generalized HIV epidemic with unprotected heterosexual contact as the main mode of HIV transmission. HIV prevalence in pregnant women was estimated at 17.8% in 2008.

Voluntary counseling and testing services is a key strategy in reaching universal coverage for prevention, care and support services. VCT became available since 2003 with the introduction of ART in public hospitals. VCT is available through integrated PHC services and stand alone centers. The total number of people accessing VCT has increased from 4083 in 2003 to 178 926 in 2008. However, according to NDHS (2006) only 50.9% women and 32% men have ever been tested. In addition, VCT uptake remains below the national target. The national target for VCT in 2008 was 275 000, of which 160 000 (58%) clients were counselled and tested. Of these only one third was men. The national target was based on feasibility rather than need.

The aim of the study was to explore the factors that negatively affect the uptake of VCT. The study is based on analysis of the Namibian VCT data combined with literature review of VCT services in other African countries. The review was done systematically and two independent frameworks were used to analyse findings. One framework focuses on health service related factors based on the four dimensions of access; accessibility, availability, affordability and quality of care were added. The other framework was used to analyse individual, social and economic factors influencing VCT uptake.

Men and young people under the age of 19 are less likely to be tested. Although there are many factors influencing VCT uptake, stigma, fear for positive HIV test, low risk perception and lack of access to health facilities offering VCT including same day test results and inconvenient opening hours were identified. Another constrain is the countries shortage of human resources to provide VCT services.

To improve the uptake of VCT services, rapid HIV testing (same day results) should be made available to all facilities. Mobile VCT services should be made available at places where men are working and socializing. Youth friendly services are crucial to increase uptake in young people under the age of 19.

**Key words:** HIV counseling and testing, Africa, Namibia, access, acceptability, quality of care

**Word count:** 12 882

## **INTRODUCTION**

HIV/AIDS remains a major public health problem all over the world. UNAIDS (2008) estimated that 33 million people are living with HIV/AIDS globally. Sub Sahara accounts for two thirds of the global HIV burden. Namibia is no exception with HIV prevalence of 17, 8% in pregnant women. The epidemic is affecting all sectors of society, leaving an estimated of 85 000 children orphaned (MOHSS, 2007). While numerous attempts have been made by the government to mitigate the impact as well as the spread of HIV infection, Namibia currently ranked as the country with the fifth highest HIV prevalence in adults. Unprotected heterosexual contact with an infected partner remains the primary mode of HIV transmission.

In response to the growing problem of HIV, international donors have considerably increased funding for HIV and AIDS programs in order to control the HIV epidemic.

Voluntary Counseling and Testing (VCT) is one of the strategies to respond to the epidemic. It provides an opportunity for people to learn their HIV status and also serve as an entry point to access treatment, care and support services.

Despite increasing the number of facilities providing VCT services and creating demand for VCT in Namibia, the number of people tested remains below targets.

As a program manager responsible for coordinating the HIV programme in the health sector, it is important to understand the factors that influence the uptake of VCT, to be able to better plan and implement VCT activities. In Namibia, where one in every five persons is HIV positive, knowing one's HIV status is important to be able to access ART and treatment for other opportunistic infections.

The objective of this study is to determine the factors that negatively affect the uptake of VCT in order to develop interventions that will improve uptake of VCT. The recommendations will be used by the National AIDS and STI control programme to improve programme planning and implementation.

## **CHAPTER 1: BACKGROUND OF THE COUNTRY**

*This chapter presents a background of the country including geography, history, education, economy and the health care system.*

### **1.1 Geography**

Namibia is situated in the south-western part of Africa and bordered by Angola and Zambia in the North, Botswana to the east, Zimbabwe north east and South Africa on the east and south. The western part of the country is bordered by the Atlantic Ocean. The Namib Desert covers the area along the west coast whilst the Kalahari Desert stretches along the south-eastern part of the country. The population is estimated at 2,1 million people with an annual growth rate of 2.6% (MOHSS, 2006a). The country has a surface area of 824,000 km<sup>2</sup> and is sparsely populated with 2 people per km<sup>2</sup> (MOHSS, 2006a). Distribution of population varies by region with two thirds of the population living in the four northern regions; Oshana, Omusati, Ohangwena, Oshikoto and less than one tenth living in the southern part of the country (NPC, 2004).

### **1.2 History**

Namibia, once a German colony and later occupied by South Africa attained its independence on 21 March 1990. The country has a multi party system with South West Africa People's Organization (SWAPO) as the ruling party and several opposition parties. The constitution is based on Roman-Dutch law and elections are held every 5 years. The countries leadership consists of the president, assisted by one prime minister and various cabinet ministers. The country is divided into 13 administrative regions (MOHSS, 2006a).

### **1.3 Education**

The Namibia Demographic and Health Survey (2006) shows 14.6% of women and 15.6% of men do not have any form of education compared to men (15.6%). Differences in accessing education between rural and urban areas remain a challenge.

### **1.4 Economy**

Namibia has been classified by The World Bank as a lower middle- income country due to its relatively high Gross National Product (GNP) per capita, however the country has a very uneven distribution of wealth. This is highlighted by a Gini-coefficient of 0.70, which is the highest in the world (UNDP, 2005). The country also has a high unemployment rate of 37% (MOHSS, 2006a). According to The United Nations Development Program (UNDP), Human Development Report (2005) 34.9% of the population lives under the poverty line.

The economy remains intimately linked to South Africa and is heavily dependent on exportation of diamonds, uranium and other minerals. Fishing and tourism contribute significantly to the economy. Half of the population depends on subsistence agriculture as a source of livelihood (NPC, 2007).

### **1.5 Health Care delivery system**

In 1992, soon after independence the Ministry of Health and Social Services (MOHSS) adopted Primary Health Care (PHC) as cornerstone of health care delivery. PHC services are delivered through 34 district hospitals, 33 health centers, 281 clinics and several outreach points (MOHSS, 2006c). Public health services are funded through general government taxes. According to MOHSS (2008c) Namibia's Public Total Health Expenditure are 12, 6% as a percentage of total government expenditure which is close to that of South Africa (14%) and higher than other African countries (Kenya, Malawi, and Ethiopia). Private for profit health services are provided mainly in urban areas. These services are mainly available to those who have private insurance schemes or who can afford out of pocket payment. Faith based organizations (FBO's) provide health services mainly in rural areas and are subsidized by government. For the purpose of this study, focus will be on government health facilities; FBO's and Stand alone (New start) VCT centers where services are accessible for the majority of people.

### **1.6 National HIV and AIDS Programme Responses**

The Medium Term Plan (III) contains five components as listed below; see annex 2 for detailed description of sub-components.

- Enabling Environment
- Prevention
- Treatment, Care and Support
- Impact Mitigation
- Programme Management

### **1.7 Coordination of National AIDS Response**

In accordance with the "Three Ones" principle, Namibia developed National HIV and AIDS Strategic plans to respond to the HIV epidemic. The response started with a Short Term Plan (STP) on HIV covering the period 1990 – 1992. The first Medium Term Plan on HIV, which followed the Short Term Plan, was implemented from 1993 to 1997. Currently the country is implementing the Third Medium Term Plan (MTPIII), starting in 2004 and ending 2009. The plan was developed to provide an institutional framework and guidance to implement the HIV and AIDS prevention and control interventions in the country. Different coordination committees were established at all levels tasked with the responsibility of monitoring the implementation of MTPIII (see annex 2). One agreed country level

Monitoring and Evaluation (M&E) System was established under the new Directorate. A new Directorate in the Ministry of Health and Social Services (MOHSS) was established in 2004 with the Minister of Health as the chairperson of the National AIDS Committee. The directorate consists of two divisions; one responsible for health sector responses and the other for multi sectoral responses respectively (MOHSS, 2004f). The sub division for National HIV and AIDS and Sexual Transmitted Infection (STI) Control Programme resorts under the division for health sector responses and is responsible for the coordination of Voluntary counseling and testing (VCT) services in Namibia. At regional level two staff members from MOHSS together with the Regional AIDS Coordinator at the Ministry of Regional local government , housing and rural development (MRLGH) are responsible for coordinating HIV responses by all line ministries, Non Governmental Organizations (NGO's) and civil society. At District level two health care staff is responsible for overseeing the implementation of VCT program activities (MOHSS, 2008c). VCT is offered in public health facilities integrated in PHC services and stand alone (New Start) VCT centers. New Start centers were initially run by Social Marketing Association (SMA) but due to changes in funding sites are currently managed by Intra Health/Capacity Project.

## **CHAPTER 2: PROBLEM STATEMENT AND METHODOLOGY**

*This chapter aims to describe the problem statement, objectives of the study, justification and methodology used.*

### **2.1 Problem Statement**

Namibia ranks among the 5 countries with the highest HIV prevalence in adults in the world (UNAIDS/WHO 2008). The country has a generalized epidemic and unprotected heterosexual sex with an infected partner remains the main mode of HIV transmission.

The prevalence rate of HIV infection in pregnant women decreased from 19.7 % in 2006 to 17.8% in 2008 (MOHSS, 2008b). Although a decrease in overall HIV prevalence was observed, we cannot conclude that prevention strategies are effective and new infections are decreasing. The decrease in prevalence could also be due to more HIV positive people dying, because they access treatment late or not at all.

VCT remains critical in the efforts to reach the goal of universal access to prevention, treatment and care services in a timely manner. VCT services provide the opportunity for clients to confidentially learn their HIV status and it also serves as an entry point to other services such as screening and treatment of Tuberculosis (TB), prevention of opportunistic infections (OI's) in HIV positive persons and provision of antiretroviral therapy (ART) (Kranzer et al 2008). Although there is not enough critical evidence that VCT has a major impact on behaviour change it is effective in preventing HIV transmission from mother to her unborn baby (Denison et al, 2008).

In many African countries utilization of VCT services remains low with 9% of women and 7% of men ever been tested (USAID et al, 2004). According to Granich (2008), 80% of adults living with HIV in sub Saharan Africa are unaware of their status.

HIV testing services have been available in the public sector since 1987 but VCT became available in public health facilities and community stand alone sites in 2003. The introduction of ART in 2003 has motivated many Namibians to go for testing (MOHSS, 2007e). According to SMA (2006) client uptake for VCT increased (40%) from 1 800 to 3000 per month when rapid HIV testing (same day results) was introduced and up to 67% when ART became available. However during the NDHS (2006) only 32% of men and 50, 9% of women have ever been tested for HIV and received their results.

In 2008, 160 000 (58%) clients have been counseled and tested out of a national target of 275 000. Of these, one third of clients were men (MOHSS,

2008c, Intrahealth 2008). Generally men's health seeking behaviour is low, resulting in them accessing VCT only when they are already sick (MOHSS, 2008c). The total number of clients tested and received results also include re-testers. When the program started in 2003, a total number of 45 000 people were counseled and tested. Based on these figures a national target of 275 000 was projected for 2008 and was based on feasibility rather than need.

It is difficult to determine how many people require VCT. USAID et al (2004) suggest that when calculating coverage for services, adult population (15 years and above) be considered as population in need of HIV C&T services. With an estimated adult population of 1.2 million people (15 yrs and above) only 21, 8 % of adults were tested for HIV (MOHSS, 2008c).

The number of persons tested has increased over the years however there are still opportunities for HIV counseling and testing services to reach more Namibians by addressing the barriers to VCT.

In Uganda, Tanzania and Malawi it was found that uptake to VCT remains low due to fear for positive results, stigma, low perception of risk, negative reactions to disclosure, distance to testing facilities, low quality of VCT services and gender inequalities (Bwanali et al 2008, Wringe et al 2008).

## **2.2 Justification**

To my knowledge no studies have been conducted in Namibia, looking at supply and demand factors affecting the uptake of VCT. In Namibia where one in every five adults is living with HIV more people should get tested to be able to access treatment, care and support services timely. The ART programme has reached coverage of 75% of those in need. In 2008, 70% of pregnant women (51 780) were tested through PMTCT programme (MOHSS, 2008c). In public health facilities 59% of Tuberculosis patients were tested for HIV (MOHSS, 2007L). The country has launched different social marketing campaigns including World AIDS Day and National Testing Day to promote HIV counseling and testing. Despite all efforts to scale up VCT, the uptake remains below national target. The study aims at studying the demand and supply factors that affect the uptake of VCT to make recommendations to the MOHSS to increase uptake of VCT to ensure that more people access ART and PMTCT, TB and other treatment and care services.

## **2.3 Study questions**

1. What are the individual factors affecting uptake of VCT?
2. How do social factors influence uptake of VCT services?

3. How do health service factors affect utilization of VCT services?

## **2.4 Objectives**

### **2.4.1 General Objective**

To discuss the factors influencing uptake of VCT services and to suggest recommendations to increase uptake of VCT in Namibia.

