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HIV/AIDS in Kenya and Uganda:  
A Comparative Analysis

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**John Ndiku**

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MEMBERS OF THE EXAMINING COMMITTEE

Dr. Eric Ross  
Drs. Auma Okwany

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**Enquires:**

***Postal Address:***

**Institute of Social Studies  
P.O. Box 29776  
2502 LT, The Hague  
The Netherlands**

**Telephone : -31-70-4260460  
Telefax: -31-70-4260799  
e-mail: [postmaster@iss.nl](mailto:postmaster@iss.nl)**

***Location:***

**Kortenaerkade 12  
2518 AX, The Hague  
The Netherlands**

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**May God bless you all.**





## **DEDICATION.**

I dedicate this piece of work to Dad and Mum for the care you gave to me when I was a baby, till I could think for myself.

And, to the young children in Kenya, in hope that the world they grow up in, will conquer AIDS and the social inequalities that promote such epidemics.



## **ABSTRACT.**

AIDS was identified in the two countries during a time when the advocacy for structural adjustments by the World Bank and IMF was at its peak. This challenged the capacity of governments to provide adequate health care to its citizens.

The way the two countries organized to put up a fight against the pandemic in the face of reduced government role in social provisioning shows some differences. It brings to the fore the how strong coordination of all other actors, who became increasingly important, determines the achievement of the set goals. Despite the shift of many services from government to other sectors, such as the civil society and the private sector, the lead role of the government as a coordinator and supervisor remains quite important.

Major differences have been identified in the way the policy environment has been managed. Although striking similarities are evident, a political disengagement characterizes majority of the actions towards HIV and AIDS in Kenya and consequently leads to lack of coherent coordination of the activities from the various actors.

However, gaps are still evident in both countries in terms of scaling up services to reach the majority of the population in need. Important services such as VCTs, ARV drugs provision and blood safety still need to be scaled up.



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## **Acronyms and Abbreviations**

ACP	AIDS Control Programme.
ACUs	AIDS Control Units.
AIC	AIDS Information Center.
AIDS	Acquired Immunodeficiency Syndrome.
AMREF	African Medical and Research Foundation.
AP	Associate Press.
API	AIDS Program Effort Index.
ARRM	AIDS Risk Reduction Model.
ARV	Anti-Retroviral.
AZT	Zidovudine.
BUCEN-IDB	United states census Bureau, International programs center - International Database.
CACCs	Constituency AIDS Control Committees.
CBOs	Community Based Organizations.
CIHI	Center for International Health Information.
DACCs	District AIDS Control Committees.
DOTS	Directly Observed Therapy, Short-Course.
FBOs	Faith Based Organizations.
FP	Family Planning.
FPLMU	Family Planning Logistics Management Unit.
GoK	Government of Kenya.
GPA	Global Programme on AIDS.
HBM	The Health Belief Model.
HIV	Human Immunodeficiency Virus.
IEC	Information, Education and Communication.
IMF	International Monetary Fund.
IRIN	Integrated Regional Information Networks.
KANCO	Kenya Non – Governmental Organizations Consortium.
KASO	Kumi AIDS Support Organization.
KDHS	Kenya Demographic and Health Survey.

KENWA	The Kenyan Network of Women Against AIDS in Africa.
MCH	Maternal and Child Health.
MTCT	Mother to Child Transmission.
MTP	Medium Term Plan.
NACC	National AIDS Control Council.
NACWOLA	National Community for Women Living with HIV/AIDS in Uganda.
NASCOP	The National AIDS/STDs Control Programme.
NCPA	National Committee for the Prevention of AIDS.
NGOs	Non-governmental Organizations.
VCT	Voluntary Counseling and Testing.
SAPs	Structural Adjustment Programmes.
STD	Sexually Transmitted Disease.
STIs	Sexually Transmitted Infections.
TASO	The AIDS Support Organization.
TB	Tuberculosis.
UAC	Uganda AIDS Commission.
UDHS	Uganda Demographic and Health Survey.
UGANET	Uganda Network on law ethics and HIV/AIDS .
UNAIDS	United Nations Program on HIV/AIDS.
UNASO	Uganda Network of AIDS Service Organizations.
USAID	United States Program on HIV/AIDS.
PACCs	Provincial AIDS Control Committees.
PHC	Primary Health Care.
PLWHA	People Living With HIV/AIDS.
PLWAs	People Living With AIDS.
POMU	Positive Men Union
PSI	Population Services International.
PWAs	People With AIDS.
WHO	World Health Organization.



## CHAPTER ONE:

### 1.0 INTRODUCTION.

The first AIDS case was identified in the United States in the early 80's, as a mysterious epidemic which mostly affected young male homosexuals and intravenous drug users (Duesberg et al, 2003). It later came to be associated with Human Immunodeficiency Virus (HIV) as the cause. Few years later, the disease was increasingly identified in other parts of the world.

According to the Joint United Nations Programme on HIV/AIDS (UNAIDS) estimates, about 38.6 million adults and 3.2 million children were living with HIV by the end of 2002. About half of those who acquire the virus, become infected before they turn 25 years, and typically die of the life-threatening illnesses called "AIDS" before their 35th birthday (UNAIDS, 2002).

This age factor makes AIDS uniquely threatening to children. By the end of 2001, the epidemic had left behind a cumulative total of 14 million AIDS orphans, and in 2002, an estimated 800,000 children aged 14 or younger, were infected with the virus.

Sub-Saharan Africa is the world's region highly affected by HIV and AIDS. It is estimated that, 29.4 million people are living with the virus and approximately 3.5 million new infections occurred in Sub-Saharan Africa in 2002. In the year 2001 alone, the epidemic is estimated to have claimed the lives of 2.4 million Africans (UNAIDS, 2002).

Estimates indicate that, out of the infected population, 10 million are young people aged 15-24 years, and almost 3 million are children under 15 years. An estimated eleven million children have been orphaned by AIDS in Sub-Saharan Africa since the pandemic was first identified<sup>1</sup>.

The extent of the epidemic is only now becoming clear in many African countries, as increasing numbers of people with HIV become ill. In the absence of massively expanded

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<sup>1</sup> HIV & AIDS in Africa. In <http://www.avert.org/aafrica.htm>. Accessed on 28/07/2003.

prevention, treatment and care efforts, AIDS' death toll in the continent is expected to continue rising. This means that the worst of the epidemic's impact on these societies will be felt in the course of the next ten years and beyond. It's social and economic consequences are already being felt widely in the health, education, industry, agriculture and transport sectors.

As noted by Dr. Peter Piot, the Executive Director of UNAIDS, on July 10, 2003, in Maputo, Mozambique, HIV/AIDS has continued to devastate Africa's economies, communities, and development, and it is undoubtedly the Africa's biggest challenge. "Sixty million Africans have been touched by AIDS in the most immediate way. They are either living with HIV, have died of AIDS or have lost their parents and relatives to AIDS."

### **1.1 Background of the study.**

The study covers Kenya and Uganda, both East African countries populated by heterogeneous ethnic groups. Uganda is a land locked country with a population of close to 25 million people, and bordering Kenya to the East. Kenya has a population of about 31.1 million people and borders the Indian Ocean to the East (PRB Data Sheet, 2002).

AIDS emerged in the two countries in the early 80's, and at the height of Structural Adjustment Programmes (SAPS) dictated by the World Bank and IMF. Typical components of the adjustment programs included, cutback in government spending, privatization of government-held enterprises and services, and reduced protection for the domestic industry. The underlying intention was to minimize the role of the state and let market forces allocate resources (Colgan, 2002).

These measures adversely affected the social provisioning in especially, health and education, and led to the intensification of poverty. Particularly in Sub-Sahara Africa, health care infrastructure was eroded and many countries were left unable to cope with the impact of the emerging HIV/AIDS and other diseases. Major cutbacks were witnessed in government spending on health and in real disbursement per person, thus undermining efforts to deal with the emerging health crisis (Kimalu, 2001).

The pandemic particularly appeared in Uganda when the country was experiencing internal conflicts and instability stretching over several decades. It was during a time when the National Resistance Army (NRA) was waging a guerrilla war that saw the National Resistance Movement (NRM) under Museveni, assume power in the early 1986 (Cohen, 2002).

Kenya has remained relatively politically stable and economically better of than Uganda. To date, Kenya has a higher gross national income per capita than Uganda (World Bank, 2003). *See table 1.01 below.*

For the period 1987 – 2000, Uganda experienced higher incidence of poverty than Kenya, with 55% of the population living below the poverty line, whereas in Kenya, 42% of the population was living below the poverty line (UNDP, 2002).

***Table 1.01: Share of population below the poverty line.***

<b>Indicator:</b>	<b>Uganda:</b>	<b>Kenya:</b>	<b>Period</b>	<b>Source:</b>
Gross national income US\$/Capita.	280	340	2001	World Bank, 2003
Gross National income (US\$ Millions)	5,707	10,419	2001	World Bank, 2003
Population below the poverty line. (%) <sup>2</sup>	55	42	1987-2000	UNDP,2002

It is almost two decades since AIDS was identified in both Kenya and Uganda. The first AIDS case was identified in Kenya in 1984 and since then, the disease continues to ravage the country, causing devastation to all categories of men and women, young and old.

<sup>2</sup> The percentage of the population living below the specified poverty line: \$1 a day-at 1985 international prices (equivalent to \$1.08 at 1993 international prices), adjusted for purchasing power parity. \$2 a day-at 1985 international prices (equivalent to \$2.15 at 1993 international prices), adjusted for purchasing power parity. \$4 a day-at 1990 international prices, adjusted for purchasing power parity. \$11 a day (per person for a family of three)-at 1994 international prices, adjusted for purchasing power parity. National poverty line-the poverty line deemed appropriate for a country by its authorities. National estimates are based on population-weighted subgroup estimates from household surveys. 50% of median income-50% of the median adjusted household disposable income. Data refer to the most recent year available during the period specified

According to United National Programme for HIV/AIDS report, Kenya is one of the countries hardest hit by the HIV/AIDS epidemic. By the end of 2001, it was estimated that 2.5 million Kenyans were infected with the HIV virus, giving a national prevalence of 15%. Out of these, 2.3 million were adults aged 15 to 49 years, and an estimated 220,000 were children aged below 15 years (UNAIDS, 2002). About 1.5 million people have died since the first case was identified in the country (NACC, 2000).

In neighboring Uganda, the first AIDS was identified in 1982, and by the end of 2001, it was estimated that a cumulative total of 2.2 million people had been infected by HIV, about one million are estimated to have died of AIDS, leaving behind approximately one million orphans. Recent estimates by UNAIDS show that, 600,000 people are currently infected with HIV/AIDS reaching an adult prevalence rate of 5% (UNAIDS, 2002).

### **1.2 Statement of the problem:**

AIDS poses a serious problem to millions of people around the world. Its impact has been devastating to the socio – economic and political realm in many societies. Particularly so in Kenya and Uganda, the pandemic has been felt in all spheres of life. Sectoral impact has been felt in the health education, the military, and transport sectors among others (AIDSCAP, 1996 & Stover J. et al, 1999).

The pandemic appeared in the two countries at time when the role of the state in public provisioning was being minimized through the Structural Adjustment Programmes advocated by the Breton woods institutions. As elsewhere in Africa, government budgets on health and other social services were cut and market forces were expected to regulate the provision of these services. Such policies undermined the government efforts to provide health services to the already underserved citizens.

Amidst these scenarios, Uganda has widely been referred to as a success story in controlling HIV and AIDS. The country has managed to reverse the trends in HIV prevalence rates, whereas the situation is feared to be worsening in Kenya.

Public health responses are mainly the force behind turning the trend of events in the HIV and AIDS pandemic or any other epidemiology for that matter. However, it should be

noted that such responses operate within a wider milieu of political, economic and social contexts which enable or constrain the efficacy of such responses.

### **1.3 Objectives of the study:**

The objective of the study is to compare public policy responses to HIV and AIDS pandemic in both Kenya and Uganda. It aims at highlights the various interventions adopted in the prevention and control of HIV and AIDS in both countries, since the epidemic was identified in early 80's.

The study seeks to give an analysis of HIV and AIDS pandemic in both countries, and critically analyse public policy responses in both countries in order to highlight lessons that can be learned from either situation.

### **1.4 Research questions**

The principal question is 'to what extend have public health responses shaped HIV and AIDS outcomes in Kenya and Uganda'.

The study looks into sub-questions;

- What are the evolutionary trends in HIV and AIDS in both countries?
- What are the HIV and AIDS policy responses in both countries?
- What are the strengths, weaknesses, opportunities and threats in each country's interventions?
- What conclusions can be drawn?

### **1.5 Justification**

AIDS poses a major health threat and more so to the developing countries where poverty levels have been growing and where economic policies by the World Bank and IMF have adversely affected the capacity of government provisioning. Striking at a time when such policies were advocating for rolling back the State in service provision, the study highlights how the two countries have so far dealt with the pandemic.

The two East African countries were hit by the pandemic at a time when Structural Adjustment Programmes were at their height. With Uganda emerging from a civil strife she managed to tame the escalating disease. By the end of 2001, Uganda had an HIV prevalence of 5% whereas Kenya had 15%, three times higher (UNAIDS, 2002).

The study is timely especially when a new government in Kenya is gathering momentum to wage war on the pandemic. It highlights strengths, weaknesses, opportunities and threats in public policy responses that can be exploited by the two countries and other situations in need, and as well, identify areas of further research.

## **1.6 Methodology**

The study analyses the evolution of HIV and AIDS pandemic and public health policy responses in Kenya and Uganda. It presents a comparative analysis of HIV and AIDS situation and public health policies in the two countries since the early 80's.

Public policies have been analyzed in terms of programmes by governments and other agencies involved in HIV and AIDS. This captures all the responses not only by government agencies, but also by other stakeholders involved in the HIV and AIDS activities.

