

Funding sustainability for HIV/AIDS prevention, treatment and care in Nigeria

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ABBREVIATIONS

ACHAP – African Comprehensive HIV/AIDS Partnerships

AIDS – Acquired Immunodeficiency Syndrome

AIDSCAP – AIDS Control and Prevention Project

ARV – Antiretroviral

BBCA – Botswana Business Coalition on AIDS

BMGF – The Bill & Melinda Gates Foundation

CDC – Center for Disease Control and Prevention

CIDA – Canadian Agency for International Development

DFID – Department for International Development

DoD – United States Department of Defense

GFTAM – Global Fund for Tuberculosis, AIDS and Malaria

GHAIN – Global HIV/AIDS Initiative Nigeria

GoB – Government of Botswana

GoN – Government of Nigeria

HCT – HIV counseling and testing

HIV – Human immunodeficiency virus

ICAP – International Center for AIDS Prevention

IRB – Institutional Review Board

MARP – Most-at-risk-persons

MS – Microsoft

MPH – Master of Public Health

MTP – Medium Term Plan

NACA – National Agency for the Control of AIDS

NCD – non-communicable disease

NGO – Non-governmental organization

NSF – National Strategic Framework

OGAC – United States Global AIDS Coordinator

PEPFAR – Presidential Emergency Plan for AIDS Relief

PF – Partnership Framework

PLWHIV – People living with HIV

PMTCT – Prevention of mother to child transmission

PPP – Public-private partnership

UNAIDS – United Nations Program on HIV/AIDS

USAID – United States Agency for International Development

USG – United States Government

VCT – Voluntary counseling and testing

WB – World Bank

EXECUTIVE SUMMARY/ABSTRACT

The Partnership Framework agreement between the United States Government and the Government of Nigeria in 2010 commits Nigeria to provide at least 50% of its HIV/AIDS funding by 2015. This study is aimed at identifying possible policy directions that the National Agency for the Control AIDS (NACA) can consider in order to achieve sustainability of its HIV/AIDS programs given growing funding limitations of its major donors, like PEPFAR.

Methods

The study involved stakeholder interviews in Nigeria, which included policy makers and health workers working directly with patients, in order to find out their perspectives on how the government of Nigeria can achieve sustainability. Also, a case study of Botswana explored the factors that make it a model in the fight against HIV and AIDS.

Results

Results from the study revealed some possible policy directions for the Government of Nigeria, namely, public private partnerships, a strong political will and leadership, effective monitoring and evaluation of HIV/AIDS programs amongst others. These policy directions may require conducting larger studies to strengthen specific policy recommendations to the Government of Nigeria. NACA is the primary audience for this research.

HIV EPIDEMIOLOGY IN NIGERIA

The number of people infected with HIV worldwide is estimated to be about 34 million. Sub-Saharan Africa bears about 70% of the global HIV/AIDS burden. In Nigeria, about 3.5 million people are infected with the virus, accounting for 10% of the global HIV burden. Nigeria ranks third behind South Africa and India in terms of absolute numbers of those infected with the virus (1, 2).

HIV was first reported in Nigeria in 1986, and the prevalence steadily increased from 1.8% in 1991, when the first sentinel seroprevalence survey was conducted, to 5.8% in 2001 (3). Following the launch of PEPFAR in 2003 by President George W. Bush, however, HIV prevalence declined to 4.4% in 2005. The latest survey conducted in 2012 shows a decline in prevalence to about 4.1% (3, 4).

Despite the decline in HIV prevalence, the absolute numbers of those infected with the virus increased by about 500,000 (3). See **Appendix 1** for a summary of the key HIV epidemiological information in Nigeria.

HISTORY OF HIV FUNDING IN NIGERIA

Since 1986 when the first case of HIV was reported in Nigeria, funding for tackling the disease mainly has come from international donor agencies. Currently, the Presidential Emergency Plan for AIDS Relief (PEPFAR) and the Global Fund for Tuberculosis, AIDS and Malaria (GFTAM) are the largest donors to HIV programs in Nigeria (5, 6).

Before the launch of PEPFAR in 2003, access to antiretroviral treatments and key investigations such as CD4 count and viral load was almost non-existent (7).

