HIV/AIDS Pandemic in Africa: Trends and Challenges

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Summary

Three-quarters of the world's AIDS population lives in Sub-Saharan Africa; most have no access to lifesaving drugs, testing facilities or even basic preventative health care. One of the major factors inhibiting medical professionals in Africa from treating this disease is the inability to access vast areas of the continent with adequately equipped medical facilities. To meet this need, Architecture for Humanity challenged the world's architects and health care professionals to submit designs for a mobile HIV/AIDS health clinic. The pandemic is changing the demographic structure of Africa and wiping out life expectancy gains. Indeed, in many African countries, life expectancy is dropping from more than 60 years to around 45 years or even less. In this paper, we highlight the uniqueness of factors associated with HIV/AIDS pandemic in Africa and present its impact and challenges.

Keywords: HIV/AIDS, Africa

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1. What makes HIV/AIDS Epidemic Unique in Africa?

The Epidemic in Africa is fuelled by ignorance of the people of the disease, lack of access to prevention, inadequate treatment and care services, and stigma and discrimination. Young African girls are dangerously undereducated about AIDS and how to protect themselves from it. UNICEF reports that more than 70% of adolescent girls in Somalia and more than 40% in Guinea-Bissau and Sierra Leone have never heard of AIDS. A number of other factors may help explain why HIV/AIDS has hit Africa much more. Among these are: High incidences of sexually transmitted Infections (STIs), large refuge populations, seasonal labour migrations that allow multiple sexual partners. These range from truck drivers, port and dock workers, seasonal workers, fishermen/women; during the long periods they are away from their partners engage in short-term relationships or temporary marriages. On return, these people end up infecting their partners thus spreading the virus from pockets of high prevalence to the general population

Africa has a range of varying traditions and culture among its countries. Many of these are seen as main contributing factors to the escalating HIV/AIDS pandemic. Notable among these are: (a) **Marriage patterns** in Africa where men prefer younger girls and polygamous tendencies. (b) **Sharing of wives** is common practice among many African Countries. (c) **Widow inheritance** is very popular among African families. (d) **Sexual cleansing** rituals is a very common practice in Africa in which a deceased man's relative has sex with a widow in the belief that this will dispel evil forces in the family. (e) **Sex workers** among many cities in Africa, catapulted by poor leaving conditions in villages that force many girls to take on town life. (f) **Unemployment**: Many girls who go to towns to look for jobs fail to obtain. (g) **Early marriages**: Many girls are married off early and as such miss school where they could learn more about dangers of such diseases. (h) **African people** do not to talk about Sexual life in public. (i) **Women left home by mobile population** in many case end up in extra marital sex with neighbours who happen to come to help her while in need of money and other social needs. (j) **Conflict and wars**. Where there has been conflicts and wars, effort to extend HIV/AIDS services have been rendered impossible. The frequent abductions and rape incidences have been the major factors for the high prevalence rate in such regions. (k) ***Postpartum Abstinence:*** In many parts of sub-Saharan Africa breastfeeding means sexual abstinence of women. This action ensures that the woman is not pregnant until after the breastfeeding period, which can be as long as over two years in some West African countries. In a study in Southern Benin in 1989 **[9]**, reported that over half (53%) of men interviewed favoured extra-marital relations during postpartum abstinence period of wives. Cleland *et al*. (1999) **[7],** investigated the relationship between duration of postpartum abstinence and extra-marital sex among a sample of 5941 women and 1533 men in Benin in 1996. A logistic regression fitted to the data showed that sex abstinence of women for 1 - 5 and at least 6 months attracted 1.6 and 1.63 times extra-marital sex compared to no abstinence at all. During focus group discussions in Zimbabwe men cited postpartum abstinence by their wives as a reason for extra-marital relationships [11]. In the era of HIV/AIDS epidemic, this is dangerous to both women and men as it can attract HIV infection to the family.