The study has mainly employed an in-depth analysis of both qualitative and quantitative secondary data so as to present a clear picture on the evolution of the disease, and development of policy interventions since the pandemic appeared.

I as well used my personal experience, having stayed and worked in HIV and AIDS projects in Kenya for around two years. I also gathered vital information through discussions with fellow students and friends from Uganda which provided me with first hand information on the Ugandan situation.

### **1.6.1 Data sources**

The Institute of Social Studies library formed a central source of literature and data for the study. Other libraries in Netherlands such as KIT and leading HIV/AIDS resources on the internet such as UNAIDS, WHO, UN, USAID, UNICEF, UAC, hivinsite and World

Bank websites were particularly useful in identifying the trends in the evolution of HIV/AIDS in the two East African countries.

Demographic and health surveys (DHS) conducted in 1989, 1993, 1998 for Kenya and 1988/89, 1995, 2000/01 for Uganda were carefully scrutinized in order to construct the evolution of social and health indicators since the first cases of AIDS was identified both countries.

Government Policy documents particularly the Ministry of Health and Strategic Frameworks immensely helped me in constructing the history of public policy responses adopted in both countries since the early 1980's.

### **1.6.2 Data analysis.**

Data analysis involved both quantitative and qualitative techniques with the use of computer statistical packages such as ms excel and Stata.

Data presentation has been done mainly with the use of text, tables and graphs so as to present clear and concise findings of the study.

### **1.7 Scope of study.**

The study compares HIV and AIDS situation as well as health policy responses in Kenya and Uganda since the early 80's when the first AIDS cases were identified in the region.

It focuses on the evolution of the disease and public policy actions from governments, NGOs, community based organizations, international agencies and individual initiatives towards the fight against HIV and AIDS.

### **1.8 Limitations of the study.**

The study is mainly based on secondary data analysis, personal experience and oral discussion with friends. No reference was made to primary data, since such an exercise was not possible, given the time and resource limits.

The overall discussion of the paper is restricted to the evolution trends in HIV and AIDS as well as public health policies from government, Non-governmental organizations and

international institutions involved in the prevention and control of HIV/AIDS in both countries.

Since it relies on secondary information, it may suffer from data availability and statistical accuracy problems.

### **1.9 Organization of the paper**

The paper is organized into five chapters; Chapter one sets the preamble with an introduction giving the background, statement of the problem, objectives of the study, research questions, justification and methodology.

Chapter two discusses the various theoretical models, analytical and conceptual frameworks that have been used in understanding the dynamics of HIV and AIDS and in carrying out the analysis.

The third chapter presents a comparative analysis of HIV and AIDS situation in Kenya and Uganda. It gives the evolution of HIV and AIDS since the early 80's and looks at some other demographic indicators that help to paint a clear picture of HIV and AIDS situation in both countries.

Chapter four presents the public health approaches in both countries and analyses strengths, weaknesses, opportunities and Threats in each case. This is followed by the last chapter which gives the conclusion of the study and highlights recommendations for HIV and AIDS interventions. It further draws lessons that can be learned from either country or other situations and identifies areas of further research.



## CHAPTER TWO:

### **2.0 THEORETICAL FRAMEWORKS AND ADAPTED MODELS.**

This chapter discusses the theoretical frameworks and models that have been used in the understanding HIV/AIDS epidemiology, transmission, vulnerability and cues to prevention strategies. It provides an alternative that has been used in analyzing the two cases under study.

#### **2.1 Understanding HIV/AIDS:**

*HIV* is an abbreviation for Human Immunodeficiency Virus; a retrovirus that progressively damages the body's ability to protect itself from disease organisms by destroying the essential conductor of the immune system - the T4/CD4 Cells (Palloni, 1995).

CD4 cells also known as helper T- cells are a type of lymphocyte, a white blood cell that plays an important role in the immune system. CD4 lymphocytes help identify, attack and destroy specific bacteria, fungi and other germs that infect the body. Normal CD4 counts in adults range from 500 to 1200 cells per cubic millimeter (mm<sup>3</sup>) of blood volume (Grahame-Smith, 2001).

*AIDS* is an abbreviation for Acquired Immunodeficiency Syndrome. As a clinical syndrome, it is associated with the appearance and recurrence of a variety of opportunistic infections which take advantage of the weakened body immune system (Palloni, 1995).

Though the HIV – AIDS hypothesis is burdened by numerous paradoxes, it remains reasonably acceptable. Most of the current definitions of AIDS are based on clinical conditions and the evidence of HIV infection. Evidence from research shows that T-cells count may fluctuate in ones blood to levels below the average due to other causes such as over-exercising, pregnancy, normal daily variation, psychological stress and social isolation but it does not necessarily imply HIV infection<sup>3</sup>.

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<sup>3</sup> Matt Irwin, MD. Low CD4+ T-cell counts: A Variety of causes and their implications to HIV and AIDS in <http://healtoronto.com/cd4counts.html> Accessed on 14/11/2003.

In many developing countries where diagnostic facilities are minimal, epidemiologists employ a case definition based on the presence of various clinical symptoms associated with immune deficiency, excluding other known causes of immune-suppression such as cancer or malnutrition (Ryder and Mugerwa, 1994a; Davachi, 1994).

***AIDS orphans:*** These are children under 15 years who have lost either one or both parents to the AIDS pandemic. Though some sources use 18 years as the age limit and may consider maternal, paternal or dual (both parents dead) orphans.), I have used the UNAIDS definition which puts the age limit at 15 years (UNAIDS, 1998).

***HIV and AIDS prevalence and incidence;*** the two terms are related but they convey different messages. ‘Incidence’ refers to the rate at which healthy people are being infected while ‘prevalence’ is the cumulative disease burden on the population. Prevalence depends on the level of incidence and the rate at which those infected are removed from the population either through death or migration.

Since most of the prevalence data is based on data from sentinel sites, antenatal clinics and VCT centers, a certain percentage of error is permissible. Many people who are HIV positive even die at home or from other causes before being diagnosed.

For the past decades of HIV and AIDS, majority of the studies have tended to lump together HIV and AIDS data, and to conveniently refer to the two as one under the term “HIV/AIDS”. This obscures the fact that, even though HIV is the cause of AIDS, HIV positive people may not necessarily develop AIDS. As such the two should not be confused to be one and the same. Since, HIV prevalence does not imply AIDS prevalence, I have chosen to separate the two terms in many instances in my work to avoid the confusion that is often evident in most of the previous work on HIV and AIDS.

### **2.1.1 Explaining HIV Transmission.**

HIV virus is mainly transmitted through;

- Use of unsterilized skin piercing objects such as needles or syringes, infected with the virus.

- Mother to child transmission through breastfeeding and uterus transmission.
- Transfusion of blood or blood products, infected with virus (HIV) and recently.
- Unsafe medical procedures.
- And though increasingly being questioned through sexual intercourse with an infected partner (heterosexual or homosexual).

The mechanism through which HIV transmission in Sub-Saharan Africa takes place has drawn considerable controversy and debates. For the past decades, researchers have struggled to fit the facts emerging about the Africa's evolving HIV epidemic, into the consensus view that, heterosexual transmission accounts for nearly all adult infections and that iatrogenic<sup>4</sup> transmission is minimal.

Proponents of this view point out to the low rates of infection among the sexually inactive groups of ages 1 – 15 years, and use age specific infection rates among young women and men to show that HIV infection rates strongly follow the patterns of sexual behaviour and those of other sexually transmitted infections, such as, herpes simplex virus –2 (WHO, 2003). In sexually active couples, both partners are often infected, and there is no consistent association between higher HIV rates and lower injection standards (WHO, 2003).

A different school of thought expresses doubt about the emphasis on heterosexual transmission of HIV in Sub-Saharan Africa. The likes of Gisselquist, hold that, HIV infection in Sub-Saharan Africa is not mainly explained by sexual or vertical transmission. They challenge the conventional hypothesis held by WHO and UNAIDS, among others, by pointing out that, unsafe medical care may be an important factor in Africa's HIV pandemic (Gisselquist et al, 2002).

To support this view, Gisselquist et al put forward evidence from various studies in Sub-Saharan Africa. A study in Kinshasa in 1985 found that 39% (16 out of 44) of the HIV-

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<sup>4</sup> iatrogenic infection: An infection inadvertently introduced through medical procedures.

positive inpatient and outpatient children aged 1-24 months, had HIV-negative mothers, only 5 out of the 16 had been transfused. Another study in Rwanda in 1984 –86, found that, 20% (15 out of 76) of children aged 1-48 months with AIDS or AIDS-related complexes, had HIV-negative mothers.

A study in Uganda found out that, of 26 children aged less than 15 years admitted to the Uganda's Cancer Institute with Kaposi's sarcoma, during 1989 – 94 period, 19% (5 of 26) had HIV-negative mothers. These and other revelations<sup>5</sup> suggest that, a significant proportion of HIV in African adults and children cannot be explained on the basis of current knowledge about sexual and vertical transmission alone. There may be co-factors for sexual transmission not yet identified; iatrogenic transmission may explain many if not most of the observations previously held to be anomalous (Gisselquist et al, 2002).

Although each of these explanations hold weight to some degrees, it should be noted that Sub-Saharan Africa may not be as homogeneous as imagined, regional differences are evident in the rates of HIV infection and as such various transmission mechanisms could as well be in place. Close investigation is called for, to establish particularly what mechanisms explain HIV transmission in the various regions rather than oversimplification evident in the debates.

## **2.2 HIV/AIDS MODELS**

Various models have been adopted to explain HIV transmission, behaviour change and vulnerability. They have been broadly categorized into three: those focusing on the individual, the social context, and the environmental or structural levels (UNAIDS, 1999).

### **2.2.1 Focus on the individual:**

Models focusing on the individual hold that, HIV transmission is propelled by behavioural factors. They have provided the basis for most HIV prevention efforts

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<sup>5</sup> Refer to Gisselquist et al. (2002). Unexplained HIV infections in Africa. International journal of STD & AIDS 2002; Vol. 13 pp 657-666.

generated using cognitive-attitudinal and effective-motivation constructs (UNAIDS, 1999).

Although each model is based on a different set of assumptions, these models generally state that, behaviour change occurs by altering potential risk-reducing situations, social relationships, risk perceptions, attitudes, self-efficacy beliefs, intentions and outcome expectations (Kalichman, 1995).

***(a) The Health Belief Model (HBM)***

The HBM was developed by Hochbaum et al in the 1950s. It uses socio-psychological variables to explain health preventive behaviour, and attempts to predict health behaviour by focusing on the attitudes and beliefs of individuals (Marshall H, 1974).

The model assumes that, individual's behaviour is guided by expectations of the consequences of adopting new practices. It rests on four concepts, namely:

*Susceptibility:* whether the person perceives himself or herself as being vulnerable to a specific disease. According to the model, individuals vary widely in their perception of susceptibility to a disease or condition. Those at low end of the extreme deny the possibility of contracting an adverse condition, those in a moderate category admit to a statistical possibility of disease susceptibility, and individuals at the high extreme of susceptibility feel that there is real danger of experiencing an adverse condition. In the case of HIV/AIDS, individuals falling within different levels in the continuum of perceived susceptibility, respond differently towards safer practices.

*Severity:* The belief an individual holds concerning the effects of a given disease or condition, such as, pain, financial burdens, difficulties with family relationships and susceptibility to future conditions. The efficacy of behaviour change will depend on the degree of severity associated with the disease or its consequences.

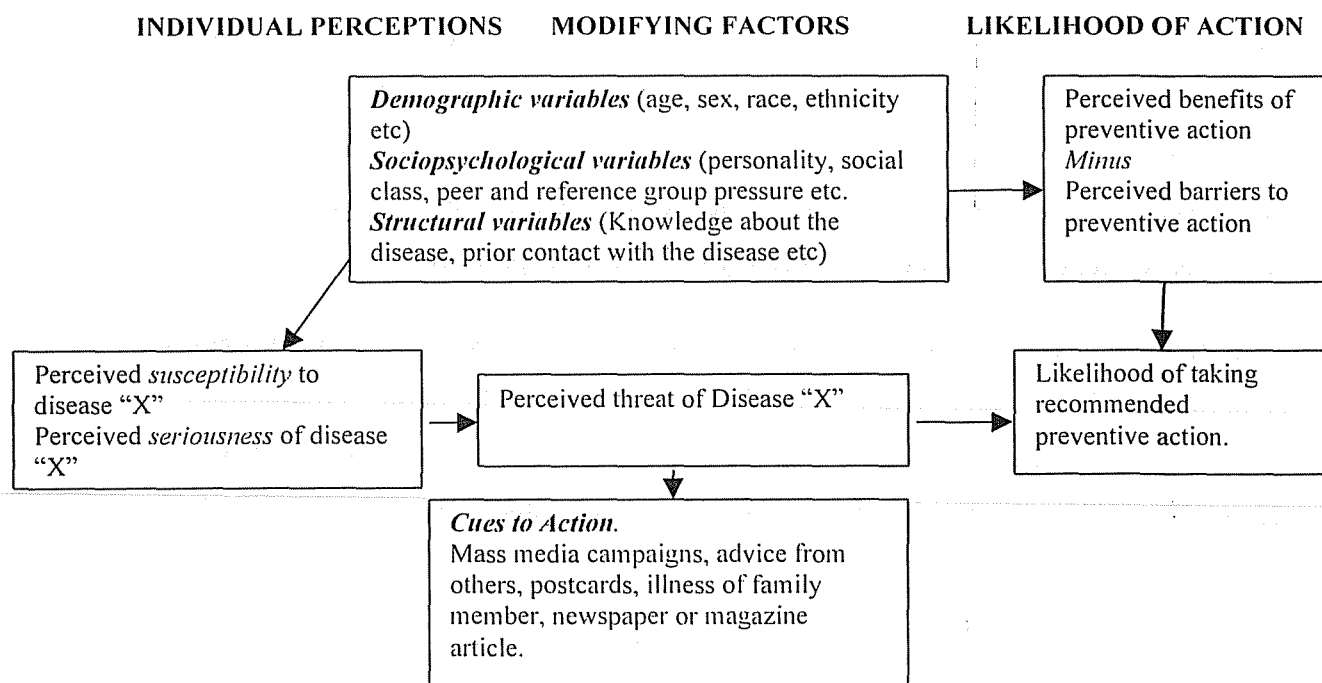
*Benefits minus costs:* This refers to the perceived benefits of taking action. The direction of action will be influenced by the beliefs regarding the action. Individuals weigh the positive and negative effects of adopting a new practice.