### **2.4.2 Specific objectives**

1. To analyse individual and demographic factors that prevent people from utilizing VCT services.
2. To assess social and economic factors influencing VCT uptake.
3. To identify health service factors that affect uptake of VCT.
4. To make recommendations to the National HIV and AIDS control program for possible innovations to improve VCT services and uptake.

## **2.5 For who is the thesis primarily intended**

To inform and guide the National HIV and AIDS Control programme in the MOHSS on planning and improving VCT services.

## **2.6 Methodology**

The study is based on analysis of Namibian VCT data (New Start, MOHSS) combined with literature review of HIV Voluntary Counseling and testing services in African countries with generalized HIV epidemic. Electronic data bases such as Pub med, Science direct, Scopes and Google were searched for published literature. Grey literature such as program reports was included. Reference material and reports from WHO and UNAIDS have been included. International Course in Health and Development (ICHD) course material and author's own experience has also been used as sources of information. Different combinations of key words were used to search for articles.

Key words used were; HIV, AIDS, stigma, access, HIV Counseling and Testing, Africa, disclosure, health seeking behavior, utilization, men, acceptability, affordability, masculinity.

- **Inclusion criteria and screening process**

Articles included were studies conducted in African countries with a generalized HIV epidemic. Only English and full text articles were included in the study. No time limit was put to the search to ensure that articles from as early as 1983 when HIV Counseling and Testing started were retrieved.



### **Stage 1**

The combined searches resulted in 368 articles and 54 from grey literature; totaling 422.

### **Stage 2**

The titles were reviewed for relevance and duplicate articles were removed. The remaining articles were 102.

### **Stage 3**

All abstracts were reviewed and articles that did not refer to the components of VCT in the framework were removed. The remaining articles were 73.

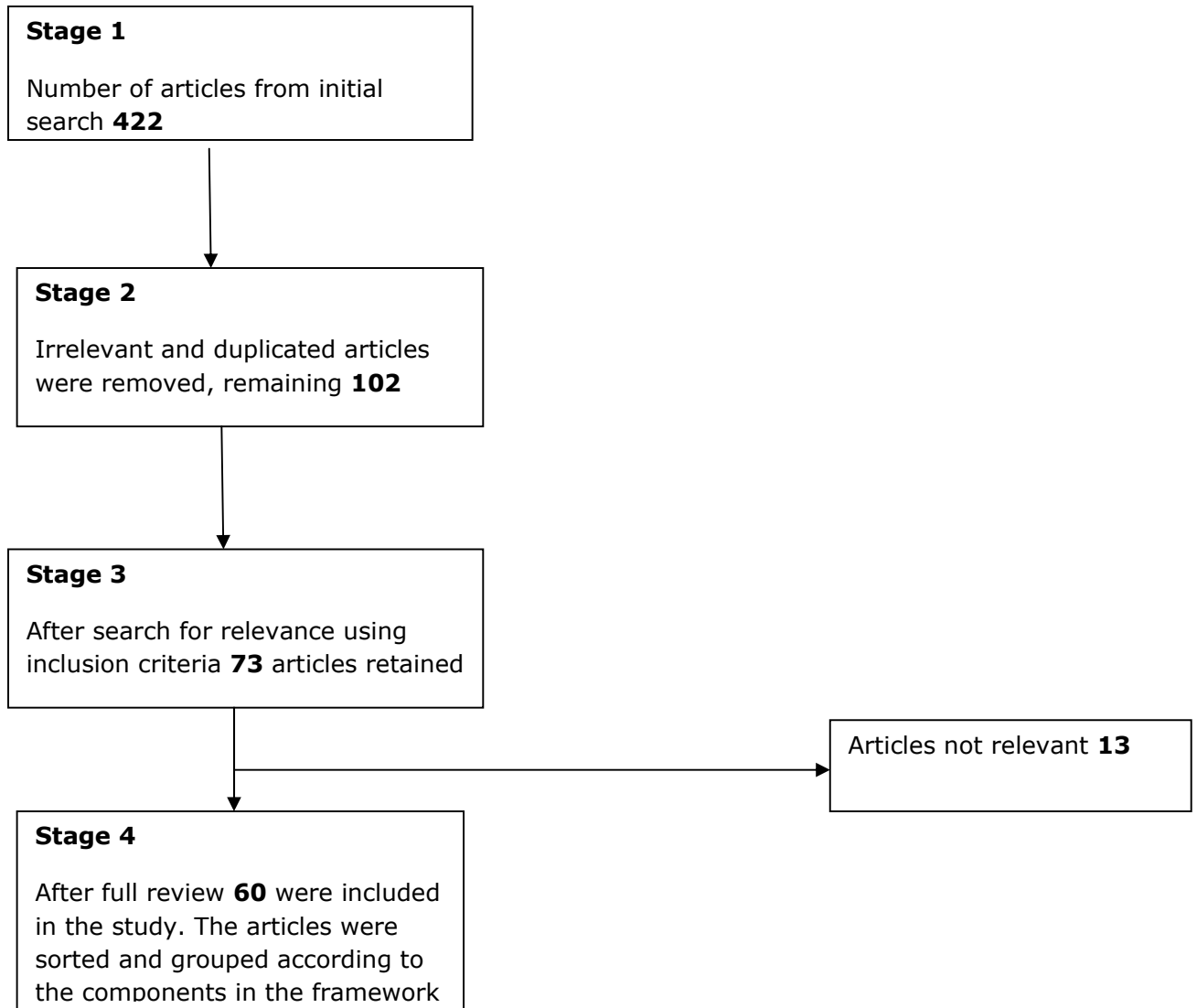
### **Stage 4**

After full review of the articles, 13 irrelevant articles were removed and 60 were included in the study. Literature was sorted and grouped according to the components in the framework.

**Table 1: Summary Table of literature review results**

| <b>Data bases</b> | <b>Results</b> |
|-------------------|----------------|
| Pub med           | 305            |
| Science direct    | 30             |
| Scopus            | 11             |
| Google            | 6              |
| Grey literature   | 54             |
| <b>Totals</b>     | 422            |

**Figure 2: Flow diagram of literature review results**



### **2.7 Limitation of the study**

The study is based on a literature review and was carried out within a limited time period. However the review of the literature was carried out systematically. The author also did not collect primary data, only relied on secondary data. This review could serve as the basis for future studies to be carried out in Namibia.

## **CHAPTER 3: STUDY RESULTS/FINDINGS**

*This chapter describes the conceptual framework used and analysing the study's findings using the framework.*

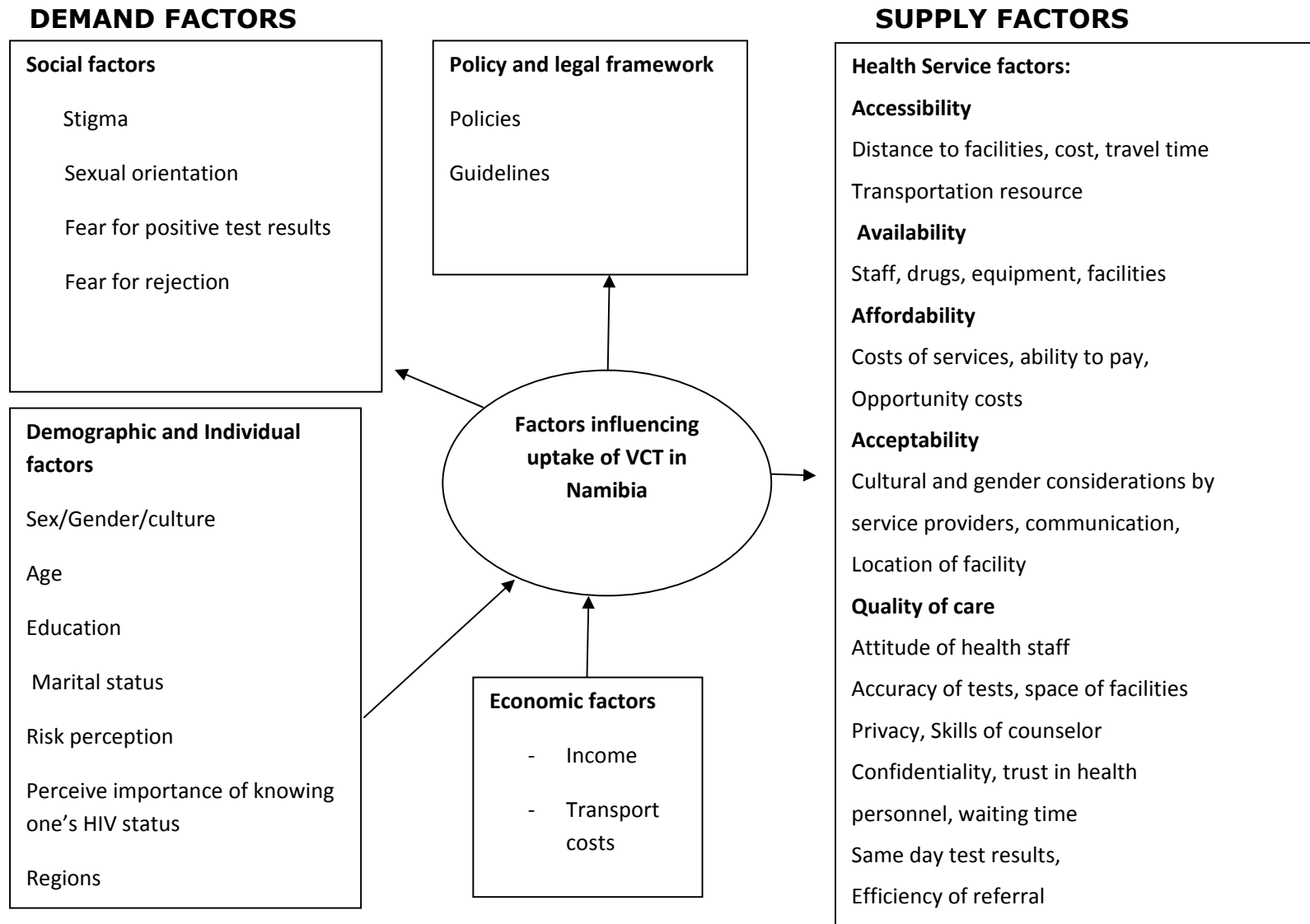
### **3.1 Conceptual frameworks for analysing VCT uptake**

The Namibian guidelines on Voluntary Counseling and Testing define VCT uptake as the proportion of clients who received pre-test counseling, consented to testing and received post test counseling in any health facility providing these services.

In this study two independent conceptual frame works have been used. The first frame work was published on a study done on Voluntary Counseling and Testing in Uganda and focuses on factors influencing utilization of Voluntary Counseling and Testing Services (Bwambale et al 2008). Utilization is based on the following factors: Individual/Demographic, economic, Social and Policy and legal framework. The second framework is adapted from the Penchansky and Thomas(1981) public health model based on the four dimensions of access; accessibility, availability, affordability and acceptability to which quality of care was added (McIntyre and Mooney 2008).

Findings of the study are presented according to Policy and legal framework, Individual and Demographic, social and economic factors. Health service related factors addressing accessibility, availability, affordability, acceptability and quality of care. However the model does not provide information on linkages to other prevention, care and support services, and whether clients accessed these services after HIV testing.

**Figure2: Conceptual frameworks**



## **3.2 Factors influencing uptake of VCT**

*The analysis of the literature findings will now be presented using two independent frameworks. This section explains the demand and supply side factors that affect uptake of VCT.*

### **3.2.1 Policy and legal framework**

The Government of Namibia developed a National HIV and AIDS policy in an environment where human rights are respected (MOHSS, 2007e). Overall, the country has excellent documents in place that protect human rights except for homosexuals and sex workers. National VCT guidelines were developed and approved in 2007 to provide guidance to all facilities to provide quality VCT services. The guideline also emphasize that VCT should always be accompanied by pre- and post test counseling, testing consented by the client, which comply with the human rights principles (MOHSS, 2007e). Confidentiality should always be maintained by the counselor.

Traditionally HIV counseling and testing has been voluntary. In order to increase the uptake of VCT provider initiated testing and counseling (PITC) with "opt out" approach is considered to be implemented by MOHSS. VCT started in 2002 with the provision of PMTCT in 2 pilot hospitals. At the same time SMA operated under an agreement with MOHSS, started 3 stand alone (New Start) centers and currently Intrahealth/Capacity is providing unlinked anonymous testing in 17 centers. VCT uptake increased with the introduction of highly active antiretroviral therapy (HAART) starting in 6 pilot hospitals in 2003 and rapidly rolled out to all 34 public hospitals (MOHSS, 2007p). VCT is integrated in TB, Ante natal clinics, maternity wards, out patient departments and ARV clinics. Military and uniformed persons access VCT services through MOHSS. In addition, military personnel also access VCT services at 3 New Start centers as well as the Military Action and Prevention Program (MAPP).