According to UNAIDS 2004 Report **[42]**, Sub-Saharan Africa is a home to close to two-thirds of all people living with HIV/AIDS. The estimate of HIV/AIDS people in Sub-Saharan Africa at 25.4 Million persons with a 7.4% adult prevalence rate, as compared to 2 Million in Latin America, & Caribbean, 1.4 Million in Eastern Europe & Central Asia and 8.2 Million in Asia. South Africa continues to have the highest number of people living with AIDS in the World. Unfortunately there is no sign of a decline in the epidemic. In South Africa, Swaziland, Zimbabwe and Botswana there are worrying ever increasing prevalence rates (with figures of up to 27.9% by end of 2003, up from 2.4% in 1992, for the case of South Africa **[44]**. In Southern

Africa, thousands of men live away from their families for months at a time to work in gold diamond mines. An estimated one-third of the miners in South Africa have HIV. When these miners return home to their families they introduce the virus to their home communities. Similar indications are expected in mineral rich DR Congo, Zambia and Botswana, and mining towns of Ghana. Swaziland has recently recorded the world's highest HIV/AIDS prevalence (approximately 38.6%), surpassing Botswana [Reuters, May 22 2004]. In Madagascar, there has been an alarming rise in prevalence among pregnant women; it increased by almost fourfold since 2001, to reach 1.1% in 2003.

In West Africa, the epidemic is diverse and changeable. National prevalence has remained relatively low in the Sahel countries, with prevalence around 1%. However, the overall figures can conceal very high infection levels among certain population groups. In Senegal, for example, national HIV prevalence is below 1%, but prevalence rose among sex workers in two cities: from 5% and 8% in 1992, to 14% and 23% in 2002, respectively. Prevalence levels are highest in Côte d'Ivoire at 7%, although Abidjan recorded its lowest level (6%) in a decade in 2002. Benin and Ghana show HIV prevalence in the 2-4% range, with little change over time. Nigeria, with a population of over 120 million, has the highest number of people living with HIV in West Africa. The national prevalence in 2003 was 5.4%. HIV prevalence among pregnant women is over 1% in all states and is over 5% in 13 states **[42]**.

East Africa now boasts of several examples of gradual, modest declines in medium HIV prevalence. In Uganda the national prevalence fell from 30% in early 1990s to 4.3 by the end of 2001 and 4.1% by end of 2003 **[2],** remaining subsequently at 5% to 6% through the 2004. Uganda's policies are credited with having brought the prevalence rate low. The country is seen as having implemented a well timed and successful public education campaign, reducing the numbers of people indulging in casual sex as well as cutting the HIV prevalence rate.

For the case of Uganda, we highlight the following points:

(a) In 1982 the first AIDS case in Uganda was diagnosed. This was one of the earliest noted AIDS case as compared to other countries in Africa where first cases were reported as later as 1985 in Botswana **[40]**, 1984 in Zambia, **[42]**, 1986 in Cameroon, Nigeria, and Ghana**[42]**.

(b) Between 1982 and 1986 there was little understanding of what AIDS was and what causes it **[37]**

(c) In 1986 the newly sworn-in President Museveni responded to the emerging HIV crisis in Uganda and swiftly embarked on a nationwide tour to tell people that avoiding AIDS was a patriotic duty, and that they should abstain from sex before marriage and be faithful to their partners and use condoms

(d) Although it did not work immediately because the new government had to settle-in and solve other internal problems such as consistent insurgence, the government maintained AIDS policies among the priority areas and by late 90s, started to see fruits of declining prevalence rate.

(e) There has been an apparent fall in the number of new infections amongst younger people (suggesting that they are more cautious about indulging in potential risky activities) [www.tasouganda.org]**[45]**

(f) The approach used in Uganda is sometimes known as ABC **[3]** approach. First, encouraging sexual **A**bstinence until marriage, secondly, advising those who are sexually active to **B**E

faithful to a single partner, and, especially if you have more than one sexual partner, always to use **C**ondom.

