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## **Societal Beliefs, Scientific Technologies and HIV/AIDS in Africa: Facing the Challenge of Integrating Local Communities in Kenya and Zimbabwe**

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Of the many catastrophes that the African continent has faced, HIV/AIDS is grouped among the most threatening cataclysms. The disease and its repercussions not only affect families and communities, but also have a devastating impact on different sectors of the economy including health, labour, education and security issues. Immense human suffering has been experienced for the past 25 years, with young children being forced into adulthood before they are ready, among other upheavals. Amidst these misfortunes, tremendous scientific advances have been made; some of which have fairly succeeded, whereas others have had heart-breaking setbacks. Given this background, it would be relevant to raise a wide range of questions especially those aimed at understanding why the myriad of efforts by the various parties have not realized the desired results. To do this, this paper draws attention to local community settings, especially in Africa, and focus on village set-ups, probing into the nature of the approaches to combating the pandemic. Given the issues surrounding the spread of the virus including, but not limited to stigmatization/discrimination, sexuality, modes of transmission, cultural beliefs and practices, trauma, health care services, aid organizations as well as governance issues, we raise questions that cut across the societal belief terrains on the one hand, and scientific/technological advancements on the other. This paper explores questions such as: to what extent are cultural practices part of the unbreakable barriers in the efforts to combat the pandemic? Are cultural contexts of local communities misunderstood? How can a focus on participatory approaches and not diagnostic measures help? How best can a sustainable integration of scientific and social aspects be achieved in the search for solutions? To address these and other related questions, the argument will be informed by examples from Kenya and Zimbabwe, looking at how particular 'scientific' and 'local' communities have engaged in efforts to integrate their efforts towards combating HIV/AIDS.

*Key words: HIV/AIDS, societal beliefs, scientific technologies, Africa, integration, local communities*

### **Introduction**

*Building a case for greater recognition of societal beliefs and practices*

We present in this paper a number of factors that are profound and eminent in the spread of HIV/AIDS in some parts of sub-Saharan Africa (SSA), and argue that viable solutions to these challenges lie no further than the macro and micro-contexts of the affected countries. In as much as the scientific communities are deploying various approaches and remedies in trying to address the problem, we draw attention to socio-cultural factors within the affected communities, using our own first-hand field

experiences and observations to illustrate the critical role that these factors play in effective harnessing of solutions. While recognizing the indispensable role of health technologies in the HIV/AIDS health challenge, our paper builds a case for close recognition of societal beliefs and indigenous practices, not only with respect to the indigenous knowledge on traditional medicine systems as championed in most writings (cf. Kaya, 2009) (because this often portrays curative agents as effective regardless of the context), but extending this to broader socio-cultural practices which inherently affect development and delivery of both 'western' and traditional knowledge and innovations.

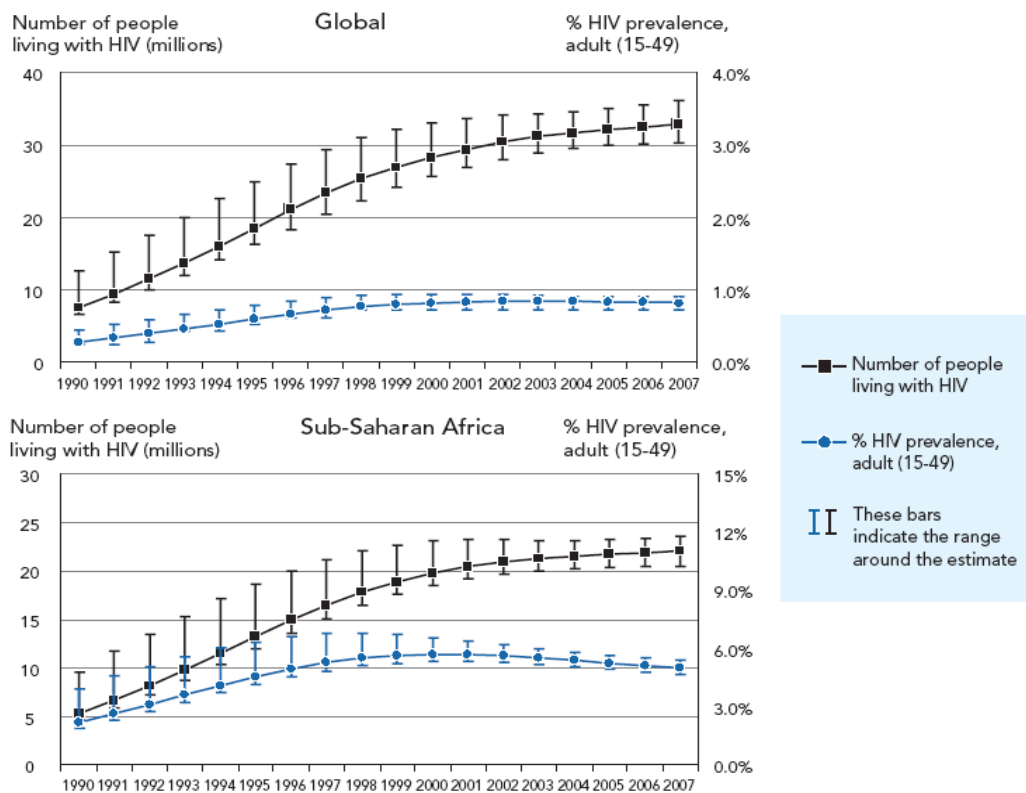
Drawing on empirical evidence from Kenya and Zimbabwe, we argue for participation and engagement of communities which goes beyond the search for a cure, to how best to deliver curative agents in ways amenable to societal beliefs and customs. Society also has a role to play in adjusting and /or disengaging from practices that threaten these collective solutions, and in this regard we argue for broad-based, trust-motivated engagement platforms where both society and developers of technologies emerge as winners. We present our argument in three broad sections; the first tackling the broader issues around the epidemiology of HIV/AIDS and technological efforts to confront the challenge; the second focusing on community-level interventions to combat this disease, looking specifically at how health technologies interface with community. The third and final section analyses and discusses lessons emerging from the technology-community interface and raises critical questions for both theory and practice on how best community beliefs and practices can be mainstreamed in the quest for solutions to the challenge.