With the financial support of development partners community counselors were recruited to provide HIV counseling and testing services thereby reducing the workload on health care workers. In order to support the expansion of HIV testing and counseling services in Namibia, HIV rapid testing was rolled out in 2005 (MOHSS, 2007e). Nurses and community counselors were trained and certified in HIV rapid testing technique. The introduction of rapid testing has also increased the uptake of VCT because it reduced the waiting time for results. The Namibia Institute of Pathology (NIP) is tasked with the responsibility to certify HIV rapid testers and sites. In addition NIP conducts regular quality assurance assessments to all sites (MOHSS, 2008i).

- **Testing of children**

Children under 16 years are tested with the knowledge and consent of parents or guardians. However children under 16 years who are married or pregnant are regarded as “mature minors” who can consent to HIV testing (MOHSS, 2007e).

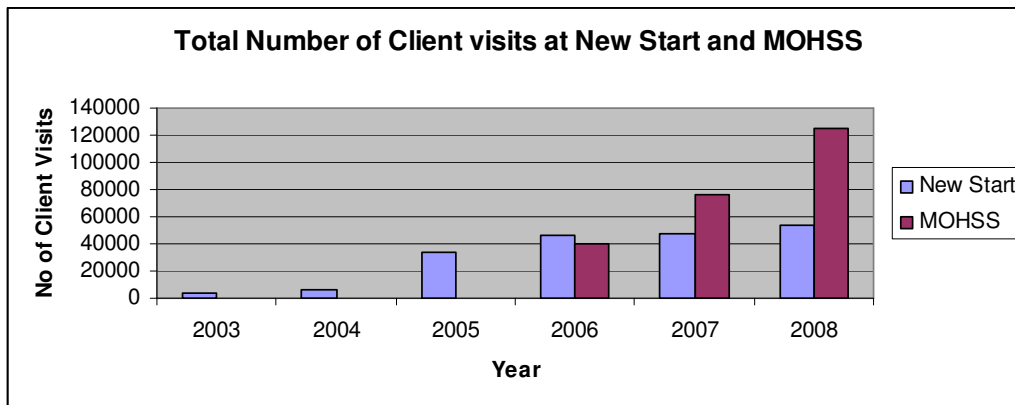
- **Partner notification**

All clients, both HIV positive and HIV negative, are encouraged to inform their sexual partner(s) about their HIV test results (MOHSS, 2007e). The National HIV policy makes provision that health care providers may notify the partner if the HIV positive person has refused to notify his/her partner after thorough counseling and if a real risk of HIV transmission to an identified partner has been identified (MOHSS, 2007j). However nurses are not empowered and protected to do so.

### 3.2.2. Individual and Demographic factors

The total number of clients visits to New Start and MOHSS facilities increased from 4083 in 2003 to 178 926 in 2008. MOHSS data available is only since 2006 (New Start 2008, MOHSS 2008).

**Figure3: Total number clients visits at New Start and MOHSS**

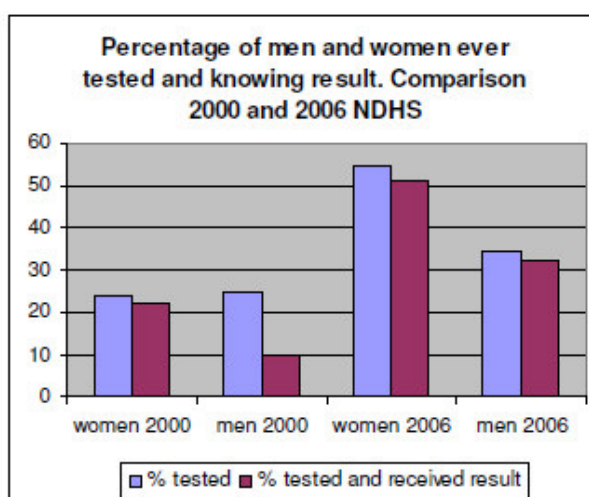


Source: MOHSS 2008c, New Start 2008

### 3.2.2.1 Sex, Gender and culture

A remarkable increase in uptake of VCT was observed in both men and women in NDHS 2006 compared to 2000. Although an increase in uptake of VCT was observed according to NDHS in 2006, only 32% men have been tested compared to 50.9% of women (figure 4).

**Figure 4: Percentage men and women ever tested**



Source: Situation and Response Analysis of Namibia's HIV epidemic, F Jenniskens, N Poku

According to MOHSS (2008c), one third of all clients tested for HIV were men. New Start data and National HIV Testing Day results indicate that amongst all clients tested 40% were men. In a survey conducted in Keetmanshoop, Walvisbay Rundu and Oshakati, males were also less likely to have been tested than females (Parker and Connolly, 2007). These figures confirm the gender differences in uptake of VCT between men and women and indicate the need for a response targeting men in Namibia. Women accessed HIV counseling and Testing services more in public facilities through reproductive health services including PMTCT. Men prefer testing at New Start Centers because they trusted counselors and their privacy was assured (SIAPAC, 2005). In Kenya men also preferred to be tested at stand alone VCT sites as compared to public testing facilities (Taegtmeier et al, 2006).

It is common belief in African societies that men are superior and should dominate women (Bwambale et al, 2008). In Kenya and Malawi women's decision to be tested was greatly influenced due to financial dependency on partners (Taegtmeier et al, 2006, Kranzer et al 2008).

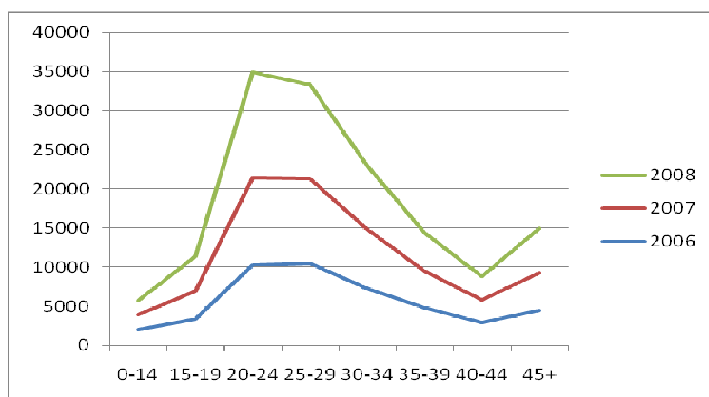
Brown et al (2005) in a study conducted amongst Owambo men and women in Namibia found that traditionally, masculinity is often associated with money and property, as this is a sign of wealth. Masculinity often affects health behaviors, because men have to appear to be strong, and seeking health care services, including VCT is a sign of men's weakness (Brown et al, 2005). This was confirmed by a study conducted by Steinitz et al (2009) among PLWHA in Namibia, found that more male than female respondents did not seek treatment after testing positive. Similarly, more males than females started but stopped treatment.

A programme which has mobilized individuals through face to face approach in Northern Namibia reached two thirds of women, because men are often working away from home (Baatsen and Mameja 2008).

### 3.2.2.2 Age

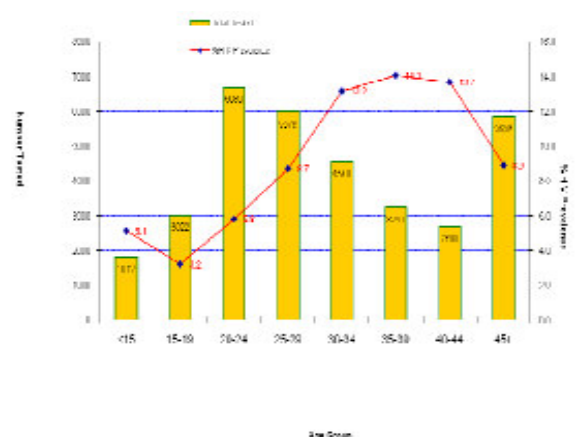
The age group of 20-24 represented the largest proportion of clients tested and who received their test results, followed by 25-29 years (SMA 2006, MOHSS 2008c, MOHSS 2008g, as set out in Fig 5). Data from NDHS 2000 and 2006 also indicated that testing was more common in age groups 20-24 and 25-29. According to UNAIDS (2008) young people age 15-24 account for 45 % of all new infections. The mean age for sexual debut in Namibia is at 17.5 years (MOHSS, 2006a). Generally, VCT uptake in age group less than 19 is low (figure 6), because of low risk perception (MOHSS 2006a, New Start 2008). Young people under 16 years need consent from parents or guardians to take an HIV test (MOHSS, 2007e).

**Figure: 5**  
**Total number clients tested at New Start Centers by age group 2006-2008**



Source: VCT program Data, Capacity Project 2008

**Figure: 6**  
**Total number tested and Prevalence by Age group**



Source: Report on National HIV Testing Day, MOHSS, 2008



### **3.2.2.3 Education levels**

Findings of NDHS (2006) show 68.3% of women who have been tested completed secondary education. Only 16% of men with out education have been tested and know their results compared to 63 % of men with more than secondary education (MOHSS 2006a). Among 4065 clients tested only 128 (3%) have no education (SMA, 2006) compared to 97% of clients who have been tested have any form of formal education (SMA, 2006). The MOHSS program data and National Testing Day results do not disaggregate data by education and employment status. In South Africa it was also found that study respondents who had been tested had significantly more years of education compared to those who have not been tested (Kalichman, Simbayi 2003).

Contrary to the previous results, a study conducted in rural Malawi among 2303 individuals aged 18-59 years reported that low uptake of VCT was common amongst individuals with higher education (Kranzer et al, 2008).

### **3.2.2.4 Marital status**

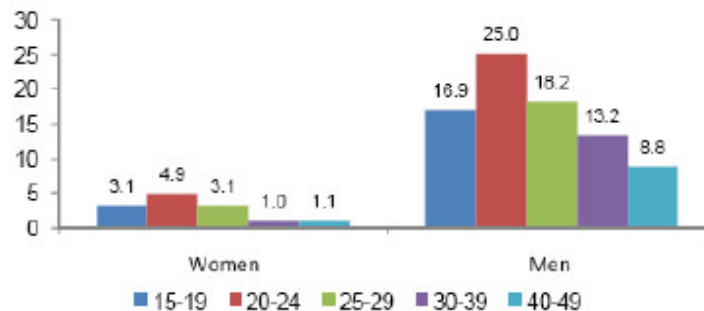
According to NDHS (2006), 61% of women that are married or living together have been tested and received results. Among men 46% of married men compared to 24.7% who had never been married have been tested and received results (MOHSS, 2006a). More than 90% of women and men never married had higher risk intercourse in past 12 months but only 44% women and 24.7% men were ever tested and receive results (MOHSS, 2006a).

In rural Malawi low uptake of VCT was common amongst married individuals (Kranzer et al, 2008). In many societies, married couples and people in long relationships consider themselves not at risk for contracting HIV because of trusting their partners. In Kisumu, Kenya 33% of married girls were HIV positive compared to 22% of unmarried girls (Whiteside, 2008).

### **3.2.2.5 HIV Risk perception**

Individual HIV risk perception affects people's decision to be tested for HIV. People may under estimate their risk and do not see the need for HIV testing. Findings of NDHS (2006) revealed that in men aged 15-19 years more than 90% had higher risk sexual intercourse in the last 12 months, but uptake for VCT is relatively low (7.5%). A study conducted by UNICEF (2003) in Namibia found that about two thirds of respondents do not consider themselves at risk of contracting HIV (UNICEF, 2003).

**Figure 7: Total number of men and women who had more than one sexual partner in the last 12 months**



Source: Situation and Response Analysis of Namibia's HIV epidemic, F Jenniskens, N Poku 2008

The figure above shows that young men and young women in the age group of 20-24 were especially likely to have had more than one sexual partner in the last 12 months and generally more men in all age groups showed sexual activity with more than one partner (Jenniskens and Poku 2008). Despite engaging in higher risk sexual intercourse, men are less likely to be tested because they have low risk perception.

Household surveys conducted in some districts in Namibia, found that risk perception varies among respondents from different districts. Survey results do not disaggregate data by sex. Survey results show that 52% of respondents in Oshakati, 41% in Keetmanshoop, Walvisbay 23% and 19% in Rundu said that they were not at risk of HIV. About 20% of respondents said they do not see the need to be tested and 8-16% do not think they are HIV positive (Parker and Connolly, 2007). Another survey conducted in Gobabis, Grootfontein, Otjiwarongo and Omaruru revealed that only 8% of respondents in Gobabis felt that they were "very likely" to be at risk for HIV or were HIV positive (Rimal and Smith, 2006). Across all districts a small proportion (5-10%) said they trust their partners and therefore did not go for testing. In Kenya married women felt that they were not at risk for HIV, because of trusting their husbands (Taegtmeyer et al, 2006).

