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Review of Social Challenges of Heterosexual Transmission of HIV/AIDS in Uganda

Samuel Ikwaras Okware

Abstract

This Chapter reviews and discusses the experiences of Uganda and the lessons learnt during the successful implementation of its HIV/AIDS Control Program. The major mode of transmission was by the heterosexual route. Control measures thus emphasized behavior change and sexual discipline that promoted faithfulness and monogamous sexual relationships. This chapter examines the factors responsible for the positive outcomes in the implementation of the national AIDS control strategy. The review is based on literature, reports and personal experience. The Uganda Program AIDS in the Ministry of Health (MOH) was one of the earliest AIDS Control Programs in the world. A cumulative total of nearly 2 million people have been infected since the onset of the outbreak in 1982. Some one million HIV related deaths also occurred. When the National AIDS Control Program was initially rolled out in the country there was no cure and the disease was like a death sentence. The available evidence then demonstrated heterosexual transmission as the major mode of spread. Interventions based on the promotion of Abstinence, Being faithful, and Condom use (ABC strategy) were the main components of the strategy in the public campaigns. This complex disease also impacted society and the social fabric deeply. The activities were expanded to include the socio and economic dimensions of HIV/AIDS. Later on the combination strategy integrating biomedical and social behavior change strategies offered new and more encompassing opportunities. The introduction of the antiretroviral therapy (ART) and availability of simplified tests for detection of the viral load status improved treatment and restored hope. Social support and programs for reduction of stigma opened up participation by people living with HIV/AIDS. A community based intersectoral and decentralized strategy reached every village and assured community engagement and involvement. Drastic and steady declines in prevalence and incidence followed. Cases have been declining steadily and prevalence and incidence rates continue to drop and reverse the HIV status in the country. Community Engagement strategy to promote monogamous sexual behavior and the introduction of the highly active retroviral treatment significantly consolidated to the successful outcomes.

Keywords: HIV, Uganda, Prevention, social, challenges, community, success

1. Introduction

The Uganda model of HIV/AIDS prevention was often mentioned as a success story [1–6]. It was the first AIDS Control program in Africa. The Human Immunodeficiency

Virus (HIV) is a virus that attacks the body's immune system. It leads to Acquired Immunodeficiency Syndrome (AIDS), an unprecedented pandemic. HIV is a slow infection that may cause AIDS. However, the majority of People Living with HIV/AIDS (PLWHA) are asymptomatic. Heterosexual transmission is responsible for nearly 90% of the transmission [7–9] in Uganda.

The aim of This Chapter is to review and discuss the factors that influenced the success of the Ugandan AIDS/HIV Control Program. It examines the historical perspectives and outcomes by desk and literature reviews. Following the implementation of the ABC strategy, sharp declines in HIV prevalence were reported. From 1990 to 2000 HIV prevalence dropped from 18% in the 1990s to 6% over a ten-year period [1, 10]. In 1982 the first cases of HIV/AIDS were reported in Rakai district of Uganda on the border with Tanzania. It was then referred to a “Slim Disease” because of the extreme wasting resulting from persistent fever and diarrhea. The local villagers believed it to be due to witchcraft as it affected mostly the rich and their spouses. Orphans were left helpless and many carried the family burden. The epidemic emerged at a time when the health system and services had been severely disrupted by years of insurgency. Cases were doubling every six months. The infection spread quickly along trade routes. When truck drivers and sex workers got infected they easily spread infection in urban areas. The rural communities initially were less affected. In urban areas the prevalence among antenatal mothers was 30% and the rural communities were less affected at just 3% in 1990. The mother to child transmission was less than 10%. Heterosexual transmission therefore remained the major route of infection [8, 11, 12].

The national response was organized and led by HE the President of Uganda. An intersectoral Committee of the Cabinet developed and executed one national joint plan across the sectors, ministries, departments and agencies. Each sector then developed their HIV strategies and work plans which were implemented in a decentralized approach. In 1992 coordination was shifted from the Ministry of Health (MoH) to the Uganda AIDS Commission (UAC) secretariat in the office of the President. Similar coordinating frameworks were then repeated at district, county sub county, parish and community levels. All these structures supported the National Strategic Plans (NSP) which was a decentralized and multisectoral response with emphasis on community participation. Maximum community involvement was the pillar to the approach for the prevention of the heterosexual transmission [5, 8, 9, 13]. The program was supported by several bilateral and international partners, principally the United States of America, United Kingdom and several countries in the European Union in an arrangement led by the World Health Organization (WHO) and later by the Joint United Nations Program on HIV/AIDS (UNAIDS) [14]. UNAIDS leads and inspires the world to achieve its shared vision of zero new infections by 2030. Many lessons were learnt which have formed a basis for other emerging and remerging outbreaks.