There are both objective and subjective reasons for our argument: objectively because we feel that there has been less focus on societal beliefs and how they refract innovations, and subjectively given our professional persuasions, in which we work with the technologies and with communities alike. On the other hand, the countries from which we draw examples have faced similar socio-economic and political crises in the recent past (2007/8). We observe that the HIV/AIDS agenda might have been pushed down the list of priorities, as such, creating both urgency and necessity for broad-based efforts to ensure that interventions are not futile.

### **HIV/AIDS in Sub-Saharan Africa – Facts and Figures**

Sub-Saharan Africa has been under the spotlight for a long period of time in relation to the HIV/AIDS pandemic. In most countries of this region, the first cases of HIV infection were detected in the mid-1980s, with infection rates rising astronomically over the years. Some of the more recent statistics show that Sub-Saharan Africa accounted for 67% of all people living with HIV/AIDS and 72% of AIDS deaths in 2007 worldwide (A. de Waal and Joshi, 2008). The global epidemic is stabilizing but at a very low pace. Globally, there were an estimated between 30 and 36 million people living with HIV by the end of 2007. The annual number of new HIV infections declined from between 2.6 and 3.5 million in 2001 to between 2.2 and 3.2 million in 2007. Of significance is that the annual number of new HIV infections among children worldwide has declined since 2002, as services for prevention of mother-to-child transmission (PMTCT) have expanded. Meanwhile, globally, the number of children younger than 15 years living with HIV increased from 1.6 million in 2001 to 2.0 million in 2007. Almost 90% of these live in sub-Saharan Africa. The data below as provided by UNAIDS (2008) in the Global HIV Epidemic Report gives a summary of the new HIV statistics.

**Fig. 1 and 2: World and SSA HIV Statistics (2008)**



Note: Even though the HIV prevalence stabilized in sub-Saharan Africa, the actual number of people infected continues to grow because of ongoing new infections and increasing access to antiretroviral therapy.

Though the numbers stabilized both at the global and local levels between 2002 and 2003, it cannot be claimed that the virus has been meaningfully managed because of the existing high prevalence. In both Eastern and Southern Africa, confronting the HIV/AIDS challenge has had to deal with denial, confusion, as well as lack of awareness, resulting in silent, yet rapid spread of the virus, especially in the first two decades. By the year 2000, southern and eastern Africa countries were coming face to face with the sense of catastrophe that HIV/AIDS was causing, and what was to come –not only in terms of lives lost from the pandemic and allied complications, but also in terms of secondary impacts of the crisis arising from the collapse of certain key institutions, including health and education (A. de Waal and Joshi, 2008:217). The weakening and/or collapse of key institutions as a result of structural adjustment programmes (SAPs) of the 1980's in most African countries did not help matters, especially because of the stringent requirement for cutting back on government social spending (including health). This accelerated the decline in health infrastructure in most African countries, resulting in deteriorating health delivery systems. Other problems ranging from perennial maladministration at various governance levels to the current global economic crisis have not only shrunk the aid-dollars for African health, but have also shifted the focus on African health issues to lower levels.

The foregoing statements should not be taken to mean that African governments have given up on the HIV/AIDS fight. In fact, amidst all this, there is sustained enthusiasm that emerging scientific and technological developments as well as related institutional arrangements present Africa with a golden opportunity to address health challenges. This techno-centric confidence is echoed by the UNDP (2001), who argue that 'technology-supported advances in health, nutrition and crop yields are not just one-

time gains, but typically have a multiplier effect which feeds back into human development ...'. The following section gives examples of the technological advances that have fueled this enthusiasm.

### **Technological advances for combating HIV/AIDS**

There have been many attempts at identifying technologies that appear to provide significant opportunity in combating diseases of the poor in Africa (cf. Jamison *et al*, 2006a; Grand Challenges in Global Health, 2005; UN Millennium Project, 2006; Daar *et al*, 2002). In particular, increased importance is being placed on biomedical and biotechnical advances in the life sciences, biotechnology and other technological advances over more systemic and social based technological advances to control diseases affecting developing countries. Of note are two reports which highlight these differences: the 2002 'Top Ten Biotechnologies' report (Top 10 report; Daar *et al*, 2002) from a group at the University of Toronto and the more recent Disease Control Priority Project's second report (Jamison *et al*, 2006a).

