

The Open AIDS Journal



Content list available at: www.benthamopen.com/TOAIDJ/

DOI: 10.2174/1874613601610010024



Evolution of HIV and AIDS Programmes in an African Institution of Higher Learning: The Case of the Copperbelt University in Zambia

Nawa Sanjobo^{1,*}, Matilda Lukwesa¹, Charity Kaziya¹, Cornwell Tepa² and Bernard Puta³

Abstract:

Background:

Universities present the foundation for socio-economic and political development. Without structures and processes to fight HIV, there is no prospect of enhancing treatment, prevention, care and support services. Copperbelt University HIV and AIDS response was initiated in 2003 with the aim of building capacity of students and employees in HIV and AIDS.

Objectives:

The main objective of this paper is to demonstrate how the CBU HIV response has evolved over time and provide a timeline of important milestones in the development process.

Method:

Peer educators and counsellors conduct sensitization campaigns through one on one discussion, workshops, and drama performances, distribution of Information, Education and Communication (IEC) materials.

Results:

HIV Programme has been set up with players from policy, programme and community levels. Strategic processes, collaborations, funding, medical insurance schemes, prevention, treatment, care and support services, training of peer educators and counsellors have been established.

Conclusion:

Copperbelt University HIV initiative has demonstrated potential to reduce new infections in the university, and is currently expanding her programme to encompass wellness and also spearhead the integration of HIV in the university curriculum.

Keywords: African, AIDS, HIV, Staff, Students, University, Zambia.

1. INTRODUCTION

Throughout the last three decades, HIV and AIDS have continued to spread across all continents causing the deaths of millions of adults in their prime age, disrupting and impoverishing families and turning millions of children into orphans. HIV and AIDS affect the most productive segments of the populations thereby tremendously reducing workforces and reversing many years of economic and social progress [1 - 6].

¹ Copperbelt University, Public Health Unit, PO BOX 21692, Kitwe, Zambia

² Copperbelt University, School of Mines and Mineral Sciences, Metallurgy Department P.O BOX. 21692, Kitwe, Zambia

³ Copperbelt University, Registrar's Department, P.O BOX, 21692, Kitwe, Zambia

^{*} Address correspondence to this author at the Copperbelt University, Public Health Unit, P.O BOX. 21692, Kitwe, Zambia; Tel: +260 212 251405; E-mails: nsanjobo@cbu.ac.zm, nsanjobo@yahoo.co.uk

2. GLOBAL PICTURE OF THE HIV AND AIDS EPIDEMIC

According to the Joint United Nations Programme on HIV and AIDS (UNAIDS), there were about 35 million people living with HIV by the end of 2013 and of those 24.7 million were living with HIV in sub-Saharan Africa [7]. Women account for 58% of the total number of people living with HIV in sub-Saharan Africa. Since the start of the epidemic, around 78 million people have become infected with HIV and 39 million people have died of AIDS-related illnesses. Worldwide, 2.1 million people became newly infected with HIV in 2013, while 1.5 million people died from AIDS-related causes [7]. In 2013, around 12.9 million people living with HIV had access to antiretroviral therapy (ART).

Between 2005 and 2013 the number of AIDS-related deaths in sub-Saharan Africa fell by 39% due to the introduction of anti retroviral treatment. Treatment coverage is 37% of all people living with HIV in sub-Saharan Africa. However, by 2013, 67% of men and 57% of women with HIV infection were not receiving ART in sub-Saharan Africa [7].

3. OVERVIEW OF THE HIV EPIDEMIC IN ZAMBIA

Zambia, with a population of 13 million people [8], is one of the countries with the highest prevalence of HIV in the world. Like in other parts of the world, the HIV epidemic in Zambia was identified in the mid 1980s [9]. According to the Zambia Demographic and Health Survey (ZDHS) of 2007, the HIV prevalence among adults aged 15 - 49 years is 14.3 % [10]. The majority of infected people are in their productive age groups and are contributing to the socioeconomic development of the nation. The prevalence of HIV is significantly higher among women than men. The mode of transmission is predominantly heterosexual [10]. Young people are especially vulnerable to HIV because of their lack of skill to negotiate safer sexual practices and their desire to experiment new things in life.

According to available data, the median age at first penetrative sex among young people aged 15-24 was 19.5 years for males and 17.5 years for females-an increase since 2000 of two years among males and one year among females. However, among both male and female youths with multiple partners, percentages reporting condom use during sexual encounters declined from 25% in 2000 to 21% in 2005 [11].

