**OVERVIEW AND INFORMATION ISSUES
CONCERNING THE HIV/AIDS SITUATION IN
AFRICA**

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ABSTRACT
*The paper examines the information and knowledge issues concerning the HIV/AIDS
pandemic in Africa. The paper starts by presenting an overview of the HIV/AIDS
pandemic citing evidence which shows clearly HIV/AIDS is spread out in Africa, the
hardest hit continent. The impact of HIV on the youth, women and girls, and orphaned
and vulnerable children (OVCs) is explored and reasons for the high levels of infections
presented. This outline provides the backdrop for analyzing the HIV/AIDS information
and knowledge issues which include overlapping information functions and
responsibilities which have led to the emergence of a non traditional scientific
communication model; the absence of an HIV/AIDS infostructure and infrastructure at
grassroots level leading to an information vacuum in places away from the major urban
areas; and the negation of the impact of information on behaviour change because of
socio-economic and cultural factors. The final section proposes knowledge management
at national and grassroots level as the best way to improve the local production, transfer
and sharing of HIV/AIDS knowledge and information in Africa which will lead to
innovation and concrete action to curb the spread of the disease.*

1.INTRODUCTION

The purpose of this paper is to present an overview of the HIV/AIDS pandemic in Africa
and the knowledge and information issues which have arisen as part of the HIV/AIDS
prevention process. Apart from the abstract and this introduction, the paper has four other
sections. The second section provides an HIV/AIDS map of Africa showing the most
affected countries and the levels of prevalence. Section three explores the policy
framework for HIV/AIDS prevention. Section four and five investigates information

issues and knowledge management issues respectively whereas section six provides a summary and conclusions to the paper.

2. HIV/AIDS MAP OF AFRICA

2.1. The World Wide Situation of HIV/AIDS

The impact of HIV/AIDS, since it was first reported 26 years ago, has been a catastrophe in the World and WHO estimates that AIDS has killed an estimated 25 million people since 1981 (WHO Health Report, 2004) An estimated 2.8 to 3.6 million people died of AIDS or related complications in 2005 of which 570,000 were children (Wikipedia 2006). It is estimated that currently around 46 million people are living with HIV/AIDS world wide.

The most explosive growth of the epidemic has occurred in Africa starting from the 1990s. WHO (and numerous other sources) points out that although Africa has only 11% of the World's population, it has 75% of people living with AIDS in the world. Africa is estimated to have 29 million people living with HIV/AIDS, most of who are in Sub-Saharan Africa (WHO 2004)

2.2 PATTERN OF HIV/AIDS IN SUB-SAHARAN AFRICA

Sub Saharan Africa is the hardest hit region in Africa. The adult prevalence rate average is 7.2 (Wikipedia 2006, WHO 2004). Table 1 provides data from the most affected countries in Africa.

Table 1: HIV Prevalence in Africa

Country	HIV prevalence 2003 (%)	HIV prevalence 2005 (%)
Mali	3.3	4.5
Cameroon		11
Uganda	4.1	6.7
Ethiopia	4.4	1.4
Rwanda	5.1	5
Nigeria	5.4	4.4
Kenya	6.7	6.1
Tanzania	8.8	6.5
Mozambique	12.2	16
Malawi	12.4	14.1
Zambia	16.5	19.5
Namibia	21.3	19.6
South Africa	21.5	30.2
Lesotho	28.9	23.2
Zimbabwe	33.7	20.1
Botswana	37.3	33
Swaziland	38.8	33.4

Source: WHO 2004, UNAIDS 2006.

However, as indicated in table 1 above, the actual prevalence rate within Africa varies widely between regions of Africa and between regions in the same country. Southern Africa is the most affected, with an adult prevalence rate exceeding 20% in most countries in the region. A few countries such as Botswana, Swaziland and Lesotho have prevalence rates exceeding 30%. West Africa, stand at between 5% and 11% , while some countries in West and Central Africa have slightly lower prevalence rates ranging from 2-3% (WHO 2004).