2. The ABC strategy

Heterosexual transmission was the major mode of transmission and this was the focus of the national response. The ABC strategy in Uganda is cited positively for HIV prevention and control. The promotion of Abstinence, Being Faithful and Condom use (ABC Strategy) were critical components to HIV/AIDS prevention and control. The ABC Strategy were the key interventions to promote morality and reducing cases in the early years [2, 5, 11]. Primary abstinence, “A” occurs when a young person has never had sex. Secondary abstinence is when an adult delays sexual activity after initiation. Studies by the Medical Research Council

AIDS studies in Uganda demonstrated the protective value of primary abstinence. However this protection could last up to the age of 19 years, depending on one's current sexual behavior. Between 20 and 24 years there was no correlation between those who had delayed age of sexual debut and those who did not [15]. Abstinence has been improving as the age of sex debut dropped to 14 years from 17 years [16]. Being Faithful is practicing sex with one partner in a lifelong relationship. However, polygamy still exists in many communities in Uganda. In some polygamous marital relationships there are no clear boundaries of monogamy. The contribution of faithfulness is indirectly related to total fertility patterns. Total fertility rate in Uganda is six meaning that a mother may produce that number of children on average. The fertility has remained stagnant. This presumably may imply that women today are indulging in the same numbers of unprotected sexual contacts but with fewer partners than before, thereby yielding fewer new infections. It is plausible that although these women are having the same number of sexual contacts, they are doing so with fewer men.

3. Condoms

Correct and consistent use of male condom offers some degree of protection from HIV and other sexually transmitted infections [17, 18]. Uptake in the Uganda male has remained low but varied over the years [9, 16, 19]. In urban areas the demand for condoms is high. Local norms, high costs and stigma also impact access to condoms. Religious organizations claim that condom messages offer conflicting messages that undermine the moral standards of monogamous relationships. Others perceive that it promotes promiscuity. Condom uptake has since been scaled up and is a regular component of the National AIDS Control Program. Condom use has increased from 5% in the 1990s to 32% in 2019 [19, 20]. The contribution of condoms in the reduction of the observed HIV infections is not clear. Most of the declines in HIV infections occurred long before the year 2000 when condom availability and use was still very limited [6]. That view then suggests that probably Abstinence and "Being Faithful" contributed the most in the early HIV declines. There are groups for which condoms remain a necessity. Discordant PLWHA will need condoms. Condoms are required during voluntary testing and counseling. Discordant married couples need condoms even in monogamous relationships. Promiscuity can be a problem even in marriage. A recent survey revealed that about 4% of married respondents admitted having a regular partner outside marriage for more than 12 months [16, 19]. Commercial sex workers, both formal and informal are very mobile. And have high HIV prevalence rates, often as high as 60%. Their work carries a very high risk of HIV acquisition. Sexually transmitted diseases are prevalent in these communities. Surveys show that 17% of women and 5% of men were infected [16, 19].

4. Trends in HIV prevalence

Uganda's population in 2021 is estimated at 41 million with a growth rate of 3.02%. In 1986, the population was 15 m with the same growth rate [21–23]. About 80% live in rural areas while 20% reside in urban areas. The country has a predominantly young population: nearly 50% are below the age of 19 years [5, 21, 24]. The recent surveys indicate that about 1.4 million people in Uganda are living with HIV/AIDS [5, 19, 21]. HIV prevalence been declining steadily from 6.6% in 2010 to 6.1% in 2015 and 5.8% in 2020 (**Figure 1**) [25]. Similar trends over the last two