Daar *et al* (2002) outline the results of an in-depth survey of 28 eminent scientists and health policymakers to identify priority technologies to be used to improve the health of populations in developing countries. The report listed the following 10 biotechnologies as having the potential to improve health in developing countries: molecular diagnostic tools such as PCR (polymerase chain reaction); recombinant vaccines; vaccine and drug delivery systems; bioremediation (for environmental improvement); sequencing pathogen genomes to identify new anti-microbials; female controlled protection against sexually transmitted infection; bioinformatics; nutritionally enhanced genetically modified crops; recombinant therapeutic proteins and; combinatorial chemistry for drug discovery. Jamison *et al* (2006a) outline – amongst other things – the science and technology with the potential for future disease control in terms of biomedical research. What is important to note at this point is that the Top 10 report is exclusively dealing with technological advances relating to biotechnology acknowledging the potential of genomic based solutions outlined in the 'Genomics and World Health' report (WHO, 2002). It is principally an exercise in foresight that places the emphasis on scientific progress. The DCP2 report does place an emphasis on biotechnology based solutions but it does not focus exclusively on them. The focus of this report is on disease control more generally and how to reduce the incidence of disease within developing countries. In particular the emphasis is placed on where to allocate scarce resources within the health system. The report acknowledges that potentially useful technologies include process based technologies and social systems focused on human development and strengthening of health systems.

Finding solutions to the chronic health problems that affect many African countries (as a result of diseases such as HIV/AIDS, TB and malaria) involves improved capacities to conduct scientific research to produce new drugs, vaccines and diagnostics. However, the argument put out in the DCP2 report suggests that equally important process based technological advances are required to ensure the technological products can be delivered appropriately and effectively. The DCP2 report highlights the importance of focusing not only on the development of purely scientific and technological products and processes as a means of combating disease but also on the need to have good organisational and institutional mixes; the importance of good 'social technology' (Chataway *et al*, 2009). This implies the relevance of re-focusing on the neglected social issues which to most scientists have for a long time been irrelevant, or of less concern, yet evidence from the field suggests that they play a key role not only in the spread but also in hampering the efforts of HIV mitigation. Our argument proffers empirical evidence towards a firm grounding of this consideration of social factors, including going beyond the so-called 'formal' institutions.

Decisions about how a technology is sustainably developed and delivered can involve complex trade-offs such as between short term gain (immediate results e.g. reduced disease burden) and longer term health returns (building sustainable health systems and processes). Trade-offs are also required between specific health related scientific and technological advances, e.g. development of drugs and vaccines for HIV/AIDS and other less 'technical' options that are also important e.g. clean water and improved sanitation. The trade-offs (and their implications for the degree of focus on biotechnology based technological advances alone) require consideration if useful and relevant scientific and technological opportunities are to be advanced that have the potential to combat diseases of the poor in Africa. There is need to understand the local environs in which the technologies are directed in a way that appreciates the culture and the challenges thereof. This appreciation for us will go a long way towards dealing with the existing myths and beliefs that the scientific communities have illegally intruded the African cultural belief systems.

### **Barriers to spread of technological innovations**

Inadequate funding is a major impediment to the quest for a solution to HIV/AIDS. Standing up to this challenge, among others are efforts of philanthropic organisations such as the Bill and Melinda Gates Foundation, and the development of new financing mechanisms e.g. International Financing Facility for Immunisation which are providing ways forward for both development and spread of relevant innovations. To complement this, there are also increasing calls for African governments to take increasing responsibility towards building capacity to fund their health programmes (Dickson, 2008; Hanlin, 2008). In addition, there is a 15%-of-GDP target for investment in the health sector set by the African Union, but like other targets, these ideals have been hampered by a lack of political will among some African governments, frustrating the efforts of both local and international development partners. For instance, *The Nation* newspaper (Thursday, 05 February 2009) reported that Kenya is already feeling the crunch of the failure to get funding from the Global Fund for HIV/AIDS, TB and Malaria and has announced plans to lay off at least 500 workers from the Voluntary Counseling and Testing Centres (VCTs) countrywide by June 2009. Making the announcement, the Head of the National AIDs and STD Control Programme (NASCOP) observed that the dwindling Global Fund money comes with a backdrop of over 250,000 people in the country needing ARVs each month. The annual recurrent cost of maintaining VCT in Kenya is approximately US\$ 6,600 per health centre per year. This means that to provide VCT in all 579 health centres throughout the country, it would cost approximately US\$ 3.8 million per year (this cost excludes the cost of training and other start up costs). Zimbabwe also faced the same predicament in 2007 upon failure to receive funding for on-going programmes from the Global Fund. In both countries, on-going political tensions have meant that the full cost on poor communities of this funding dilemma are yet to be quantified.

Funding shortfalls for both HIV/AIDS exist and few African countries contribute significant national funds to promote such R&D investment with the exception of South Africa which has heavily funded HIV vaccine development activities and to a lesser extent microbicide research (de Francisco and Matlin, 2006). Zimbabwe had an AIDS Levy in the 1990s, to which all people in formal employment contributed and which was meant to provide a base fund for the entire continuum from research to distribution of remedies. Rampant abuse of funds from the levy was reported, until it was quietly withdrawn in the early 2000s.