In Africa, the main transmission route is unprotected sexual intercourse between men and women, and women are more likely to be infected than males because of gender and unequal power relations, poverty, and biological differences (WHO 2004). Other routes of infection include prostitution, unprotected sex during men to men sexual relations, and mother to child infection. The increased male to male sexual relations are prominent in prisons where HIV infections are very high. It means that when infected prisoners serve their terms this will be another conduit of transferring infections to their spouses and girlfriends (UNAIDS 2006).

Another pattern is that the most affected are young people between the age group of 15 and 24 years old. It has been claimed that in this age group there are 36 young women living with HIV for every 10 men. There are several reasons for this gender pattern in HIV prevalence. One is the practice of older males to have sexual relations with younger women, who are interested in such relations for monetary gains because of poverty. There are also biological reasons as the young women are sometimes not yet fully developed and this increases their chance of contracting HIV/AIDS. The older males quite often prefer to have unprotected sex with younger women, which puts them in greater danger of getting infected by their male partners (*so called sugar daddies*). Many young people are at increased risk sexually because they do not perceive themselves to be at risk, even if they are in countries where the prevalence rates are very high (UNAIDS 2004, UNAM 2000). A study carried out in northern Namibia among young people for example, showed that many still have the wrong impression of an HIV positive person. The respondents in the study said they recognized someone who is HIV positive because it will be *"someone who has sores in their mouth, long nails, some of the hairs have fallen off, and the hair has turned grey prematurely."* (University of Namibia 2000:26) Several respondents in the above study made the point that they think of HIV positive people as having a fearful appearance. The perceptions of the youth show their inability to see the danger because one can't tell who is HIV positive, hence the need to take precautions all the time for those who are sexually active. In cases where infection has taken place, however the same statement explains the great level of stigma and discrimination based on fear and lack of information.

Because HIV/AIDS has struck at the youngest and most economically active segment of the population in Africa, its impact has been very severe. Villarreal (2006) pointed that, the loss of young and skilled manpower which results in loss of income, knowledge, skills, productivity, capacity in the household, and consequently in a loss of capacity for service provision, institutional performance, communication, productivity and capacity for good governance at community and national levels. He further noted, that AIDS has

subtracted decades of achievements in socio-economic development in Africa, undermining countries efforts to reduce poverty and enhance living standards. It is one of the root causes of crisis that put almost 15 million persons at the risk of famine during the 2002-2003 droughts. It has brought down life expectancy to less than 35 years in the most affected countries. It has created massive losses in human capacity in all sectors as well as severe governance difficulties (Villarreal 195; Marcela 2006: 199).

The governments in Africa are losing for example: teachers, extension workers, health workers, lecturers, politicians, law enforcement agents, judicial, financial officials and traditional leaders. This loss results in shortages of skilled manpower, decreases productivity and increases of movement from rural to urban for people to look for jobs in order to augment income in their families.

In all affected countries, the epidemic has drained government resources especially in the health sector. As the demand for care for these living with HIV rises, the number of health workers is decreasing due to the infection and inadequate hospital infrastructures like medical professionals to administer the provision of antiretrovirals (ARVs).

2.3 THE IMPACT ON CHILDREN

Children have been badly affected by the epidemic in Africa. The increased number of adult deaths has resulted to an increased number of AIDS orphans. As Lewis (2005) pointed out, the increased spiral of adult deaths in so many countries means that the numbers of children orphaned each day is expanding (Lewis, 2005:1). At the end of 2001, an estimated 14 million children worldwide had lost their mother, father or both parents to AIDS or related causes. Sub-Saharan Africa is the most severely affected, accounting for more than 80 percent of those orphaned as a result of AIDS. Without the care of parents or an appointed caregiver, children are likely to face extraordinary risks of malnutrition, poor health, inadequate schooling, migration, homelessness and abuse (Shetty and Powell, 2005: 25). In some cases, children are forced to stop schooling so that they can care for sick parents or relatives and also look for jobs.