(g) Communication: The message about HIV and AIDS was effectively communicated to a diverse population by the government and by word of mouth. Much of the prevention work that has been done in Uganda has occurred at grass-root levels, with a multitude of tiny organizations educating their peers, mainly made up of people who were themselves HIV positive. This communication has worked in reduction of some risky behaviour, and there is a high level of AIDS awareness amongst people generally. Use of simple messages to disseminate the ABC approach became the major tool to impart the message. In fact, more complicated massages about risky behaviour and safer sex were not spread until later when there had already began to be a decline in HIV figures **[45].**

(h) Political openness and honesty about the epidemic have been key factors in exposing the risks and how they can be avoided. This contrasts sharply with countries like Kenya, and later South Africa, which had earlier on lacked this political courage

(i) Of recent, attention has been turned to educating the population to the role of ARVs towards a positive living. The population has seen that treatment with a good and consistent ARV therapy has changed trend of the path to AIDS. There are few deaths!! Persons that were visibly seen with full-blown AIDS symptoms, who would have otherwise died (basing on the past experiences with AIDS patients) have become healthy, fatter and stronger and are back to their jobs. The persons with AIDS have also found that they can live and be helpful to their families and have helped a lot in educating others on the dangers of the epidemic.

(j) People have gained confidence in living with persons with HIV/AIDS because they have them in offices and at home.

(k) The HIV prevalence of 4.1% is still high **[45]**. It can cause a backward trend in the epidemic if not carefully handled and in particular, there is growing fear that treatment may be bringing an adverse effect on the decline in prevalence rate as the treated, once they look healthier, they indulge once again, in unprotected sex.

(l) Indeed the now 18 year old insurgence and war in northern Uganda has made extension of HIV/AIDS services very difficult, making the region one of the most affected inspite reported declining prevalence rates in Uganda

Recent data shows that Kenya, Malawi and Zambia could be on a similar awareness track although prevalence rates have not followed the same trend as has been noted in Uganda **[42]**.

2. The Impact of HIV/AIDS Africa

The impact of HIV/AIDS in Africa is noted in nearly all sectors of development. There is an obvious increase in total hospitalisation. The demand for care for those living with HIV/AIDS is tremendous. More health care workers are needed (in fact more than double the numbers before the epidemic), in a continent where there has originally been a shortage of trained health personnel.

AIDS does not only reverse the effort to reduce poverty but increases on the percentage of people living in extreme poverty because persons who get sick are usually those that contribute to the income, and when they get sick there is need to divert more income towards the illness, members divert more time and effort away from income-generating activities **[5]**. In a study

done in South Africa, already poor households coping with AIDS were reducing spending on basic necessities like clothes and food to divert resources towards the sick member of a family**.** There is evidence of reduced agricultural work in families affected by AIDS. The financial burden of death put on funerals is a major impact on most of the affected households.

Poorer households have removed the children from schools (especially girls). Often school fees, uniforms and books become unaffordable **[13]**. As parents and family members become ill, children take on more responsibilities to earn an income, produce food. Where both parents die of AIDS children become orphans and move to urban areas to become destitute. Children have become part of a generation to be raised by their grandparents.

Education Sector: A decline in school enrolment has been one of the most visible effects of the epidemic **[17]**: Reasons being removal of children from school to care for the sick parents and family members, inability to afford school fees and other expenses, decline in birth rates and fertility rates, more children are themselves infected and do not live longer to start school (see case studies on this in **[4]).** Teachers are infected with HIV/AIDS. Absenteeism is increased by HIV/AIDS as the illness causes intermittent periods of absence from class. Teachers with sick families take time off to attend funerals or to care for the dying relatives. Where this has been the case, classes have been combined to be taught by one teacher (hence increasing the pupil-teacher ratio), or even classes may be left untaught. The impact of this is largely felt in rural areas where there are few skilled teachers and replacement of such a teacher may take long.

HIV/AIDS dramatically affects labour, setting back economic activity and social progress. The vast numbers of people with HIV/AIDS in Africa are between ages 15 to 49 – in the prime of their working lives. Common of the problems associated with this are: absenteeism from work, productivity decline, health-care expenditures, new recruitment and training expenses. Funeral benefits and pension fund commitments are likely to rise due to unexpected early retirement and deaths (see case studies done in Kenya, South Africa, Swaziland **[6],[10],[14],[37])**. The fall in the economic growth in African economies is observed as a major impact of the epidemic. These countries were already struggling with development challenges, debt and declining trade before HIV/AIDS, and at the onset of the epidemic the meagre resource have to be turned to pay attention to the fight against HIV/AIDS