Meanwhile, even after these products are developed there remains major constraints to be overcome that are more than simply financial. All drug, vaccines and diagnostics require strong access pathways and this requires good distribution networks and demand for affordable, effective, easy to use products. It is also one thing to address the access issues, and another to ensure that the drugs are used rightly by

those accessing them (Chataway *et al*, 2009). As our field experiences reveal later on, there have been cases where some community members have tended to trust herbal medication more than the prescriptions accessed through medical facilities. This has more to do with cultural beliefs and practices but also the usefulness of appropriate awareness campaigns and gathering of social technologies.

Despite the drawbacks, it is important to acknowledge that, very significant amounts of money are being spent on HIV/AIDS research. In the period 2002 -2006, the EU spent 74.3 million Euros, while the US remains by far the biggest country donor contributing 86% of all public funds raised for HIV/AIDS vaccine research and 74% of all microbicide investment. Overall, the US National Institute of Health spends approximately US\$2 billion annually on HIV/AIDS research although of course not all of this will be relevant to developing countries (IAVI, 2006).

Technologically and scientifically there have also been barriers to advancing treatment and prevention options. HIV antiretroviral drugs or ARVs disrupt the action of the virus. There are various combinations of these drugs which act at various different stages of the lifecycle of the virus. The virus mutates very quickly and as such it is often necessary to change the drug regimen being used to ensure it is most effective and resistance does not occur. Usually a cocktail of drugs is used such as HAART which involves treatment with at least three active antiretroviral medications. Treatment is highly effective but only if continued for life as it is not a cure, and this raises questions on who among the poor can afford this.

A related issue to the availability and cost of drugs relates to the form ARV drugs take i.e. whether they are patented and so registered to the company that made them who have sole rights to produce and market them; or generic (non-patented) variations which are significantly less in cost. Generic drugs have reduced the cost of first line drug regimens (as opposed to second line regimens which are given commonly when first line drugs do not work as a result of resistance or TB) by 99% to an average cost of US\$132 a year per patient. 50% of those taking generic drugs are taking drugs produced in India. Since 2005 India has started enforcing Trade Related Intellectual Property Rights (TRIPs) legislation which subjects new drugs to up to 20 years patent protection. Groups such as Médecins Sans Frontières (MSF) argue that this has the potential to drastically affect drug supplies to HIV patients around the world, including Africa.

The potential these technologies have to address Africa's health challenges is dependent on a number of constraints that they face at the various stages of their development. A number of these have already been mentioned above and have also been covered in Chataway *et al* (2007). A very important constraint can be the strict process of priority setting. This can limit the areas where major advances are discovered. Science is not always predicable but can occur very much as a result of chance. This was the case for Jenner in discovering that smallpox could be vaccinated against using cowpox and how, more recently, penicillin was discovered. This confirms that while science requires a degree of freedom to explore, it also needs a high degree of connectivity through interaction and dialogue between scientists, researchers and communities. These and other constraints that affect the impact these technologies will have on addressing Africa's health challenges will now be discussed in a little more depth.

### **Complementary solutions**

It is important to note that, although great strides have been made in the areas of diagnostics and drug treatment for HIV/AIDS, hope is provided by advances in other directions as well. These come in the form of anti-AIDS drugs being used as a preventative (pre-exposure) prophylaxis, improved condoms (both male and female), cervical barriers (such as microbicides) and male circumcision (The Economist, 2008; Padian *et al*, 2008). The lack of success in preventative biomedical advances such as vaccines and

microbicides has led to a call for 'combination prevention' whereby known preventative methods (such as condoms and circumcision) are combined with treatment of HIV/AIDS (Cohen, 2008). It is however relevant to note that the call to resort to these methods alone is not sufficient, especially in some African communities whose cultural identities conflict with the preventive mechanisms that scientific technology has availed. For instance, the use of condoms, male circumcision, and the use of ARVs have been met with criticisms in several African communities. Whereas male circumcision may be an accepted cultural practice, the use of condoms and ARVs have been negated through myths as the section on culture and science later reveals. This means that despite the scientific advancement, there have been challenges on efficient use of the technological advancement. While technologies have much potential to address Africa's health challenges and many are available for use and delivery, we still feel there is lack of a close recognition of the role of societal beliefs and indigenous practices in shaping the development and spread of technologies. We will now trace the development of HIV/AIDS programmes in Zimbabwe and Kenya to illustrate our argument and build a case for greater recognition and consideration of societal factors.

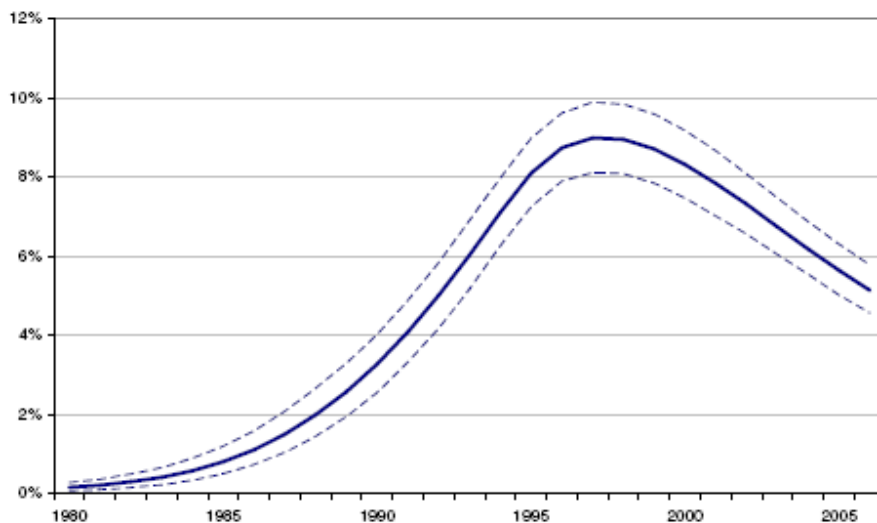
### **HIV/AIDS brief historical background, Kenya and Zimbabwe**