For the adoption of a new practice (preventive action), the benefits of such a move should outweigh the perceived barriers or costs (Marshall H, 1974). Where individuals do not perceive any benefit of adopting a new practice or where costs/barriers are too high, preventive action will not take place.

*Health motive:* This concerns whether the individual cares about the consequences of contracting the disease. If the individual does not view him or her as being vulnerable to the disease, and does not perceive the disease as having any negative consequences, then, the health motive will be lacking, and will not prompt any change in practice.

As a psychological model the HBM does not consider the interaction of other factors outside the individual's cognitive mechanisms, such as, environmental, cultural and economic issues. For example, though the individual may be knowledgeable about the prevention of HIV transmission through the use of a condom, other factors beyond the individual's knowledge, such as, the availability of the condom, affordability and the skill to use it, may prevent translation of such knowledge into safer practice.

Figure 2.01 Health Belief Model.



Source: Marshall H. 1974: pp7.

The Health Belief Model seeks to design interventions so that the benefits outweigh the costs, and identifies the cues to positive action that follow from any health belief (UNAIDS, 1999).

*(b) Social Cognitive or Learning Theory*

The social learning theory emphasizes the importance of observing and modeling the behaviors, attitudes, and emotional reactions of others. As Bandura (1977), states: "Learning would be exceedingly laborious, not to mention hazardous, if people had to rely solely on the effects of their own actions to inform them what to do. Fortunately, most human behavior is learned observationally through modeling."

The theory focuses on the important roles played by vicarious, symbolic figures, and self-regulatory processes in psychological functioning, and looks at human behaviour as a continuous interaction between cognitive, behavioural and environmental determinants (Bandura, 1977).

The component processes underlying observational learning include:

*Attention:* including modeled events (distinctiveness, affective valence, complexity, prevalence, functional value), and observer characteristics (sensory capacities, arousal level, perceptual set, past reinforcement),

*Retention:* including symbolic coding, cognitive organization, symbolic rehearsal, motor rehearsal),

*Motor Reproduction:* including physical capabilities, self-observation of reproduction, accuracy of feedback and,

*Motivation:* including external, vicarious and self reinforcement.

Programmes based on Social Cognitive theory integrate information and attitudinal change to enhance motivation, reinforcement of risk reduction skills, and efficacy. activities focus on the experience people have in talking to their partners about sex and condom use, and the types of environmental barriers to risk reduction.

### ***(c) AIDS Risk Reduction Model***

The AIDS risk reduction model (ARRM), as developed by Catania et al in 1990, provides a framework for explaining and predicting the behavior change efforts by individuals specifically in relation to the sexual transmission of HIV (UNAIDS, 2002).

The model identifies three stages that are involved in reducing the risk of HIV transmission.

*The first stage* involves recognition and labeling of one's behavior as high risk. This is influenced by: Knowledge of sexual activities associated with HIV transmission, belief that one is personally susceptible to contracting HIV, belief that having AIDS is undesirable and, social norms and networking.

*The second stage* involves making a commitment to change or to reduce high-risk sexual contacts and to increase low-risk activities. This stage is influenced by: cost and benefits, enjoyment (e.g. will the changes affect my enjoyment of sex?), response efficacy (e.g. will the changes successfully reduce my risk of HIV infection?), self-efficacy, knowledge of the health utility and enjoyment of a sexual practice, as well as social factors (group norms and social support), which are believed to influence an individual's cost, benefit and self-efficacy beliefs.

*The third stage* is 'taking action'. This is broken down into three phases:

- 1) Information seeking.
- 2) Obtaining remedies.
- 3) Enacting solutions. Depending on the individual, phases may occur concurrently or phases may be skipped.

The 'taking action' stage is influenced by:

- Social networks and problem-solving choices (self-help, informal and formal help).
- Prior experiences with problems and solutions.



- Level of self-esteem.
- Resource requirements of acquiring help.
- Ability to communicate verbally with sexual partner.
- Sexual partner's beliefs and behaviors.

Catania et al, in addition to the stages and influences listed above, identified other internal and external factors that may motivate individual movement across stages. For instance, aversive emotional states (e.g., high levels of distress over HIV and AIDS or alcohol and drug use that blunt emotional states) may facilitate or hinder the labeling of one's behaviors. External motivators such as public education campaigns, an image of a person dying from AIDS, or informal support groups may also cause people to examine and potentially change their sexual activities (Catania et al 1990).

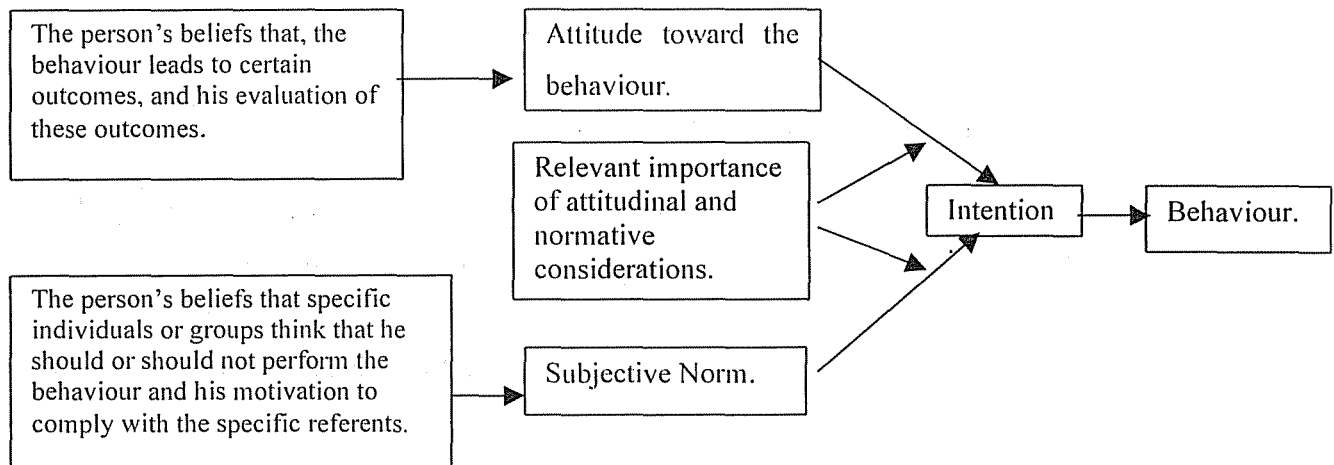
#### *(d) Theory of reasoned action*

This was developed in the mid 1960s by Fishbein and Ajzen. It is based on the assumption that human beings are rational, and make systematic use of information available to them. It argues that, people consider the implication of their actions in a given context, at a given time before they decide to engage or not to engage in a given behaviour.

Individual's intention to perform a behavior is seen as a function of attitude toward performing the behavior and subjective norm (social influence). The individual's attitude toward the behavior includes; Behavioral belief, Evaluations of behavioral outcome, Subjective norm, Normative beliefs and the Motivation to comply.

If a person perceives that the outcome of performing a certain behavior is positive, she/he will have a positive attitude toward performing that behavior. For example, for a person to start using a condom, his/her attitude might be that having sex with condoms is just as good as having sex without a condom and subjective norms or normative belief could be "most of the peer s are using condoms and they would expect me to do so as well".

Figure 2.02 Theory of Reasoned Action.



Adapted from: Ajzen and Fishbein 1980

### 2.2.2 Social theories and models

Focusing on behavioural change, with emphasis on the individual cognitive levels undermines the overall research capacity to understand the complexity of HIV transmission and control (UNAIDS, 1999).

Sociological theories tend to address this gap by asserting that, members of one's immediate surrounding have a significant influence on individual's behaviour, and as such, prevention efforts should enlist community mobilization to modify the norms, and work to support positive changes in behaviour (UNAIDS, 1999). They include:

#### (a) The Diffusion of Innovation Theory

This theory was developed by Everret Rogers (1983), to describe how an idea is disseminated throughout the community. It contains four essential elements: *the innovation of the idea, its communication, the social system and time.*

The theory argues that, people's exposure to a new idea, either within a social network or through the media determines the rate at which they adopt new behaviours (Rogers, 1983).

When applied to HIV risk reduction, the theory asserts that, normative and risk behavioural changes can be initiated if enough key opinion leaders adopt and endorse behavioural changes, influence others to do the same, and eventually diffuse the new norm widely within peer networks.

As Kelly (1995) argues, when beneficial prevention beliefs are instilled and widely held within one's immediate social network, individual behavior is more likely to be consistent with the perceived social norms.

Interventions using this theory generally investigate the best method to disperse messages within a community, and the people who are able to act as role models to change the community norms.

#### *(b) Social network theory*

This theory looks at social behaviour, not as an individual phenomena, but through relationships, and appreciates the fact that, HIV risk behaviour, unlike other health behaviours directly involves two people (UNAIDS, 2002). With respect to sexual relationships, social network theory focuses on both the impact of selective mixing and the variation in partnerships overlap. Although the intricacies of communication within the couple is critical to understanding HIV transmission in this model, the scope and the character of one's social network, those who serve as the reference people and sanction behaviour, are key to comprehending individual risk behaviour (Behrman J. R. et al, 2003).

Interventions using this theory would investigate:

- The composition of important social networks in a community.
- The attitudes of the social networks towards safer sex.
- Whether the social network provides the necessary support to change behaviour.
- Whether particular people within the social network are at particularly high risk and may put many others at risk.

HIV interventions based on network theory have been complementary to individual based theories in designing prevention programmes that focus on the partnerships as well as the larger social group.

***(c) Theory of gender and power***

The theory of gender and power is a social structural theory which addresses the wider social and environmental issues surrounding women.

It has been used mainly to guide the development of interventions dealing with women in heterosexual relationships, and helps to investigate how a woman's commitment to a relationship, and lack of power can influence her risk reduction choices (UNAIDS, 1999).

**2.2.3 Structural and Environmental**

The determinants of sexual behaviour can be seen as a function of not only the individual or social group, but structural and environmental factors as well. Such factors include political, organizational elements, policy and economic issues.

***(a) The Political economy of HIV/AIDS***

This approach is widely advocated by, among others, Webb and Turshen. It asserts that, any examination of HIV and AIDS in its various geographical scales, from individuals to households, communities, nations and regions should draw a holistic picture (Webb, 1997).

The approach goes beyond the individual cognitive systems and attributes the determinants of HIV and AIDS to macro-processes operating beyond the bounds of community. It focuses on 'Collective and individual Vulnerability' representing a change in analytic framework; a shift from behaviorist and individual terms, to vulnerability as socially and culturally constructed. For example, how the poor and the marginalized groups are exposed to the risks of HIV and AIDS.

Interventions based on this approach pay attention to vulnerability as linked to discrimination and violation of human rights. This understanding necessitates a shift from

technocratic management of the epidemic to political responses (Webb, 1997). The political-economic based research has not been merely to understand the spread of AIDS and people's response, rather the full agenda of this approach includes a driving concern with the development of useful knowledge and a commitment to collaboration with people living with HIV and AIDS, and those at high vulnerability to infection, in the development of effective and sensitive programs of prevention, support and advocacy (Singer, 1998; 22).

According to Turshen (1998), the spread of AIDS in Africa can be situated in the changing political economy of Africa. In her book entitled 'The Political Ecology of AIDS in Africa', Turshen points out how the World Bank and IMF recommendations for privatization of the health care adversely affected the health service delivery systems. This turned government services over to church missions and other Non-governmental organizations, undermining the state's ability to provide care for its historically underserved citizens (Turshen, 1998).

She contends that, the changing political economy in Africa explains the high rate of infection. Economic reforms designed by World Bank led to economic instability which has caused workers to migrate in search of work disrupting families and increasing behaviours associated with HIV spread. Other factors lying within the political economy such as the debt crisis, recession and structural adjustment programs aggravated the transmission, spread and the control of HIV infection.

## **2.3 Conclusion**

An intervention designed strictly on the basis one single theory misses the opportunity to fully understand the dynamics of HIV and AIDS, and thus the possibility to contribute successfully to the prevention and control of the pandemic. HIV and AIDS interventions need to be drawn from a broader and all encompassing perspective.

### **2.3.1 The Trans-Theoretical Model of HIV and AIDS**

In my study, I analyse the two countries using a mix of models ranging from individually centered to structural and environmental models. Since no single model can draw a full

understanding of the HIV and AIDS case, I have draw from all models highlighted in the previous section of this chapter, to analyse the HIV and AIDS interventions in both countries.

The models are viewed as a continuum, moving from individually centered to structural and environmentally focused. I stretched across all the theoretical explanations to result to a 'Trans-Theoretical Model of HIV and AIDS.'

The term 'transtheoretical model' has been previously used by Prochaska and others in their work on behaviour change. They use it to advance a model for behaviour change which focuses on individual factors and designate it as 'The Transtheoretical model for behaviour change'. The model borrows from other models focusing on the individual and behaviour change (Prochaska et al 1998).

