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## Bridging the Gap from Data to Evidence-Based HIV Prevention in Uganda

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### Abstract

Uganda's current HIV prevalence rate of 7.2 % shows an increase in the number of new HIV cases (UNAIDS, 2012), with 80% of new infections accounted for by heterosexual transmission (Uganda AIDS Commission, 2012). Risky behaviors associated with HIV in Uganda include having multiple sexual partners, inability to negotiate safer sex strategies and an increase in systematic commercial sex especially among elite students (Aluzimbi et al., 2012; Muhenda, 2013; Ortega, 2013). However Uganda has continuously ignored the mode of transmission and risky behaviors associated with new HIV cases and instead focus on the biomedical perspectives of HIV prevention (Pisani et al., 2003). Our analysis therefore calls for the need to focus on behavioral and transmission dynamics of HIV based on the available data. This will then form the basis of evidence-based approach to reducing new HIV infections in Uganda.

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### 1. Introduction

Over 30 years of HIV/AIDS research in Uganda have yielded both positive and negative outcomes. Currently we know the cause of HIV, risky behaviours associated with HIV, dominant modes of HIV transmission, at risk groups with respect to HIV and effective HIV prevention strategies and so forth (Uganda AIDS Commission, 2012; UNAIDS, 2012). Uganda hailed for reduction of HIV prevalence rates from 30% to 5% in 2001 (Hogle, Green,

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Nantulya, Stoneburner, & Stover, 2002). Based on the Uganda's success in HIV prevention many explanations were provided. Sexual behaviour change, adoption of the A (abstinence or deferred sexual debut), B (being faithful, partner reduction and avoiding high-risk partners), C (condom use) and the recently added annex D (diagnose/know your status) HIV prevention model and decline in sexual partners among other (Green, Halperin, Nantulya, & Hogle, 2006; Shelton et al., 2004; Wilson, 2004). Critiques of Uganda's HIV prevalence decline have questioned the scientific basis of such claims (Allen & Heald, 2004; Parkhurst, 2002, 2008), point to critical issues in the applicability of the ABC approach (Murphy, Greene, Mihailovic, & Olupot-Olupot, 2006). Current HIV prevalence rate of 7.2% is still high, with new infections associated with heterosexual transmission and with risky behaviours. Therefore Uganda HIV prevention strategies have to take a keen interest in finding out who is being infected and how, and move from that knowledge to evidence based interventions.

## **2. HIV in Uganda**

Uganda previously viewed as a county with the highest rates of HIV in the world is a success story in HIV prevention (Hogle, et al., 2002). There was a reduction in the prevalence of HIV and an eventual increased to 7.2 % according to the latest data from UNAIDS (2012). Critical analysis of data presented from Uganda presents some flaws in the data collection process. Data collection was at urban surveillance site in antenatal clinics. The sample consisted of only expectant mothers mainly from urban areas. This selective reliance on a single population to represent a nation is more than misleading. Little information shows the prevalence of other populations like males or other regions in Uganda (Allen & Heald, 2004; Parkhurst, 2002). Data collected from health facilities does not accurately present the prevalence of HIV among all groups of the population especially those who do not seek health services.

Risky behaviour associated with transmission dynamics of HIV/AIDS in Uganda include many sexual partners, transactional sex, inability to negotiate safer sex strategies, and low social economic status. Heterosexual behaviour is the dominant mode of HIV transmission in Uganda accounting to 80% of new HIV infections especially among female sex worker and married couples (Uganda AIDS Commission, 2012). Concurrent sexual relationships where one or both partners have overlapping sexual relationships with more than one sexual partner are common in Africa. These concurrent partnerships vary in timing of occurrence, duration, present a high coital frequency and inconsistent condom use, factors that increase risk of HIV transmission (Mah & Halperin, 2010). Concurrent partnerships are common among poor urban dwellers in Kampala (Kajubi et al., 2011) and student (Lule & Gruer, 1991; Muhenda, 2013). Overall men had more concurrent partnerships contrast to women. Incentives of being in concurrent partnerships among students include fear of losing a partner, source of goods of value and money, and sex for prestige or recognition (Aluzimbi et al., 2012; Muhenda, 2013; Ortega, 2013). At risk, groups in relation to HIV include students and married couples.

## **3. HIV prevention**

Uganda adopted the ABC strategy (abstinence, being faithful to one sexual partner and condom use), voluntary counselling and testing programs, routine and home based HIV counselling and testing, and access to antiretroviral therapy services among others. The Ugandan government and development partners have been supportive to the health section in the fight against the AIDS epidemic through funding, research, the creation of policies, and institutions to curb the spread of this incurable epidemic (Uganda AIDS Commission, 2012). There is no doubt Uganda made tremendous progress in the HIV/AIDS prevention strategies over the years. However, the increase in the prevalence rates of HIV/AIDS calls for the evaluation of HIV preventive strategies.