2.4 THE IMPACT ON WOMEN AND GIRLS

To make the situation worse, most young people aged 15-24 living with HIV/AIDS in southern Africa are female. Although HIV/AIDS affects both men and women, women are more vulnerable because of biological, epidemiological and social reasons. As this was found out in a study, gender inequality fuels HIV infection because many women and girls cannot negotiate safer safe or turn down unwanted sex. The research also found that, HIV/AIDS deepens and exacerbates women's poverty and inequality because it requires then to do more domestic labour as they care for the sick, the dying and the orphaned (HIV/AIDS Task Force, 2004:1). Women find themselves at high risk of HIV infection because of their lack of power. Because of cultural beliefs and expectations they can't suggest the use of condoms. And as a result of violence women and girls have been sexually assaulted and infected. In cases where HIV infection has occurred, women are the likeliest to take care of a family member who is living with HIV/AIDS (UNAIDS

2006). This may increase their chances of infection especially where knowledge of prevention is lacking.

3 POLICY RESPONSES TO HIV/AIDS BY AFRICAN GOVERNMENTS

3.1 POLICY FRAMEWORK AND ACCESS TO ARVS

Most African countries in Sub-Saharan Africa have responded to the HIV pandemic by setting up National AIDS Control Programmes located in their Ministries of Health. The main policy focus for such programmes has been the HIV prevention and awareness campaigns by disseminating information on the dangers of the disease to the whole population. For example, Namibia, Botswana, Lesotho and many other countries in Africa, have a multi-sectoral response to HIV prevention. (UNAIDS 2006; Namibia 2004).

The slight decrease in infection rates in many countries and the policy of Governments and the donor community to provide antiretroviral medication offers new hope to Africa. Access to antiretroviral therapy has significantly prolonged lives and improved the quality of life for people living with HIV in the western world and has resulted in a dramatic decline in AIDS deaths in these countries (Piot, 1998:9). In Africa, there are a lot of challenges which governments and people face in accessing antiretroviral treatment (ARV) which will prolong people's lives. A project by Doctors Without Borders (Medecine Sans Frontieres (MSF) which started in the1990s by offering treatment to more than 57,000 people living with HIV/AIDS in 50 projects in 29 countries has enumerated some of the challenges. These are lack of human resources in Africa, insufficient political commitment among national governments; increasingly complex clinical challenges (like management of TB/HIV co-infection, monitoring drug toxicity, detecting treatment failure); donor policies that slow the disbursement of multilateral funds (e.g. Global Fund and PEPFAR) or disregard for international standards and, occasionally, national policies; cost-recovery systems that act as financial barriers to access; and inadequate investment into research and development to develop preventive, diagnostic, and therapeutic tools specifically adapted to the needs in resource-limited settings; difficulty of treating children living with HIV/AIDS (diagnosing children under 18 months old is very difficult with current methods, thus delays in starting treatment and the existing ARVs for children are poorly adapted for use in resource – poor settings). For example syrups need to be refrigerated, powders require clean drinking water and getting the dosage right is difficult when administering liquid formulation; and the AIDS drug pricing crisis (MSF's Projects for People with HIV/AIDS, n.d:1).

Apart from the challenges of access to ARVs, some countries have managed to reduce the infection rate using different methods. As Piot (1998) postulated in Uganda, delayed sexual intercourse, increased use of condoms, and fewer sexual partners have reduced the 40% prevalence rate among pregnant women. In Senegal, prevention efforts appear to have reduced rates of sexually transmitted diseases and stabilized HIV rates at low levels of less than 2 percent among sexually active adults. In northern Tanzania, the sign of an HIV turnaround has also been seen among young people due to active prevention

programs. The prevalence rate fell by 60 percent over a period of six years (Piot, 1998: 9).