During this period, the priority for Nigeria's HIV/AIDS programs was increasing access to voluntary counseling and testing (VCT) services and screening of blood products. Little

attention was paid to access to ARVs(8)(9). Subsequently, in 1991, USAID started providing funds for HIV/AIDS programs under an initiative known as AIDS Control and Prevention Project (AIDSCAP). AIDSCAP focused on HIV prevention programs such as distribution of condoms, health education, and treatment of sexually transmitted diseases (10). In 1992, the British government provided a grant of £100,000 to the Nigerian government to help monitor the HIV epidemic (9) (see **Appendix 2**).

The landscape of funding in Nigeria changed in 2003 following the launch of PEPFAR, which made a \$15.9 billion commitment to fight the global HIV/AIDS pandemic. This donation is said to be the largest by any nation to fight a disease internationally (11).

PEPFAR's main priorities in Nigeria are HIV/AIDS prevention, treatment, care, support and health systems strengthening (5). The Office of the US Global AIDS Coordinator (OGAC) coordinates the implementation of PEPFAR's activities; it works with other United States Government agencies, especially the Centers for Disease Control and Prevention (CDC), US Department of Defense (DoD), and United States Agency for International Development (USAID) (4, 12).

Current State of HIV Funding in Nigeria

According to Nigeria's 2008 Partnership Framework (PF), about 80% of the total HIV spending came from PEPFAR, while the GoN contributed only about 7%(5). However, more recently GoN has increased its support to about 23% as has the Global Fund with its approval of the 2012 round 11 grants. PEPFAR now accounts for about 43% of total HIV spending in Nigeria, while the Global Fund accounts for about 33%(13, 42).

Other major donors include the UK Department for International Development (DFID), World Bank Multi-country AIDS loans, The Bill & Melinda Gates Foundation, the Canadian Agency for International Development (CIDA), and the United Nations Agencies. The Partnership Framework signed by the GoN and the United States Government (USG) was a first major step toward more country ownership and sustainability of Nigeria's HIV programs. To this effect, one of the major targets contained in the Partnership Framework was for the GoN to scale up its contributions by at least 50% by 2015 (9, 19). See **Appendix 3** and **Appendix 4**.

Study aims:

With significant gaps in HIV funding and the heavy reliance of the Nigerian government on donor aid, this research is therefore aimed at answering the following questions:

1. What lessons can Nigeria learn from countries that have maintained a robust HIV/AIDS response despite a drop in donor funding?
2. As donor funding is cut, what steps should the Nigerian government take to sustain its HIV/AIDS programs and services?

The primary audience for this work is the National Agency for the Control of AIDS in Nigeria.

LITERATURE REVIEW

The quest for sustainability and a robust country ownership of HIV/AIDS programs is not unique to Nigeria. Donor capping and reduction or outright withdrawal of funding especially

for ARVs cuts across most African countries (14). Also, donor priorities are shifting toward non-communicable diseases (NCDs) in response to the data that show the incidence of NCDs is growing quickly and causing an ever-greater level of morbidity and mortality. A good example of this shift in priorities was evidenced by the Special Session on non-communicable diseases convened at the United Nations in 2011 (15).

So far, few African governments provide more than half of the funds for their HIV/AIDS programs (see **Appendix 5**). However, some African countries are doing much better than others. Angola, an oil rich country, provides over 64% of the funds for its HIV/AIDS programs compared to Nigeria's 23%, also an oil rich nation. Furthermore, South Africa and Botswana, whose HIV burdens are among the highest in the world and roughly equivalent to Nigeria's, each contribute eight of every ten dollars or more to their HIV/AIDS programs. Botswana, in particular, has been portrayed globally as a model country for African countries to follow in the fight against HIV/AIDS (16, 17).

CASE STUDY FOR SUSTAINABLE FUNDING: BOTSWANA

Background

Botswana is a land-locked country in Southern Africa with population of about 2.1 million. Most of the population is concentrated in the eastern part of the country (18). The estimated adult HIV prevalence is 24.8%, one of the highest in the world and second only to Swaziland. The public health-care system is free for all citizens, and close to 80% of the population has access to basic health care services (17).