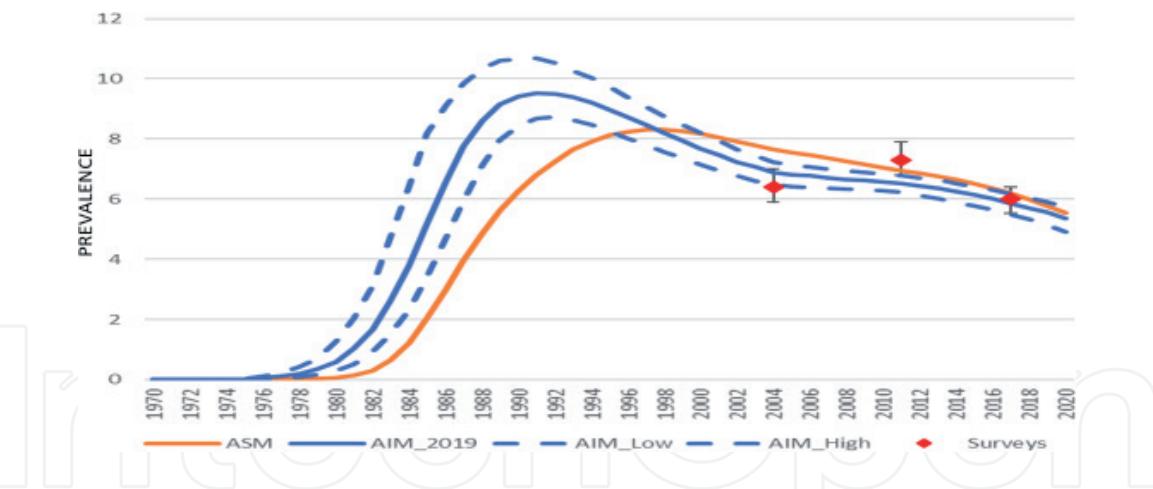


Figure 1. Trends in HIV prevalence among 15–49 year olds between 1970 and 2020. Source: Epi-data 1990–2020. In: AIDSinfo [database]. 17 may 2019–2021 Jan 2020. Geneva: UNAIDS; updated 30 June 2020 (<http://aidsinfo.unaids.org/>) [25].

decades has been observed in the population [1, 12, 16, 26]. Even among the high risk groups, the burden is reducing. For instance, rates among commercial sex workers’ declined from 68 to 37% between 1988 and 2020 [19, 27]. The age of sexual debut too reduced from 18 to 15 years. The number of sexual partners has also declined by half. Knowledge about HIV/AIDS remains high at 87% according to surveys [10, 12, 19]. The rural areas show the lower rates of about 2.0% during the period. Urban areas on the other hand have much higher prevalence rate of 7.5%. New infections too have declined by 62% from 3.19 in 2010 to 1.93 in 2015 and 1.3 in 2020 per 1000 persons (**Figures 2 and 3**) [25]. In 2019 some 53,000 new infections were recorded, compared with 67,000 in 2015, of which 5,700 children and 28,000 were among women. Females are infected four fold than males. Among antenatal mothers prevalence declined from 33% to less than 10% between 1990 and 1995. Among the general population there were significant similar declines - from 18 to 6% Mother to child transmission too has greatly declined by nearly 90% [6, 9]. Mortality rates too due to HIV/AIDS declined from about 53,000 in 2010 to 21,000 in 2019. AIDS-related deaths too declined over the past decade to approximately 21,000 in 2019 (compared to 29,000 in 2015 and 53,000 in 2010 (**Figure 4**) [12, 20, 25]. Males are more affected and their treatment adherence is lower. Some 70% of people living with HIV/AIDS were on antiretroviral treatment in 2020. Stigma generally has declined from 4.5% in 2013 to 1.3 in 2019 according to a National Study on Stigma Index [28, 29]. However,