A quantitative study conducted by SIAPAC in 2005 following a baseline study in 2002 in 16-35 age groups in Katima Mulilo, Oshakati, Walvisbay, Rundu and Windhoek found that perception of personal risk of contracting HIV was higher in women than in men. For females, perception of personal risk was slightly higher in 2005 (68, 7%) compared to 2002 (61, 5%). Women seem to be more concerned about their partners' behaviors. The percentage of men who felt that their risk for HIV is high/moderate due to unprotected sex declined from 46.9% in 2002 to 27,7% in 2005 (SIAPAC, 2005). In

South Africa people who have been tested for HIV cited that having unprotected sex was their reason for taking a test (Meiberg et al, 2008).

### **3.2.2.6 Perceived importance of knowing one's HIV status**

Generally awareness of VCT services in Namibia is good with 90% of women and 87% of men NDHS (2006) who know where to get an HIV test, 34.3% men and 54.8% women were ever tested. In young men aged 15-19 knowledge of a place to get a HIV test is lowest (77%). This probably explains the low uptake of VCT amongst this age group.

In Rundu, Walvisbay, Keetmanshoop and Oshakati more than 90% of respondents know where to get tested but only 50-60% have been tested (Parker and Connolly, 2007). Almost 60-70% of clients indicated that their own risk behaviour was the reason for taking a HIV test, followed by 10% indicating they don't trust their partner. More female have been tested, because they were pregnant. Less than 10% have been tested because they were feeling sick and only (2%) cited starting a new relationship motivate them for testing.

A study conducted among teachers in 4 regions in Namibia found that the main reasons for taking a HIV test are confidentiality about HIV status and access to ART (van der Walt et al, 2007). South African's participating in a study said that motivators to take an HIV test were pregnancy, starting a new relationship, planning to get married and availability of ARV (Meiring et al, 2008).

The first national HIV testing day held in May 2008, was a huge success with the Honorable Prime Minister and the Honorable Minister of Health and Social Services setting an example for testing. An overwhelming number of 33 760 people tested and receive results compared to target of 12 000 people (MOHSS, 2008g). This event has clearly shown that there is still an unmet need of people wishing to know their HIV status.

### **3.2.2.7 Regional variation**

Comparison of NDHS 2000 and 2006 show an overall increase in Number of people tested for HIV in all regions. Uptake of VCT in Caprivi and Kavango regions was less than 10% amongst all respondents. Urban residents were more likely to be tested than rural residents (MOHSS, 2006a). This could be due to more HIV testing facilities being available in urban compared to rural areas.

Although there has been a 2, 5 fold increase in uptake of HIV testing amongst Caprivian men since 2000, only 20% of men have been tested and received results in 2006. According to SMA (2006) men in Caprivi access VCT services when they are already sick.

HIV counseling and testing amongst women in Caprivi increased from 5.4 % in 2000 to 35.8% in 2006. This increase could possibly be due to roll out of PMTCT and ART services. Findings of NDHS (2000) show that amongst female respondents in Caprivi and Kavango only 5% were tested compared to 35.8% and 45% in 2006 respectively. Altogether in the Caprivi region had the lowest number of women tested (35.8%) while Khomas had the highest number (63.4%) of women tested (MOHSS, 2006a).

### **3.2.3 Social Factors**

#### **3.2.3.1 Sexual orientation**

In Namibia, efforts to protect the rights and reform laws against sexual minorities (gay, lesbian, bisexual and transgender) LGBT has been met with resistance from government and church organizations (Lafont and Hubbard, 2007). Many Namibians believe that homosexuality is a sin. Sexual minority groups face difficulties to overcome cultural and religious attacks challenging their sexual orientation. In March 2001, the former President Sam Nujoma called for the arrest, imprisonment and deportation of gays and lesbians on the grounds that homosexuality was immoral and threatening national identity (Lafont and Hubbard, 2007).

Consensual Gay sex is criminalized under old laws from the colonial time and is still maintained by the new Government. However the assaults by politicians and Christian communities resulted in gay en lesbian people not coming forward to fight for their rights (Lafont and Hubbard, 2007). In response to all the attacks on sexual minorities, an organization called The Rainbow Project was formed in February 1997 to focus on the rights of LGBT people.

HIV prevention and care services including VCT are focusing on heterosexual transmission and are failing to reach MSM. All these issues resulted in sexual minority groups hiding and not accessing VCT services. A study conducted in Namibia, Botswana and Malawi found that more than 20% of MSM were afraid of seeking health care services because of their sexual orientation (Baral et al, 2009). The study also found that out of 202, MSM in Namibia 12.5% were HIV positive. Of these more than 40% were not aware of their HIV status (Baral et al, 2009). Discrimination was common amongst gay men; therefore they do not seek VCT services.

#### **3.2.3.2 Fear for positive test results and rejection**

Women in Namibia's fear to get an HIV test are based on the fear that they might test positive, especially in polygamous relationships (Brown et al, 2005). In 2007, Lafont and Hubbard found that many individuals in Namibia

mentioned that they experience rejection by their sexual partners and families when tested HIV positive.

In a study conducted in Zimbabwe among 520 women, 45% decline VCT because their partners did not give consent and they also fear positive test results (Perez et al, 2006). This has serious implications for PMTCT services and it affects the utilization of HIV counseling and testing services.

### **3.2.3.3 Stigma**

Keulder (2007) defines stigma as any attribute of a person that is devaluing the person. Stigma can happen at individual, community or societal level. Individual or internal stigma brings about strong feelings of guilt, shame, blame and fear for death after being tested HIV positive. People living with HIV experience social rejection and isolation in the communities (Keulder, 2007).

One of the negative effects of stigma is that it delays testing (Keulder, 2007). Respondents in a study in Namibia among support group members said that because of stigma they delayed HIV testing until they can no longer hid their physical symptoms (Keulder, 2007). In Kenya, stigma was also cited as one of the reasons for low uptake in VCT (Taegtmeyer et al, 2006). Studies in Uganda, Namibia and South Africa found that fear for stigma was mostly related to testing positive for HIV (Mameja 2006, Meiberg et al, 2008, Bwambale et al, 2008). Whilst household surveys in Namibia show high acceptance of people living with HIV, stigma is still present in communities (Mameja, 2006).

A study in South African university students found that several factors determine stigmatizing reactions toward HIV positive individuals. Firstly, HIV is perceived as a contagious disease and therefore it is related to feelings of stigma. Secondly, HIV positive result is seen as a death sentence. Thirdly, HIV positive result is associated with infidelity or immoral behavior by those who contracted the virus. Lastly, negative reactions towards, MSM, sex workers and Injecting Drug Users (IDU's) are often associated with HIV (Meiberg et al, 2008). Knowledge about HIV transmission and acceptance of people living with HIV is very low among the students. Students are individuals that are educated and therefore stigma in the general community could be even higher (Meiberg et al, 2008).

A study conducted in Namibia among MSM, showed that half of the gay respondents did not disclose their sexual orientation or HIV status to health care workers in fear of stigma (Ashby and Lush, 2007).

### **3.2.3.4 Disclosure**

In Voluntary counseling and testing facilities people are nevertheless encouraged to disclose their HIV serostatus because it is believed that it reduces stress and anxiety as well as improving access to HIV prevention, treatment, care and support services (Medley et al, 2004). The household surveys mentioned earlier conducted in some of the areas in Namibia; found that many people living with HIV disclose their HIV status to family members to be able to access ART. The first edition of National ART guidelines launched in 2003 requires that eligible PLWHA accessing HAART should have a designated treatment supporter. PLWHA mostly prefer family members as treatment supporters (Parker and Connolly, 2007). Experience has shown that this is a very difficult criterion for some patients to meet.

A review conducted in developing countries among HIV positive women suggested that disclosure offers benefits not only to the individual but it may also lead to safer sexual practices which in turn reduces the risk of HIV transmission to partners (Medley et al, 2004). One study conducted in Uganda among men found that they do not want to disclose their HIV status to their partners mainly because they fear denial of their sexual rights (Bwambale et al, 2008). Decision to disclose are often affected by fear for rejection, abandonment, stigma, violence, losing financial support and accusations of infidelity hinders disclosure in HIV positive women (Medley et al 2008, Visser et al 2008, Karamagi et al 2006, and Semrau et al 2005).

### **3.2.4 Economic factors**

*This section discusses how income affects VCT uptake.*

#### **3.2.4.1 Income**

Findings of NDHS (2006) showed that men in the two lowest wealth quintiles (29.8%) are less likely to have ever been tested. Women in poorer households (33.5%) were less likely to have taken a test as well (MOHSS, 2006a).

Men are generally economically better off than women. Men in a survey conducted in Namibia were able to pay for VCT services, whereas many women were not able to pay for VCT services (SIAPAC, 2005). Many women are financially dependent on their partners and therefore cannot always access VCT services as they wish.

#### **3.2.4.2 Transport costs**

Long distances to health facilities remain a challenge for many people in Namibia. Many people rely on public transport, which is expensive in Namibia. With the high unemployment rate in the country, people cannot

access VCT services if they are not able to afford public transport. Unemployment and poverty also affects utilization of services. Transport costs can be high and clients sometimes lose income (working hours) when visiting health facilities for testing.

In rural Malawi distance to health facilities and transport costs were cited as reasons for not taking a HIV test (Kranzer et al, 2008). In Malawi door-to-door testing was found to be convenient by respondents who did not have money to pay for transport. They cited that even if they wish to travel to hospital for testing, lack of money to pay for transport prevented them from accessing VCT (Angotti et al, 2009).

### **3.2.5 Health service related factors**

*In this section I will discuss the health service related factors that influence VCT uptake using the four dimensions of access to health services, including quality of care.*

#### **3.2.5.1 Accessibility**

McIntyre and Mooney (2007) define access as the opportunity that people have to use health services, when their circumstances allow them to use the appropriate services that they need. Geographical accessibility to health services remains a key constraint in most low and middle income countries, depriving rural and poor communities from essential services.

Namibia is a country with a small population spread over vast distances which makes the 208 public health facilities and 17 freestanding VCT centers inaccessible to some population segments. Distances to health facilities and unavailability of transport affect utilization of VCT services. According to NDHS (2006) more than 90% of respondents in Kavango walk to nearest health facility, followed by 80% in Caprivi. Less access to health facilities in these 2 regions probably contribute to the low uptake of VCT. Findings of NDHS (2006) show that mean time to travel to health facility are more than an hour. Men and women in urban areas are more likely to get tested compared to those in rural areas (MOHSS, 2006a).

Health facility, population ratio also affects service provision and access to VCT services. Population and health facility ratio varies between regions. Hospitals are expected to serve a national average of 58 240 population, however hospitals in Oshana and Khomas regions serve double the national average. For health centers the national average is 46 327 population. Ohangwena, Caprivi and Khomas regions are serving double the national average. The national average population per clinic is 7 692, Khomas, Oshikoto, Oshana, Otjozondjupa are underserved by clinics, while Khomas

serves nearly five times the national average (MOHSS, 2008h). Clinics are mostly used because it is within reach of the majority of people. Clinics are under utilized in Caprivi, Kavango, Hardap, Karas and Kunene regions. Caprivi often experience floods during rainy season, whilst long distances and poor road infrastructure makes services inaccessible in Hardap, Kavango and Kunene regions (MOHSS, 2008h). According to NDHS (2006) Khomas and Erongo regions reported the highest percentage of people tested. These 2 regions are urban areas and have more private facilities available where people can also access HIV testing and counseling services.

New start centers are only available in 17 out of 34 districts mainly urban areas. According to SMA (2006) 53% of all Namibians have access to stand alone VCT centers within 30 km (see annex 3). New start centers are established in areas where faith based organizations or NGO's already operate.

VCT outreach guidelines were developed in order to increase access to quality counseling and testing services for rural and vulnerable populations. Due to shortage of transport and staff in the public sector, outreach services are not functioning optimally (MOHSS, 2008h). A study conducted in rural Malawi found that rapid HIV testing has increased uptake of VCT (Angotti et al, 2009).

### **3.2.5.2 Availability**

Availability of health care services refers to the range, quantity and quality of services available at the right place and right time. It includes the right number of skilled staff to deliver services, opening hours of facilities and availability of supplies to deliver services (McIntyre and Mooney, 2007).