*Government revenue and patterns of expenditure***:** A reduction in the rate of growth of the labour force, combined with falling productivity, means less government revenue from individuals and enterprises. As domestic and external savings fall, investment and physical capital may also decrease, unless an increase in foreign aid offsets the decrease in investment – an unlikely scenario in most sub-Sahara African countries, judging by recent trends. Analysis of the macro-economic impact of AIDS in Malawi and South Africa suggests that annual GDP growth rates may drop by 1-2 percentage points as a result of the epidemic **[17]**. This means that over time, if the trend continues, countries will be faced with the danger of macro-economic instability as the fiscal position deteriorates, with potential disruptive effects on economic and social relationships. This could have an adverse impact on confidence and, hence, investment.

As a consequence of declines in economic growth and productivity, the most seriously affected countries will find it difficult to improve or even maintain their position in the competitive hierarchy of international economies, at a time when faced with the challenge of rapid globalisation **[10]**. The implications of HIV/AIDS for GDP growth will clearly be substantial, both through the direct impact on labour supply, human capital and savings, as well as through a decline in total factor productivity. The prospect, then, for high-prevalence economies is: much lower GDP and employment growth rates, as already noted, and declines in output per head and average earnings. Moreover, poverty is likely to increase as a result of the impact of HIV/AIDS.

The epidemic creates a vicious cycle by reducing economic growth which leads to increased absolute poverty which, in turn, facilitates the rapid spread of AIDS as household expenditure on health and nutrition declines, thereby reducing resistance to opportunistic infections. In addition, the epidemic is likely to increase income inequality by increasing the supply price of scarce skilled labour, leading to higher wages for skilled workers vis-à-vis unskilled and unemployed labour.

On life Expectancy and population size**:** It is common knowledge that AIDS has considerably reduced average life expectancy in most of the countries especially Sub-Saharan countries **[38]**. Research shows that populations sizes of some countries may decrease even as much as 23% between 1992 and 2010 (for example Zimbabwe) [Poverty Reduction Forum; May 10, 2004]

3. Levels of involvement in the fight against HIV/AIDS in Africa

In order to have a significant fight against the spread of the epidemic, governments in Africa must adopt an approach involving all levels of leadership. The following are identified as focal points in this regard:

Personal Leadership: Every Individual must break the silence around the norms and practices that fuel HIV/AIDS pandemic; as a citizen, leader, wife, husband, child, youth, adult, worker, employer: everybody on his/her own must learn to speak openly, observe openly critical issues of information, attitudes and behaviour that must be known and followed about HIV/AIDS, take responsibility for avoiding risky sexual behaviour and by setting examples to their peers

Community Leadership: At the community, there should be a common struggle to overcome HIV/AIDS, in every family, village, township and settlement across Africa, resulting in a true local partnership. Empowerment should be at homes, workplaces, schools and communities to overcome denials, stigmatisation and discrimination. Orphanages should be a collective responsibility at both family and community (this is working in some village levels in Uganda) **[45]**. Community Leadership targets such as Spiritual Leaders, Traditional healers, Health care providers, women groups (are educators and role models for girls), teachers and educators, employers, elected and traditional leaders are accountable to their constituents and can play important roles in advocating for the community-wide campaigns

National Leadership: This, carefully done, creates the conditions for community mobilization across the nation. National leader example can transform the moral and social climate in which HIV/AIDS can be discussed and addressed openly, understanding the need to channel resources to the cause of the epidemic, involving sectoral approach to the fight against the disease (military, education, social, law, media).

Regional Leadership: Africa's HIV/AIDS pandemic knows no geographic, economic or social boundaries. It demands action at continental level and leadership. Our leaders can learn much from successful examples of fight against HIV/AIDS regionally. The regular sharing of experiences from elsewhere in Africa can be good tool for adopting best practices across the continent. Pan-African strategies on ARV drugs and treatment, mobilization through International partnership against AIDS in Africa, peace and inter-state policies are paramount.