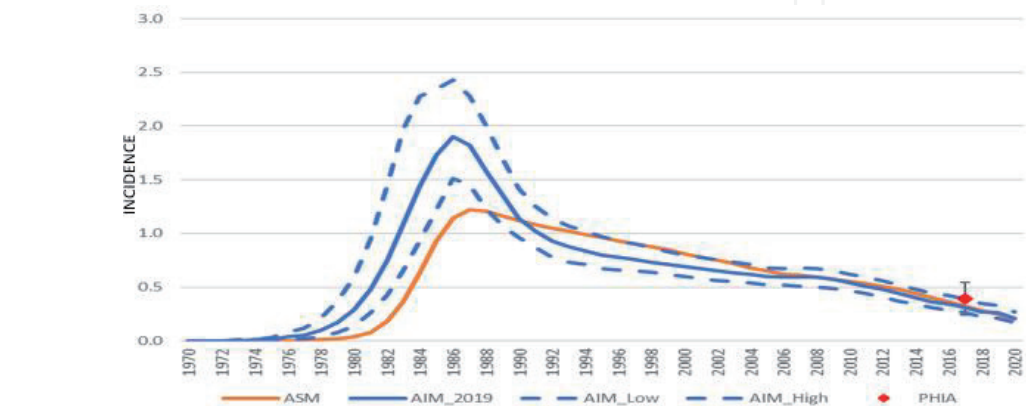


Figure 2. Trends in HIV incidence among 15–49 year olds between 1970 to 2020. Source: Epi-data 1990–2020. In: AIDSinfo [database]. 17 may 2019–2021 Jan 2020. Geneva: UNAIDS; updated 30 June 2020 (<http://aidsinfo.unaids.org/>) [25].

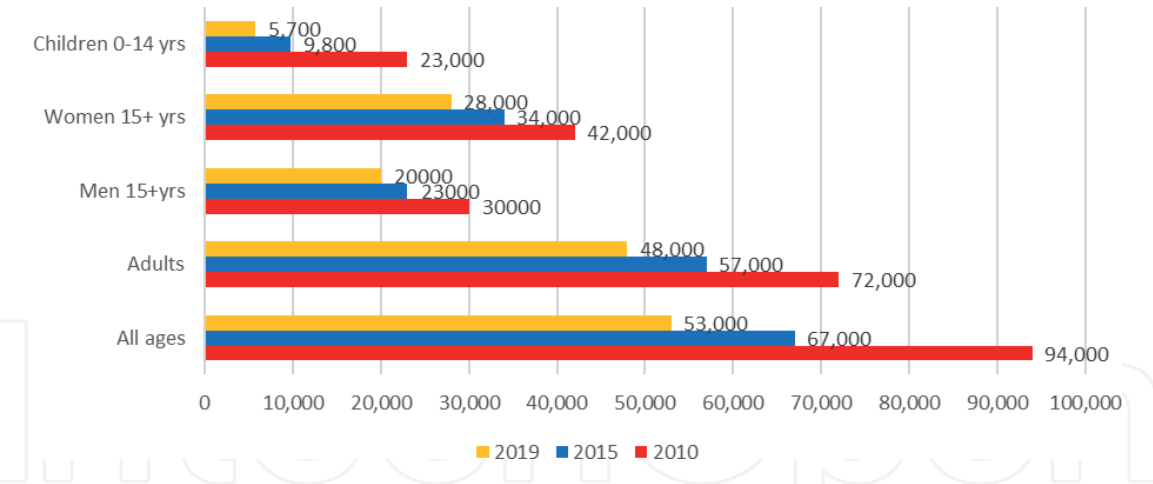


Figure 3.
Trends in estimated new HIV infections by age and sex. Source: Epi-data 1990–2020. In: AIDSinfo [database]. 17 may 2019–2021 Jan 2020. Geneva: UNAIDS; updated 30 June 2020 (<http://aidsinfo.unaids.org/>) [25].

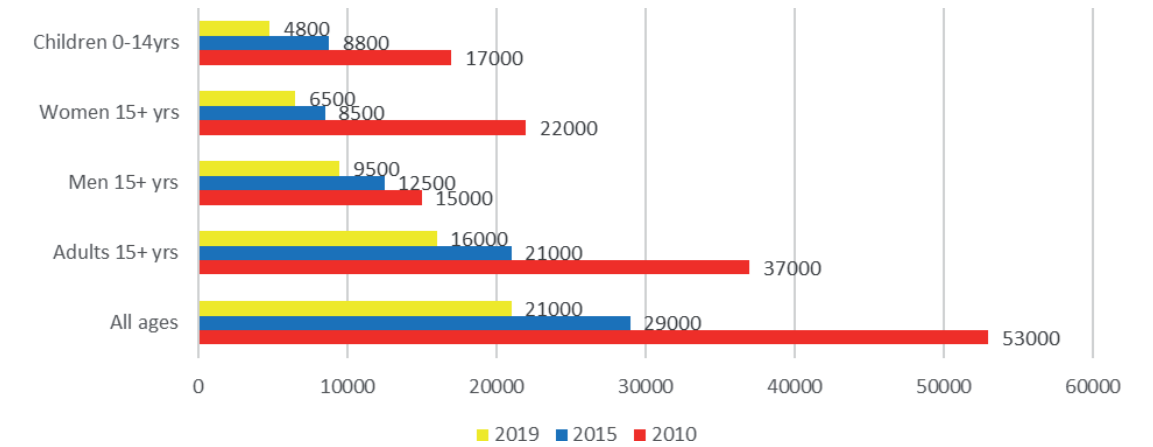


Figure 4.
Trends in estimated numbers of AIDS-related deaths. Source: Epi-data 1990–2020. In: AIDSinfo [database]. 17 may 2019–2021 Jan 2020. Geneva: UNAIDS; updated 30 June 2020 (<http://aidsinfo.unaids.org/>) [25].