It has already been observed that when HIV/AIDS was recognized to be a disaster in many sub-Saharan countries, measurable efforts were put in place to contain the spread of the virus. In Kenya and Zimbabwe for example, in the year 2000 the governments saw the looming disaster of the virus and they both established National AIDS Control Council (NACC) and National AIDS Council (NAC), respectively. These bodies coordinate efforts of government ministries, the private sector, NGOs, churches, communities, community based organizations (CBOs) and international collaborating partners. In Kenya, the five-year government strategic plan of 2000-2005, provided a policy and institutional framework for a multi-sectoral response to HIV/AIDS, while in Zimbabwe, a four year plan falling between 2000-2004 was adopted for the same purpose. In Kenya for instance, the plan included the following:-

- National Aids Control Council (NACC) established in the office of the president for leadership and co-ordination of the multi-sectoral response;
- AIDS Control Units (ACUs) established to mainstream AIDS control activities into the core functions of ministries and departments; and
- Provincial AIDS Control Committees (PACCs) District AIDS Control Councils (DACCs) and Constituency AIDS Control Committees (CACCs) created to co-ordinate the implementation of HIV and AIDS activities in their respective areas (Ministry of Finance & Planning, 2002:54).

The evaluation of the five year plan up to 2006 showed minimum decrease of HIV prevalence rates as indicated in fig. 3 below:

**Fig. 3: HIV Prevalence Among Adults (15-49) in Kenya (1980-2006), Source, NASCOP**



It is sadly to be noted that these efforts might have been short-lived because after the year 2006, the prevalence began to rise. In Kenya, HIV might have been pushed down the development agenda as political crises emerged in 2005 within the National Rainbow Coalition (NARC) Government. Initially, when the NARC formed a coalition government after defeating the Kenya African National Union (KANU), the coalition parties worked hand in hand to gain the trust of the Kenyan citizens. However, differences in 2005 and later in 2007 (before and after the 2007 post-election violence) saw Kenya plunge into deep political and economic crises. In addition, corruption has further thwarted the efforts to curb the spread of HIV in Kenya. A case in point is at the end of 2008, when the ministry of health was accused of having misappropriated funding for HIV/AIDS programmes. The private sector and donor organizations threatened to withdraw their funding, citing this poor accountability in usage of donor funding for the HIV/AIDS programmes. It is from these loopholes that HIV prevalence in Kenya has been on the rise. In late 2008, a report by Kenya AIDS Indicator Survey (KAIS) showed that there has been a 3% rise in prevalence rate. The results came as a shock because Kenyans thought HIV prevalence rates had been contained since 2000, which is also the same period of time that the region saw the advent of the much applauded ARVs.

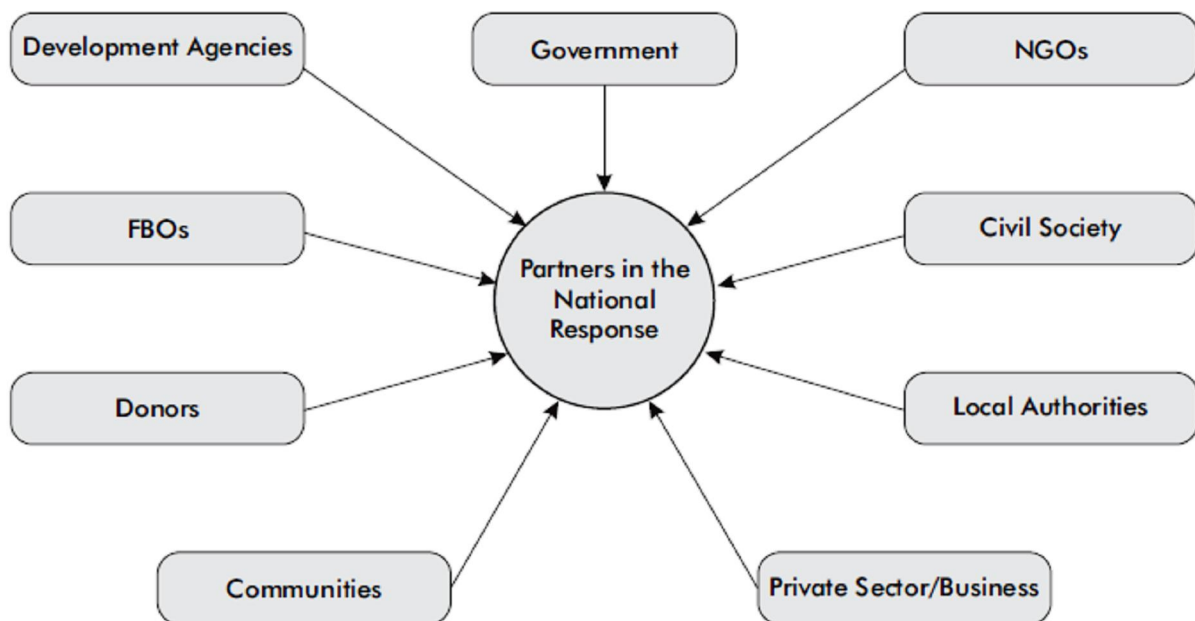
The increased prevalence could also be related to the economic crises facing the country. Kenya has been hit by prolonged drought, with hunger and starvation being declared a national disaster since February 2009. Thirteen million people face the threat of starvation. This compounds the HIV catastrophe since the virus, as research indicates, causes more havoc among on affected persons with poor nutrition. Cultural factors which revolve around food and its provision, power and sexuality come to the fore, combining to increase vulnerability among poor members of the community who have limited food sources. The same dilemmas also face the poor in Zimbabwe, where similar food shortages have made a large majority of the rural poor dependent on the government and donor agencies for food aid. Due to the politicization and polarization of the country, food has usually ended up in the hands of supporters of the then ruling party, or other powerful and privileged members of society. Reports of sexual favours being solicited from widows and other female members of society (including minor girl