4. THE COPPERBELT UNIVERSITY EPIDEMIC

The Copperbelt University (CBU) as an institution of higher learning presents the foundation for socio-economic and political development. CBU is Zambia's second largest public university and is located in Kitwe. It has a student population of around 10,000 and a work force of over 915 [12]. CBU has ten faculties spread across the disciplines of Built Environment, Business, Engineering, Mathematics and Natural Sciences and Medicine. Others include the faculties of Mines and Mineral Sciences, Natural Resources, Peace and Conflict Studies and Graduate studies. Although there has never been any HIV prevalence study conducted in the university, like any other institution in Zambia CBU has not been spared by the effects of the HIV and AIDS epidemic.

During the period 1995 to 2005 CBU lost more than 120 staff [13], and still continues to a lesser extent to lose critical members of academic and non-academic staff and students to HIV related infections. The vulnerability factors for HIV infection at CBU are categorized into three major issues namely behavioural, academic environment and inter community [14].

4.1. Rationale and Objective

Research over the years has shown that the biggest numbers of people living with HIV and AIDS today are between the ages of 15 and 49 [7]. A good number of these people are in higher institutions of learning like CBU. CBU therefore educates and trains the most sexually active young adults who are most vulnerable to contracting the HIV and AIDS virus due to their risky social and sexual behaviour [14]. Biologically, adolescents' immature reproductive systems make them more vulnerable to infection by STI pathogens including HIV.

The main objective of this paper is to demonstrate how the CBU HIV response has evolved over time and provide a timeline of important milestones in the development process.

4.2. The CBU HIV and AIDS Response and Development

The university HIV and AIDS response has undergone two major structural phases in trying to define the appropriate strategies befitting the scientific evidence available at each given time. These include the early control

strategies when little was known about HIV and AIDS and the emergence of scientific evidence.

4.2.1. Early Control Strategies

The HIV response in the university was initially not coordinated by the university management. In 1990 a group of concerned students mobilised themselves to find out what they could do to mitigate the impact of HIV among the student population. At that time, it was a common feature to see such a dynamic young population register significant numbers of deaths as a result of HIV and AIDS.

Following this motivation, the Copperbelt University Student Anti AIDS Society (CBUAAS) was formed. The major activity of this group was to raise awareness about the effects of HIV and AIDS among fellow students through meetings and workshops organised in collaboration with nongovernmental organisations which were working with the youths in Kitwe District. CBUAAS at that time was operating under the regulation of the office of the Dean of Students.

Later, it was realised that HIV and AIDS were having an impact on staff health. This led in 1993 to the creation of the Copperbelt University Medical Scheme an initiative of members of staff spearheaded by the university's health services department to support hospitalisation of staff that had exhibited AIDS manifestations. Due to the chronicity of the disease at that time, it had become apparent that most members of staff were not able to afford hospital bills and general care from their basic emoluments, hence the need for a structure and processes that could facilitate care. This was a voluntary scheme where members of staff contributed finances from their salaries and to which the university added 100% of the employee's contribution.

4.2.2. The Ndosha Group

Additionally, between 1991 and 1997, some members of staff who were concerned about the plight of their colleagues with HIV and AIDS formed a group called "Ndosha". This was an informal group aimed at supporting families that were losing bread winners who were staff of the CBU. Ndosha is a term in one of the local Zambian languages which means "Mourners." The driving force and motivation behind this group was their emotional attachment to their colleagues who were dying. The Ndosha group consisted of individuals who went around offices asking for cash donations at the time of losing a colleague. These funds were in turn presented to the bereaved families for use during the funerals.

After realizing that the Ndosha group was not helping in mitigating the impact of the alarming deaths at the institution, the group with support from the university health services department spearheaded the formation of the Copperbelt University Health Support Group (CBUHSG) in 1997. Members of CBUHSG at that time used to contribute five thousand Kwacha (equivalent 1USD) from their salaries every month to support their sick and dying colleagues. The activities conducted by this group were meant to increase awareness on the impact of HIV and AIDS among employees. The university health services department was the major source of information, through seminars and workshops.

4.2.3. Incorporating Scientific Evidence for Innovative Policies and Practice

Currently the national response against the epidemic is guided by the 2011-2015 National AIDS Strategic Framework (NASF) [15]. This is the same strategy which CBU has adopted in her programming.