some obsolete legislation in the Penal Code which criminalizes sex workers and same sex sexuality is yet to be repealed. Legal and policy changes should be made to reduce stigma and address human rights concerns.

Despite progress, some social and economic barriers persist. Structural elements such as gender inequality, economic inequities, cultural barriers and thinly veiled prejudices continue to undermine the target goals. It is not therefore surprising that new infections are highest among Adolescent Girls and Young Women (AGYW). Gender based violence is high especially during the COVID 19 lockdown restrictions. Poverty leads to social exclusion of women and limits access to social services. The rise of alcohol consumption and drug use has also been reported in these age group [28, 29].

5. Public education

Creating awareness about HIV/AIDS was the key for community participation and public education. Fear was used first as a deterrent but the people became insensitive to frightful images. Later the program embarked on a softer approach which targeted specific groups, with specific packages for the public, religious and nongovernmental organizations, schools and political cadres. The media campaign used elders, musicians, opinion leaders for mobilization. Intervention packages for

the illiterate communities were also developed. The public and community based networks were happy with “Love Carefully”. The religious preached the “Love Faithfully” message. The schools taught “Abstinence” as their major intervention. The children in turn conveyed the message to their parents. Basic infection control supplies and palliative drugs were included in the packages as part of home based care. Additional mobilization through entertainers, musicians, and other individuals with influence was carried out. The chairperson of the village coordinated this decentralized approach, strengthened by a series of training modules including the training of trainers.

The ABC strategy addressed the drivers of this route and contributed to the success and reduction of HIV infection in the initial phase. Later the three components were strengthened by the combination strategy which blended the biological components with behavior change package. The full introduction of antiretroviral therapy leveraged prevention and undetectable viral loads greatly reduced the risk of transmission [14]. The 90–90–90 Strategy involving test and treat was optimized combination strategies. HIV related mortality reduced by between 40 and 60% [16].

6. Needs of the young population

Uganda has a young population in which almost 50% are aged 0–19 years. This is the domain of turbulent sexual experiences. Other social determinants had to be tackled especially among the adolescent women and the youth. A study revealed key populations fuelling new infections. Therefore, among key vulnerable groups identified were adolescent girls and young women. Often some are coerced to exchange sex for money or other incentives. While the national HIV prevalence rates in the general population has declined, the prevalence rates in young women has remained higher at 7.4% compared to men at 4.3% [16, 20, 25]. These are very mobile groups. In a recent study assessing the movements of young commercial sex worker in Central Uganda, it was reported that over 81% reported different operating work sites many miles apart for their trade, thus increasing the geographical risk of transmission. While PrEP should be included in combination package for adolescents and young people, the programs should at the same time address the potential risks against other sexually transmitted infections and unwanted pregnancies [30].

Community engagement strategies must be strengthened to enable communities get involved in the provision of sustained services.

7. Needs of the elderly clients

The 90–90–90 strategy applies well for the relatively young groups, but does not fully meet the needs of the elderly. The elderly whose life has been extended thanks to treatment need special support for social inclusion. It should extend beyond relative “cure”. Their quality of life should be addressed. It should include provision of social amenities as well. The aged are susceptible to non-communicable diseases. Their lives should be integrated into society so as to enable them access normal services and social amenities. They need jobs, gainful employment and housing. Programs should be developed and integrated into the AIDS Control Programs in order to promote the total quality of life for the elderly clients. Future HIV/AIDS programs should therefore plan for the long term post recovery needs of clients.