History of Botswana's HIV/AIDS response

The first documented case of HIV in Botswana was reported in 1985. Since then there has been a series of approaches in containing the epidemic;

1987 – 1989 – Focused mainly on screening of blood and blood products for transfusion

1987 – 1997 – A strategy known as Medium Term Plan 1 (MTP-1), mainly focused on dissemination of prevention information, provision of antiretroviral and comprehensive care.

1997 – 2002 – Medium Term Plan 2 (MTP-2) was similar to MTP-1 but involved more stakeholders such as the education sector, the military, etc. MTP-1 was mainly focused on the health sector.

2003 – present – Focus on prevention, treatment and care, coordinated by the National AIDS Coordinating Agency (17).

Even though the prevalence of HIV/AIDS in Botswana is still high, the HIV/AIDS burden has dropped by 38% since 2000 (18).

The government of Botswana (GoB) has taken the lead in funding the programs that brought about this reduction - it provided over 60% of the funds it needed in the first year of Botswana's first National Strategic Framework (NSF-1), and the percentage contribution by the GoB has been growing ever since (19).

KEY INTERVENTIONS BY THE BOTSWANAN GOVERNMENT

A review of Botswana's PEPFAR Partnership Framework, UNAIDS Progress Reports for 2008, 2010 and 2012, and Botswana's HIV National Strategic Framework shows that the major factors attributed to the success of Botswana's response to the HIV epidemic were the political commitment by the GoB, the partnerships it formed with organizations like Merck and the Bill & Melinda Gates Foundation, and the Monitoring and Evaluation of its HIV programs. These three factors appeared in all three Botswana's United Nations Progress Reports as reasons for its success and sustainability of its HIV/AIDS programs. Below is a closer look at each of these factors.

1. Political Will: In 2001, Botswana was identified as the country with the highest burden of HIV/AIDS in the world. Then-President Festus Mogae decided to take leadership and face the epidemic head on. He told the United Nations Assembly, "We are threatened with extinction. People are dying in chilling high numbers. It is a crises of first magnitude" (20). In 2002, Botswana became the first country in Africa to launch a HIV treatment drug program. President Mogae made HIV a top priority of his administration and provided the funds necessary to do so (21). Botswana has maintained robust funding for its HIV programs, and the current president chairs the National AIDS Coordinating Agency.

2. Public-Private Partnership: In 2000, Botswana established the African Comprehensive HIV/AIDS Partnerships (ACHAP), whose aim was to enhance Botswana's national response to HIV/AIDS. This public-private partnership - between the GoB, Merck & Company, the Merck Company Foundation and The Bill & Melinda Gates Foundation - included a total

\$106.5 million commitment by all four partners (22). As part of this commitment, Merck & Company donated two ARVs, efavirenz and indinavir, at the start of ACHAP's operations, for use in the Botswana HIV treatment program. ACHAP conducts operations and clinical research and supports the development of health infrastructure, especially in the rural areas, and the decentralization of HIV treatment (23, 24). According to a 2005 *Health Affairs* article by Ramiah, et al., titled "Public-Private Partnerships And Antiretroviral Drugs For HIV/AIDS: Lessons From Botswana," ACHAP was an exemplary public-private partnership model for tackling HIV/AIDS and other diseases in developing countries (25).

Another strong Public-Private Partnership (PPP) in Botswana is the Botswana Business Coalition on AIDS (BBCA). This coalition of business leaders helps to fund HIV testing, treatment care and support (26).

3. Data Collection, Research and Monitoring & Evaluation: Botswana has been setting the pace among African countries in the following areas in its HIV response:

- Monitoring and Evaluation
- Surveillance and research
- Health information systems

Since 2002, Botswana has been monitoring its HIV epidemic by conducting HIV sentinel surveillance for pregnant women aged 15 – 49 years. This annual antenatal care surveillance has helped in keeping both the government and partners informed and provided evidence for setting priorities. It has also helped the GoB and partners to assess the effectiveness of intervention programs (27, 28). Botswana also has strong research arms in the National AIDS Coordinating Agency, which also developed a National Monitoring and Evaluation

Framework. Furthermore, partnerships like ACHAP help conduct research on funding flows and program effectiveness. The outcomes of this research have helped policy makers and donor agencies identify problem areas that need more funding. According the Botswana National HIV/AIDS Strategic Framework, monitoring and evaluation is meant to “ensure accountability, appropriate policy formulation and review, program improvement, and social justice through the direction of resources to the most vulnerable groups” (28-30).