Concomitant with educational activities and system building, local and international researchers have recognized the key risk groups in the country, documented and predicted the course of the epidemic. In line with unfolding evidence and by applying the results observed from successful programmes in other countries, CBU HIV programme has adopted high impact prevention and behavioural interventions to enrich the response.

4.3. Achievements

4.3.1. Approval by CBU Council to Participate in HIV Work.

The official university HIV and AIDS response began in 2003 following the University Council's decision to participate actively in HIV and AIDS matters. The response developed rapidly after CBU showcased her HIV work at a Commonwealth Universities meeting in Lusaka in 2002.

The University Council is the supreme policy making body in the institution and is the legal owner of the CBU HIV programme. The council is in charge of ensuring that the HIV policy is developed and implemented through the HIV

and AIDS Committee now structured as the Public Health and Safety Committee.

4.3.2. Establishment of the HIV Programme Office

Following the Commonwealth Universities meeting, an HIV and AIDS Coordinator was recruited in 2003 in collaboration with Voluntary Service Overseas (VSO), an international nongovernmental organisation with vast experience in placement of volunteer staff. The Coordinator, now designated as Public Health Officer is the overall team leader of the CBU HIV programme. Under this office, a number of members of staff have been recruited to support the implementation of the programme The Public Health Officer works closely with other stakeholders in the university and reports all the activities to the Council's HIV and AIDS Committee, established in 2004 and now transformed into the Public Health and Safety Committee.

The Committee draws its membership from university management, staff, students' Anti AIDS Society, academic and workers' unions, members of the CBU Council, students union, university health services and Kitwe District Health Office and approves annual work plans and budgets. It meets on a quarterly basis to review and discuss the implementation of the programme on campus. The committee is chaired by a member of the CBU Council and the Deputy Vice Chancellor of the Copperbelt University serves as representative of management.

The main responsibility of the Public Health Officer is to implement, monitor and evaluate all the activities and budgets of the various groups involved in HIV and AIDS activities at the university.

4.3.3. Development of an HIV Policy

An institutional HIV Policy was developed in consultation with all stakeholders and was later approved by CBU management in 2005. The policy covers both students and staff. Recently the CBU expanded its public health programme by reviewing the HIV Policy to include wellness and also to spearhead the integration of HIV in the university curriculum.

4.3.4. Development of Strategic Plans

So far there have been three strategic plans that have taken effect since the establishment of the HIV and AIDS programme at the university. The first strategic plan covering the period 2005 to 2008 was developed and its main focus was to prevent the further spread of HIV and AIDS and mitigating its impact [13]. The second strategic plan covered the period 2009 to 2013. The overall focus for this plan now hinged on developing a *Culture of Institutional Accountability, Academic Excellence and Stability*, under strategic direction 3, which focused on human resources and staff welfare and strategic direction 7, which targeted students welfare, sports and recreation [16]. Currently, CBU has a strategic plan covering the period 2014 to 2018. In this plan, the institution's focus is *Broadening Academic Space and Institutionalising Accountability, Transparency, and Efficiency*. The HIV programme comes under strategic direction 4 which seeks to enhance *Security, Safety, Environmental and Public Health* [17].

4.3.5. Formalisation and Enhancement of Funding Opportunities

CBU began allocating finances for HIV and AIDS activities in 2004. The funding has enabled the programme office to carry out a number of activities in the various results areas. The programme has in the past received funding from the American Embassy in Zambia and the Global Fund to Fight AIDS, TB and Malaria (GFATM). The programme currently receives financial support from university administration and since 2009 the Norwegian Students and Academics' International Assistance Fund (SAIH).

4.3.6. Creation of Linkages with National and International Bodies

CBU has been collaborating with other institutions locally and internationally to strengthen the HIV response. At the local level, CBU has participated as a member of the Provincial AIDS Taskforce Committee of the Zambia National AIDS Council, Copperbelt Province. CBU is also an active member of the Kitwe District AIDS Taskforce, which is the body mandated to coordinate all HIV and AIDS programmes in the district. CBU is also collaborating with other universities in the region on HIV and sexual and reproductive health services and rights through SAIH.

Between 2011 to 2014 CBU hosted the Association of African Universities (AAU), Southern Africa Sub Regional Network. The aim of the sub regional network is to share best practices on HIV management and, invariably, the marketing of the Association and its programmes in the sub-region. The CBU model has been described by the AAU as one of the best practices in the African universities category [18].