8. Community engagement

The gains should be consolidated. It is necessary to consolidate our achievements. Scaling up the test and treat strategies will significantly reduce new infections. The adolescents and young women and the youth in particular should be our priority. Broadly focus should be made on productivity especially at community and household level. Service packages and delivery platforms should be developed to respond to the social determinants of infection. Prioritize packages for which there is maximum benefit against minimum input in resources. The very significant reduction in the mother- to -child -transmission should be maintained at all costs... Engage men to stop the further spread of new infections and gender based violence. The very low level of participation by men could constrain the foreseen goals of eliminating AIDS by 2030. Let no one be left behind in realizing the goal of the elimination of HIV/AIDS by on time.

Gaps in scientific knowledge remain unanswered. We need to undertake implementation and operational research. The perfect use of scientific evidence will help sustain our achievements and improve the quality of life for all. Research should be carried out to identify the social needs of vulnerable PLWHA in respect to jobs and access to amenities including social services and recognition.

9. The impact of COVID

The current global COVID 19 pandemic has already impacted access to HIV/AIDS services. Since March 2020, lockdowns, curfew, travel restrictions were imposed country wide. By August 2021, about 97,000 cases and 2900 deaths were reported (Ref Standard operating procedures including social distancing limited attendance at clinics [26]. Emphasis was shifted away from HIV/AIDS to COVID 19. Occasionally there was temporary suspension of services and the fear of getting COVID from health facilities further limited access to services. According to a survey. Some 78% of the respondents reported facing challenges since the onset of COVID 19. Furthermore Coordination and central support supervision and follow up of patients was disrupted with viral load testing dropping from 96% in December 2019 to 85% in June 2021. Clinic attendance dropped by 11% in 2020 between March 2020 and June 2020. Some 5020 (0.4%) of the clients were lost and as such unable to get drug refills, and treatment noncompliance. Also ART initiation and viral load testing were reduced by 31%. CD4 testing reduced from 31–22%. There will be serious competition for both human, facility and financial resources at national and international levels. Integrating the HIV/AIDS programs may mitigate loss of funding.

Sustainability is a major is a major challenge towards “Zero cases by 2030”. There will also be stiff competition for available resources. The current COVID 19 pandemic has already impacted on health delivery and HIV/AIDS services following the lockdowns and sharing of both human and financial capacities. We need to integrate efforts at the operational levels to enhance synergy and collaboration. To undertake this approach, it is necessary to establish some national and community prevention coalitions between sectors at the community level. Uganda, for instance, has established a Community Engagement Strategy. The strategy harmonizes and integrates community efforts at village level. Family care givers provide home based care and are key members of the care team. They provide home based care, maintain community based surveillance of cases, maintain contact with clients and provide the essential supplies and advise including referrals. They make reports regularly. They, too, will respond to ethical dilemmas arising out of cultural and

traditional norms. Their skills and capacity therefore should be upgraded. They should participate in community based research and evaluate interventions. All members of the community must share the burden and responsibility to change the face of HIV/AIDS. Pooled human resources will promote integration. Networks for partnerships and collaboration should be strengthened at all levels.

10. Conclusion

The Abstinence- Being Faithful- Condoms strategy have effectively complemented each other and contributed to the success and reduction of HIV infection in the initial and subsequent phases of the outbreak. A decentralized community approach expanded coverage quickly and effectively. The community based strategy built bridges and solidarity among communities. The introduction of the 90–90–90 test and treat technology and the integration of behavioral and biomedical combination packages made a significant contribution to containing the HIV/AIDS pandemic. The HIV national response has been used as an entry point for the containment of other health problems including COVID 19. While there is improved longevity in general, we must also respond to the emerging social needs of the surviving elderly clients. Social programs that will assure socioeconomic inclusion for jobs, housing, and amenities are desirable for the post recovery period. Such services should be extended to include the social needs of surviving clients. Let no one be left behind as we prepare for transition to the elimination of the scourge by 2030.