children) are rampant (Girl Child Network, 2007<sup>1</sup>), further fueling the HIV/AIDS problem. This issue is discussed and exemplified further in the next section.

At the institutional level, Zimbabwe's story is not so much different from the Kenyan one. The structure of the National Aids Council of Zimbabwe (NAC) is similar to that of NACC-Kenya, and, indicates a top down approach, moving from the board members through the secretariat and provincial, district, ward, to the village level. However, though the village population is indicated as having a central role to play in the hierarchy, the structure does not seem to present a platform that would give prominence to their views. Integration of their views in the response mechanisms therefore begs a lot of questions.

**Fig.4 Partners for multisectoral response to HIV/AIDS, Source: NAC (Zimbabwe, 2004<sup>2</sup>)**



The government is the main driver of this multi-stakeholder structure, which may be a good thing in theory for obtaining the necessary political support. However, experiences from the field show that the communities play a diminished role in the quest for solutions as government endeavours to adopt standardized procedures among different community programmes. Taking on board unique community beliefs and customs thus becomes constrained, and seems to remain subject to the discretion of project implementers in different communities.

From the foregoing discussion, it emerges that there are sets of technological and institutional factors in the two countries which are combining to constrain the role played by societal realities in developing sustainable solutions to the HIV/AIDS crisis. We now turn to some of the tensions between the cultural and scientific perspectives.

<sup>1</sup> Ref: [www.gcn.org.zw/blogs](http://www.gcn.org.zw/blogs)

<sup>2</sup> Ref: [www.nac.org.zw/](http://www.nac.org.zw/)

## Cultural Versus Scientific Issues

Culture is a people's way of life. Gichure (2006:99) argues that traditional African communities lived in very well-knit social structures with rules that governed their life together. They observed certain taboos and many people went about with their lives without imagining breaking the taboos. Confession of guilt before the community was real and meant punishment. African traditional cultural set-ups have time and again been criticized as a contributing factor to a wide range of negative values in the African communities, including the spread of HIV/AIDS. The advent of HIV in African communities has changed these norms because AIDS in these African communities implies a story of shame, which should be punished. It would therefore be easier for people suffering to live in silence than confess their story of "shame". This has further been complicated in some African communities where AIDS has been attributed to a curse (consider the Luos and Luhyas of Nyanza and Western provinces, and in some parts of Zimbabwe, who believe that AIDS is a curse that should be cleansed by having sex with a virgin or other such extraordinary rituals). This belief, especially in Zimbabwe is also not necessarily confined to certain cultures, but fits into the larger realm of denial and feelings of being innocent victims. The practice of having sex with virgins also reflects the desperation that sets in as victims search for solutions.

Cultural factors that impede the appropriation of HIV control mechanisms include wife inheritance especially in Nyanza province, Kenya, where HIV/AIDS prevalence is the highest in the country. Wife inheritance or *kugara nhaka* has also been practised for long in Zimbabwe, and is still practised secretly in some communities. In the two countries, this is going on despite HIV/AIDS awareness and capacity building efforts by both FBOs and NGOs. Some communities have remained adamant and practise the rite without any medical precautions taken to determine the HIV status of those inheriting women, or the women being inherited. This practice is linked to the widespread African extended family notion, in which one of the accepted positions is that a woman marries 'into a family' and thus has to be inherited and remain part of the family in the event of her being widowed. In Kenya, the cultures of *tero*, and *chodo kode* are very common in Luo land. *Tero* is mostly done on an unmarried woman or a widow who dies before being inherited (sex cleansing rituals performed on her). Luo custom requires that a widow undergo *chodo kode*, a cleansing rite which involves sleeping with another man before resuming her normal life, or before being inherited or supported by her husband's relatives. These cultural practices have increased the rates of infection in the region and according to the 2007 KAIS report, Nyanza province leads in Kenya with 15.3 % prevalence, which is almost double the national prevalence.