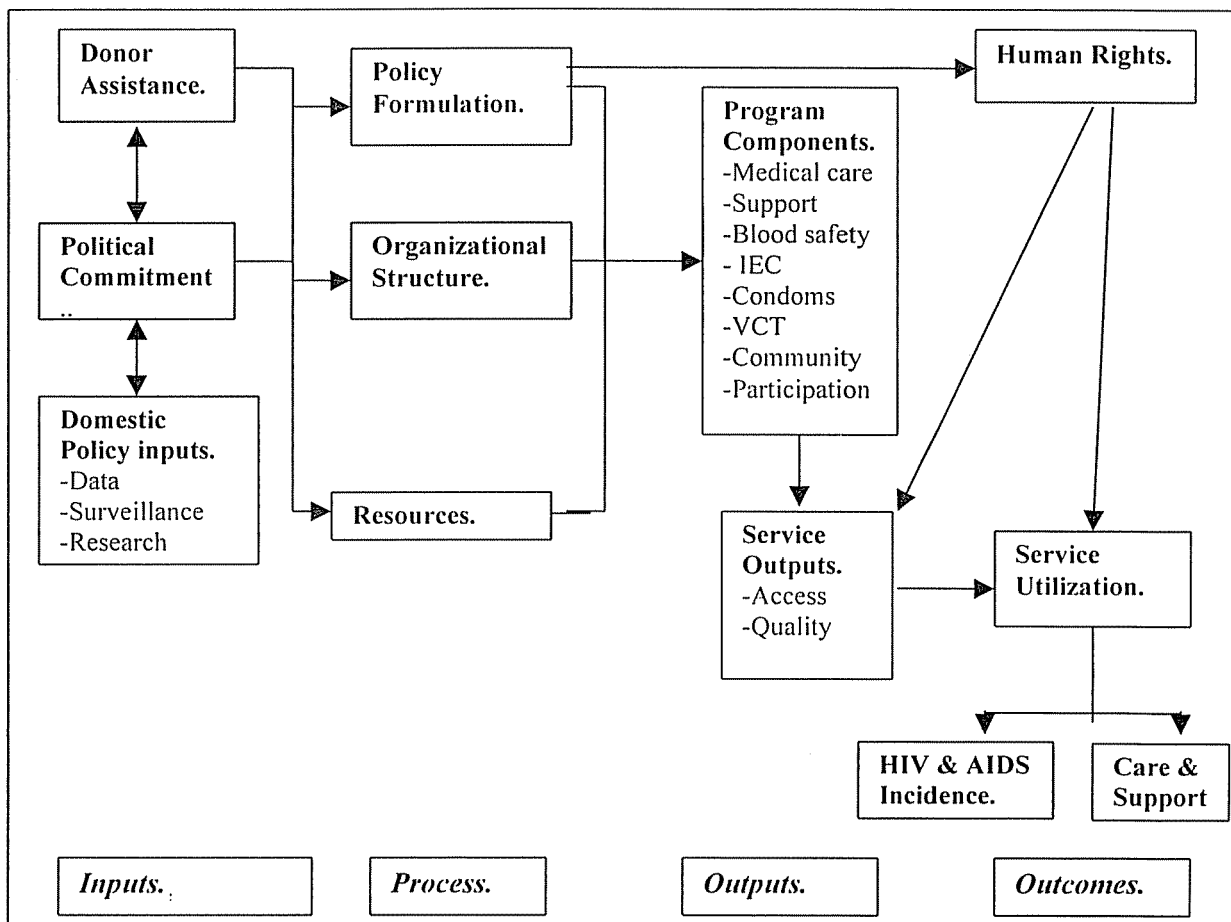
I use a Trans-Theoretical Model of HIV and AIDS which recognizes the approach suggested by Prochaska et al, but goes beyond the individual to include the interactive relationships of behaviour in its social, cultural, economic and structural issues within the wider context. The model holds that, individual factors have a role in the prevention and control of HIV and AIDS, but such factors should be understood in the broad context of economic, social and political structures within which the individual finds him or herself. Consequently, interventions towards HIV and AIDS should take into consideration the forces operating outside the individual and the community at large. For example, though an individual may be aware of dangers of HIV and possible preventive actions, cultural norms and access to services may present a barrier to taking preventive actions.

The Trans-Theoretical Model for HIV and AIDS thus draws attention to the three levels of analysis (individual, socio-cultural and structural & environmental) not as independent variables but as an integrated mix mutually dependent. The model suggests that effective interventions towards the pandemic should take cognizance of the interactive nature of the three levels.

As an analytical tool, the model investigates how health policies have shaped the HIV and AIDS outcomes in Kenya and Uganda. It seeks to bring to the forefront how the three levels have been addressed in each situation.

2.4 Figure 2.03

**Conceptual Framework.**



*Adapted from John Stover (2001)<sup>6</sup>*

The framework has been adapted from Stover (2001). It was initially developed and used in the AIDS Program Effort Index (API) in 2000. The framework asserts that, the success of national HIV/AIDS programs depends on a number of factors such as, resource availability, political commitment, program effort, socio-cultural and economic context (John Stover, 2001).

In analyzing HIV and AIDS in Kenya and Uganda, I contend that HIV and AIDS outcomes are largely determined by the program efforts which includes the degree of

<sup>6</sup> In MEASURE Evaluation Bulletin, 2001, Number 3.  
([www.cpc.unc.edu/measure/publications/bulletins/buletin3/article4.pdf](http://www.cpc.unc.edu/measure/publications/bulletins/buletin3/article4.pdf).)

political support, the amount of participation by the various stakeholders, domestic policy inputs and resources (foreign & domestic) devoted to the program.

In my analysis, political support takes a central place in determining the HIV and AIDS program efforts. It is a core component that influences the donor world and the domestic policy inputs, with which (donor and domestic policy inputs) a dialectic relationships is created to ensure sustained political commitment.

These relationships form the 'inputs' which are transformed into 'outputs' through the 'process' of policy formulation, organizational structure (stakeholders) and resources devotion. The efficiency with which the process operates determines how desired outputs in terms of program components are achieved.

Component programs are then transformed to HIV/AIDS outcomes through the political commitment to human rights which determines service outputs (accessibility and quality) and service utilization.

In my study, I have used the framework to argue that different HIV and AIDS outcomes (HIV/AIDS incidence, care & support) in Kenya and Uganda can be explained by the differential commitment at the level of inputs, process and outputs. As such HIV and AIDS interventions should enlist the maximum contribution from the three stages i.e. inputs, process and outputs.



## CHAPTER THREE:

### 3.0 Evolution of HIV/AIDS in Kenya and Uganda

This chapter presents a brief history of HIV and AIDS in Kenya and Uganda, as well as other related demographic and health indicators.

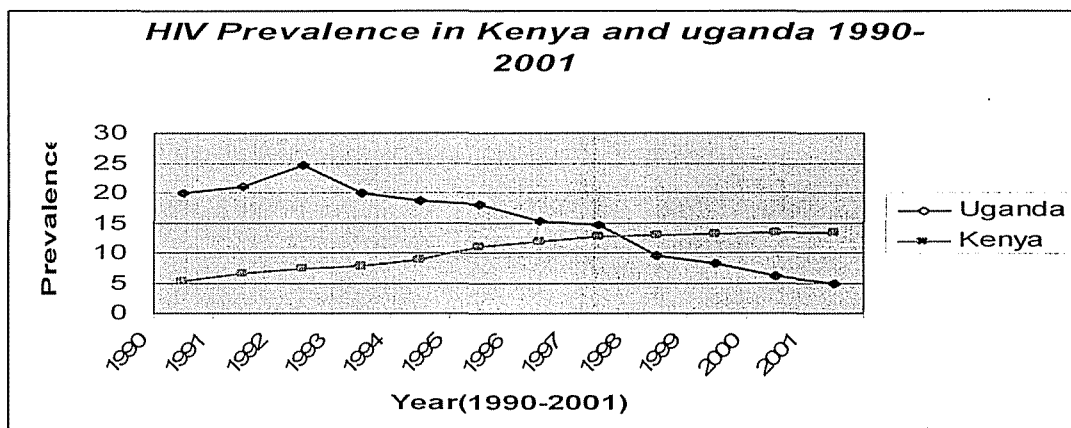
#### 3.1 HIV and AIDS in Kenya and Uganda

The first AIDS case in Uganda was diagnosed in Rakai district, around the shores of Lake Victoria in 1982. It was associated with severe weight loss, locally known as 'slim', and was confirmed as AIDS in 1984. Two years later, a similar disease whose characteristics resembled that identified in Uganda was diagnosed in Kenya in 1984 (Basaza et al, 2002).

Such cases were limited to what came to be referred as the 'high-risk groups' such as commercial sex workers and truck drivers, but later, the disease was increasingly found among other groups of the population.

Prevalence of the virus in the two countries progressed at different rates. Uganda case shows a sudden rise in prevalence followed by a subsequent and continuous decline, whereas, Kenya situation is marked with low prevalence rates which have been rising over time. (See figure 3.01 below)

Figure 3.01 Trends: HIV prevalence in Kenya and Uganda (1990 – 2001).



Source data: Uganda STI/ACP Surveillance report 2001, NACC 2000 & UNAIDS 2002.<sup>7</sup>

<sup>7</sup> See Appendices.

National statistics on HIV prevalence in both countries did not emerge until the late 80's when country surveys focused on HIV and AIDS indicators. Available data from the early 90's points out that HIV prevalence stood at 19.9% in Uganda in 1990, two years later the highest national prevalence was recorded at 24.7% in 1992 with Sero-prevalence going up to 30% in some of the hardest hit towns.

From 1992 the prevalence rate took a declining trend and consistently continued to drop in the subsequent years to hit the 5% mark by the end of 2001 (UNAIDS, 2002).

In Kenya, HIV prevalence rate was recorded at 5.3% in 1990, but unlike Uganda, the subsequent years were followed by a low but increasing trend to record a prevalence rate of 13.5% by the end of 2001 (NACC, 2002).

An estimated 2.5 million people aged 0-49 in Kenya were living with the HIV virus by the end of 2001, out of these, 220,000 were children below the age of 15 years, and 2,300,000 are adults aged 15 – 49 years (UNAIDS, 2002).

In Uganda, 600,000 people in the same age bracket were living with HIV virus by the end of 2001, of which, 110,000 were children aged below 15 years and 510,000 adults aged between 15 -49 years (UNAIDS, 2002). *See table 3.02 below*

**Table 3.02: Cumulative HIV infection.**

Age group	Year	Kenya	Uganda	Source.
Adults & children (ages 0-49) living with HIV.	2001	2,500,000	600,000	<u>UNAIDS, 2002.</u>
Adults (ages 15-49) living with HIV.	2001	2,300,000	510,000	<u>UNAIDS, 2002.</u>
Children (below 15 years) living with HIV.	2001	220,000 (8.8%)	110,000(18.3%)	<u>UNAIDS, 2002.</u>

As observed in figure 3.01 and table 3.02 above, Kenya has a higher HIV prevalence rate than Uganda, however, as revealed in table 3.02, children form a large percentage of the HIV positive population in Uganda than in Kenya.

Although Kenya has the highest in absolute numbers, children make 18.3% of the total HIV-positive population in Uganda, as compared to 8.8% in Kenya.

### **3.2 Gender and HIV**

The pattern of HIV infection in both countries portrays some gender dimensions of the pandemic. As summarized in table 3.03 below, females make a larger proportion of the infected population.

According to UNAIDS (2002), an estimated 1.4 million females aged 15 – 49 years in Kenya were HIV positive by the end of 2001, compared to 0.9 million males in the same age category. Estimates from the same source indicate that in Uganda, 280,000 females aged 15 - 49 years category in Uganda, were HIV positive by the end of 2001, compared to 230,000 males in the same age bracket. This gives a male to female ratio of 1:1.2 and 1:1.5 for Uganda and Kenya respectively.

**Table 3.03 HIV Infection by sex (ages 15-49)**

<b>Indicator</b>	<b>Year</b>	<b>Kenya</b>	<b>Uganda</b>	<b>Source</b>
Adults (ages 15-49)	2001	2,300,000	510,000	UNAIDS, 2002
Females (ages 15-49)	2001	1,400,000	280,000	UNAIDS, 2002
Males (ages 15 -49)	2001	900,000	230,000	UNAIDS, 2002
Male: Female ratio (ages 15 – 49)	2001	1:1.5	1:1.2	-

For this particular age group, both countries depict higher rates of infection among females than males, but with Kenya having the highest discrepancy in ratio terms.

### **3.3 AIDS orphans**

The concentration of HIV cases and AIDS deaths among the population aged 15-49 years has an effect on the rate of orphan-hood. This age group is mostly in their child bearing stage, and as many of them become ill and die, increasing numbers of orphans are left behind, under the care of old grand parents and relatives, or at worst with no care at all.

It is estimated that, by the end of 2001, the AIDS pandemic had left behind an estimated 890,000 and 880,000 orphans in Kenya and Uganda respectively. (See table 3.04 below).

**Table 3.04: AIDS Orphans.**

<b>Indicator</b>	<b>Year</b>	<b>Kenya</b>	<b>Uganda</b>	<b>Source.</b>
Total population (millions).	Mid-2002	31.1	24.7	<b>PRB Data sheet 2002</b>
AIDS orphans currently living (ages 0-14).	2001	890,000	880,000	<b>UNAIDS, 2002.</b>
AIDS orphans as % of the total population.	2001	2.9	3.6	–

Although Kenya has a larger number of orphans than Uganda in absolute terms, Uganda is faced with a higher rate of orphan-hood. As a proportion of the total population, AIDS orphans account for 3.6% and 2.9% of the total population in Uganda and Kenya respectively.

### **3.4 AIDS related Mortality**

The impact of HIV and AIDS is evident mortality rates in both Kenya and Uganda. The pandemic is particularly responsible for the increased number of deaths within the population aged 1 – 49 years (NACC, 2000 & Basaza et al, 2002).

Since the first AIDS case was diagnosed in Kenya in the early 1980's, an estimated 1.5 million Kenyans have died of AIDS-related complications (NACC, 2000) and about 500 Kenyans die daily from AIDS-related complications. This accounts for 50% of all deaths occurring in the country (Daily Nation, Feb 5, 2003).