3.2 STRATEGIES FOR COMBATING THE SPREAD OF HIV/AIDS IN AFRICA

The strategy for combating HIV in Africa is based on the ABC model (Abstain, Be Faithful, Condomise). Kiai (2000) notes that the aim of the behavior change approach is to encourage those who are HIV status negative to either abstain or condomise, or be faithful to a mutually faithful partner, and those who are sexually active to condomise or be faithful to one partner. The basis of the ABC approach is to divide the target group of those who are risk to three groups – those who are single and have not yet had any sexual experience, those who are married or are in stable relationships, and those who are sexually active with more than one partner. The ABC approach is based on the Knowledge, Attitude and Practice (KAP) sequence of decision making among people. It has been criticized as being linear in its approach to human behaviour change. (Lupton 1994:2) cautions that the approach fails to recognize that health knowledge and behaviours are complex and have developed over the course of the individuals lifetime as part of everyday activities, and which have meaning and make sense to the individual.

4. INFORMATION AND KNOWLEDGE ISSUES

4.1 HIV/AIDS INFORMATION ISSUES

HIV/AIDS has no cure and since the early days when the epidemic broke out, information was seen as a critical resource in efforts to create awareness and prevent the spread of HIV, manage complications that accompany the diseases, and prolong the lives of people living with HIV/AIDS (PLWHAs) (Hogan and Palmer 2005:2). It is generally accepted that although information is seen as the solution, applying it to stop the pandemic has not been easy because of a complex information situation.

One of the complexities comes from the overlapping roles of creators, providers and seekers of information. Gin (1987) identifies the overlap in the information functions and responsibilities of the five sectors responsible for primary production of HIV information, namely: service organizations, health professionals, consumers, governments, and the media. Others authors have noted that there exists a non traditional scientific communication model whereby those considered information consumers become information producers, and those traditionally considered information producers (e.g. health professionals) act as information consumers. The confusion of information roles, for example, means that most of the HIV/AIDS information is published and distributed outside of traditional publishing channels, is not catalogued or indexed, and thus not found in most health collections in bookshops and libraries (Hubert 1996: Mchombu 2000).

Several authors have concluded that HIV/AIDS information production is dominated by grey literature and other ephemeral publications. Hogan and Palmer (2005) and Mchombu (2000) all conclude that the dominance of grey literature which is produced at

all levels of government, academia, business and industry, National AIDS Control Programmes, social marketing and advertising agencies, and others in both print and electronic formats, is produced by agencies without much experience in publishing and it is thus not surprising that the publications are difficult to trace and dissemination/distribution is often very poor. As a result of this situation, potentially powerful information does not get into the hands of individuals and organizations that could benefit from it (Hogan and Palmer 2005:423)

Another important pattern is that, in Africa, access to HIV/AIDS information is mainly through radio, health personnel, local leaders, peers, family members, NGOs, and schools (Manda 2006; University of Namibia 2000). Overall, among these channels, radio is the dominant one because of affordability, especially for those who live in rural areas. For town dwellers in Africa, television is a major channel for accessing HIV/AIDS information. The main issue here is that electronic media does not provide a permanent record for the person to refer to later and may lead to the acquisition of superficial knowledge on a very important health problem. For awareness raising, mass media plays an important role, but for the other stages of behaviour change, including taking action most individuals require a source of information they can use/keep to support the new behaviours.