With a combination of a strong political will, vibrant public-private partnerships and robust monitoring and evaluation of programs, Botswana has been able to record great success in its fight against HIV; at least 95% of HIV infected persons are on treatment, one of the highest rates in the world. The GoB provides almost 80% of the funds needed for its HIV programs and is trying to maintain this contribution despite the dwindling revenues from diamond exports (4, 31).

METHODOLOGY

In preparation for this project, I contacted the office of the Director-General of the Nigerian National Agency for the Control of AIDS (NACA) via email to inquire about the agency’s major challenges that could benefit from research I would conduct to fulfill the requirements of my MPH thesis and to proffer evidence-based recommendations in addressing such a challenge. The Director-General responded by stating that NACA’s greatest challenge was the sustenance and funding of their HIV/AIDS programs, and informed me of their need for researched recommendations in the sustainability of their HIV programs.

This research consists of two parts: Stakeholder interviews of HIV policy makers and health workers in Nigeria; and a case study review of Botswana.

An IRB application for exemption was submitted to and approved by the University of Washington Human Subjects Review Board.

I used the snowball sampling method to select the participants (43); I sent an email to the Research Director of the National Agency for the Control of AIDS in Nigeria (NACA) explaining details of the project and the need to interview key people in NACA, the Ministry of Health, NGOs and people working directly with patients. He provided a list, and I contacted these suggested participants via email; I followed up with some of the participants through phone calls to solicit their participation. In order to make up a sample size of about 15, some participants made recommendations of other potential participants. I subsequently interviewed these new participants via the phone after returning to Seattle from Nigeria.

Of the 16 people who agreed to be interviewed, I completed 11 in-person interviews in Nigeria. I was unable to interview 5 people for various reasons. For example, a participant required, before he would agree to an interview, that I add his name to the list of authors if the project was eventually published. Another declined to participate for fear of being relieved of his job. It was difficult getting other participants to participate at the agreed scheduled time; some other participants failed to show up on the scheduled time. When I got back to Seattle, I completed 4 phone interviews from new recommendations offered by some participants who had been interviewed, resulting in a total of 15 completed interviews.

I conducted the interviews using a protocol of open-ended questions and probes (see **Appendix 8**). All the interviews were recorded digitally except for one participant who preferred that I take notes. The in-person interviews took place in the offices of the participants. I required the participants to call out their name before the interview to enable easy identification of participants during the transcription process. Each interview lasted about 15 – 30 minutes.

I transcribed each digitally recorded and hand-written interview verbatim into MS Word by typing out responses to the questions with a header of the participants name for each interview. A volunteer transcribed each interview independently. Thereafter we met to harmonize both transcriptions into one final document. After transcribing, I read through the whole document to get a general sense of what every participant was saying, looking for any response that may need further clarification from the participants. I deleted the participants' names after analyzing the data to eliminate any linkage between the responses and the participants.

We then randomly selected two interview responses and looked for themes and sub-themes within the responses that would help us answer our research question. After developing themes from the two responses, we then read through the rest of the interview responses to link any quotes to the appropriate themes. We found a few new themes when reading the rest of the interview responses and linked them appropriately to the quotes that related to them. We used MS-Word's "Comment" function to link the themes to the quotes. We read through the transcribed interview responses a second time separately to ensure that we did not miss

any important theme. All the themes and subthemes identified were assigned codes in our codebook. See Appendix 6.

ANALYSIS

The transcribed interview data were imported to Atlas.ti 6.2 software and, thereafter, all the themes and subthemes were entered into Atlas. The themes were then linked to the highlighted areas of the transcribed interview that corresponded to each theme or subtheme. In doing this, two computers were used. One screen had Atlas opened and the other screen had the original transcribed interview document containing highlighted quotes that are tagged to the themes. This document was used to highlight the quotes and link appropriately to the corresponding themes and subthemes. Thereafter, the entered data were analyzed.

RESULTS

A total of 15 participants were interviewed. They included health policy professionals in government and major HIV NGOs working in Nigeria and health professionals who work directly with HIV/AIDS patients, doctors, nurses and laboratory scientists. We identified several themes and subthemes that were geared towards answering our research questions.