4.3.7. Establishment of Medical Insurance Schemes

The university has two medical insurance schemes which cover both students and staff when referred to hospitals for tertiary care. The staff scheme was established in 1993 while the students' scheme was established in 1995. Students and staff contribute nominal amounts of money towards the operations of the schemes. The schemes have enabled members' access care, without worrying about financial constraints since the schemes pay on their behalf.

4.3.8. Establishment of an Anti Retroviral Treatment Centre

The advent of potent anti retroviral treatment (ART) has led to a revolution in the care of patients with AIDS. Although this treatment is not curative, it has dramatically reduced rates of morbidity and mortality in the university and has improved the health outcomes of people living with HIV and AIDS.

Through the university health services department, CBU has managed to provide ART to staff and students eligible for treatment. The priority interventions in this area include counselling and testing, increasing access and enrolment on ART, providing treatment for TB/HIV co-infection and home-based palliative care. Since 2005 when this service was introduced at the university, there has been a lot of progress in the area of treatment including more people being able to access ART.

There are currently 358 people accessing ART at the university health services department [19]. Out of these, 10 are students and 17 are members of staff while the rest include dependants of the university staff and the community around the university. So far, the number of people dying of AIDS related complications has drastically reduced.

4.3.9. Training of Students and Staff as Peer Educators and Counsellors

One of the salient features of the programme includes training of volunteer students and staff as peer educators and counsellors. Peer education training lasts five days. Before the commencement of the training, an advert is placed on the notice board for students to apply for training. The recruitment criteria includes membership to the CBUAAS, registration for that academic year, willingness to be trained without any payment and being in the university, preferably, for the next three years. For staff, members are identified through the CBUHSG and must be willing to be trained without any expected financial benefits, willing to serve the community and must be of acceptable personality.

The training of counsellors lasts six weeks and is broken into two weeks of theory and four weeks of practicals. A hybrid counselling programme is designed for students and lasts five days.

Once trained these groups provide care and support to the sick within the university community. This support ranges from voluntary counselling and testing, nutritional counselling, family planning, raise awareness of timely care-seeking, psychosocial, spiritual and palliative care to students, staff and their dependants affected by HIV and AIDS. Members also provide health education to the community. The strategies employed to reach out to the community include distribution of IEC materials, condoms, one to one discussions, departmental seminars, motivational and health talks.

Refresher trainings and quarterly meetings are also a common feature on campus. The peer educators are also equipped with programme tools like registers and supervision forms.

As at the end of 2014, a total of 625 students and 132 staff had been trained as peer educators and counsellors.

4.3.10. Establishment of Prevention of Mother to Child Transmission of HIV (PMTCT) and Voluntary Counselling and Testing (VCT) Services at CBU

At the Copperbelt University Maternal and Child Health Clinic, PMTCT service is being provided to all antenatal mothers including those coming from nearby communities at first registration. Mothers are again counselled and tested for HIV during the follow up visits if they tested negative during the initial visit. The repeat test is done 3 months after the initial test and enables the service providers to capture mothers who could have been in the window period at the first contact. Although it is an "opt out" programme, almost all mothers opt for this service after explaining its importance to the whole family. Women are encouraged to come with their spouses during the first visit so that they are counselled and tested together. This has helped in the uptake and utilisation of PMTCT services. Of late the institution has adopted the option B+ strategy where all women who are found to be HIV positive are put on ART immediately regardless of their CD4 Count [20].

VCT services are also provided to members of staff, their dependants, students and members of the surrounding community. Clients are free to walk in the clinic and be counselled and tested for HIV. Occasionally VCT mobile

facilities are provided on campus and surrounding communities. During such events, tents are mounted in strategic points where clients walk in to access the service. Since the beginning of the programme, about 2,234 VCT/PMTCT clients have accessed the service.

4.3.11. Provision of Male Circumcision Services

CBU has started offering Voluntary Male Medical Circumcision (VMMC) to the university community. Although accurate data on this service has been difficult to ascertain, records from our partner organisations that started offering this service much earlier than CBU have confirmed that in the last three years about 613 students and 23 members of staff have accessed this service.

4.3.12. Established Condom Programming

Condoms play a special role in combating the spread of HIV as they are presently the only devices that protect against sexually transmitted HIV. The CBU HIV programme provides condoms and advice on correct use of condoms to the community regularly. The goal of condom programming is to ensure that sexually active persons at risk of HIV and other sexually transmitted infections are motivated to use condoms, have easy access to quality condoms, and can use them consistently and correctly. The programme secures condoms from the Ministry of Health and so far over 48,000 condoms have been distributed to sexually active students and staff since the inception of the programme.