In Uganda, nearly one million people have died of AIDS-related causes since the disease was first reported in the country (Kaiser Daily, Oct. 24, 2002). According to a report compiled using data from government and private hospitals in the country's 56 districts, 947,552 people have died of AIDS-related causes since 1982. It is estimated that AIDS-related causes are responsible for 12% of all deaths occurring in Uganda, and are now the leading causes of deaths among the adult population (Kaiser Daily, Oct. 24, 2002).

### ***Mortality rate 1999 – 2003.***

The incidence of HIV and AIDS in both countries appears to have an impact on the total population death rate. Crude death rate is observed to have increased from 15 deaths per 1000 in 1999 to 16 in 2003, in Kenya, whereas in Uganda, crude death rate fell from 18 in 1999 to 17 in 2003, signifying an improvement. *See table 3.05 below.*

***Table 3.05 Mortality rate.***

<b><u>Kenya</u></b>	1999	Source	2003	Source
Crude death rate per 1000	15	BUC9808	16	BUCEN-IDB-2002
<b><u>Uganda</u></b>				
Crude death rate per 1000	18	BUC9808	17	BUCEN-IDB-2002

Such a change, though minimal, points out to the effects of HIV and AIDS in both countries. The high AIDS-related deaths in Kenya, accounts for the increase in crude death rate, whereas in Uganda, an improvement in HIV and AIDS situation could account for the trends in crude death rate for the same period.

### ***3.5 AIDS and Life expectancy***

It is expected that AIDS deaths will have implications on the life expectancy at birth. A comparison of the life expectancy in the two countries shows evident discrepancies. Over the past four years, life expectancy at birth in Kenya dropped from 47 years in 1999 to 45.2 years in 2003, whereas in Uganda, life expectancy at birth rose from 43 years in 1999 (BUC9808) to 44.9 years in 2003 (BUCEN-IDB-2002). *See table 3.06 below.*

***Table 3.06 Life expectancy 1999 - 2003***

<b><u>Kenya</u></b>	1999	Source	2003	Source
Life expectancy at birth.	47	BUC9808	45.2	BUCEN-IDB-2002
<b><u>Uganda</u></b>				
Life expectancy at Birth.	43	BUC9808	44.9	BUCEN-IDB-2002

Although other factors may still be in play, it is, however, clear that high and increasing AIDS related deaths in Kenya explains this decline. Similarly, in Uganda, the improving situation in HIV and AIDS explains the improvement in life expectancy.

### 3.6 AIDS Co-infections

#### 3.6.1 Tuberculosis

Tuberculosis is the most common life-threatening opportunistic infection in AIDS patients. This is due the fact that, HIV is the most potent risk factor ever identified for converting the latent TB to active TB, leading to increased TB morbidity and mortality. TB accounts for 1/3 of all AIDS' deaths and shortens the survival of AIDS patients by half (Clydette and USAID, 2003).

Uganda is ranked twentieth on the global estimates of the number of TB cases by country. It is estimated that, the incidence of TB is about 324 cases out of every hundred thousand population. Kenya, which is ranked position eleven, is estimated to have an incidence of 515 cases out of every hundred thousand population (WHO report, 2003).

As presented in table 3.06 below, a total of 81,780 TB cases were detected in Uganda by the end 2000. This represents a national prevalence of 0.33%, whereas in Kenya, 148,579 TB cases were reported in the same period, representing a national prevalence of 0.48%. (See table 3.07)

**Table 3.07 Infectious disease indicators.**

<b>Uganda:</b>				
Indicator	Value	Prevalence.	Year	Source
Estimated Number of TB cases	81,780	0.33%	2000	WHO/TB Control report-2002
<b>Kenya:</b>				
Estimated Number of TB cases	148,579	0.48%	2000	WHO/TB Control report-2002

In the absence of early diagnosis and proper treatment, TB leads to high morbidity and mortality among the HIV positive people and shortens the life of AIDS patients. This is probably the case in Kenya where AIDS-related deaths account for 50% of all deaths.

### **3.7 Awareness indicators**

#### **3.7.1 HIV/AIDS awareness**

Recent demographic and health surveys carried out in both Kenya and Uganda shows that, HIV and AIDS awareness is nearly universal in both countries. The 1998 Kenya demographic and health survey indicates that, 99.5% of the males and 99% of females had heard of the disease. In Uganda, the recent DHS survey conducted in 2000/1 shows that, HIV and AIDS awareness, measured by those who had ever heard of the disease, was universal for both males and females. (See table 3.08 below).

**Table 3.08 Ever Heard of HIV/AIDS.**

<b>Country</b>	<b>Male</b>	<b>Female</b>	<b>year</b>	<b>Source.</b>
Kenya	99.5%	99.0%	1998	1998 KDHS
Uganda	100%	100%	2000	2000/1 UDHS

Though the surveys were carried out at different points in time, it is clear that HIV and AIDS awareness is quite high in both countries.

#### **3.7.2 Condom awareness**

Condom awareness, which is one of the messages delivered in awareness campaigns, was found to be high in both countries.

As presented in the table 3.09 below, 91.5% of females and 96.9% males were aware of condoms in Kenya (1998 KDHS), as compared to 88.0% females and 97.0% males in Uganda in 2000 (2000/1 UDHS). It can be noted that condom awareness did not match the awareness of the pandemic as measured by those who had ever heard of the disease, in table 3.08 above.

**Table 3.09 Condom awareness**

<b>Country</b>	<b>Males</b>	<b>Females</b>	<b>Year</b>	<b>Source.</b>
Kenya	96.9%	91.5%	1998	1998 KDHS
Uganda	88.0%	97%	2000	2000 UDHS

As such, for both countries, having heard of the disease did not entail knowledge of condoms which is one of the ways advocated for avoiding HIV. No marked differences between the two countries were observed in this respect.

### ***3.7.3 Knowledge of condoms as protection against HIV infection***

As presented in table 3.09 above, the awareness of condoms was high in both countries, however, knowledge that condoms can protect against HIV infection was much lower. According to 1998 Kenya demographic health survey, only 37.5% of females and 49.0% of males were aware that condoms can protect from HIV infection.

In Uganda, the 2000/1 demographic health survey indicated a condom awareness of 88.0% and 97.0% for females and males respectively, while the knowledge that condoms can protect against HIV infection recorded 54% and 72% for females and males respectively. *See table 3.10 below.*

***Table 3.10 Knowledge of condoms as a protection against HIV infection***

<b>Country</b>	<b>Males</b>	<b>Females</b>	<b>Year</b>	<b>Source.</b>
Kenya	49.0%	37.5%	1998	1998 KDHS.
Uganda	54.0%	72.0%	2000	2000/1 UDHS.

Data from surveys carried out in 1998 and 2000 in Kenya and Uganda respectively, indicate that condom awareness did not match the knowledge that condoms can protect against HIV infection. Awareness that condom could protect from HIV infection was much lower. Many people would thus not use it as a protection against HIV infection.

## **3.8 Behavioural Change**

One of the expected come of HIV and AIDS interventions is behaviour change. It has a central place, particularly in the prevention of heterosexual HIV transmission. As an outcome of public interventions, analysis of behavioural indicators provides some insights into the efficacy of programme components implemented thus far.

### ***3.8.1 Median age of first sex***

According to various demographic and health surveys carried out in both countries, the age at first sex has been increasing. Although consistent data on males does not exist to permit a comparison, consistent data on females points out to this trend. In Uganda, according to the 2000/1 UDHS, the median age at first sex for females stood at 17.3 years, having risen from 16.5 in 1989. The Kenya 1998 demographic and health survey



indicates that, median age at first sex for females was 17.1 years, having risen from 16.5 in 1989. *See table 3.11 below.*

**Table 3.11 Median age at first sex.**

Country	Males	Females	Year	Source.
Kenya	No data	16.6	1989	1989 KDHS
	No data	17.0	1993	1993 KDHS
	17.0	17.1	1998	1998 KDHS
Uganda	No data	16.5	1989	1989 UDHS
	17.6	16.7	1995	1995 UDHS
	18.3	17.3	2000	2000 UDHS

Although the surveys indicate increasing trends in age at first sex, the age remains low and the rate of increase is still slow in both countries.

### **3.8.2 Condom use with last Non-regular partner**

The adoption of protective behaviour by condom use in both countries indicates that, condom awareness did not translate to similar levels of condom use. Measured by the rate of condom use with last no-regular partner, it is evident that condoms use in risk situations remained low. *See table 3.12.*

**Table 3.12 Condom use with last Non-regular partner.**

	Data unit	Value	Year	Source
<b>Uganda</b>				
Males	%	58.9	2000	UDHS 2000/01
Females	%	37.8	2000	UDHS 2000/01
<b>Kenya</b>				
Males	%	42.5	1998	KDHS-1998
Females	%	15.1	1998	KDHS-1998

According to the 1998 KDHS, 42.5% males and 15.1% females reported having used a condom with the last non-regular partner, whereas in Uganda, 58.9% males and 37.8% females used condom with the last non-regular partner (2000/1, UDHS).

## **3.9 Conclusion**

The history of HIV in both Kenya and Uganda shows marked differences in the rate at which the pandemic progressed in both countries since early 1980's. Uganda experienced a high rate increase in HIV prevalence during the early years, but after the highest peak in

1992, a consistent reverse in trends followed. The Kenyan situation was marked by a low prevalence rate in the early years, but unlike the Ugandan case, prevalence rates have been increasing year by year.

Although Uganda has managed to bring down the HIV prevalence rates, higher proportion of infection rates seem to be evident among children aged below 15 years, as compared to Kenya. This suggests that, interventions that have brought down the overall prevalence down may have missed the young population.

A majority of infections occur within the population aged between 15 – 49 years but with higher rates among females than their male counterparts. However, sex ratios were observed to be different in both countries, with Kenya having a higher gender disparity of 1:1.5 male to female as compared to 1:1.2 in Uganda.

Due to the lack of well documented data on AIDS-related mortality for both countries, other proxy indicators such as life expectancy, crude death rate indicate and TB were used to compare the impact of HIV and AIDS in both countries. AIDS-related complications accounts for a large number of deaths in Kenya than in Uganda, and as a result, crude death rate is observed to have increased between 1999 – 2003, where as an improvement was realized in Uganda during the same period.

Owing to the increased deaths in Kenya, life expectancy at birth fell from 47 years in 1999 to 45.2 years in 2003, whereas, in Uganda, the same period was characterized by an improvement in life expectancy from 43 to 44.9 years.

Data on TB trends as a common co-infection of AIDS is not well documented for both countries, however, the 2002 WHO report shows that, Kenya has a higher TB prevalence compared to Uganda. This suggests that, most of the AIDS patients develop TB and this could be the reason behind the high AIDS-related mortality.

Behavioral changes measured by HIV awareness shows that knowledge on HIV and AIDS in both countries is universal. A comparative analysis of awareness indicators was not possible since the surveys were carried out in different points in time, however, it is clear that gaps do exist in both countries. The translation of such knowledge into practice

to minimize risk behaviours was rather low. Knowledge of condoms as a protection from heterosexual transmission and condom use remains rather low.

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## CHAPTER FOUR

### **4.0 EVOLUTION OF PUBLIC HEALTH POLICIES**

This chapter discusses the evolution of public responses to the HIV and AIDS pandemic. It focuses on various policies, interventions and strategies that have been adopted in Kenya and Uganda to fight the pandemic.

#### **4.1 National policy response in Kenya**

The Kenyan government first responded to the HIV and AIDS epidemic in 1985 with the launch of the first comprehensive Five-year Medium-Term Plan. The plan mainly focused on the prevention of HIV transmission by screening blood, promoting safer sexual practices and early diagnosis of STDs. However, during the period of the plan (1984 - 1989), HIV and AIDS were not considered as a serious problem, and efforts remained less vigorous and less coordinated (K'Oyugi et al, 2002: 8).

In 1991, the government developed the second Medium-Term Plan for the 1992 – 1996 period. This plan sought to mobilize other sectors including, Non-Governmental organizations and the private sector in the fight against the disease. During the period of the plan, a considerable level of education and awareness was achieved, but not as had been anticipated. By and large, the efforts of this plan still suffered from inadequate coordination, and faced a considerable resistance from some religious organizations opposed to the introduction of sex education into schools (K'Oyugi et al, 2002).

Realizing the need to establish clear policy guidelines and effective organizational structures, the government approved the *Sessional paper No. 4 of 1997 on AIDS in Kenya*<sup>8</sup> on September 24, 1997. Its purpose was to provide a clear policy framework within which AIDS prevention and control efforts will be undertaken (Ministry of health, 1997).

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<sup>8</sup> Its approval signaled the clear government intention to support effective programmes to control the spread of AIDS, to protect the human rights of those with HIV and AIDS and to provide care of those infected and affected by HIV/AIDS.

The framework addressed some key factors, such as:

**Participation:** All sectors, private sector, NGOs, donor agencies, and communities were invited to join the effort against HIV and AIDS.

**Socio-cultural issues:** It called for the promotion of socio-cultural norms, values and beliefs that will help reduce the risk of HIV transmission.

**Legal and ethical issues:** Recognized that, discrimination against individuals with HIV and AIDS violates human rights and hampers prevention efforts.

**Youth and young adults:** Acknowledging that a large percentage of HIV new infections occur among the youth, the government committed itself to protect young people against HIV and STD infections by designing culturally, morally and scientifically acceptable HIV and AIDS education for youth in and out of school.

Following this framework, the National AIDS Control Council (NACC) was established in legal Notice no. 170 of November 26, 1999. Its targets were to reduce HIV prevalence by 20 to 30% by the year 2005, to increase access to care and support for people infected and affected by HIV and AIDS, to strengthen institutional capacity and coordination of HIV and AIDS activities at all levels<sup>9</sup>.