4.2 HIV/AIDS INFOSTRUCTURE AND INFRASTRUCTURE AT GRASSROOTS LEVEL IN AFRICA

Most of the population in Africa resides in rural areas rather than in urban areas. Although the pattern of HIV/AIDS infections when the epidemic broke out was mostly in urban areas, there is evidence now that in many countries the epidemic is spreading to rural areas as well. One way of combating this spread is to ensure that there are an adequate HIV/AIDS infostructure and infrastructure at grassroots level to ensure there is a sufficient flow of HIV/AIDS information to the majority of the population in most African countries. Manda (2007:174) found out in a study carried out in Tanzania that government and civil society organizations and local organizations were undertaking HIV/AIDS prevention activities without adequate information about what is happening in the districts and villages under their jurisdiction. Manda notes further that a formal forum for sharing information, experiences and ideas was weak or totally absent. This information vacuum leads to a situation where visionary leadership to address the pandemic is not there as the seriousness of the situation is often underestimated. Other studies have also confirmed that quite often HIV/AIDS awareness is very low in districts and rural areas partly because of the poor flow of HIV/AIDS information to the grassroots level in Africa (UNAIDS 2006).

4.3 THE ROLE OF SOCIO-ECONOMIC AND CULTURAL FACTORS IN THE TRANSFER OF HIV/AIDS INFORMATION

The transfer of HIV/AIDS information is important in creating awareness but what is critical to defeating HIV/AIDS is the extent to which information is followed by action in the form of new or modified behaviors. The transfer of information and action must thus

be viewed as one continuum, which becomes complete if it leads to new behaviours. In assessing the transfer of HIV/AIDS information guided by the ABC model of behaviour change within the KAP framework, it is important to take into account the role played by socio-economic and cultural factors in achieving the goal of changing behaviours to conform to the KAP framework. Manda (2007) for example notes that quite often the information provided is negated by these other factors which were not taken into account in disseminating the HIV/AIDS information.

Similar to the study by Manda (2007) a series of studies conducted at the University of Namibia (2000), found that culture determines gender and sexuality roles in the transfer and implementation of HIV/AIDS information by an individual. For example, in Africa, normally men have power over sexual relations and decide whether, when, how to have sex with or without a condom. The information which a female may have is often disregarded in this interplay of male power, culture and economic power.

The economic power men have over women is an important issue because it also determines patterns of sexual networks and use and application of HIV/AIDS information. For example, males may have HIV/AIDS information yet because of their economic power, and cultural norms, seek multiple sexual relations outside marriage. A stark example of this is narrated by Robert Guest (2004:93) who interviewed truck drivers at a truck stop at Beitbridge on the border between Zimbabwe and South Africa. The drivers boasted how they f…d thirty bitches a month because this was the only entertainment in Beitbridge. The truck drivers knew how the virus spread, and how to protect themselves. They claimed they condomised with most women but not the most beautiful ones. Some laughed at this and reported they only used condoms when they were not drunk. They lived a dangerous life and they wanted to enjoy while they can. Most had wives who they met once a month and did not use a condom. The prostitutes they slept with understood the risks but will have sex with any man - trucker, tourist or local guy with or without a condom because they needed the money. Sex without a condom paid more and they needed money to survive as there was no other option!

The paraphrased paragraph above captures most of the problems found in the African environment which make it difficult to translate HIV/AIDS information into action to combat the disease.

5. KNOWLEDGE MANAGEMENT AND HIV/AIDS MANAGEMENT

The extent of the devastation caused by the HIV/AIDS pandemic in Africa is nothing short of catastrophic. The figures speak for themselves: UNAIDS (2006) estimates are that there are between 21.8 and 27.7 million PLWHAs in Africa; 2.4 million deaths each year; but only between 930,000 – 1.5 million are receiving ARVs treatment each year. Knowledge management (KM) and its efficient communication within countries would go along way to address some of the issues identified elsewhere in this paper on how to deal with the HIV/AIDS pandemic. A simple description of knowledge management states that KM "*is the leveraging of collective wisdom to increase responsiveness and innovation to a problem*" (Frappaolo 2006:8). Knowledge in KM exists as a collective

wisdom, which is made up of all individuals with their multiple experiences and perspectives that are facing a situation on a daily basis. KM is also a catalyst for action because leveraging knowledge requires it to fit the environmental conditions and stimulates a response to the existing conditions. The renowned American strategic management thinker, the late Peter Drucker has insisted that knowledge for the most part exists only in application. ((Frappaolo 2006:8; Drucker 1973). The strong link to action differentiates knowledge from information which does not have to end in any active implementation.