International Leadership: International interest in global harmony can create commitment towards expedited HIV/AIDS grant procedures, reduced ARV drug prices, development of vaccine, research effort towards treatment of opportunistic infections, legal enactment of HIV/AIDS by-laws (international code of good practice on HIV/AIDS), and enforcement of transparency and accountability of funds purposely meant for HIV/AIDS programmes **[6].**

4. Challenges of Treatment in Africa

When ARVs were introduced in the early 1990s, they were hugely expensive. In 1998, the typical daily intake for an individual on ARVs was between six to fifteen pills a day. African countries, by no means, could not embrace the treatment concept at that time. The delay in having these drugs cheap continued to delay possible decline in deaths resulting from HIV/AIDS. High costs, a demanding treatment regime, and lack of even basic health infrastructure to deliver the treatment were cited as insurmountable barriers to providing treatment to Africans who needed it. Moreover, most of the regimes, even today demand an accompaniment of good, constant dietary, something that these poor families are not able to sustain. While prevention undoubtedly plays an important role in stemming the epidemic, supporting those already infected in living healthier, longer lives is crucial to minimize the impact of the epidemic; and indeed, the two need to advance in parallel. The main problems that arise in administering treatment protocols are:

(a) Sustainability of the regimes. Many families are poor. The drugs are taken at a monthly rate and sustaining the monthly cost can be afforded by very few.

(b) The Cost of the drugs: Whereas in the early 1990s the regime cost up to $10,000 it has now come down to an average of $200. This is still extremely unaffordable by Africa **[6].**

The current international negotiations with pharmaceutical companies to have low cost regimes and the increased international and government subsidies on these drugs need to be sped-up.

5. Scaling up the Response to HIV/AIDS

As mentioned earlier, the best way forward for Africa to fight the scourge is to develop a multisectoral approach. Currently, the impact on the epidemic in many countries is comprised of fragmentation. Different actors are pursuing HIV/AIDS agendas in isolation from each other. Instead of working within nationally negotiated and agreed strategic agendas, actors- whether government or non-government, UN or private sector, have tended to address HIV/AIDS as an area for designing and implementing multiple, often small scale projects within their own objectives, management, monitoring and evaluation systems. Governments should let all those stakeholders willing and able to help at local levels be involved as part of their duties. Indeed several governments (South Africa, Tanzania, Malawi, Swaziland) have already started taking bold and innovative steps in this direction. The key elements to adopt in multisectoral approach are summarized in the following points **[39],[44].**

There is need for high-level political support and decentralized planning and implementation for behaviour change communication that needs to reach the general population and key target. An example of this is the National AIDS Control Programme (ACP) of Uganda that was established in 1996, which launched an aggressive public media campaign that included printing media material, radios, billboards and community mobilization for grass-root offensive against HIV **[39]**. Interventions that address women and youth stigma and discrimination are essential. Involving religious leaders and faith-based organizations at the front is good since they always have big populations to interact with. Confidential Voluntary Counselling and Testing (VCT) was very useful in Uganda. In Uganda, the first AIDS Information Centre (AIC) was opened in 1990 with an aim of anonymous VCT and since then has spread to major townships in the country. People got excited with knowing their sero-status. Those who found themselves HIV-negative improved on their behaviour and those who found themselves positive immediately started ARVs than waiting to start on them too late. This was extremely useful. AIC pioneered

"same day results" using rapid HIV tests to cope with the growing number of clients interested in knowing their sero-status, as well as "Post Test Clubs" to provide long term support for behaviour change to anyone who has been tested, regardless of the sero-status **[39].**

Condom marketing and promotion, sexually transmitted infections (STIs) control and prevention programmes and programmes aimed at discouraging multiple sexual partners have also shown effectiveness once used appropriately.

6. HIV/AIDS Research and Scientific Trends in Africa

In the last two decades since the first cases of AIDS were identified, HIV/AIDS has emerged as one of the leading challenges for global public health. To plan and evaluate control strategies effectively, treatment evaluations and for vaccine trials, it is critical to estimate the magnitude and projection of the HIV/AIDS epidemic. Population-based epidemiological data for most of the African region is very limited because of the nature of the disease. As mentioned at the beginning of this paper, traditionally and culturally people in Africa do not speak about their sexual practices (how many partners one has, how frequent they have sex, whether they use condom, how many children do they have). This makes it difficult to obtain demographic and parameter values while modelling the dynamics of the epidemic.