1. Stakeholders: The involvement of stakeholders in funding HIV programs was one of the broad themes we identified from the transcribed interviews. Other subthemes under “stakeholders” were also identified.

The first subtheme under stakeholder involvement was building a robust public-private partnership. Most of the interview participants were of the view that the Nigerian government

should form partnerships with the private sector in its HIV/AIDS response. Below are some of the quotes from participants on public-private partnership.

“We should look towards the private sector such as telecoms, oil and gas and wealthy individuals”

“There are many other private companies making their money in Nigeria, e.g., telecommunications, they should give back. Also, other wealthy Nigerian billionaires should give back.”

“The private sector must be made to understand that they have a stake in HIV response. The national and state governments are already working on a blue print document to find out ways that funding can be harnessed from them for HIV.”

“At the national level they are talking about involvement of airlines, telecommunications and the oil industry, because the disease also affects their employees. We must make the private sector understand why they need to invest.”

“For sustainability there have to be budgetary provision for HIV programs. There has to be involvement of the private sector. “

“They can attract funding from the private sector within the country, from business people and other thriving industries like telecoms and oil.”

Another subtheme under “stakeholders,” stated only by participants involved in HIV policies, was the need to involve the three tiers of government in funding. One participant stated,

“The three tiers of government: the federal, state and local governments are supposed to take the responsibility of funding health, particularly HIV.”

2. Money Flow: A participant suggested that there should be a reduction of bureaucracies in budgetary appropriation:

“Even if they take health as a priority, the amount that they budget for the programs do not really effectively to do the work due to bureaucracies. Therefore the government cannot really maintain the funding if there is any significant cut with the present realities on ground”.

3. Monitoring and Evaluation: Most participants observed that the GoN paid too little attention to monitoring and evaluating of its HIV/AIDS programs. According to them,

efficient monitoring and evaluation would help the GoN focus on important areas, increase transparency and attract more funding from donor agencies amongst others:

“We need to be highly accountable, and bring in key stakeholders, there have to be monitoring and evaluation to show what have been done with the money. This will give the donors more confidence to keep funding.”

“Our government should be more transparent, because this will give donor agencies more confidence in putting in more money....They can be more transparent by employing effective monitoring and evaluation in programs they carry out.”

“The amount of money Nigerian government budget for some programs is more than what donors provide. However, as little as donor funds are, they tend to make more impact because it is monitored.”

4. Increasing funding for HIV/AIDS programs: Participants revealed diverse views on how the GoN can increase funding for HIV/AIDS programs in Nigeria. We noticed that the views from participants who were involved in HIV policy were quite different from the views expressed by participants working directly with HIV patients. For example, while most participants involved in HIV policy stated the need to start manufacturing ARVs locally to reduce importation cost, no participant working directly with HIV patients mentioned it.

Below is a quote on increasing funding for HIV/AIDS programs in Nigeria.

“We should be manufacturing our own drugs since Nigeria is a major consumer of ARVs. The government should invite the companies making ARVs to come to Nigeria and manufacture. We should not be importing ARVs and other drugs that are related to HIV associated ailments such as TB drugs.”

A participant suggested roles the Federal, State and local government should contribute to funding HIV/AIDS programs.

“The federal government should be focused on coordination of activities and the building and strengthening of systems. The state government needs to provide funding and build capacity for program management, direct program management issues and delivery of services at the facilities because a lot of the facilities are a secondary level facility, which belongs to the state.”

Most participants working directly with HIV patients were of the view that patients should help pay for their ARV treatments:

“Free ARV is not making the patients serious, we should cut back a bit on making ARV free and make patients pay a small amount of money, so that they would be more serious about taking their meds and be more responsible generally. If we keep making it free, patients won’t take their drugs, you have to beg the patients to come.”

Another participant suggested that Nigeria should look beyond PEPFAR to other donor agencies. He stated,

“We need to source more funds from other donor agencies, not just PEPFAR”

5. Accountability: A number of participants expressed the need for Nigeria to be more accountable and transparent. Accountability was also used as a subtheme for “stakeholders.”

“We have to try and reduce corruption in the system.”

“Our government should be more transparent, because this will give donor agencies more confidence to put in more money into the system. They can be more transparent by employing effective monitoring and evaluation in programs they carry out.”