The National AIDS Control Council assumed a number of responsibilities such as;

- Coordinate and supervise HIV/AIDS activities.
- Mobilize resources for HIV/AIDS control and prevention.
- Develop policy, strategy and guidelines relevant to the prevention and control of HIV/AIDS.
- Develop national management information systems for HIV/AIDS control.
- Collaborate with local and international agencies that work in AIDS control.

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<sup>9</sup> Targets set out in Session paper No. 4 on AIDS in Kenya.

- Develop appropriate mechanisms and guidance for implementing agencies, selecting activities, monitoring and evaluating programmes dealing with HIV/AIDS and sexually transmitted diseases.
- Assume leadership role in advocacy and public relations for HIV/AIDS.

To achieve these goals, various organizational structures were set up. AIDS Control Units were established under each ministry to coordinate and implement the strategic plan, and ensure that HIV/AIDS prevention and control priorities are integrated into mainstream ministry.

At the provincial level, Provincial AIDS Control Committees (PACCs) were established to coordinate, supervise and support HIV/AIDS strategic plan issues in the provinces. In coordination with the District AIDS Control Committees (DACCs), they ensure cooperation within the province. The PACC members represent the national government department in the province, working with civil society, the private sector and people living with HIV and AIDS. Supporting committees were set up at the provincial, district and the constituency levels.

#### **4.2 National policy response in Uganda**

The first government response in Uganda begun in 1985, with the establishment of the National Committee for the Prevention of AIDS (NCPA). However, during this time the efforts were less structured and less coordinated (Basaza et al, 2002).

In 1986, the first structured government response to HIV and AIDS emerged with the creation of the AIDS Control Programme (ACP) under the Ministry of Health (UAC, 1993).

Its functions included:

- Epidemiological surveillance.
- Ensuring a safe blood supply.
- Providing HIV/AIDS information, education and communication (IEC).
- Providing patient care counseling, and

- Preventing and controlling other STDs.

A review of the ACP in 1988 recognized that, AIDS control activities needed to involve all sectors. This led to the adoption of a Multi-Sectoral approach in 1991, which emphasized the notion of collective responsibility of individuals, community groups, different levels of government, and other agencies for the prevention of HIV infection (UAC, 1993).

In 1992, the Uganda AIDS Commission (UAC) was constituted by a Statute of parliament and placed under the Office of the President to address the HIV and AIDS problem in a broad context.

Following the commission, the first Strategic Framework 1998 – 2002 was developed whose objectives included:

- To stop the spread of HIV infection.
- To mitigate the adverse health and socio-economic impact of the HIV and AIDS epidemic.
- To strengthen the national, district and lower level capacities to respond to the HIV and AIDS epidemic.
- To establish the national information base on HIV and AIDS.
- To strengthen the national capacity to undertake research relevant to HIV and AIDS.
- To provide care, support and protection for the rights of people living with HIV and AIDS, and
- To reduce vulnerability of individuals and communities to HIV and AIDS with a focus on children, youth and women.

After a short time of implementation, a revision was carried out to minimize duplication of efforts, to engender more focused interventions, and to ensure close monitoring and evaluation. This led to the 2000/1 – 2005/6 Strategic Framework, which regrouped the original seven goals into three. That is:

- To reduce the rate of HIV infection.
- To mitigate the health and socio-economic impacts of HIV/AIDS at individual, household and community levels.



- To strengthen the national capacity to respond to the epidemic.

#### **4.3 Budgetary Commitments**

The amount of resources devoted to the fight against HIV and AIDS determines to a great extent the realization of efforts and targets set out in policy declarations. Although data on budgetary expenditure on HIV and AIDS programs is not available, analysis of government general expenditure on health reveals interesting insights into the government expenditures on health in general.

As presented in table 4.01 below, Uganda shows a higher budgetary commitment to health in general. The general government expenditure on health as a percentage of the total expenditure was recorded at 9.5% for Uganda in the year 2000 whereas in Kenya, it was 8.1% for the same year.

In Uganda, the government contributes 38% of the total expenditure on health, while private expenditure accounts for the remaining 62%. In Kenya, government expenditure on health as a percentage of the total expenditure on health was at 22.2% with private expenditure accounting for the remaining 77.8 %.

Although Uganda depicts a higher budgetary commitment to the health of the citizens, it is worth noting that, most of funding is from external sources. *See table 4.01 below.*

**Table 4.01 National expenditure on health.**

<b>Health expenditure</b>	<b>Uganda</b>	<b>Kenya</b>	<b>Source.</b>
General Government expenditure on health as % of the total general expenditure, 2000	9.5	8.1	WHO (2001)
General Government expenditure on health as % of the total (private & public) expenditure on health, 2000.	38	22.2	WHO (2001)
Private expenditure on health as % of the total expenditure on health	62	77.8	WHO (2001)
External resources for health as % of the general Government expenditure on health, 2000	96	38.3	WHO (2001)

According to WHO 2001 report, external sources for health expenditure as a percentage of the general expenditure on health accounts for 96%, whereas in Kenya external sources account for 38.3%.

A combination of the high external funding and high government budgetary commitment indicates the prioritization of health in general in Uganda. The appeal made by the leadership in Uganda and early admission that HIV and AIDS as a serious problem in Uganda led to higher donor response than in Kenya.

#### **4.4 Legal Framework.**

Awareness interventions have been vital in addressing discrimination against people living with HIV and AIDS. However, legal frameworks for enforcement are necessary to safeguard against the violation of human rights and the spread of HIV.

##### ***4.4.1 Anti - Discrimination***

In 2001, the Kenya government approved the HIV/AIDS anti-discrimination bill, which is aimed at ending discrimination against people living with HIV and AIDS. Although the bill is yet to be passed into law, if passed, the draft law will safeguard discrimination on the basis of HIV or AIDS during employment, college admission and make the deliberate spreading of HIV a criminal offence. (IRIN, September 26, 2003).

In Uganda, the fight against discrimination on the basis of HIV started in 1995 when Uganda Network on law ethics and HIV/AIDS (UGANET) was established. Now under the Uganda Ministry of Health, the body addresses the violations of rights of those infected with HIV. It has been successful in initiating legal interventions in various laws that have a bearing on HIV and AIDS, such as, the domestic relations law, labour laws, domestic violence, the law on succession and the law regarding sexual offences and operates as a legal service centre for PWHAs and their families (Lule, 1999).

## **4.5 STAKEHOLDERS IN HIV & AIDS ACTIVITIES**

The Multi-Sectoral approach adopted in the two countries recognize the need to involve all sectors in the fight against HIV and AIDS.

### ***4.5.1 Non-governmental organizations***

Non-governmental organizations have been very important in complementing government efforts to reach the poor in rural and urban areas, especially at a time when the government capacity to adequately provide for its citizens has been challenged by international policies and increasing poverty levels.

In Kenya, nearly one thousand registered and unregistered NGOs are involved in HIV/AIDS prevention, control and care activities. Organized under the Kenya Non – Governmental Organizations Consortium (KANCO) which was formed in 1990, they work closely with NACC to increase awareness and advocacy, share best practices for preventing HIV transmission and provide support to the infected and affected victims (Balthazar et al, 1999). It is estimated that NGOs involved in HIV/AIDS/STI activities provide over 60% of all the services at the grassroots.

Despite this huge contribution, there is often little coordination or guidance from the government or NASCOP<sup>10</sup> (Balthazar et al, 1999). In theory, NGOs are supposed to engage in government specified priority areas, but in practice, they decide on priority activities and locations. The absence of proper guidance and coordination has led to the disproportionate concentration of NGOs in some areas such as, Kisumu, and neglect of others like North Eastern.

In Uganda, a survey done by AMREF and UAC in June 2001 indicated that, over 717 agencies were involved in direct service delivery to various community groups. All operate under a national umbrella registered as ‘Uganda Network of AIDS Service Organisations (UNASO)’, established in October 1996. To date with a current membership of over 2000 NGOs/CBOs/FBOs, UNASO works to coordinate HIV and AIDS service organisations in Uganda so that prevention, quality care and support

services are available to all (Basaza et al, 2002). With its coordinator representing the organisation on the board of UAC, UNASO ensures cooperation and coordination through common resource mobilisation, and sharing of information. This avoids the disproportionate concentration of services and duplication of efforts.

Apart from its coordinating function, UAC periodically prepares an inventory of all agencies with HIV and AIDS related activities in Uganda. Such an inventory classifies agencies according to location, nature of intervention, target group and administrative level of its operations (national, district or community) (Sengendo et al, 1999).

#### ***4.5.2 Faith-Based Organizations***

In Uganda, faith based groups have been in the forefront in the fight against HIV and AIDS. In 1987, the major religious organizations in Uganda (Catholic, Anglican, and Muslim) became significantly involved in HIV and AIDS prevention and control. They play a major role in prevention of HIV infection and provision of care and support to PLWHAs. Their main focus has been on promoting "fidelity" and "abstinence" rather than condoms<sup>11</sup>.

In Kenya, religious organizations have too played a major role in the provision of care and support to those affected and infected by the pandemic. However, they have hindered government's efforts to wage a full-scale war against the disease. In Particular the Catholic Church has vehemently rejected plans to publicly promote condoms use and implement HIV and AIDS education in primary and secondary schools (NACC, 2000). A general argument has been that, sex education in schools and promotion of condoms will promote infidelity among the youth and subject them to more risks of contracting HIV.

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<sup>10</sup> The National AIDS/STDs Control Programme established in 1985 to monitor and evaluate HIV/AIDS/STD programmes.

<sup>11</sup> Edward C. Green (2001). The Impact of Religious Organizations in Promoting HIV/AIDS

Prevention. Revised version of paper presented at "Challenges for the Church: AIDS, Malaria & TB" (Conference Title), Christian Connections for International Health, Arlington, Va., May 25-26 2001.

### ***4.5.3 Education Institutions***

School-based intervention programmes are a primary avenue in reaching the great majority of children and young people in school. This was realized in Uganda where a school health education for primary and secondary schools was piloted in 1994. Although a year later it had yielded little progress in attitudes and behaviour change, it provided lessons to be learned. The Uganda Ministry of education responded by introducing new curriculum and teacher training approaches in 1995. To date, life skills development in schools have been a key component in the basic education, childcare and adolescent development.

The 1995 –2000 programme integrated life skills education into teacher training on primary and secondary level. It is lauded for a reduction in the rate of new infections by almost 50% among the young aged 15- 19 years (World Bank, 2002).

Despite the acknowledgment that, school-based interventions can play an important part in HIV prevention, sex education in schools remains a controversial issue in Kenya. Although the ministry of education in collaboration with UNICEF developed a family life education, incorporating HIV prevention for schools, it has not been possible to implement due to strong opposition from religious groups, particularly the Catholic Church. The opportunity of reaching the young people and children remains unexploited.

### ***4.5.4 People living with HIV and AIDS***

Associations of people living with HIV/AIDS have emerged in both countries. They have been very important in the prevention and control of HIV/AIDS, particularly in, demystifying the disease, dealing with stigma and offering support to those infected and their families.

In Uganda, a national organization ‘The AIDS Support Organization (TASO)’ was founded in 1987 by a group of volunteers who recognized that people with HIV and AIDS need support. To date, with over 743 trained counsellors, 214 community trainers, and 1,471 AIDS community workers in 38 parishes, the organization has naturally taken

on the challenge of shouldering almost all the problems presented by both the infected and affected (UAC, 1993).

Through its work in prevention, care and support, TASO has made remarkable achievements in bringing to the fore issues on human rights, highlighting and advocating for the rights of people living with HIV/AIDS. Through its vision of "living positively with HIV/AIDS", TASO continues to this day to be a leading advocate for those affected and infected through national and international conventions (Ntozi et al, 1999).

The organization facilitates the provision of quality HIV and AIDS services, and care to the people infected and affected by the disease through the use of established TASO centres, mobile centres, routine home visits and capacity building to scale up service delivery.

Through its efforts, TASO has successfully helped to establish and nurture other organizations including; UNASO (Uganda Network of AIDS Service Organization), KASO (Kumi AIDS Support Organization), POMU (Positive Men Union), AIC (AIDS Information Centre), NACWOLA (National Community for Women Living with HIV/AIDS in Uganda), among others (UAC, 1993).

In Kenya a national level organization for people living with HIV/AIDS has not yet emerged, however, numerous small-scale associations of people living with HIV/AIDS at the community level are evident. For example, the Kenyan Network of Women Against AIDS in Africa (KENWA), an AIDS service organisation providing support to people living with HIV/AIDS (PLWHA) in the Mathare slum area of Nairobi.

As a result of an under-resourced health-care system and a high rate of unemployment in the slum area, KENWA staff and volunteers established drop-in centres for PLWHA to receive care, support and treatment. The centres also function as meeting places for those affected by HIV/AIDS to share their experiences and lessons. KENWA centres provide home-based care and nutrition for those living in Mathare, from which KENWA outreach workers can deliver food parcels, teach basic health care and support skills and encourage neighbours to assist those who are too ill to leave their homes (NACC, 2000)

The organization operates a health-care clinic on-site, providing clinical and psychosocial care, which often reduces the requirement for hospital admittance enabling PLWHA to live with, and receive support from families and friends in their community.

Such similar organizations (some affiliated to NGOs and churches) operate independently in various parts of the country with their activities being rarely coordinated.

#### **4.6 Political commitment.**

The first initiatives to control the HIV/AIDS pandemic in Uganda can be traced back to 1986, when the Minister for health announced the existence of the disease in the country at a World Health Assembly in Geneva. This admission marked the beginning of openness about the pandemic and served as the springboard for mass awareness campaigns spearheaded by president Museveni. In his speeches as he toured the country, Museveni urged people to avoid reckless behaviour to minimize the spread of HIV. Every politician was required to campaign about HIV/AIDS at every mass gathering (Basaza et al, 2002). Such a campaign slowly demystified the disease as many people gained more insight into their vulnerability to infection and prevention measures.