Mathematical modelling has been used as a tool to project demographic, economic and social impact in Africa, based on earlier models **[19]**, **[28], [43]**. Other models have been designed targeting preventive measures **[18],[24],[25],[26],[27],[28].** A dynamic compartmental simulation model to identify the best strategies for preventing spread of HIV/AIDS was described for Botswana and India **[31]**.

Extension of previous mathematical models that were developed to estimate epidemic trends based on sentinel surveillance data from pregnant women using sub-Saharan Africa was done in **[35]** to improve the methodological basis for modelling the HIV/AIDS. The study presented a method for modifying current models of the HIV epidemics to take advantage of all available data and reflect the uncertainty in estimates produced by fitting models to a small number of data points.

There is a new initiative to build capacity across Africa to collect data and conduct quantitative analyses necessary to understand the dynamics of major diseases afflicting the continent, with an initial emphasis on HIV/AIDS **[11]**. In the proposal it is noted that the most important ingredient in the detailed mathematical and statistical analyses of Host-pathogen interactions, is the skill required to build dynamical systems and statistical models then used to derive the necessary insights.

More recent research is focusing on the modelling the within-host dynamics of HIV/AIDS in preparation for the anticipated break-through in vaccine trials and development.

7. New Challenges:

(a) The Problem of Complacency

Complacency about the need for HIV prevention may be among the strongest barriers communities face as they plan to meet the next century's prevention needs. The great success that many people, but not all, have had with new highly active antiretroviral therapies (HAART, also known as drug "cocktails") and the resulting decline in the number of newly reported AIDS cases and deaths are indeed good news. The underlying reality, however, is that the HIV

epidemic in most of the countries is far from over. This is true not only for the nation, but for the continuing number of HIV-infected individuals who now must face years, perhaps a lifetime of multiple daily medications, possible unpleasant or severe side effects, and great expense associated with the medicines needed to suppress HIV and prevent opportunistic infections.

The success of HAART is good news for the people living longer, better lives because of it, but the availability of treatment may lull people into believing that preventing HIV infection is no longer important. This complacency about the need for prevention adds a new dimension of complexity for both program planners and individuals at risk.

While the number of AIDS cases is declining, the number of people *living* with HIV infection is growing. This increased prevalence of HIV in the population means that even more prevention efforts are needed, not fewer. For individuals at risk, increased prevalence means that each risk behaviour carries an increased risk for infection. This makes the danger of relaxing preventive behaviours greater than ever.

Past prevention efforts have resulted in behaviour change for many individuals and have helped to slow the epidemic overall. However, many studies find that high-risk behaviours, especially unprotected sex, are continuing at far too high a rate. This is true even for some people who have been counselled and tested for HIV, including those found to be infected **[43].**

(b) Re-emerging of Resistant Strains

The prolonged use ARVs is not only looked at a wonderful tool in making the HIV infected persons live longer. Yes, it is true when they live longer they come back to good useful life, bring happiness to the families. Although treatments that combine new protease inhibitor drugs with other anti- HIV medications often effectively suppress HIV production in infected individuals, results from recent clinical studies suggest that many treatment failures occur due to the development of resistance by the virus **[1], [32], [33**]. Today there is an eminent problem of re-emerging of more resistant HIV strain when the HIV/AIDS patients on ARVs engage in unprotected sex **[36]**.

Drug-resistant HIV strains are threatening to undo the benefits of ARVs offered to patients. Resistant strains have been reported from the world over, including India. Till now, anti-retrovirals were considered to have revolutionised care of those living with HIV. Earlier patients were put on anti-retrovirals at an early stage. Experts now advise cautious use of these drugs to ensure that replicating virus does not become drug resistant. Otherwise, it creates the same situation as the misuse of antibiotics does (**[8], [34]).**