A few women who have rejected the culture of *tero* and *chodo kode* are met with great criticisms by the community, though applauded by health workers, social workers and human rights activists because their decision is a major step towards reducing the spread of the virus. These women have formed capacity building groups to educate people about the dangers of this ritual. They are also reaching to the 'cleansers' who are blamed for the spread of the virus because of the failure to engage in protected sex, and advising them to use condoms, which have traditionally been rejected.

Besides, there has been a tendency to relate HIV to witchcraft. Writing on *AIDS and causation beliefs in rural Tanzania*, Mshana G. Plummer *et al* (2006) argue that in SSA, diseases such as infertility or mental disorders are frequently believed to be caused by witchcraft, and/or they are believed to have a natural cause but they afflict certain persons because of lack of protection by their ancestral spirits. In Zimbabwe, a significant proportion of the population still equates HIV/AIDS to *runyoka*, a debilitating illness which affects a man who has had adulterous encounters with a woman who has been protected

or 'fenced' by her husband (Sibanda, *pers comm.*, 2004<sup>3</sup>). In such cases, communities do not define the illnesses in biomedical paradigms, and traditional medicine and cleansing or appeasement ceremonies are often seen as the best treatment. The Tanzania study also cites the fact that there is a tendency for people to believe that STI spread may also include natural causes, witchcraft, evil spirits, or a violation of community's taboos. These beliefs also exist in Kenya and Zimbabwe; for example taking an example of the Luo community of Western Kenya, the belief that HIV is a curse that must be cleansed through sexual rituals is extensive in the region. There is also the customary belief that anything that has a cause linked to tradition cannot be treated through Western medicine and as such traditional herbs are the only solution to such diseases. It therefore becomes a challenge for community health workers (CHWs) to appropriately address HIV issues in medical terms in such communities. Some traditions also reinforce negative behaviours. For example, among Zimbabwean men-folk, there are remnants of age-old beliefs that getting an STI is a good sign of 'being a man', and such men are not likely to use condoms or other forms of protection. Still, there is also the reality of a disparity between what people say (e.g. that they do or do not use condoms ... when talking to their peers) and what they actually do in their 'real' lives. The same dilemmas are true for women as well. A study conducted in 2008 by the Zimbabwe Women's Trust, in conjunction with the Central Statistics Office, to establish the levels of awareness of vulnerability and drivers of infection among the 16-24 age group at the country's 12 institutions of higher learning revealed that most respondents 'went with the flow' with respect to their responses on whether they used condoms or not. In particular, the report notes that in the Zimbabwean society, discussion and education about sexual matters is frowned upon because it defies cultural norms and values and the belief is that "the less young people know, the better off they are" (Women Trust, 2009<sup>4</sup>).

Examples of other practices embedded within cultures are the cases where expectant mothers diagnosed with HIV continue to attend pre-natal clinics, yet and unfortunately not taking the PMTC seriously. Some have chosen to dispose of the medication in favour of indigenous herbs. This is also evidenced by the charms and amulets that people put on believing them to be a source of protection. Among other visible evidence of the role played by indigenous medicine are the incisions made on people's bodies through which blood oozes, and on which herbs are smeared, which are believed to cure the illness and enhance protection.

There is a wide belief that scientifically advanced medicine is meant to cause harm to the users. For instance there are arguments that HIV was introduced in Africa from the West to control the population. The advent of ARVs is therefore in some regions treated with suspicion. This is a belief evidenced by arguments from existing literature. For instance, Mshana, Plummer, et.al cite cases in Tanzania where a 30 year old woman explained that "*...whites are cunning because they manufacture dangerous drugs and body creams and export them all to Africa and they are using the same trick to make women sterile by encouraging them to use pills. Using pills for family planning is like bewitching oneself...plain witchcraft!*" This is an argument that has been supported by studies elsewhere which explore the risks

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<sup>3</sup> Dr Peter Mutandi Sibanda (now deceased) was a leading member of the Zimbabwe National Traditional Healers Association (ZINATHA)

<sup>4</sup> <http://www.women.org.zw/> accessed 20 July 2009

of not using condoms and the myths that accompany condom use in African countries. Stuart (2008) argues that condom use in Africa and other developing part of the world is low because of arguments about the devices including; “...using condoms and trusting white people is a disgrace to our culture as condoms have been infected with HIV.”

A blogger writing for a popular Zimbabwean on-line newspaper had this to say about condoms, which tallies squarely with the observations above:

*‘Teaching our children to use the garment of whoredom (condom) that was designed by the “whiteman” to promote fornication amongst their kindred is not the answer to HIV/AIDS in Africa. Have you not seen the town’s most notorious harlot pregnant often? Were there no garments of whoredom to put on while whoring? The garment of whoredom is often put on once or twice and the third time there is already some fake degree of trust between the fornicators. So no matter how many of those garments you litter in all public toilets, people will catch AIDS and other ‘diseases of the bed’. The answer is the return to Unhu/Ubuntu - African cultures of our fathers and leave fornication alone. If we grill our children in Ubuntu, none would die of AIDS, there is no wisdom in giving children freedom to die. Children do not know anything; we need to force that on them. Also we need to be more strict with our women as African culture has done for years because if they do not give in to men’s advances, it means no fornication’ (Bantu Nzira, Harare, Zimbabwe, 20 July 2009; newzimbabwe.com/).*

This assertion raises a lot of questions, not least towards the effectiveness of government-driven HIV/AIDS awareness programmes which have been in place for more than two decades now in the two countries and others in SSA. It also reiterates the call for recognition of societal beliefs and practices in the development of interventions.