4.3.13. Developed Effective Communication Strategy

The HIV and AIDS communication strategy has been developed to support the implementation of the CBU HIV programme. In implementing the strategy, the ultimate aim is to bring about community involvement and participation in as far as HIV prevention, treatment and support is concerned. The use of graphic media such as posters, brochures, magazines, videos and booklets has enabled the programme produce 34,445 Information, Education and Communication materials since inception.

4.3.14. Conducted Mentoring and Programme Meetings

The CBU HIV programme provides mentorship sessions to members of the Anti AIDS Society and Health Support Group on issues of HIV and AIDS. Another important activity of the programme is to coach members in writing and basic monitoring and evaluation skills. The programme also facilitates the members' growth by sharing resources and networks. It also focuses on members' total development and these sessions are held quarterly.

4.3.15. Established Drama Group

The CBU Anti AIDS Society has an established drama group which they use in reaching out to their fellow students whenever they have campus wide outreach activities. This group highlights many aspects of HIV in their plays. Members of this drama group are students drawn from different faculties and years of study at the university.

4.3.16. Increased Awareness of HIV and AIDS

The students AAS and the staff HSG have leadership committees headed by a president and chairperson respectively. There are a number of volunteers belonging to these two groups that conduct HIV and AIDS related activities on a daily basis. These volunteers are supervised by the executive committees whose members comprise students and staff respectively and report to the Public Health Officer.

Each year the anti-AIDS society and health support group conduct various activities to sensitise students and staff using drama, songs, one on one education, debates, edu-sport and quiz. During the induction period of first year students, a thorough HIV and AIDS talk is given to them by the public health unit and anti-AIDs society. The health support group has further developed sub committees in departments and zones of the university which are presided over by Focal Point Persons and Zone Coordinators to continue with onward sensitisation.

4.3.17. Aggressive Treatment of Sexually Transmitted Infections (STIs)

The programme has been involved in the prevention and control of STIs through education and counselling of persons at risk on possible ways to avoid STIs through changes in sexual behaviours and use of recommended prevention services. The programme promotes effective diagnosis, treatment, and counselling of infected persons. The programme also encourages treatment and counselling of sex partners of persons who are infected with an STI. Since

the start of the programme, the number of STIs recorded at the university health services has reduced from 1,359 in 2004-2009 to 261 in 2010-2014 [21].

4.3.18. Provision of Post Exposure Prophylaxis (PEP)

The CBU HIV programme, through the university health services provides Post-Exposure Prophylaxis (PEP) to health care professionals and is intended to reduce the likelihood of HIV infection after potential exposure occupationally. This is provided as part of a comprehensive universal precautions package that reduces staff exposure to infectious hazards at work.

4.3.19. Promoted Corporate Commitment

As part of corporate commitment, the university has since 2009 encouraged members of staff to wear attire in form of shirt or t-shirt bearing an HIV message on Fridays. The motivation behind this is to allow personal reflection on the devastating effects of HIV and AIDS in the lives of members of staff and the institution as a whole.

4.3.20. Programme Planning and Implementation

The planning process starts with general meetings of both staff and student membership. The ideas from these meetings are then consolidated by the respective executive committees which are in turn presented to the Public Health Officer for onward presentation to the Copperbelt University Public Health and Safety Committee. The Committee further reports to the University Council, the supreme policy making body at the institution.

4.3.21. Supervision, Monitoring and Evaluation

The Public Health Officer coordinates all the public health and HIV activities and reports these to the Copperbelt University Public Health and Safety Committee. The implementation of the activities is conducted in accordance with the Strategic Plan 2014-2018. The Executive Committees of the CBUAAS and CBUHSG are responsible for keeping records of individual clients and the ground implementation of activities.

Executive members of the two groups meet regularly with staff from the Public Health Office to discuss progress on the implementation of activities. The CBU HIV programme has a full time Monitoring and Evaluation Officer whose accountabilities include regular tracking of programme accomplishments.

4.3.22. Financial Management

The Copperbelt University Accounts Department manages all financial donations of the programme and separate accounts are maintained for specific funding from different partners.

4.3.23. Programme Sustainability

The Copperbelt University has a budget line for public health activities including sexual and reproductive health, HIV and AIDS which will ensure sustainability of the activities.