Political disengagement about HIV and AIDS dominated the Kenya top political leadership until 1999 when the then president of Kenya declared HIV/AIDS a national disaster. However, there was little action following such declaration, the coordination of HIV/AIDS activities still remained weak.

The new government that came into power after the December 27, 2002 Kenya general elections as well stated its commitment to fight HIV and AIDS. The new president, Mr. Kibaki declared HIV/AIDS a health priority in his presidential speech during the opening of the Ninth Parliament (*East African Standard, February 18, 2003*).

Although it is too early to evaluate this new initiative, it is hoped that a new beginning will be realized and that, such efforts will turn round the trends in the pandemic.

## **4.7 PROGRAMME COMPONENTS**

Interventions to reduce the rate of HIV infection and control of AIDS have been pursued through seven main strategies in both countries. These include;

### ***4.7.1 Information, Education and Communication***

Efforts to promote behaviour change are largely done through information, education and communication (IEC) campaigns centered on the promotion of safer sexual practices and helping people with HIV and AIDS to live positively.

In Uganda, this strategy has attracted a large number of government institutions and NGOs. According to the 1997 inventory of CBOs/NGOs, out of a total of 1,500 agencies involved in HIV/AIDS, nearly 70% were involved in IEC work (UAC et al, 2000).

This has realized an increased knowledge on HIV/AIDS. It is estimated that two in every three persons are aware of at least two acceptable ways of protection against HIV (UDHS, 1995). According to the Uganda Ministry of health (1996), the number of sexually active persons who ever used a condom increased from 7% in 1989 to 42 % in 1995, particularly in major towns like Kampala.

Behavioral change was evident in the reduction of in the number of sexual partners. About 57% of women and 64% of men reportedly changed their sexual behaviour by restricting to one or fewer partners (UDHS 1995).

In Kenya IEC strategies have as well been widely adopted. Some considerable success has been realized in behaviour change. About 90% of men and 80% of women reported that they had changed their behaviour in some way to avoid AIDS. 18% men said they had reduced the number of sex partners and 16% of women said they had asked their spouses to remain faithful (KDHS, 1998).

However, in both countries factors such as cultural beliefs and practices, ignorance, myths and misconceptions on how the disease is transmitted still exist, and militate against successful behaviour change (NACC 2000 & Sengendo et al, 1999).



#### ***4.7.2 HIV Voluntary Counseling and Testing (VCT)***

HIV voluntary counseling and testing has been widely promoted in Kenya with the aim of encouraging all Kenyans to know their Sero-status. Voluntary counseling and testing plays an important role in both preventing HIV infection, and for people with the virus, as an entry point for the needed medical care, psychological and social support.

The Kenya program uses two models of VCT service provision: Stand alone sites and those integrated into public health facilities such as large hospitals, smaller health centers and rural dispensaries. A total of 74 both public and NGO VCT sites have been established country wide (WHO Health Services Coverage, 2002).

The rationale for VCT in Uganda is to promote safe sex practices to ensure prevention and positive living for those infected. The first Africa's confidential Voluntary Counseling and Testing (VCT) services opened in Kampala in 1990 as an AIDS information center (AIC). The AIC pioneered providing "same day results" using rapid HIV tests as well as the concept of "post test clubs" to provide long term support for behaviour change to anyone who has been tested regardless of Sero-status. By 1993 AIC was active in four major urban centers as more and more people became interested in knowing their Sero-status.

The VCT campaign has since then realized considerable progress in the promotion, and integration of VCT into health services at district levels, expansion in the supply of HIV/AIDS information and increased demand for STD treatment and counseling, particularly among those aged 15 – 24 years, the promotion of peer social support and positive living through post-test clubs and the improved quality of information provided by networks and associations of PLWHAs.

The coverage of VCT centers however remains low in both countries. Consequently, majority of the population does not have access to these services even if they wished to know their Sero-status.

#### ***4.7.3 Prevention of Blood Borne HIV transmission***

The Uganda Blood Transfusion Services (UBTS) is the national body charged with the prevention of blood borne HIV transmission through mandatory screening of blood for HIV before transfusion. It is estimated to have increased blood safety by 98% (UAC, 2000).

The Uganda Blood Transfusion Services (UBTS) has been active in supplying safe blood to almost all the hospitals in Uganda. It has its central laboratory at the Nakasero Blood Bank in Kampala, with four regional blood banks in Gulu, Mbale, Mbarara and Fort Portal.

Prevention of blood borne transmission in Kenya formed part of the Medium term plan – 1 (MTP) formulated in 1987. Its aim was to improve blood safety through blood screening before transfusion. There are about 78 screening centers spread across public hospitals in Kenya. They together with policy guidelines ensure that the safety of blood is carried out through screening of all blood for transfusion, excluding persons with high-risk behaviours from donating blood.

Blood safety is ensured through screening of blood before transfusion in all major hospitals. Since 1990, all persons donating blood are interviewed to determine those with high risk of HIV, who are then excluded from donating. However, blood safety still remains low owing to lack of proper blood screening facilities in most health institutions. It is estimated that around 10% of the HIV/AIDS patients contract the disease from contaminated blood (The Sunday Standard, August 31, 2003).

#### ***4.7.4 Prevention of Mother to Child Transmission (MTCT)***

The prevention of mother to child HIV transmission has been a focus area for interventions in Uganda. Since 1992, efforts to prevent HIV transmission through MTCT have been realized through the introduction of a “mother-baby package” which contains essential safe motherhood requirements. Traditional birth attendants have also been provided with the kits containing sterile gloves and other materials essential for the

prevention of HIV transmission among the mothers, newly born babies and the service provider.

Prevention of MTCT in Kenya focuses mainly on the use of drugs, such as AZT and Nevirapine, though other methods such as safe delivery are observed. It is estimated that between 30 and 40 percent of babies born to infected mothers in the absence of essential drugs become HIV – positive (NACC, 2000). To ameliorate this problem, the government of Kenya intends to offer free Nevirapine to prevent transmission of the virus to the unborn.

However, some challenges need to be addressed, including the sufficient supplies of the drugs, increasing the availability of other supportive programmes such as counseling, testing, follow –ups and treatment of mothers and children in their local communities.

#### **4.7.5 Antiretroviral drugs (ARV)**

The provision of essential drugs remains low in both Kenya and Uganda. In Kenya, it is estimated that, only 5% of those in need have access to ARV drugs (K'Oyugi et al, 2002). Although a legislative bill aimed at increasing access to ARV drugs was passed by parliament in 2001, the government cannot afford to provide enough drugs to health facilities due to financial constraints. A great deal of these drugs are provided by the private sector at prices that are unaffordable for the majority of AIDS patients (K'Oyugi et al, 2002).

In Uganda, it is estimated that only between 5,000 and 10,000 (0.3 – 0.5 per cent) are currently receiving antiretroviral therapy (Oxfam 2002). Most of those on treatment are privately provided and have to sacrifice other family needs in order to pay for the drugs.

The scaling up their provision has often been faced with problems associated with costs, patent rights and national legal technicalities. For example, some of the essential drugs are not registered with the Pharmacy and Poisons Board<sup>12</sup> and thus cannot be imported or licensed for supply in Kenya (K'Oyugi et al, 2002).

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<sup>12</sup> The government authority that approves and registers medicines before they can be marketed for use in Kenya.

#### **4.7.6 Social marketing**

Condom distribution has over the last years been part of a major campaign towards behaviour change. It involves the use of commercial advertising techniques such as brand names, use of TV channels and outdoor advertising.

In Kenya, condoms are distributed through the Family Planning Logistics Management Unit (FPLMU). Some are supplied to the condom social marketing Unit, Population Services International (PSI) for repackaging and later sold in the urban centers. At the community level, condom distribution is done by community based distributors (Ministry of Health, 2001).

A total of 44,121,104 condoms were received in the country in 1997, about 33 million were freely distributed by the Ministry of Health to government and district hospitals, from where they are distributed to all health facilities within the province including entertainment houses. At the community level, condom social marketing is undertaken by PSI which receives condoms from the government and donors, repackages them and sells them under the brand name "TRUST" at KSH. 10.00 (US \$ 0.14) (Baltazar et al, 2002).

In Uganda, the Ministry of Health distributes condoms through social marketing programs and commercial channels. The major brands distributed through social marketing include, 'The life guard' and 'The protector' which are sold for a price of USHS 300.00 (US\$ 0.17). (UAC, 2000) Though annual data on condoms distributed through the public sector in the 1990s is not available, but data from social marketing programs show that condom distribution has been increasing. About 300,000 condoms were distributed by social marketing in 1991, which increased to over 20 million in the year 2000 (UAC 2003).

Social marketing as adopted in the two countries rests on the appeal to consumer rationality, the commercial distribution of condoms and the involvement of the civil society in order to promote behaviour change and minimize the risk of HIV infection.

#### ***4.7.7 Treatment of HIV –Co-infections***

TB is the common infectious disease accounting for a large number of deaths in AIDS patients (Clydette and USAID, 2003). To address this problem, the Kenya government adopted the Directly Observed Therapy, Short-Course (DOTS) in 1995 and integrated TB control into the decentralised health system (WHO, 2002).

In Uganda, TB control is also integrated into the health system. Since the introduction of DOTS in 1997, 100% coverage has been realized. Treatment success rate improved from 33% for the 1996 cohort, to 61% for the 1999 cohort, with a defaulting rate of 16% for the 1999 cohort which presents a major barrier to treatment success (WHO report, 2002).

#### **4.8 Conclusion.**

National government response to HIV/AIDS in Kenya and Uganda emerged in 1985, however, during this time, responses in both countries suffered from structure and coordination problems. Following various reviews, the current National strategic frameworks for HIV/AIDS emerged in both countries.

Uganda became the first to launch a national framework with the formation of UAC in 1992. It was placed under the office of the president to ensure the proper coordination of HIV and AIDS activities. Such a move emerged in Kenya in 1999 when NACC was formed.

Unlike in Uganda, the NACC has not been offered the coordination of HIV/AIDS activities as established in the sessional paper no. 4 of 1997 on AIDS in Kenya. Although many NGOs have been involved in most of the HIV/AIDS activities, there is little coordination and supervision from the government.

The provision of antiretroviral drugs remains an area that needs more attention in both countries. Given the poverty levels experienced in both countries, private provisioning of these drugs can not be attained.

Uganda enjoys a high donor funding which is almost 2.5 times higher than that received in Kenya. External sources account for 96% of the total health expenditure in Uganda

whereas in Kenya, only 38.3% of the health budget is externally funded. The citizens have to dig deeper into their pockets with the government only providing 22.2% of the total expenditure on health.

Political commitment in Uganda has been evident in the early declaration of the HIV/AIDS as a health problem, and the consistent action toward fighting the pandemic. Such an action came after 15 years of silence about the disease when the president declared the pandemic a national disaster in 1999. However, such declaration remained just a mere rhetoric as no consistent direction was seen from the government.

Uganda has been successful in implementing the school-based interventions piloted in 1994. This is especially important in reaching the young people who are especially at risk of HIV. However, such an intervention is yet to be implemented in Kenya, representing a missed opportunity.

The association of people living with HIV/AIDS has been very active in Uganda in providing support for those infected as well as their families. It has realized numerous achievements in dealing with stigma, training local people and providing support to PLWHAs. Such a nationally coordinated organization is not evident in Kenya. Though numerous groups of PLWHAs do exist, they are rarely coordinated and operate independently as such the strength of a nationally coordinated body is yet to be realized

Faith based organizations have been quite helpful especially in providing support and care to people infected by HIV/AIDS. Though in both countries such organizations advocate for fidelity and abstinence, their non-compromising stand in Kenya from such groups has done a blow to campaigns on condom promotion and sex education in schools.

The distribution of condoms in both countries has been done with the emphasis on marketing strategies through advertising and through the use of health facilities. This in itself presents a barrier given the poor accessibility of such facilities and the ability of the poor population to consistently afford subsidized condoms.

Though both governments have made efforts in trying to ensure blood safety through blood screening before transfusion, the number of sites offering such services and the efficiency of equipment being used leaves doubts about the safety levels claimed to have been achieved.

1. The first part of the document is a letter from the President of the United States to the Congress.

2. The second part is a report from the Secretary of the Treasury on the state of the Union.

3. The third part is a report from the Secretary of the Navy on the state of the Navy.

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## CHAPTER FIVE

### **5.0 CONCLUSIONS AND RECOMMENDATIONS**

AIDS struck in the two countries in the early 80's, during at time when the World Bank and IMF were advocating for structural adjustment programmes, whose aim was to transform all the economies in the world into capitalist economies inserted in one system, under the management of international capital (Róbinson, 1997). This dealt a double blow to the health sector, which was already ill equipped to offer adequate provisioning for the countries' citizens. The few government resources dedicated to the health sector dwindled further with the cutbacks in government spending and the privatization of a large part of government services.

Most of the services in the health sector and in particular the prevention and control of HIV and AIDS have shifted to civil society. Non-governmental organizations both national and international now provide most of the services that were initially the responsibility of governments.

After a decade of the pandemic, Uganda started to experience a drop in the national HIV prevalence rates. As presented in chapter three, a reverse in the national prevalence rates started in 1992 from 24.7%, and consistently continued to decline to reach 5%, by the end of 2001. The situation was however different in Kenya. National prevalence rates picked up slowly and continued to increase with no signs of decline. National HIV prevalence rate that was recorded at 5.3% in 1990, has now increased to reach 13.5% (UNAIDS, 2002).

A series of indicators point out to the high prevalence of HIV and AIDS in Kenya. An analysis of the life expectancy at birth in both countries indicate that, for the last four years, life expectancy in Kenya dropped by 1.8 years, while a 1.9 years improvement was realized in Uganda. Crude death rate is observed to have increased from 15 deaths per 1000 population to 16, has increased in Kenya for the 1999- 2003 period, while in Uganda, crude death rate went down from 18 to 17 deaths per 1000 population over the

same period. This suggests a higher adverse impact of HIV and AIDS on the longevity of life in Kenya, which can be linked to the higher incidence of the pandemic.