(c) HIV/AIDS Vaccine

A few vaccine development efforts are being prepared in Africa, and these need to be promoted and reinforced. Dr William Malegapuru Makgoba, President of the Medical Research Council of South Africa, spearheaded the South African AIDS Vaccine Initiative (SAAVI). Several African countries have participated in international projects, including other HIV prevention trials, but infrastructures and capabilities to conduct vaccine trials are virtually non-existent in Africa. Vaccine trials in Africa have been carried on in countries like Uganda, Kenya, Botswana, and South Africa; with Malawi, Tanzania, Rwanda, Nigeria, and Senegal as countries preparing to start the trials **[15]**. The main obstacles that tend to hinder the completion of these trials include: social, political, legal and ethical barriers, manifesting themselves in widespread public and media fears about the risks of taking part in the trial, including the risks of becoming infected and being experimented on **[16], [22], [30].** There are also a number of cultural factors that need

to be considered when carrying out research in Africa and elsewhere. For example, in some patriarchal societies women may not be able to give consent easily without the consent of their husbands **[21].**

All the same, with hardships of limited laboratory facilities and funds to carry out consistent research in vaccine development in Africa, there is good will and anticipation from many stakeholders. The **following paragraphs give summarized concern, conviction, desire and pledge of African countries towards urgent need of joint involvement of all scientists in the search for HIV/AIDS vaccine. The appeal is as contained in the popular Nairobi Declaration, June 2000. The Appeal reads as follows:**

We, the participants gathered in Nairobi, Kenya from 12 to 14 June 2000, on the occasion of a consultation organised under the auspices of the World Health Organisation (WHO), the Joint United Nations Programme on HIV/AIDS (UNAIDS), the Southern African Development Community (SADC), the Society on AIDS in Africa (SAA) and the African Council of AIDS Service Organisation (AfriCASO) to discuss ways to accelerate the development and future availability of HIV vaccines for Africa:

Appeal *to African HIV/AIDS scientists to develop and strengthen existing regional networks for AIDS research consistent with the need to facilitate exchange of information and experience relative to various aspects of HIV vaccine research. In addition, mechanisms to promote the development of appropriate candidate vaccines and to conduct scientifically and ethically sound clinical trials must be developed.*

Urge *that industrialised countries and international HIV/AIDS aid and research agencies scale up their technical and financial support to HIV vaccine development efforts for Africa, commensurate with the magnitude and urgency of the HIV/AIDS crisis on the African continent, paying particular attention to the variability of the HIV strains between different regions of the world.*

Other similar efforts to mobilize scientists to map up a strategy for HIV/AIDS vaccine for Africa are contained in a **Durban, South Africa, 13 July 2000, XIII** International Conference on AIDS **meeting where** leading scientists in Africa met to throw their weight behind the development of HIV vaccines for Africa by calling upon African governments, regional and international agencies, industry and donors to speed up research and testing. At this meeting new *African Strategy for an HIV Vaccine*, was unveiled with hopes to fast-track HIV vaccine development in Africa to achieve results in the shortest possible time. The Botswana Think Tanks Symposium (2004) **[15]** also widely received and discussed a lot scientific implications on the updates for the vaccine trials in Africa.

8. Conclusion

Much greater numbers of people who acquired HIV over the past years are becoming ill - it takes up to 10 years from infection to illness, so AIDS in Africa is often hidden. In the absence of massively expanded prevention efforts, the AIDS in Africa death toll will continue rising for another decade. The worst of the AIDS in Africa impact will be felt in the next decade and beyond. It is not too late to introduce measures to reduce that impact, including wider access to HIV medicines and help for the poor.

Every country has its own future when it comes to AIDS, but when it comes to Africa, the focus towards successful fight against HIV/AIDS requires a concerted effort. The poverty that engulfs most of the African countries, the problems of unstable governance, the wars that have become a common phenomenon across the continent over the past decade (the case of Uganda, DR Congo, Rwanda, The Sudan, Ethiopia, Eritrea, Somalia, Liberia, Ivory Coast, to single out a few nations), unemployment, rural-urban migration, cheap seasonal labour, traditional and cultural beliefs all need to be addressed across the continent while addressing the issue of the pandemic.

Now with overstretched resources, economies of Africa need heavy international partnership to enable them be part of the global efforts to fight AIDS. African Scientists must form research collaborations with the rest of the world towards HIV vaccine development so that African peoples can see themselves as belong to, than waiting for success.

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