Abstinence and delayed sexual debut was advocated for the younger generation. Earlier research findings noted that abstinence from sex among educated university students was not among their preferred HIV prevention strategies (Lule & Gruer, 1991). Being faithful and partner reduction was the preferred mode of HIV prevention for sexually active adults. Some authors argue that partner reduction was a significant factor in Uganda's HIV success story (Green et al., 2006; Hogle et al., 2002; Shelton et al., 2004).

Condom promotion and social marketing in Uganda started in the late 1990s. Religious and government leaders resisted condom use in the initial stages of the condom campaign. Condom use to be effective requires consistent

and correct use, coupled with positive attitudes toward condom use. Condom use associated with promiscuity, reduced sensation and religious ideologies. Inconsistent condom was associated with partner trust among students (Lule & Gruer, 1991). Condoms are used with other casual partners not in regular steady relationships. Once the relationship has enough trust, love, passion, and affection then inconsistent condom use sets occurs in regular partnerships (Hart et al., 1999)

Condom promotion strategies failed in one controlled community trial where men were taught condom technical use skills and encouraged to use condoms consistently and correctly. Intervention group increasing the number of sexual partners compared to the control group during a six-month follow-up. Intervention group obtain many condoms that were not used consistently and correctly with their many casual sexual partners (Kajubi et al., 2005).

Advocates of the reintroduction of the female condom that gives women greater control over their own protection note that its demand and acceptance are high coupled with positive attitudes and experiences among users (Wanyenze et al., 2011). The authors acknowledged insertion difficulties among some women recommend training and support for user to ensure correct use however they did not critically analyse this issue. Female-initiated female condom use requires partner approval and negotiation of use with partner before use, adequate practice of insertion before actual use (Artz, Demand, Pulley, Posner, & Macaluso, 2002).

Condom use in Uganda advocated for without proper condom education and promotion strategy. Reported condom use in Uganda is high while at the same time risky behaviour and rates of HIV transmission continue to rise (Uganda AIDS Commission, 2012).

De Cock, Marum and Mbori-Ngacha (2003) advocate for HIV testing as the basis of prevention and care. They argue that knowledge of one's HIV status provides the basis for responsible behaviour including disclosure, use of barrier methods and seeking medical services.

Kaleeba and colleagues (1997) earlier noted that disclosure of one's status, stigma reduction at the family and community level, and seeking health services were some of the achievements of The AIDS Support Organisation (TASO) in Uganda. Safer sex practices used by HIV infected people include abstinence, faithful monogamy and consistent condom use to prevent re-infection, STD infection, infecting others and pregnancy. HIV infected people with irregular partners negotiated for safer sex by using the condom that married couples or clients with regular partners. The model adopted for their services provided holistic support including continuous counselling, social support networks, and medical care simultaneously.

"One needs only travel two hours from major urban areas in developing countries to observe that HIV, but not HIV education, has reached them" (Ammann, 2003, p. 1343). Therefore, a combination of behavioural change, HIV education and prevention targeting especially the rural populations needs to be implemented.

#### **4. Moving from data to evidence-based HIV prevention strategies**

As questions, remain unanswered what lead to Uganda's HIV prevention success, the reviewed studies some neglected issues concerning HIV prevention in Uganda. The ABC model of presents some challenges in terms of its applicability. More so, new HIV infections are still associated with heterosexual transmission of HIV. The basis of Uganda's HIV prevention strategies should therefore be on the new case of HIV. However, the current strategies are biomedical in nature. Heterosexual transmission accounts for 80-90% of new infections however prevention strategies focus on prevention of mother to child transmission that accounts for less than 10% of new infections (Uganda AIDS Commission, 2012).

Prevention of HIV requires an educational component in the interventions. Based on the data, there is lack of life skills, sexual communication skills and condom technical skills. This therefore calls for an educational strategy that combines links the intervention to the learning. In doing so the interventions will be more effective than the current top-down implementation of the intervention.

#### **5. Conclusion**

Uganda needs to evaluate the current HIV prevention strategies in light of available data. This requires strengthening the role of primary prevention of HIV then "come out with programmes of educating the public instead of waiting people to get infected and counsel" (Kaleeba et al., 1997, p. 20). There is need to focus on

behavioural change and reverse to the biopsychosocialcultural perspective (Johnson, 2003) of HIV prevention that draws on the scientific expertise of many professionals if success is to be achieved in relation to HIV. HIV prevention requires behavioural change one of the neglected aspect in prevention (Ammann, 2003). Interventions should have sustained advocacy, educational, training components, monitor, and follow-up strategies designed to assess effectiveness and efficacy of the interventions that area currently lacking in Uganda.

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