A knowledge management system on HIV/AIDS would thus aim to collect together all relevant information (both explicit, i.e. published and tacit, i.e. experiential). The knowledge resource should include the innovations individuals and groups have come up with to address the HIV/AIDS pandemic from the grassroots level to the highest level in a country.

There are many knowledge management tools also which would systematize the sharing and ownership of HIV/AIDS knowledge by the various groups involved in fighting the pandemic and ensure they avoid re-inventing solutions which have already been discovered elsewhere. KM has a wide range of tools which could be applied to combat HIV/AIDS including: 'Knowledge mapping and auditing' to establish how HIV/AIDS knowledge is flowing between the various groups involved in fighting the pandemic; identifying and sharing 'best practices' and establishing 'communities of practice' and 'social networking' which are tools used to transfer 'best practices' within the country and from neighbouring countries to quickly address and improve the situation. Other tools such as 'knowledge harvesting' 'exit interviews' could be used to capture knowledge and build up the HIV/AIDS knowledge base through interviewing individuals who have excelled in their practices and have obtained good results which can be quickly replicated throughout a country or district. 'After Action Review' and 'lessons learned' are KM tools aiming to learn quickly from experience and ensure that the experience of one group benefits other groups who may not have been directly involved in their activities.

The main issue to be addressed by a KM approach is to stimulate the production and capture of existing HIV/AIDS experiential knowledge at local and national levels which will lead to ownership of the strategy to fight the pandemic. At present there is high dependence on a few powerful international and multilateral agencies to find solutions to the HIV/AIDS pandemic, and it is not going to be easy to find sustainable strategies if the high level of external control is not replaced by national and local control. Without tapping into local and national knowledge, control will always be in the hands of the external agencies which means the HIV/AIDS pandemic will take much longer to bring under control.

Knowledge gathering as proposed here is just half the battle. Ensuring that such knowledge is communicated and shared as widely as possible is the other side of the coin otherwise it is not worth all the expense made to build a national HIV/AIDS knowledge system WHO (2004) has recognized that there has been progress in the creation of good

communication strategy using information communication technology (ICTs). The World Health Organization and other writers (such as Bailey 2004; Manda 2007) have all called for putting in place a technology communication infrastructure to share and transfer HIV/AIDS knowledge more effectively. Such an infrastructure is at present largely lacking in Africa. However bits and pieces of it are there and they only need to be woven together into a system, which would include both the old communication technologies (radio, television, newspapers, and telephones/cell phones) as well as the new technologies (internet, intranet, patent information database systems, satellite and wireless technology). In the best tradition of knowledge management, the HIV/AIDS knowledge system would be built by all those who use it form the health professionals, policy makers, to district level planners, to ministers and researchers and home-based caregivers as well as patients.

6. SUMMARY AND CONCLUSIONS

The paper has set out to provide an overview of the HIV/AIDS situation in Africa in which it is pointed out that Africa is the hardest hit continent by the HIV/AIDS pandemic. The trend in the most affected countries is that the pandemic has stabilized but this is not irreversible because behaviour change among those at risk has not fully shifted to the point where the rollback can be said to have started. Equally important is the lack of political ownership of the HIV/AIDS prevention strategies by African countries that have delegated this task to multinational bodies and the international community. The discussion on knowledge and information issues highlights some of the problems with both published and tacit knowledge on HIV/AIDS which make it difficult to acquire the literature and build viable and powerful collections to fight the pandemic. The solution suggested in the paper is a knowledge management route which has many tools which could be used to generate, store/retrieve and share knowledge which is produced cooperatively and in collaboration with all the role players and made accessible to all who need such knowledge in order to have a knowledge management based approach to the fight against the HIV/AIDS pandemic.

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