#### Facilities providing HIV counseling and testing

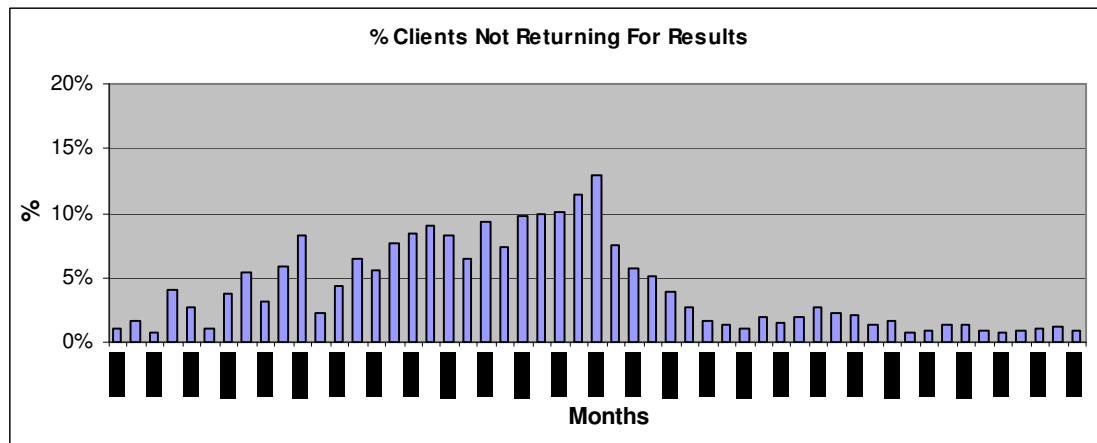
Voluntary Counseling and Testing services have been available in the public and New Start centers since 2003. By the end of 2008, VCT services were offered in 208 (60, 6%) public health facilities. Of these 81% provide rapid HIV testing services (MOHSS, 2008c). Some facilities do not provide VCT services due to inadequate space. Due to long and stringent processes to certifying facilities and counselors for HIV rapid testing not all public health facilities provide HIV rapid testing. Non-availability of VCT services and same day test results in some public health facilities negatively affect uptake of VCT.

All stand alone VCT centers provide same day tests results (SMA, 2006). The introduction of rapid testing at New Start centers during 2005 drastically improved the number of clients receiving their results (SMA, 2007). The



graph below shows that non-return rates were reduced from 13% to below 2% using rapid HIV testing (figure 8). The same day results from using rapid testing also more clients knowing their status (SMA, 2007).

**Figure 8: Percentage of clients not returning for HIV test results**



Source: New Start 2007, Handover Report to Intrahealth/Capacity Project

Delay in receiving HIV test results negatively affects the uptake of VCT services, especially where patients have to travel long distances for HIV counseling and testing services (MOHSS, 2008c).

Opening hours

In Namibia, all VCT centers can be accessed during working hours. Most public health facilities also operate during working hours (08h00-17h00). VCT services are not available after hours and during weekends, which also influences the uptake of VCT and results in many pregnant women delivering with unknown HIV status (MOHSS, 2008c).

Human resources

Namibia experiences critical shortages of skilled human resources which hampers the provision of essential health services including VCT. Staffs recruited for rural areas do not receive any hardship allowances and poor working conditions in rural areas result in high staff turnover (MOHSS, 2008h). The Ministry of Health review report (2008) revealed that out of the 5,509 established posts 1,482 (26.9%) remains vacant. Shortage of all categories of staff is an ongoing problem in most of the facilities. As a result the country relies on recruiting expatriates from neighboring countries for the provision of HIV services (MOHSS, 2008h). The MOHSS with financial support from President’s Emergency Fund for AIDS Relieve (PEPFAR)

recruited community counselors doing non-clinical tasks like counseling and rapid HIV testing (MOHSS, 2008c). These counselors are deployed in all public health facilities. Stand alone (New start) centers appoint counselors according to the workload of the sites and do not experience staff shortage like the public sector (SMA, 2006).

### Supplies

Rapid testing kits are procured with financial support from PEPFAR and so far no stock outs were reported (MOHSS, 2008c). Availability of test kits might be a problem in future when donors withdraw financial assistance.

### **3.2.5.3 Affordability**

Affordability is often referred to as financial access. It is defined as the cost of utilizing services and ability of the individual to pay for it. It refers to consultation fees, other indirect costs from the side of individuals to receive services required (McIntyre and Mooney 2007).

Clients who need VCT services in public health facilities are required to pay user fees. User fees vary between different levels of care and differ between state and private patients. Clients who cannot afford can be exempted from payment (MOHSS, 2008h). Although an exemption policy is in place it is not well implemented and anecdotal reports have shown that patients are sometimes sent away if they cannot afford to pay for services (MOHSS, 2008h). All foreigners are classified as private patients. Foreign neighbors who are married to Namibians who do not have proof of citizenship are required to pay private user fees, but are not always able to pay these fees (MOHSS, 2008h).

New Start VCT centers are accessed at an amount of N\$10 Namibian dollars (SMA, 2006). Since 2006, all New Start Centers abolish fee for VCT services, resulted in more unemployed individuals having access to VCT (Intrahealth, 2008). Despite all attempts to keep the fee for VCT services as low as possible of providing free services the opportunity cost incurred by people remains a challenge in accessing VCT services. Namibia has a very unequal distribution of wealth and income, not all have the same income but payment of services is the same across the board (NPC, 2007).

A study conducted by SIAPAC (2005) found that men were more likely to afford VCT than women. Men indicated that they would value VCT services more if paid for, while women would prefer free VCT services. According to NDHS (2006) 62% of men and 44% of women were employed at the time of survey. This shows that women are less empowered to pay for services.

### **3.2.5.4 Acceptability**

According to McIntyre and Mooney (2008) acceptability refers to patient's perception of the effectiveness of services, cultural and gender considerations by service providers. Health care providers and clients relationships can be influenced by age, sex and culture.

The introduction of community counselors has increased the uptake of VCT and this could be due to the fact the community counselors are better accepted, since they are from the same communities. Many community counselors themselves are also living with HIV and probably show more empathy to clients (MOHSS, 2008c). VCT services are integrated into already existing health services, this reduce stigma. In a study conducted in rural Malawi it was found that VCT services not integrated into PHC services were not well accepted as it increases stigma (Angotti, 2009).

During support visits to facilities community members use to complain about the attitude of health professionals, who are overworked and take their stress out on clients (MOHSS, 2008c). It is well known that bad attitudes of health professionals are barriers to utilization of VCT services.

### **3.2.5.5 Quality of care**

In the context of VCT services quality of care refers to skills and attitude of counselor, privacy in facilities, confidentiality maintained by counselor, same day test results, availability of supplies and staff , waiting time, opening hours of facilities, availability of test kits, reliability of tests results and supervision to counselors (MOHSS, 2007e).

A survey mentioned earlier conducted in Namibia on VCT services found that respondents rated quality of VCT both in New start and public health facilities as very good (SIAPAC, 2005). The Ministry of Health system review report (2008h) revealed that amongst clients interviewed in 7 regions, majority were satisfied with services received, only 10% were not satisfied with the services they received.

#### Skills and attitude of service provider

The capacity of Namibian health care system to provide quality VCT services was limited due to critical shortage of health care workers, especially nursing cadre (MOHSS, 2008h). Another challenge to provide quality VCT services is the high attrition rate of community counselors. They find better paid jobs with Non governmental organizations and leave the MOHSS. According to reports attrition rate for community counselors was 6.4% (MOHSS, 2008h).

To ensure quality of VCT, all sites are using standardized protocols and counseling cards to guide counseling sessions. During support visits to public VCT sites it was found that some of counselors do not always use these cards when counseling clients (MOHSS, 2008c). Anecdotal reports show that communities often complain about nurse's attitudes, because they are often overworked.

In Namibia more than 11 indigenous languages are spoken, counselors are not able to speak all languages. Language barriers between counselors and clients were also reported (MOHSS, 2008c). In the authors' own experience nurses in Namibia are not comfortable discussing sexuality as it is also not discussed openly in Namibia. Nurses who also did not take an HIV test find it difficult to counsel clients.

Nurses working in VCT facilities in Swaziland expressed feelings of discomfort to discuss sexual issues as sexuality is not discussed openly in the country (Mkhabela et al, 2008). Nurses who were not tested for HIV themselves are sometimes not psychologically prepared to provide HIV counseling and testing, due to their own fears of being HIV positive

(Mkhabela et al, 2008). Staff rotation also affects VCT services, as those who are trained in VCT are placed in other departments, nurses said they wish to stay in the units where they have developed competency and support structures (Mkhabela et al, 2008).

#### Same day test results

Delay in test results and delay in process of certifying testers for rapid HIV testing affect uptake of VCT. The stringent rules by the National Institute of Pathology (NIP) to certify facilities for rapid HIV testing, resulted in many facilities not qualifying for rapid HIV testing (MOHSS,2008h). NIP is mandated by the Ministry of Health to certify all HIV rapid testing sites to ensure that quality standards are maintained (MOHSS, 2008i). All counselors who are providing rapid HIV testing services should undergo training and should be authorized as rapid testers by Ministry of Health after being certified competent by NIP (MOHSS, 2008i).

#### Opening and waiting time at facilities

A study earlier mentioned carried out by SIAPAC (2005) in 5 districts revealed that quality of counseling at free standing, New Start centers was found acceptable by clients, because waiting time is less than in public facilities. Men complained about long waiting time and not feeling comfortable at public VCT facilities. According to findings of Health Sector

review (2008h) clients were not happy with the closure of facilities during weekends and public holidays.

### Privacy and confidentiality

Bridging of confidentiality has serious implications for VCT uptake and clients lost their trust in services provided. Household surveys earlier mentioned, in some areas in Namibia found that clients who used public health VCT services prefer doctors instead of nurses for counseling. The reason was that they feel that nurses are bridging confidentiality (Rimal and Smith, 2006). No official complains on bridging of confidentiality were received by the Ministry of Health and Social Services, however such cases were reported to the legal assistance centre (Clayton, 2003).

According to Bwambale (2008) clients in a study conducted among men in rural western area of Uganda, men stated that they prefer to be tested outside their residing area where service providers do not know them, as they fear stigma and bridge of confidentiality by health worker. Men do not want to disclose HIV status because they fear denial of sexual rights.

Some facilities do not have adequate space to provide VCT services, compromising quality as privacy is not always ensured.

### Infrastructure

Existing health facilities cannot cope with the demand for HIV related services to be provided. VCT services need separate rooms and many facilities were not constructed in such a way to accommodate all the services required (MOHSS, 2008c). Most rural clinics consist of only 2 rooms where all primary health care services including HIV services are offered (MOHSS, 2008c). Funds for renovation of health facilities are available through Global Fund and PEPFAR support however long and bureaucratic procedures in government hinder the renovation of facilities (MOHSS, 2008h). This has a negative impact on the provision of VCT services.

### Counselor Support and Supervision

The complexity of providing HIV services requires ongoing psychological and emotional support for counselors. This support for counselors is usually lacking (MOHSS, 2008c). Community counselors that are also HIV positive and who are constantly dealing with emotional issues of revealing positive results to clients need regular emotional and psychological support to cope with their job (MOHSS, 2008c).

In Namibia case conferencing sessions were introduced in order to reduce stress and prevent burnout in community counselors but it is not done regularly. Nurses in charge of facilities are responsible to supervise community counselors full times since they are not professionals, however due to staff shortage nurses do not supervise them regularly (MOHSS, 2008c). Staff also suffers from low motivation due to high workload caused by increased need for HIV health care services (MOHSS, 2008h). Increased workload also leads to burn out and high attrition rates in public sector (MOHSS, 2008h). Supportive supervision from health care professionals rendered to community counselors is hampered by limited skills in supportive supervision and shortage of staff (MOHSS, 2008c).

#### Referral and linkages with other services

Voluntary Counseling and Testing is the entry point for other HIV related services to ensure continuum of care. Referral for HIV testing and counseling should be a two-way process between community and health care facilities. Referral system between New Start and ART public health facilities exist but it is difficult to follow up to see if patients arrived at the services they require (SMA, 2006). Referrals to other services in the communities are done, but no follow up system is in place (MOHSS, 2008c). Community volunteers often refer clients for HIV testing and counseling. Generally linkages between health care facilities and communities are weak.

## **CHAPTER 4: DISCUSSION**

*In this chapter I will discuss how the findings of the previous chapters can be interpreted using the conceptual framework for the analysis. This then will lead to discussing potential strategies with MOHSS to address recommendations made in the following chapter.*

### **4.2 Demographic and Individual Factors**

#### **Sex**

Important gains in reaching the target has been made, however VCT uptake in men are less than in women. It is well known that women access VCT through reproductive health services. Men usually access VCT when they are already sick and therefore start ART also late. An in-depth research study is needed to explore the health seeking behaviour of men and reasons why men do not access VCT and other HIV services. Men should be encouraged to be tested and counseled so that they benefit from prevention, care and support programmes timely. An intensified focus on motivating men to get tested, being about 50% of the population, would dramatically increase the uptake of VCT towards the national target.