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References

- [1] Mbulaiteye, S., Whitworth JA,, Declining HIV1 incidence and associated prevalence over 10 years in a rural population in south west Uganda: a cohort study *Lancet Infectious Diseases*, 2002. 360: p. 41-6.
- [2] Singh S, D.J., A, B, and C in Uganda: the roles of abstinence, monogamy and condom use in HIV decline, 2003, The Allan Guttmacher Institute: Washington DC.
- [3] Green E, *Rethinking AIDS prevention: learning from successes in developing countries*, 2003, Praeger: Westport, CT.
- [4] Hogle JA, *What happened in Uganda? Declining HiV prevalence, behavior change and the national response*, 2002: Washington, DC.
- [5] Project, P.H.a.n., *The ABCs' of HIV prevention. Report of a USAID technical meeting on behaviour change approaches to primary prevention of HIV/AIDS*, 2002, USAID Washington DC.
- [6] Okware, S., et al., *Fighting HIV/AIDS: is success possible?* Bulletin of the World Health Organization, 2001. 79(12): p. 1113-1120.
- [7] Serwadda, D.e.a., *Slim disease, a new disease in Uganda and its association with HTLV III infection*. *Lancet Infectious Diseases*, 1985. 8460: p. 849-852.
- [8] Berkley, S.F., et al., *Risk factors associated with HIV infection in Uganda*. *The Journal of infectious diseases*, 1989. 160(1): p. 22-30.
- [9] Okware, S., et al., *Revisiting the ABC strategy: HIV prevention in Uganda in the era of antiretroviral therapy*. *Postgraduate medical journal*, 2005. 81(960): p. 625-628.
- [10] MoH, *STD/AIDS control program, HIV surveillance report June 2001*, in *STD/AIDS control program, HIV surveillance report*, M. J, Editor 2001, Ministry of health, AIDS Control Programme: Kampala.
- [11] Berkley, S., et al., *AIDS and HIV infection in Uganda--are more women infected than men?* *AIDS*, 1990. 4(12): p. 1237-1242.
- [12] MoH, *Uganda population based HIV assessment (UPHIA) 2010-2017*, A. Opio, Editor 2017, MoH: Kampala.
- [13] Slutkin, G., et al., *How Uganda reversed its HIV epidemic*. *AIDS and behavior*, 2006. 10(4): p. 351-360.
- [14] UNAIDS, *UNAIDS Strategy 2016-2021*, in *AIDSinfo (data base) updated 30 June 2020 on the track to end AIDS2016*, UNAIDS: Geneva.
- [15] J, W., *Follow up HIV AIDS Cohort in Rakai, Uganda*, S. Okware, Editor 2002.
- [16] UAC, *MTR of NSP 2016/2020 (Report 2019)*, in *National HIV/AIDS Strategic Plan 2020/2021-2024/2025. Leaving no one towards ending AIDS by 2030*, M. Nelson, Editor 2019, UAC: Kampala.
- [17] Holmes KK, L.R., Weaver M, , *Effectiveness of condoms in preventing sexually transmitted diseases*. *Bull WHO*, 2004. 82: p. 454-461.
- [18] UNAIDS, *Position statement on condoms and HIV prevention*, 2004, UNAIDS UN: Geneva.
- [19] MoH, *The Uganda population based HIV Impact Assessment (UPHIA) 2010-2017*. Final report, 2019.
- [20] UAC, *The Midterm Review of the NSP 2015-2019*. Final report, 2020, UAC: Kampala
- [21] UBOS, *Statistics Population Abstract*, 2019, UBOS, Editor 2019, Government of Uganda 01-20202019: Kampala.

[22] UBOS, *Uganda Census data*, M.o.F.P.a.E. Development, Editor 1991, Uganda Beareau of Statistics: Kampala.

[23] UBOS, *Uganda national statistics records, 2002*, 2002, Ministry of Finance Planning and Economic Development: Kampala.

[24] UBOS, *Statistical abstract 2011*, 2011, UBOS: Kampala.

[25] UNAIDS, *Epi-data 1990-2020 AIDSinfo (database). updated 30 June 2020.*, c. AIDSinfo, Editor 2020, UNAIDS: Geneva.

[26] NSP, *National Strategic Plan 2021-2026*, UAC, Editor 2021, UAC: Kampala.

[27] Okware, S.I., *Towards a national AIDS-control program in Uganda*. The Western journal of medicine, 1987. **147**(6): p. 726-729.

[28] Muhangi, D., *Baseline study on assess to sexual and reproductive health and rights and HiV and AIDs services for LGBTI persons in Uganda. Final report of a study fo human rights awareness and promotion forum (HRAPF)*, 2018, UAC: Kampala.

[29] NAFOPHANU, *The people living with HIV Stigma Index. Uganda country assessment report*, 2019, NAFOPHANU- (The National Forum of of people living with HIV /AIDs Networks in Uganda), 2019.

[30] Semata A, *The potebntial effect of PrEP roll out on sexual risk behaviour among adolescents and young people in east ans southern Africa.*, in *unpublished* 2021.