“For sustainability there have to be budgetary provision for HIV programs. There has to be involvement of private sector. They should also curb corruption. We know that Nigeria is rich enough to sustain the programs.”

6. Prevention: Most participants did not have a preference for the HIV programs that should be prioritized to save cost. They stated that all programs are important and none should be cut back. However, a few participants were of the view that prevention programs, especially among most-at-risk-persons, should be prioritized:

“We should focus on prevention. Try to concentrate on MARP. Also, we have to concentrate on areas that have higher prevalence than the national average, so we should find the drivers of the epidemic in different regions and prioritize.”

DISCUSSION

The findings of interviews with stakeholders in Nigeria showed some overlap with policies that have worked for Botswana in sustaining its HIV/AIDS response (see Appendix 8). The snowball sample technique in selection of participants helped provide people of different expertise in HIV/AIDS policy in Nigeria. And this helped in obtaining varied perspectives on the subject.

The results from the analysis of the interviews revealed possible policy directions that the GoN could consider in order to achieve sustainability of its HIV/AIDS programs. However, due to the exploratory nature of this study, further research would be needed to have conclusive results. For example, performing multi-country case studies and stakeholder interviews would strengthen the evidence for policies aimed at achieving sustainability. The results obtained from this work can serve as a baseline of knowledge and a guide for future policy-relevant research.

A number of suggestions made by participants in the interviews were consistent with policies already being implemented by Botswana in its response to HIV/AIDS. Also, evidence from the research literature backs up some of the findings in this work. For example, Shiffman's work on political priority and reduction in maternal mortality showed that countries that made reducing maternal mortality a high political priority achieved significant reduction in the 20-year period under study compared to countries where maternal mortality reduction was low in political priority. Also, he showed how a political champion for a cause could help a country achieve that goal. Botswana's leadership in the fight against HIV/AIDS and the results it has achieved further corroborates Shiffman's work. (45).

The proposal by participants for a public-private partnership between leading industries in Nigeria and the Nigerian government was similar in nature to the Botswana Business Coalition against AIDS (BBCA) and the African Comprehensive HIV/AIDS Partnerships. Cohen, et al., described how public private partnerships have been essential to the success of PEPFAR (46).

Participants suggested increased budgetary allocation to health and HIV from the GoN. Botswana stands out among African countries in its health and HIV budgetary allocation.

Some participants who work directly with patients suggested that patients should help with funding part of their ARV in order to increase adherence and have patients bear some of the cost for HIV. Although this strategy may help with funding ARVs, studies have shown that out-of-pocket payments by patients for chronic conditions is associated with lower drug compliance (44).

CONCLUSION:

This study provides some initial policy directions for Nigeria. Results from analyzing participant responses and the Botswana case study show that strong leadership and political will are needed to sustain the fight against HIV/AIDS, including increases in budgetary allocation to HIV/AIDS, stronger monitoring and evaluation of programs, and formation of public-private partnerships.

However, these ideas require additional research in order to support specific recommendations to the Nigerian government. In particular, it would be helpful to carry out more case studies in more countries, especially countries with a larger population size. Also, interviewing a larger sample of stakeholders in each country of study would help strengthen any policy recommendation from such a study. Finally, knowing the cost effectiveness of different programs on incidence reduction per every dollar spent would help provide directions on prioritization of budgetary allocations to the different HIV/AIDS programs carried out by NACA.

APPENDIX

Appendix 1: Summary of HIV epidemiology in Nigeria.

Measure	Statistics	Reference
Population	170 million (July 2012 est)	(32)
Prevalence of HIV/AIDS	4.1%	(33)
Contribution to global HIV/AIDS burden	10%	(33)
Contribution to Sub-Saharan Africa's HIV/AIDS burden	14%	(33)
Annual AIDS death	215,130	(33)
Annual new HIV infections	281,180	(33)

Most-at-risk-person (MARP) population – IDU, FSW, MSM	3.4% of adult population	(33)
Contribution to MARP to new infections	36% of new infections	(33)
Number of AIDS orphans	2,230,000	(33)
Number of People living with HIV/AIDS (PLWHIV) eligible for anti retroviral therapy	1,500,000	(33)
Number of PLWHIV receiving ARVs	359,181	(33)