#### **Age**

Even though relatively young people (aged 20-29) represent the largest group of HIV testers, still only 7.5% of 15-19 year olds and 28% of 20-24 know their HIV status. Only 77% of young men aged 15-19 years know where to go for HIV test. Strategies such as youth friendly services to reach young people and ultimately reduce HIV prevalence would thus be of utmost importance and some recommendations are made in the next chapter.

In Namibia, the mean age for sexual debut is 17.5 years; young people below 16 years cannot take a HIV test without consent of parents or guardians. Only young people under 16 years of age who are married or pregnant will be provided VCT services. Although HIV infection in 15-19 years has decreased, teenage pregnancies is a major cause of concern as it indicates unprotected sex in young people. Adolescent friendly health services are not offered on a large scale and even where these services are available they are not used (GRN/UNFPA, 2007). Counselors need specific skills to be able to counsel adolescents. Counseling is general and does not address specific needs of young people. VCT can provide youth an opportunity to explore their own risk behaviour and also provide them with education for reducing risk of HIV transmission.

HIV prevention intervention programmes are more targeted at age groups 20-29. Early sexual debut exposes young people to the risk of HIV infection, and in the context of high overall HIV prevalence, it is necessary to intensively promote delayed sexual debut.

### **Regional variation**

Some regions with high HIV prevalence reported low testing figures which implies low uptake of VCT. In Caprivi region only 17.2% of women compared to 9, 5% men were tested (MOHSS, 2006a). Similarly in Kavango region where HIV prevalence was estimated at 31.9% only 7, 8% men were tested (MOHSS, 2006a). HIV testing centers increased in all regions, however unequal distribution of HIV testing and counseling services was observed based on population figures and available VCT sites. Given the vast distances and poor road infrastructure in some areas, many people still travel long distances to access health services (MOHSS, 2006d). Only 40% of public health facilities provide VCT. Of these, 50% provide rapid HIV testing. Caprivi region having the highest HIV prevalence has limited available rapid HIV testing services. In order to make VCT services including same day test results available to these under served regions, the MOHSS should consider lowering the stringent criteria for facilities (note: not with regard to testers) to provide rapid testing services or ensure that capacity is enhanced. Communities in Khomas and Erongo region have better access to VCT including rapid testing. MOHSS needs to strengthen capacity of regions to provide mobile services in rural areas for provision of VCT services, taking into consideration the long distances that people have to travel to access services and the lack of available transport in Caprivi, Kunene and Kavango regions.

### **4.3 Social Factors**

#### **Stigma, Risk perception and fear for positive test results**

People's acceptance of people living with HIV is good in all regions, but stigma is still observed in all communities, because of perceptions that disease is contagious and blamed on infidelity. People who test positive are victims of discrimination in communities (Meiberg et al, 2008). Communities need to be empowered with knowledge and skills to better understand the issues around stigma to be able to deal with stigma in the society. Continued focus on programmes for PLHIV in addressing and improving self esteem and self efficacy will enhance stigma reduction. Lowering of stigma is expected to increase testing practices.



Low risk perception affects decision to take an HIV test. From the community surveys conducted in Namibia it was commonly observed that many individuals have low risk perception, ranging between 20-50%. In Namibia knowledge about prevention of HIV is high, but risk behaviors are not changed by knowledge. However motivators for taking an HIV test were having engaged in risky sexual intercourse and not trusting partners. Prevention messages/campaigns should focus more on behaviour change rather than having general awareness messages. Multiple concurrent partners is a societal norm and do not consider this practice as risky sexual behaviour (Bwambale et al, 2008) Multiple concurrent partners are common in Caprivi region due to its cultural beliefs therefore men in Caprivi reported the lowest numbers of people tested for HIV. In addition men's superiority over women is common in Caprivi resulting that women in tested in Caprivi were lowest compared to the rest of the country.

Although the introduction of ART has given hope to many PLWHA, fear for positive results in the communities still exists and influence VCT uptake. Due to the fearful messages that was send out in the country, showing people HIV positive people who are dying, many individuals fear HIV positive result because it is associated with death and is not giving hope. VCT uptake in sexual minorities is affected by double stigma that they suffer in the communities because of their sexual orientation. Laws to protect the rights of MSM and sex workers are required.

#### **4.5 Health Service Factors**

##### **Access**

The number of New Start VCT centers increased from 4 in 2003 to 17 in 2008. Out of public health facilities, 208 (60%) provide VCT services. However some regions reported less than 50% of facilities providing VCT services. Even in regions where 80-90 % facilities provide VCT, rapid HIV testing services (same day results) are not available and it influence the uptake of VCT. Half of the population does not have access to New Start VCT services within 30 km. It is also not clear at this moment how many people have access within 10 km of a VCT centre. Links between service providers and agreement on VCT service provision (public, private, New Start) can improve access to services.

Increased access to HIV counseling and testing is essential to promote early diagnosis of HIV infection. In order to meet needs and demands of communities served, VCT centers should be placed strategically. To achieve higher coverage of VCT services and reduce non return rates for results HIV

rapid testing should be available in all VCT centers (MOHSS, 2007e). Generally Health facilities in Namibia were not built in such a way to cope with the growing demand for HIV related services. Outreach services for people in remote areas are hampered by transport shortages in the MOHSS. However strong support system and referral to community care services should be in place to enable individuals to cope with consequences of HIV positive test results when service providers leave.

### **Availability**

Although community counselors are trained and deployed in public VCT facilities, not all facilities do have counselors. The MOHSS selection criteria for community counselors can't be met by rural communities. Literacy rates in rural areas are generally lower than in urban areas. One of the requirements is also that community counselors should be able to speak English and therefore many rural and marginalized communities like San people cannot select counselors for training. Community counselors are not deployed according to need but all regions receive the same number of counselors. Search for community counselors should be intensified to include young people who have finished school to be trained for VCT.

### **Human resources**

Provision of VCT services requires available and skilled human resources. Namibia faces shortage of human resources especially nurses that are crucial in the provision of VCT services. According to the Ministry of Health and Social Services review reports; more than 20% of posts are vacant for health professionals. Provision of HIV services rely on foreign nurses and doctors in the country. Continuity of HIV counseling and testing services affected by rotation of nurses in the public sector as well attrition of community counselors. Another factor is the decreased intake of nursing students by the University of Namibia which resulted in inadequate number of nurses available for required services. Increasing the intake of students at the University of Namibia for nurses training will address the shortage of nurses in the country. Special consideration for community counselors from marginalized communities e.g. San should be in place to ensure that all communities have counselors from their areas. This will also address language barriers between clients and community counselors. Nurses are needed for VCT to be able to supervise community counselors. VCT and rapid HIV testing training should be included in pre-service training for health care providers so that after completion of training they are all equipped to provide VCT and rapid testing services. Although quality of care was rated sufficient by communities during Ministry of Health review and

other community surveys, language barriers were reported as foreign health workers do not speak local languages.

As the number of clients seeking VCT increases, counselors need regular supervision, stress management and mentoring strategies to prevent burn and ensure quality counseling. According to report on the challenges the VCT counselors experienced in sub-Saharan Africa, supervision is vital in prevention of burn out and it can guarantee quality assurance (Rachier et al, 2004). Each counselor is expected to counsel 10 patients per day. Due to shortage of health care professionals community counselors, especially in very busy facilities see more than 10 patients a day. This can be resolved if community counselors intake are increased and placement done according to need rather than allocating the same number of counselors to all facilities.

### **Affordability**

Since services at New Start became free of charge after 3 years of operation, more people were accessing VCT services than before. However long distances, transport shortages and poverty prevent many individuals who are in need of services to access it. Women are most disadvantaged as they often rely on partners for financial support and might not be able to pay for services when they need it.

### **Acceptability**

The use of community counselors and integration of HIV counseling and testing in primary health care services have increased uptake of VCT services in public facilities. Counselors were more accepted by clients, who complained about attitudes of nurses. Because community counselors are from the same areas as the communities and some who are also living with HIV makes services more acceptable to clients. However men indicated that they are not comfortable at public health facilities and they fear that test results are not kept confidential. Generally health services provided at public facilities are more related to women's health and little is offered for men. Another factor is that most of the service providers are women. These factors might influence health seeking behaviour of men, resulting in low uptake of VCT by men.

### **Quality of Care**

#### **Confidentiality and Privacy**

Breach of confidentiality is professionally unacceptable and violating human rights of individuals. Anonymity and confidentiality is very important and should be guaranteed by service providers. People fear that test results are

not confidential and this can affect the uptake of VCT. Privacy during counseling sessions should be ensured by service providers. Facilities lack space for counseling services. Health care services should be arranged in such a way that even with available space clients should not be served in the same room at the same time, to ensure privacy at all times. All health care providers and community counselors should adhere to the MOHSS code of conduct to maintain confidentiality (MOHSS, 2007e).

### Infrastructure

The availability of ART and PMTCT services has attracted funding from development partners for renovation of public health facilities. Some hospitals and clinics were renovated with financial support from partners. Though funding is available from development partners, the procedures in the Government to renovate facilities are very long and delay roll out of HIV rapid testing services. MOHSS should strengthen the facility management division to be able to deal with renovation of facilities instead of forwarding requests to Ministry of Works, which in turn delay the process of renovation.

### Opening and waiting time at facilities

Waiting time at New Start centers are less than public services, and many clients prefer these services because of shorter waiting times. Client, counselor ratio at New Start centers are less compared to public health services. Counselor's at New Start centers see on average 4-6 clients a day except in busy sites where counselor sometimes see 9 clients a day (SMA, 2006). In public health facilities, due to staff shortages counselors often see more than 10 clients a day as they do not only provide VCT but also adherence counseling to patients on ART (MOHSS, 2008c).

### Referral to other service providers

Referrals from VCT centers to others services like ART, TB, Ante natal care (ANC), STI and Orphan and vulnerable children (OVC) support are happening however systems are not in place to ensure that patients reach the services they are referred to. Referral between public and private health services needs to be strengthened, as patients often access HIV counseling and testing services from private providers. Many people who cannot afford ART at private providers need to access it from MOHSS.

Referrals between communities and health facilities are taking place but linkages are often weak. MOHSS should strengthen referral linkages with communities as well as private providers.

## **CHAPTER 5: CONCLUSION AND RECOMMENDATIONS**

This thesis has analysed which factors play a key role in the uptake of VCT in Namibia based on analysis of Namibian data, studies done in the past years and literature review within the region.

The targets set for HIV testing by the MOHSS are based on feasibility rather than on actual needs for testing and re-testing. It is important to revise the targets based on needs and distinguish for different age groups and sex. It is clear that addressing factors influencing uptake is important. Some recommendations are easier to address than others. Based on the previous discussion, the following groups are considered to be priority groups, namely men and youth (especially younger than 19).

### **Recommendations**

Based on the findings of this study the following recommendations are proposed to improve uptake of VCT services in the general population but more specifically in men.

#### **1. To increase uptake of VCT by men**

- First and foremost there is an urgent need to commission an in-depth study in the factors (health related, service provision, behaviour) that prevent men from accessing VCT and related HIV services. It could also be of interest to additionally, conduct focus groups with women to establish enabling factors for increasing uptake of VCT for men from their perspective.
- Secondly, factors related to service provision that we already know such as opening hours of clinics and New Start centers limited to office hours, should be explored further and possible solutions provided.
- MOHSS should build on already existing initiatives e.g. male conference and National HIV testing Day. The male conference should be cascaded to regions and national HIV testing day should be carried out more regularly, using mobile VCT services that will be convenient for men to access.
- Mobile VCT services, out of office hours should be available at places where men are socializing and where services are easy accessible e.g. outside bars, clubs etc.
- To be able to reach more men, VCT services should be provided at their workplace through workplace programmes, since men do not visit health facilities to take HIV test.
- Support groups specific for men should be established to ensure that more men join these groups.

## **2. To increase uptake of VCT by young people**

- MOHSS should integrate VCT into youth friendly health services.
- Health workers need to be trained in skills to counsel young people.
- VCT services should be provided at youth multipurpose centers
- HIV awareness campaigns for youth should focus on behaviour change messages.