As pointed out in chapter three, Kenya experiences a higher number of deaths from AIDS-related complications. Estimates indicate that, in Kenya, about 50% of all deaths are AIDS related, compared to 12% in Uganda. This coincides with the high HIV prevalence rates as well as high incidence of TB in Kenya. It is possible that most of the deaths could actually be resulting from TB.

Gender disparities in HIV prevalence are evident in both countries, however, such revelations are more pronounced in Kenya, where the male to female infection ratios stand at 1:1.5 as compared to 1:1.2 in Uganda. Most of the HIV and AIDS interventions as well as the greater social context may have missed the opportunity for addressing gender issues that expose women disproportionately to HIV infection.

Although Uganda has shown tremendous efforts in reversing the national prevalence rates, infection rates among the young people appears to be high. Children aged below 15 years account for 18.3% of the HIV positive population indicating that most of the interventions may have ignored this group. Not to deny the fact that heterosexual transmission accounts for the largest percentage of HIV transmission in both Kenya and Uganda, the large number of infections among children in both countries raises questions on the role of other mechanisms such as medical procedures in HIV transmission.

Access to drugs remains low in both countries, with only 1% of those in need have access to such drugs in Uganda and 5% in Kenya. Although cost barriers have been pointed out as a major impediment, other challenges, such as, inadequate health infrastructure, lack of adequate human resource capacity and logistics (laboratory, drug management systems, monitoring rational use) make the ability to provide these drugs even more worse.

Campaigns to create HIV and AIDS awareness have been successful in both countries, at least attaining 100% awareness. However, behavioral changes as measured by condom use in risk situations remains quite low. Most of the awareness campaigns have been based on appeal to individual choices but other areas that enable behaviour change such

as access to VCT services, affordability and availability of condoms have not been adequately addressed.

Awareness campaigns in both countries seem to have been misguided by the inadequate indicators used. Most of the awareness indicators are based on whether one has ever heard of the disease. This itself gives a false impression on the achievement of such awareness efforts. As evident from the research, though many people had heard of the disease and were aware of condoms, few knew that condoms can prevent HIV infection. Though not conclusive, this points to some of the gaps that are concealed by the claims of having attained universal HIV/AIDS awareness.

Although each country has an established national body to coordinate and oversee the implementation of HIV/AIDS activities by the various stakeholders, such a body in Kenya remains quite inactive. Despite the existence of NACC and NASCOP, most of the NGOs involved in HIV/AIDS activities operate without supervision or direction from the government. They set their own goals, and operate on their chosen locations. This has led to the obvious duplication of efforts and the disproportionate concentration of activities in some areas.

Although most of what was traditionally government responsibility in the health provisioning has shifted to NGOs and community agencies, the role of the government as a lead actor still remains viable. This is evident in Uganda where, despite numerous NGOs and high donor funding, the government has retained its ground in directing health priorities, and coordinating the activities of all stakeholders.

The strength of political commitment is evident in the way Uganda responded to pandemic. Despite the weak economic base, and the incapacity to provide services to the underserved citizens, early admission of the pandemic as a serious problem and a dedicated effort to fight the disease, managed to win huge donor funding to the health sector in general. External resources account for 96% of the government general expenditure on health as compared to 38.3% in Kenya. This has not only impacted on HIV and AIDS situation but on the overall health indicators.

Political commitment is also evident in the president Museveni's personal appeal to everyone to change behaviour and his advocacy for the 'ABC' strategy. This served well as a role model and a reference person through which new norms and behaviours were diffused into the communities. His efforts are particularly credited for ensuring commitment in other sectors in the country and the international community to fighting HIV/AIDS in Uganda.

The sustenance of action against HIV/AIDS calls for strong support from the top political leadership. It particularly ensures sustained partnerships between the various stakeholders, an element that has been conspicuously absent in Kenya. Despite the call on all sectors to take part in the fight against HIV/AIDS, the Catholic Church has resisted government initiatives to implement sex education in primary schools and to date, such an intervention has not been implemented. This is in part due the reason that all groups were not involved in the design of the curriculum or a failure to agree on the modalities of implementation.

Emphasis on HIV and AIDS awareness and the distribution of condoms has formed major part of the campaign against the pandemic. Although this is as well important in preventing further infections, this seems to have ignored the need to tackle the co-infections of AIDS such as TB. Although TB is treatable, its incidence appears to be high in Kenya, pointing out to the lack of concerted effort in fighting the co-infection. The integration TB services in to the health systems itself presents a weakness given the inaccessibility and the poor state of the health infrastructure in general.

Although an HIV/AIDS anti-discrimination bill has been passed in Kenya, the absence of a national representative body for the people living with HIV and AIDS, weakens the capacity of such people as individuals, to fight for their rights. The Uganda situation presents a strong case in point, where UGANET has made solid contribution to changes in labour laws, domestic relations laws, and offering legal service for PLWHAs and their families.

Most of the gaps apparent in the HIV and AIDS interventions can be seen as a result of inadequacies in the theoretical orientations that advise the formulation of such

interventions. If placed within the continuum of the Trans-Theoretical model of HIV and AIDS, the commonly emphasized interventions such as condom distribution and awareness campaigns tend to lean towards the individually focused extreme, ignoring the largely structural inequalities that promote HIV and AIDS. This approach creates a gap between knowledge and its application since a sustainable change in behaviour will require an environment that is enabling and not constraining. Other areas such as the provision of necessary health facilities including accessible VCTs, drugs for those already infected, and poverty alleviation (issues within the political ecology) need to be addressed as well.

### **5.1 RECOMMEDATIONS.**

The involvement of the various sectors in the fight against presents a great opportunity in the fight against HIV and AIDS. It is especially important at a time when the governments can no longer claim to cater for the health needs of all citizens. However, as evident from the Ugandan case, governments should offer direction and supervision to all activities, and set the priority areas of engagement. Strong coordination of all activities is called for in Kenya to avoid duplication of efforts and disproportionate concentration of activities in some areas.

The great opportunity presented by sex education in schools should be utilized to reach what has been referred to as the 'window of hope'. Lessons should be learned from the Ugandan experience on how the curriculum was designed and how resistance, if any, was overcome. Lessons can also be learned from Uganda's experience in order to erase the unfounded fears that, sex education will promote infidelity among the young people.

All stakeholders should collaborate in designing or reviewing the curriculum developed by UNICEF and the government in order to exploit the opportunities in school based interventions especially at a time when universal primary education has been implemented.

The new government in Kenya should learn how political disengagement led to less coordinated efforts towards fighting the pandemic in the previous government. Sound policies and intentions are already on paper, the challenge remains on the commitment to

implement them, which calls for top political commitment and a shift from rhetoric to practice.

Scaling up of awareness campaigns and the distribution of condoms are important in the prevention of new infections, especially through heterosexual transmission, however, serious attention should be paid to the care of those infected. Particularly so in Kenya where AIDS-related deaths are exceptionally high, efforts should as well focus on the common co-infections of AIDS such as TB.

The provision of ARV drugs in both countries needs to be scaled up in order to save the lives of those infected and the unborn. Access to these drugs remains unacceptably low in both countries. A combination of strategies towards this goal should include private negotiations with pharmaceutical companies, lobbying for the global price reduction, as well as local efforts to develop effective generic drugs.

The importance of strong networks for people living with HIV and AIDS has been realized in Uganda with the existence of TASO which has achieved a lot in fighting for the rights of PLWHAs and facilitating their access of quality services. Such a lesson should be emulated in Kenya by organizing all the association for people living with HIV/AIDS into a nationally coordinated body that will address the plight of PLWHAs in one voice.

Apparent gender disparities in HIV infection suggest that much needs to be done to reverse this trend. Issues of empowerment through equal to information, services and resources should be as well addressed if the epidemic is to be effectively tackled among women.

There is the need to collect specific data on the AIDS-related morbidity and mortality in both countries in order to identify avenues through which health care for AIDS patients can be scaled up. The current lumping together of all deaths as just AIDS-related conveniently, obscures the ability to draw morbidity and mortality specific interventions for AIDS patients.

There is need to scale up the provision of health services not only in relation to HIV and AIDS, but all the health needs in general. Overemphasis on HIV/AIDS prevention and control should not divert attention from other health problems such as TB, malaria and malnutrition which as well affect the mortality rates among AIDS patients. The overall strengthening of the health infrastructure will be necessary if HIV and AIDS, and other related complications are to be effectively brought to a halt.

## **5.2 AREAS OF FURTHER RESEARCH**

### ***5.2.1 Conflict and HIV transmission.***

Uganda is still experiencing internal conflicts in the north particularly in districts such as Kitgum and Gulu (Cohen, 2002), however, the country has shown considerable achievement in reducing HIV prevalence rates nationally. Further research is called for, in order to identify the regional patterns of HIV prevalence in Uganda, and help identify whether the widely asserted relationships between conflict and HIV transmission can be confirmed.

### ***5.2.2 Medical Transmission.***

The doubts raised by Gisselquist and others cannot just be dismissed without giving due consideration to the fact that, many infections are increasingly being found among young children who are not yet sexually active in both countries. A consistent research is called for, particularly by following the histories of the infected children to ascertain whether their mothers were HIV positive. This will clarify doubts about iatrogenic transmission, and provide opportunities for dealing with the infection among children.

1. The first part of the paper is devoted to the study of the properties of the function  $f(x)$  defined by the equation

$$f(x) = \int_0^x \frac{1}{1+t^2} dt, \quad x \in \mathbb{R}.$$

It is well known that this function is the arctangent function, i.e.,  $f(x) = \arctan x$ .

2. In the second part, we consider the function  $g(x)$  defined by the equation

$$g(x) = \int_0^x \frac{t}{1+t^2} dt, \quad x \in \mathbb{R}.$$

It is easy to see that this function is the logarithm of the square of the square root of  $1+x^2$ , i.e.,  $g(x) = \frac{1}{2} \ln(1+x^2)$ .

3. In the third part, we study the function  $h(x)$  defined by the equation

$$h(x) = \int_0^x \frac{t^2}{1+t^2} dt, \quad x \in \mathbb{R}.$$

It is not difficult to see that this function is the difference between the function  $g(x)$  and the function  $f(x)$ , i.e.,  $h(x) = g(x) - f(x)$ .

4. In the fourth part, we consider the function  $k(x)$  defined by the equation

$$k(x) = \int_0^x \frac{t^3}{1+t^2} dt, \quad x \in \mathbb{R}.$$

It is easy to see that this function is the difference between the function  $h(x)$  and the function  $f(x)$ , i.e.,  $k(x) = h(x) - f(x)$ .

5. In the fifth part, we study the function  $l(x)$  defined by the equation

$$l(x) = \int_0^x \frac{t^4}{1+t^2} dt, \quad x \in \mathbb{R}.$$

It is not difficult to see that this function is the difference between the function  $k(x)$  and the function  $f(x)$ , i.e.,  $l(x) = k(x) - f(x)$ .

6. In the sixth part, we consider the function  $m(x)$  defined by the equation

$$m(x) = \int_0^x \frac{t^5}{1+t^2} dt, \quad x \in \mathbb{R}.$$

It is easy to see that this function is the difference between the function  $l(x)$  and the function  $f(x)$ , i.e.,  $m(x) = l(x) - f(x)$ .



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1. What is the main purpose of the study?

2. What are the research objectives?

3. What is the significance of the study?

4. What is the scope of the study?

5. What is the methodology used in the study?

6. What are the results of the study?

7. What are the conclusions of the study?

8. What are the limitations of the study?

9. What are the implications of the study?

10. What are the future research directions?

11. What is the overall conclusion of the study?

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## APPENDICES

### Appendix 1.0

#### HIV Adult Prevalence (%). 1990 - 2001

YEAR	UGANDA	KENYA
1990	19.9	5.3
1991	21	6.6
1992	24.7	7.4
1993	20.1	7.8
1994	18.8	9.0
1995	18	11
1996	15.3	11.9
1997	14.7	12.8
1998	9.5	13
1999	8.3	13.1
2000	6.1	13.3
2001	5	13.5

Source: Uganda STI/ACP Surveillance report 2001, NACC 2000 & UNAIDS 2002.

## Appendix 2.0

### Customized Country Comparison Report

Indicator	Year	Kenya	Uganda	Source
Human development index (rank).	2000	134	150	<u>UNDP, 2002</u>
Gini index.	1987-2000	44.9	37.4	<u>UNDP, 2001</u>
Infant (Ages 0-1) mortality rate (per 1,000 live births).	2001	78	79	<u>UNICEF, 2003</u>
Under-five mortality rate (per 1,000 live births).	2001	122	124	<u>UNICEF, 2003</u>
Maternal mortality ratio (per 100,000 live births).	2000	1300	1100	<u>UNFPA, 2002</u>
Total population (millions).	mid-2002	31.1	24.7	<u>PRB Data Sheet, 2002</u>
Gross national income (US\$ per capita).	2001	340	280	<u>World Bank, 2003</u>
Gross domestic product (US\$, millions).	2001	10,419	5,707	<u>World Bank, 2003</u>
Population below poverty line (%)	1987-2000	42	55	<u>UNDP, 2002</u>
Health expenditure, private and public (US\$ per capita).	1998	31	18	<u>UNDP, 2002</u>
Births attended by skilled health staff (%).	1995-2000	44	38	<u>UNDP, 2002</u>
Prevalence of child (ages 0-5) malnutrition (%).	1993-1999	22	26	<u>World Bank, 2001</u>
Access to essential drugs (%).	1999	0-49	50-79	<u>UNDP, 2002</u>
nd = No data				

Source data: <http://hivinsite.ucsf.edu/global>.