Poverty and food insecurity have been documented to conspire to increase HIV vulnerability (e.g. Stuart, 2008) and this is true for our two countries. He reviews the current upstream and downstream links between these factors and explains them in the context of eastern and southern Africa by noting that poverty puts people at greater risks of being exposed to the virus. Stuart argues that HIV is a disease of gender inequality between men and women, and so these variables become the major drivers of this epidemic in many countries. It is however observable that these factors are inter-twined. The gender inequalities and poverty are inter-related. This is further evidenced by the fact that women may engage in transactional sex to produce food for themselves and their children. In Kenya, communities living near the shores of Lake Victoria exemplify this. The fish mongers (female) noted that they have to depend on men for their livelihoods. This is because the men are the commercial fishers, and every time there is shortage of fish, there must be a kind of close relationship existing between the female fish mongers and the fishermen in order for them to obtain the fish. In the same vein, women’s economic dependence on their male partners may make it difficult for them to insist on safer sex including the use of condoms.

A July 2009<sup>5</sup> report by the Zimbabwe government’s ministry of health showed that one of the country’s poorest provinces (Matebeleland North) had an HIV prevalence rate of 18%, which is three percentage points higher than the national average. It is reported that health authorities have been left scratching their heads over the pandemic’s spread in the province, although they now think they have nailed the

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<sup>5</sup> <http://www.newzimbabwe.com/features> accessed 20 July 2009

cause: cross border travel and lack of access to information. A commentator writing from Harare acknowledged these two as critical, but further argued (rather strongly) that they all stem from poverty in the district, which has pervasive effects on people's ways of life:

*'Poverty kills. If you are poor, you are vulnerable and susceptible to being used and abused knowingly because you need to survive. Matebeleland remains the poorest of all provinces and remain with low literacy levels compared to other provinces. Until such literacy levels are increased equitably some provinces will remain disease-infested, primitive societies. For example, people in Matebeleland provinces think of going to South Africa soon after high school. In fact, some never complete high school before they leave for SA, where they see their kith and kin coming back driving cars and bringing back goodies when they never got an appreciable level of education. These are their role models, and it is a fact that in some cases the community youths have never seen someone within their community living comfortably from getting a good education' (Macebo, Harare, Zimbabwe, NewZimbabwe.Com, July 20, 2009<sup>6</sup>).*

The foregoing are only a few of the examples of issues in the socio-cultural terrain of communities in developing countries which confront the spread of solutions to the HIV/AIDS problem. These issues are not readily visible, and do escape even the attention of some of the people championing more community inclusion, depending on how much they understand the African community. For example, we got to discuss a few of these issues with our colleagues from the West, and we realized that most of these practices, e.g. wife inheritance, sexual cleansing and myths surrounding sexuality were hardly known or understood. We argue therefore that product development partnerships in the area of health should devote part of the large amounts of development donor funds not only towards increasing scientific knowledge and formal institutions for delivering innovations, but also towards trying to understand the cultural realities that may constrain or facilitate the effectiveness of the technologies. In other words, there is need to highlight the importance of social technology beyond mixes of technologies and formal institutions to encompass the contextual realities of the communities the technologies are intending to serve.

We also feel that this look beyond 'formal' rules of engagement needs to be an integral part of approaches used by government in their efforts to safeguard communities. This does not seem to have worked well in HIV/AIDS awareness programmes coordinated by the NACC (Kenya) and NAC (Zimbabwe). We feel these processes are driven from the top and premised on desires for standardization of approaches, which does not augur well for the dynamic realities in different communities. Still, and with adjustments, it remains the duty of government to coordinate the education of its citizenry in as far as health issues are concerned. Community members are likely to trust those of their own and not the "intruders" and especially so in matters dealing with social and cultural changes. There is also need to decide together with the communities what to do with cultures that are detrimental and those which are known to have been a common source of the spread of HIV/AIDS, for example, the sexuality myths which are strongly embedded in some African communities. These issues warrant further exploration, including comparative analysis of whether home-grown health technology solutions are accommodating societal values better than initiatives championed by external agents.

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<sup>6</sup> <http://www.newzimbabwe.com/news> accessed 20 July 2009

## Conclusion

Developing culturally sensitive HIV/AIDS programmes is imperative if technological advancement is to succeed. Writing on culturally sensitive HIV/AIDS prevention, Lee *et al* (2009) advocate for participatory research especially on people's beliefs, attitudes, and behavior related to risky sexual practices that contribute to the spread of HIV among the youth of Mexican origin. The need to understand the cultural perspectives of the target communities of the scientific technologies cannot be emphasized. This is the kind of approach we think should be used in HIV/AIDS studies in African countries given the persistence of the problem despite the interventions championed so far. It is in this regard that we advocate for integration of local communities' beliefs and practices in the development of vaccines, drugs and diagnostics if the scientific innovations are to make sustainable impact in developing countries. As the statistics clearly show, the quest for a solution to the HIV/AIDS scourge has long passed the stage of being a pursuit of academic freedom or scientific excellence, but one that needs grounded and timely solutions.

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