5. DISCUSSION

The gist of the HIV and AIDS programme at CBU is to contribute to the fight against HIV and AIDS by positively influencing the attitudes of both students and staff. This it is hoped will assist the CBU community in protecting itself from HIV infection. Although there has never been any HIV prevalence survey conducted at CBU, the presence of the epidemic at CBU is a direct threat to achieving her mission which is to contribute to the development and sustenance of the well- being of the people of Zambia and the world through the provision of flexible, innovative, entrepreneurial, and inclusive programmes of teaching, learning, research, and service [17].

The bulk of the population in the institution is in the age group that is sexually active and therefore most vulnerable to the epidemic. Condom use among Zambians has been identified to be low. According to the Zambia Sexual Behaviour Survey of 2009, 14% of men, (19% in urban and 10% in rural) used a condom at last sex, while among women this percentage was 11% (14% in urban and 9% in rural). Despite numerous national and local awareness campaigns on the use of condoms for preventing STIs and HIV, condom use at last sex has remained low and shows little change between the 2000 and 2009 surveys periods(11). CBU HIV programme will continue to promote condom use in its community as an effective and high impact intervention.

The peculiar feature of the university population is that the population density is high with an equally high level of interaction within the university and the outside community. Furthermore, this population is dynamic in that it keeps on changing every year as new students are admitted and others graduate. In this context, the impact of a positive response to the HIV and AIDS pandemic is of both local and national significance.

The development of Information, education and communication (IEC) materials in HIV programming at the university combines methods, approaches and strategies that enable people to play active roles in achieving, protecting and sustaining their own health. Included in IEC is the process of learning which empowers people to make decisions, modify behaviours and change their social status. Both students and staff generate various types of information which is used in the programme.

The PMTCT/VCT service has started being appreciated by the community. Many women have begun accessing this service with their partners. Information available to the programme team indicates overwhelming participation by male partners in the activity. Evidence emerging from different countries has demonstrated that male partners have a tremendous impact on women's uptake of HIV testing in the context of PMTCT programmes. Low male involvement in PMTCT activities has been identified as a key obstacle to women's access and uptake of PMTCT services [22].

Research has shown that knowledge of HIV status and counseling are important to promote risk-reduction behaviors [23]. HIV detection and counseling are also important to couples so that they can access available family planning, social services, and treatment programs.

Peer education has been an important and useful strategy in awareness creation on campus. Peer education has been documented as an effective tool to increase the knowledge of a community when applied. Women's groups and health education by peer counsellors can improve the health of mothers and children [24, 25].

Although the exact number of students and staff on ART is difficult to ascertain, it is a well known reality that stigma still plays an important role in accessing services related to ART and adherence support.

Male circumcision is another intervention which is gaining ground in the CBU community following unfolding evidence about the practice. The CBU health services department offers this service to both students and staff at no cost to the clients. For some time now, observational studies have presented increasing evidence that medical circumcision of men reduces HIV acquisition from infected female partners by approximately 60% [26 - 29].

6. CHALLENGES

Although the CBU HIV Programme has demonstrated a lot of positive milestones within its evolution, there has been little participation among academic members of staff despite the HIV scourge having not spared them. Funding for HIV programmes has also not matched the ever increasing number of both students and employees. Another vexing issue within the HIV programme has been the motivation of volunteer staff who feel their efforts in creating a platform for increasing awareness among staff has not been adequately recognised by the institution. This has led to some volunteers becoming inactive over time. The lack of specific data on HIV prevalence within the institution has affected some efforts in as far as targeted interventions are concerned.

CONCLUSION

There is a good policy and strategy framework for interventions against HIV and AIDS at the Copperbelt University. Program implementation continues to go on smoothly and the increase in interest by both staff and students to participate in HIV and AIDS program activities organised by the university has been very encouraging. While success has been scored in most major thematic areas of the response, the CBU HIV programme will endeavour to intensify prevention of HIV infection, expand treatment, care and support for people affected by HIV and AIDS, mitigate the socio-economic impact of HIV and AIDS, strengthen the response and mainstream HIV and AIDS into university life, improve the monitoring of the institutional response and integrate advocacy and coordination of the inter departmental response.

As funding realities are becoming a challenge for many countries affected by HIV and AIDS, the CBU Council must step up its commitment and provide continued financial support to the CBU HIV programme in order to guarantee the sustainability of the programme.