## **3. To increase the uptake of VCT in general population**

- To increase uptake of VCT in both men and women, couples counseling should be scaled up. This will provide the opportunity that couples learn their HIV status at the same time and it reduce the risks of negative outcomes that women mostly suffer when disclosing their HIV status.
- MOHSS and partners should embark on a campaign that informs clients of confidentiality of services, to be able to win the trust of people who fear bridging of confidentiality by health care providers.
- The MOHSS should finalize guideline on the provision of provider initiated HIV counseling and testing (PITC). Providing PITC will reduce miss opportunities of clients that have contact with health care services and it will increase the uptake of HIV counseling and testing.
- The programme implemented in 4 regions in the north of the country which mobilize individuals through face to face approach should be rolled out to rest of country to increase awareness of HIV and decrease stigma surrounding HIV testing.
- Supervision to counselors should be provided on a regular basis to prevent counselor burnout and to improve quality of counseling services provided.
- The MOHSS should develop public private partnership for VCT service to make services more available and accessible to those in need.
- Counseling protocols should be revised address the special needs of sexual minorities e.g. sex workers and Men having Sex with Men, as well as other most at risk populations such as truckers and seafarers.
- A campaign containing a strong message of hope for those who are tested positive needs to be fielded. This campaign could emphasize that there are people who have been on ART for over 10 years now (in Namibia and other countries), and they are still going strong. These messages will reduce the fear for testing positive.
- MOHSS in collaboration with NIP should relax the stringent rules for certifying facilities to provide VCT and rapid HIV testing, taking into consideration that quality of testing should not be compromised.

- NGOs should assist in compiling a database of HIV and AIDS support groups in Namibia. Clients who test positive at VCT centres should be provide information on the nearest support group.
- Consideration should be given to gender as well as sexual identity in the creation of HIV and AIDS support groups and referral to support groups.
- Post test clubs for people who test positive should be expanded to provide continuous psycho social support and prepare PLWHA for treatment.
- MOHSS should provide prevention services for people who test HIV negative in order to keep them negative.
- The MOHSS should evaluate the pilot project on prevention with positives and learn from best practices. This initiative should be rolled out to all other facilities.
- In the light of the fact that the majority of respondents had difficulty traveling to and from a health care facility, mobile VCT services should be strengthened.
- The MOHSS in collaboration with partners providing VCT services should undertake a study to asses how many people have access within 10 km of a VCT centre.
- More community counselors should be trained and deployed according to need and priority, taking into consideration size of population served and HIV prevalence.

## References

Angotti, N., Bula, A., Gaydosh, L., Kimchi, E., Thornton, R., Yeatman, S. (2009) Increasing the acceptability of HIV counseling and testing with three C's: Convenience, confidentiality and credibility. *Social Science & Medicine*. 68 pp 2263-2270.

Ashby, A. and Lush, D. (2007) HIV and AIDS Treatment Survey [online] Available from:  
[http://www.hivresponse.gov.na/downloads/mohss\\_conference/HIV-AIDS%20Treatment%20Survey%202005.pdf](http://www.hivresponse.gov.na/downloads/mohss_conference/HIV-AIDS%20Treatment%20Survey%202005.pdf) [accessed on 22 July 2009]

Baatsen P, Mameja J, (2008) DAPP-TCE Programme Evaluation. MOHSS-GFATM-NEDICO-KIT

Baral, S., Trapence, G., Motimedi, F., Umar, E., Ipinge, S., Dausab, F., Beyrer, C. (2009) HIV Prevalence, Risks for HIV Infection and Human Rights among Men who have sex with Men (MSM) in Malawi, Namibia and Botswana. *Plos ONE*. 4 (3)

Brown, J., Sorrell, J., Raffaelli, M. (2005) An exploratory study of constructions of masculinity, sexuality and HIV/AIDS in Namibia, Southern Africa. *Culture, Health and Sexuality*. 7 (6), pp 585-598

Bwambale, F., Sali, S., Byaruhanga, S., Kalyango, J., Karamagi, C. (2008) Voluntary HIV counselling and testing among men in rural western Uganda: Implications for HIV prevention. *BMC Public Health* 8 (263)

Bwanali, H. and Muula, A. (2008) Availability of supplies and motivations for accessing voluntary HIV counseling and testing services in Blantyre, Malawi. *BMC Health Service Research* 8 (17)

Clayton M, (2003) The Politics of HIV/AIDS Policies in Namibia

Cranich, R., Gilks, C., Dye, C., De Cock, K., Williams, B. (2008) Universal voluntary HIV testing with immediate antiretroviral therapy as a strategy for elimination of HIV transmission: a mathematical model. *The Lancet*, 373 (9657) pp48-57

Denison, J., O'Reilly, K., Schmid, G., Sweat, M. (2008) HIV Voluntary Counseling and Testing and Behavioral Risk Reduction in Developing Countries: A Meta-analysis, 1990-2005. *AIDS Behavior*. 12 (3) pp363-373



GRN/UNFPA, (2007) Survey to measure behavioral patterns on condom usage, delay sexual initiation, teenage pregnancy and utilization of Adolescent Friendly Health Services [online] Available from: <http://www.biomedcentral.com/content/pdf/1472-6963-8-17.pdf> [accessed on 22 July 2009]

Intra Health/Capacity Project. (2008) Report on New Start Data

Intrahealth/Capacity Project. (2008) Voluntary Counseling and Testing Programme Data

Jenniskens, F. and Poku, N. (2008) Situation and Response Analysis of Namibia's HIV epidemic

Kalichman, S. and Simbayi, L. (2003) HIV testing attitudes, AIDS stigma and voluntary HIV counseling and testing in a black township in Cape Town, South Africa. *Sexual Transmitted Infections Journal*. 79 pp442-447

Karamagi, C., Tumwine, J., Tylleskar, T., Heggenhougen, K. (2006) Intimate partner violence against women in eastern Uganda: Implications for HIV prevention. *BMC Public Health*.284 (6)

Keulder C. (2007) HIV/AIDS and Stigma in Namibia: Results of a qualitative study among support group members [online] Available from: [http://www.hivresponse.gov.na/downloads/mohss\\_conference/HIV-AIDS%20and%20Stigma%20Report.pdf](http://www.hivresponse.gov.na/downloads/mohss_conference/HIV-AIDS%20and%20Stigma%20Report.pdf) [accessed on 7 August 2009]

Kranzer, K., McGrath, N., Saul, J., Crampin, A, Jahn, A, Malema, S., Mulawa, D., Fine, P., Zaba, B., Glynn, J. (2008) Individual, household and community factors associated with HIV test refusal in rural Malawi. *Tropical Medicine & International Health*. 13 (11) pp 1341-1350.

Lafont, S. and Hubbard, D. (2007) Unraveling Taboos: Gender and sexuality in Namibia.

Mameja, J. (2006) A study to identify knowledge, attitudes, practices and beliefs (KAPB) on HIV/AIDS of women and men in Kunene and Erongo.

McIntyre, D. and Mooney, G. (2007) Economics of Health Equity [online] Available from: <http://books.google.com/books?id=> [accessed on 7 August 2009]

Medley, A., Garcia-Moreno, C., McGill, S., Maman, S. (2004) Rates, barriers and outcomes of HIV serostatus disclosure among women in developing countries: implications for prevention of mother-to-child transmission programmes. *Bulletin of the World Health Organization*. [online] Available from: <http://www.scielosp.org/pdf/bwho/v82n4/v82n4a13.pdf> [accessed on 5 July 2009]

Meiberg, A., Bos, A., Onya, H., Schaalma, H. (2008) Fear of stigmatization as barrier to Voluntary HIV Counseling and Testing in South Africa. *East African Journal of Public Health*.5 (2) pp 49-54

Ministry of Health and Social Services. (2006a) *Namibia Demographic and Health Survey*

Ministry of Health and Social Services. (2008b) *Report of the National HIV Sentinel Survey* not available online

Ministry of Health and Social Services. (2008c) *National HIV/AIDS and STI Control Programme Annual Report* not available online

Ministry of Health and Social Services. (2006d) *United Nations General Assembly Special session (UNGASS) Country Report* [online] Available from: <http://www.unaids.org/en/CountryResponses/Countries/namibia.asp> [accessed 1 June 2009]

Ministry of Health and Social Services. (2007e) *Guidelines on Voluntary Counseling and Testing* not available online

Ministry of Health and Social Services. (2004f) *The National strategic plan on HIV/AIDS (MTPIII 2004-2009)* not available online

Ministry of Health and Social Services. (2008g) *Report on National HIV testing Day* not available online

Ministry of Health and Social Services. (2008h) *Report on the Health and Social Services System Review* not available online

Ministry of Health and Social Services. (2008i) *Guidelines and Standard Operation Procedures for HIV Rapid Testing* not available online

Ministry of Health and Social Services. (2007j) *National Policy on HIV/AIDS* not available online

- Ministry of Health and Social Services. (2002k) *Policy on HIV/AIDS Confidentiality, Notification, Reporting and Surveillance*.
- Ministry of Health and Social Services. (2007L) *National Tuberculosis and Leprosy Control Programme* not available online
- Ministry of Health and Social Services. (2000m) *Namibia Demographic and Health Survey*
- Ministry of Health and Social Services. (2008n) *Estimates and Projections of the impact of HIV/AIDS in Namibia*
- Ministry of Health and Social Services. (2007p) *National Guidelines for Antiretroviral therapy, second edition* not available online
- Mkhabela, M., Mavundla, T., Sukati, N. (2008) Experiences of Nurses Working in Voluntary Counseling and Testing Services in Swaziland. *Journal of the Association of Nurses in AIDS Care*. 19 (6) pp 470-479. [online] Available from: [http://www.nursesinaidscarejournal.org/article/S1055-3290\(08\)00182-9/pdf](http://www.nursesinaidscarejournal.org/article/S1055-3290(08)00182-9/pdf)
- Office of the Prime Minister, National Planning Commission. (2004) *Report on Namibia Household Income & Expenditure Survey* [online] Available from: [http://www.npc.gov.na/publications/prenhies03\\_04.pdf](http://www.npc.gov.na/publications/prenhies03_04.pdf) [accessed on 6 July 2009]
- Office of the Prime Minister, National Planning Commission. (2007) *National Development Plan III* not available online
- Parker, W. and Connolly, C. (2007) *Namibia: HIV/AIDS Community Survey Report* Rundu, Walvisbay, Keetmanshoop and Oshakati. Nawalife Trust
- Perez, F., Zvamdziva, C., Engelsmann, B., Dabis, F. (2006) Acceptability of Routine HIV Testing ("Opt-Out") in Antenatal Services in Two Rural Districts of Zimbabwe. *Journal of Acquired Immune Deficiency Syndrome*. 41 (1) pp 514-520.
- Rachier, C., Gikundi, E., Balmer, D., Robson, M., Hunt, K., Cohen, N. (2004) The meaning and challenge of voluntary counseling and testing (VCT) for counselors – report of the Kenya Association of Professional Counselors (KAPC) conference for sub-Saharan Africa. *Journal des Aspects Sociaux du VIH/SIDA*. 1 (3)

Rimal, R. and Smith, R. (2006) Namibia HIV/AIDS Strategic Information Report: A baseline household analysis of residents from Gobabis, Grootfontein, Omaruru and Otjiwarongo and a midterm household analysis of residents from Oshikuku, Oniipa and Rehoboth. Baltimore MD: John Hopkins Bloomberg School of Public Health/ Center for Communication Programs [online] Available from: [http://www.hivresponse.gov.na/downloads/mohss\\_conference/2006%20Report,%20Household.pdf](http://www.hivresponse.gov.na/downloads/mohss_conference/2006%20Report,%20Household.pdf) [accessed on 31 July 2009]

Semrau, K., Kuhn, L., Vwalika, C., Kasonde, P., Sinkala, M., Kankasa, C., Shutes, E., Aldrovandi, G., Thea, D. (2005) Women in couples antenatal HIV counseling and testing are not more likely to report adverse social events. *AIDS*. pp 603-609.

Social Impact Assessment and Policy Analysis Corporation (SIAPAC). (2005) Final report: Follow up survey: Social marketing of voluntary counseling and testing services and the promotion of reproductive health in Namibia. Windhoek, Namibia: Social Impact Assessment and Policy Analysis Corporation.