RECOMMENDATIONS

Conduct an HIV Sero Prevalence Survey at CBU

There has never been any HIV prevalence survey since the inception of the programme. There is need to establish the HIV sero prevalence among the university community.

Evaluation of Activities on Campus

Evaluation of activities has taken the form of stakeholders meetings and through administration of questionnaires at training sessions to participants of the HIV programme. There is need to conduct a comprehensive evaluation of the entire programme in order to help understand the depth of the result areas.

Integration of HIV and AIDS in the Curriculum at CBU

CBU is currently discussing the possibility of integrating HIV into the university curriculum at under graduate level. This could be an opportunity to motivate academic staff to participate in HIV programme

Motivation of Volunteer Staff

There is need for the institution to develop a motivational strategy for the volunteer staff in order for them provide the much needed awareness campaigns on campus.

AUTHORS' CONTRIBUTIONS

Nawa Sanjobo (NS) - conceived the idea, drafted manuscript and proof read the paper. Matilda Lukwesa (ML) - contributed information and proof read the paper. Charity Kaziya (CK) - contributed information and proof read the paper. Cornwell Tepa (CT) - contributed information and proof read the paper. Bernard Puta (BP) - contributed information and proof read the paper.

CONFLICT OF INTEREST

The authors confirm that this article content has no conflict of interest.

ACKNOWLEDGEMENTS

The Authors would like to acknowledge support from Management of the Copperbelt University in soliciting for information. We would also like to thank CBU students and staff who have over a period of time made the CBU HIV response reach where it is today.

REFERENCES

- Dixon S, McDonald S, Roberts J. The impact of HIV and AIDS on Africa's economic development. BMJ 2002; 324(7331): 232-4.[http://dx.doi.org/10.1136/bmj.324.7331.232] [PMID: 11809650]
- Foster G, Williamson J. A review of current literature on the impact of HIV/AIDS on children in sub-Saharan Africa. AIDS 2000; 14(Suppl. 3): S275-84.
 [PMID: 11086871]
- [3] Bachmann MO, Booysen FL. Health and economic impact of HIV/AIDS on South African households: a cohort study. BMC Public Health 2003; 3: 14. [http://dx.doi.org/10.1186/1471-2458-3-14] [PMID: 12667263]
- [4] Hosegood V, Vanneste A, Timæus IM. Levels and causes of adult mortality in rural South Africa. AIDS 2004; 18(11): 1-19. [http://dx.doi.org/10.1097/00002030-200403050-00011]
- [5] Hosegood V, McGrath N, Herbst K, Timæus IM. The impact of adult mortality on household dissolution and migration in rural South Africa AIDS 2004; 18(11): 1585-90.
- [6] Mutangadura G, Mukurazita D, Jackson H. A review of household and community responses to the HIV/AIDS epidemic in the rural areas of Sub-Saharan Africa. Geneva: UNAIDS report 1999; pp. 99-39E.
- [7] UNAIDS Global AIDS Update 2013 Report. Available at: http://www.unaids.org/sites/default/files/en/media/unaids/contentassets/documents/factsheet/2014/20140716_FactSheet_en.pdf 2015 [Accessed on 9th February];
- [8] Lusaka: Census of Population and Housing Preliminary Report. Lusaka, Zambia: Central Statistical Office 2010.
- [9] National HIV/AIDS/STIs/TB Council. Lusaka HIV and AIDS Epidemiological Estimates 2009 Revision. In: Zambia National HIV/AIDS/STI/TB Council; Lusaka: Zambia 2009.

- [10] Zambia Demographic and Health Survey. Calverton, Maryland, USA: CSO and Macro International Inc 2007.
- [11] Zambia Sexual Behaviour Survey. Lusaka, Zambia: Central Statistical Office 2009.
- [12] The Copperbelt University Annual Report. Kitwe, Zambia: Copperbelt University 2014.
- [13] The Copperbelt University Preventing the further Spread of HIV/AIDS and Mitigating its impact. In: The Copperbelt University Strategic Plan, 2006 -2009.; Copperbelt University. Kitwe: Zambia 2014.
- [14] The Copperbelt University A baseline survey of the Knowledge. In: Attitude and Practices of Copperbelt University Students about HIV/AIDS.; Copperbelt University. Kitwe: Zambia 2005.
- [15] National HIV/AIDS/STIs/TB Council In: IV/AIDS/STIs/TB Council National AIDS strategic framework 2011-2015 Towards improving the quality of life of the Zambian people. Lusaka, Zambia: National AIDS Council 2010.
- [16] The Copperbelt University Towards a Culture of Institutional Accountability, Academic Excellence and Stability. In: The Copperbelt University Strategic Plan, 2009 2013; Copperbelt University. Kitwe: Zambia 2005.
- [17] The Copperbelt University Broadening Academic Space and Institutionalising Accountability, Transparency and Efficiency. In: The Copperbelt University Strategic Plan, 2014 -2018; Copperbelt University. Kitwe: Zambia 2005.
- [18] Association of African Universities. HIV & AIDS and Higher Education in Africa: A Review of Best Practice Models and Trends. October 2007. Available at: http://www.aau.org/sites/default/files/AAUBP-report.pdf
- [19] The Copperbelt University CBU ART Monthly HIR 72 Register 2014. In: Copperbelt University Health Services Department; Kitwe: Zambia 2014
- [20] Lifelong Antiretroviral Drugs (ARV's) for all HIV positive Pregnant Women in Zambia Policy Guidelines for Health Facilities in Zambia. Lusaka, Zambia: Ministry of Health 2013.
- [21] The Copperbelt University Annual Reports 1993-2014. In: Copperbelt University Health Services Department; Kitwe: Zambia 2014.
- [22] Brusamento S, Ghanotakis E, Tudor Car L, van-Velthoven MH, Majeed A, Car J. Male involvement for increasing the effectiveness of prevention of mother-to-child HIV transmission (PMTCT) programmes. Cochrane Database Syst Rev 2012; 10(10): CD009468. [http://dx.doi.org/10.1002/14651858.CD009468.pub2] [PMID: 23076959]
- [23] Weinhardt LS, Carey MP, Johnson BT, Bickham NL. Effects of HIV counseling and testing on sexual risk behavior: a meta-analytic review of published research, 1985-1997. Am J Public Health 1999; 89(9): 1397-405.
 [http://dx.doi.org/10.2105/AJPH.89.9.1397] [PMID: 10474559]
- [24] Johnson V, Leach B, Beardon H, Covey M, Miskelly C. Love Sex and Young People: Learning from our peer educators how to be a youth-centred organisation. London: IPPF 2013; p. 172.
- [25] Lewycka S, Mwansambo C, Rosato M, et al. Effect of women's groups and volunteer peer counselling on rates of mortality, morbidity, and health behaviours in mothers and children in rural Malawi (MaiMwana): a factorial, cluster-randomised controlled trial. Lancet 2013; 381(9879): 1721-35.
 [http://dx.doi.org/10.1016/S0140-6736(12)61959-X] [PMID: 23683639]
- [26] Weiss HA, Quigley MA, Hayes RJ. Male circumcision and risk of HIV Infection in sub-Saharan Africa: A systematic review and meta-analysis. AIDS 2000; 14(2361): 2370. [http://dx.doi.org/10.1097/00002030-200010200-00018]
- [27] Auvert B, Taljaard D, Lagarde E, Sobngwi-Tambekou J, Sitta R, Puren A. Randomized, controlled intervention trial of male circumcision for reduction of HIV infection risk: the ANRS 1265 Trial. PLoS Med 2005; 2(11): e298.
 [http://dx.doi.org/10.1371/journal.pmed.0020298] [PMID: 16231970]
- [28] Bailey RC, Moses S, Parker CB, et al. Male circumcision for HIV prevention in young men in Kisumu, Kenya: a randomised controlled trial. Lancet 2007; 369(9562): 643-56. [http://dx.doi.org/10.1016/S0140-6736(07)60312-2] [PMID: 17321310]
- [29] Gray RH, Kigozi G, Serwadda D, et al. Male circumcision for HIV prevention in men in Rakai, Uganda: a randomised trial. Lancet 2007; 369(9562): 657-66.
 [http://dx.doi.org/10.1016/S0140-6736(07)60313-4] [PMID: 17321311]

Received: March 16, 2015 Revised: June 12, 2015 Accepted: July 28, 2015

© Sanjobo et al.; Licensee Bentham Open.

This is an open access article licensed under the terms of the Creative Commons Attribution-Non-Commercial 4.0 International Public License (CC BY-NC 4.0) (https://creativecommons.org/licenses/by-nc/4.0/legalcode), which permits unrestricted, non-commercial use, distribution and reproduction in any medium, provided the work is properly cited.