Social Marketing Association. (2006) New Start annual report not available online

Social Marketing Association. (2007) Report on handover of VCT centers to Intrahealth/Capacity Project

Steinitz, L., van Zyl, D., Wolmarans, L., Koppenhaver, T., Dausab, F. (2009) Report on HIV and AIDS Treatment Literacy Survey [online] Available from: <http://www.healthlink.org.uk/PDFs/arv.pdf> [accessed on 5 Augustus]

Taegtmeyer, M., Kilonzo, N., Mung'ala, L., Morgan, G., Theobald, S. (2006) Using gender analysis to build voluntary counseling and testing responses in Kenya. *Royal Society of Tropical Medicine and Hygiene*. 100 pp 305-311

UNAIDS/WHO (2008) Report on the global AIDS epidemic [online] Available from: <http://www.unaids.org/en/> [accessed on 1 June 2009]

UNDP (2005) Report on Human Development [online] Available from: <http://hdr.undp.org/en/media/HDR05> [accessed on 28 March 2009]

UNICEF (2003) Young Namibians and HIV/AIDS. Briefing Paper. [online] Available from: [http://www.hivresponse.gov.na/downloads/mohss\\_conference/Youth%20and%20HIV%20UNICEF.pdf](http://www.hivresponse.gov.na/downloads/mohss_conference/Youth%20and%20HIV%20UNICEF.pdf) [accessed on 7 August 2009]

Urban, M. and Cherish, M. (2004) Acceptability and utilization of voluntary HIV testing and nevirapine to reduce mother-to-child transmission of HIV-1 integrated into routine clinical care. *SAMJ*. 94 (5) pp362-366

USAID/UNAIDS/WHO/UNICEF and the Policy Project. (2004) Coverage of selected health services for HIV/AIDS prevention, care and support in low and middle income countries in 2003 [online] available from [http://www.who.int/hiv/pub/prev\\_care/en/coveragereport\\_2003.pdf](http://www.who.int/hiv/pub/prev_care/en/coveragereport_2003.pdf) [accessed on 2 August 2009]

Van der Walt, S., Liman, M., Gross, R., Rogers, S. (2007) Report on findings from a HIV/AIDS KABP Survey with teacher educators in four colleges in Namibia [online] Available from: [http://www.hivresponse.gov.na/downloads/mohss\\_conference/KAP%20Pilot%20Namibia%202007.pdf](http://www.hivresponse.gov.na/downloads/mohss_conference/KAP%20Pilot%20Namibia%202007.pdf) [accessed on 7 August 2009]

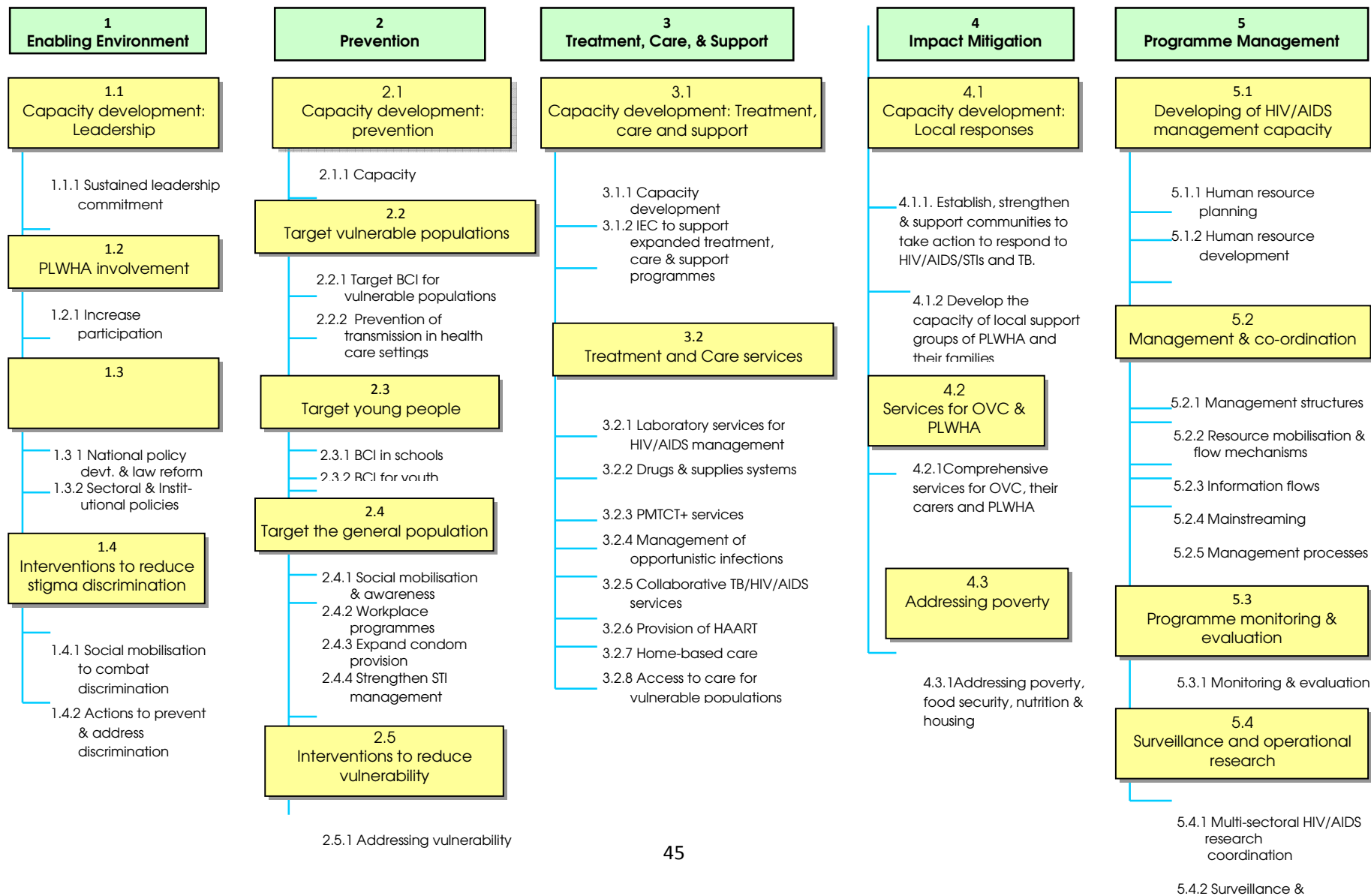
Visser, M., Neufeld, S., de Villiers, A., Makin, J., Forsyth, B. (2008) To tell or not to tell: South African women's disclosure of HIV status during pregnancy. *AIDS Care*. 20 (9) pp 1138-1145

Whiteside, A. (2008) *HIV/AIDS, A very Short Introduction*. United States: Oxford University.

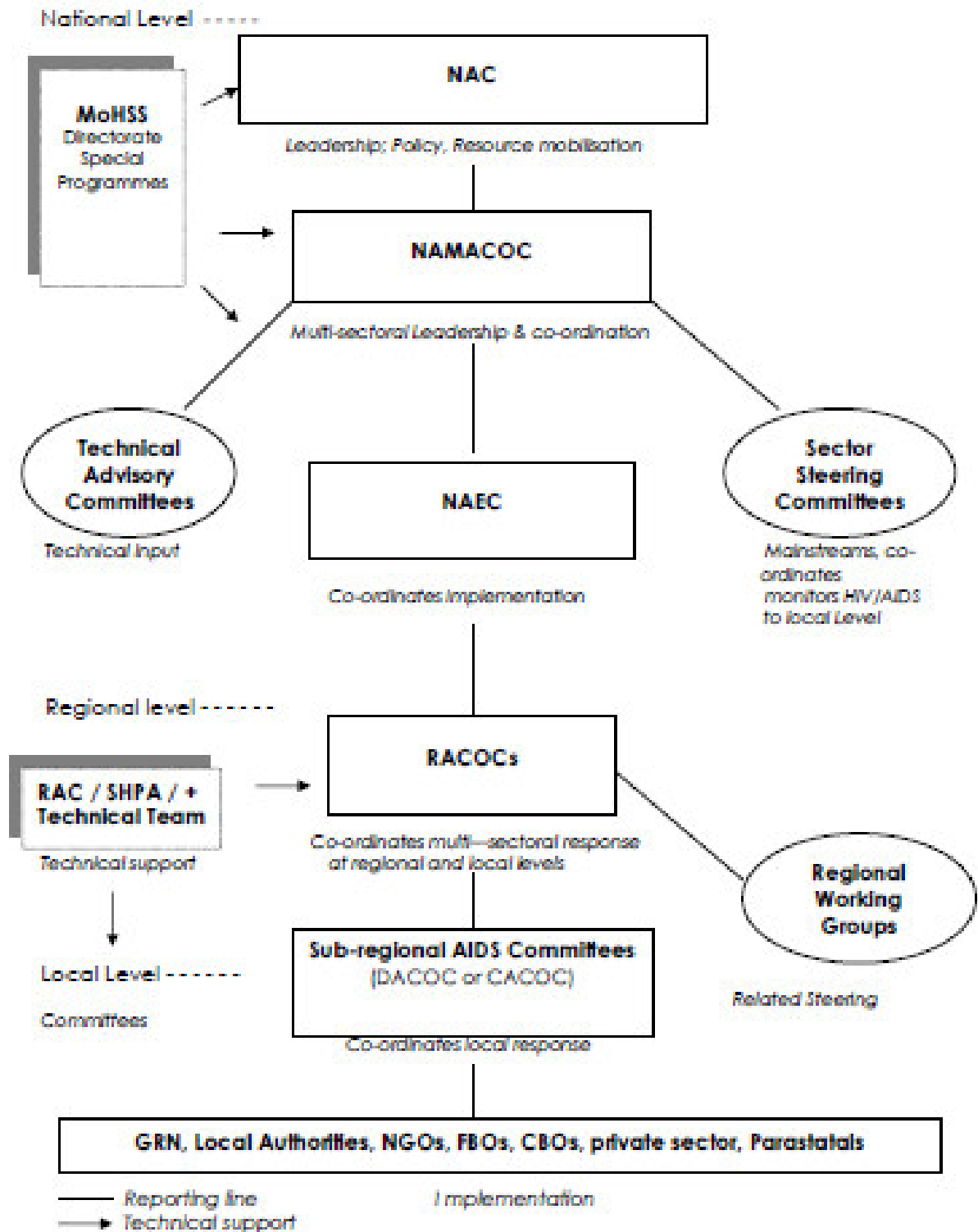
Wringe, A., Isingo, R., Urassa, M., Maiseli, G., Manyalla, R., Chagalucha, J., Mnagara, J., Kalluvya, S., Zaba, B. (2008) Uptake of HIV voluntary counselling and testing services in rural Tanzania: implications for effective HIV prevention and equitable access to treatment. *Tropical Medicine and International Health* 13 (3) pp 319-327

## Annexure 1. Components of National AIDS Programme Responses

### MTP3 III National Programme Goal

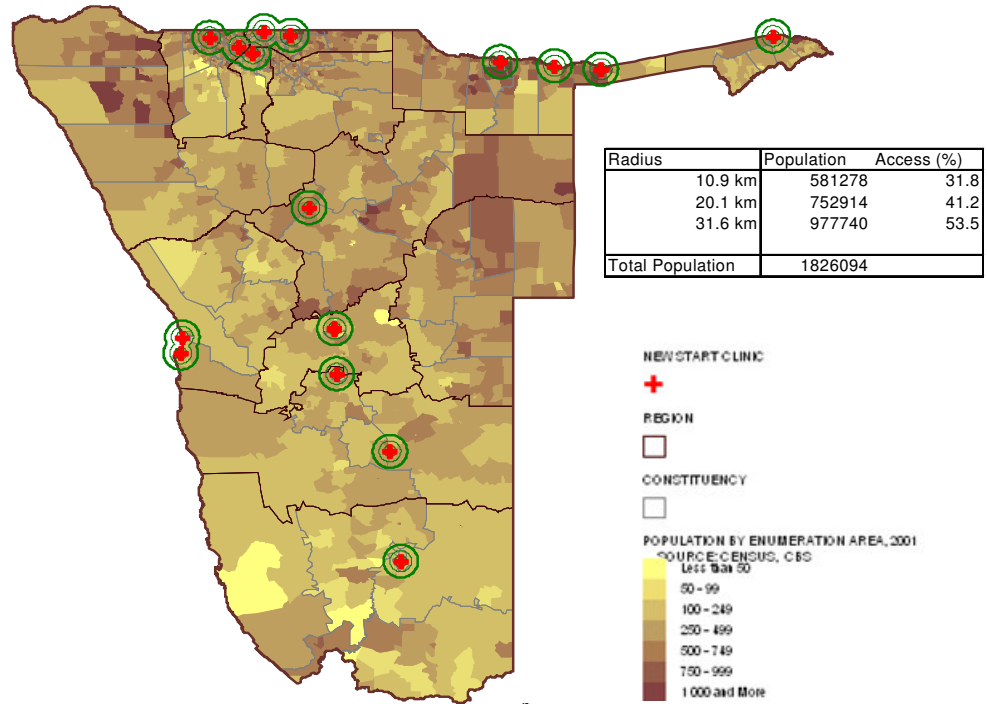


## Annexure 2. Organogram of the National AIDS Coordination Programme



### Annexure 3: Access to New Start Centers

Access to New Start Centers (2006)



Map prepared by SMA, July 2006  
Data Source: SMA, Atlas of Namibia and Population Census 2001

