# Achievements and Implications of HIV Prevention Programme among Men who have Sex with Men: A Systematic Evaluation of HAF II Project in Bayelsa State, Nigeria

Ademola L. Adelekan<sup>1,5</sup>, Temple R. Iluma<sup>2</sup>, Prosper Okafor<sup>3</sup>, Enuma Charles<sup>2</sup>, Michael Owojuyigbe<sup>4</sup>, Oladipupo Olaleye<sup>1,5</sup>, Diepreye Alagoa<sup>2</sup>, Eunice Sammy-Boy<sup>2</sup>, Blessing Emmanuel<sup>2</sup>, Ighile Kelly<sup>2</sup>, Olusegun Adeoye<sup>6</sup>, Michael

Olugbile<sup>6</sup>, Emmanuel Alhassan<sup>7</sup>, Tobias John<sup>7</sup>, Oluwakemi Ladeinde<sup>7</sup>

<sup>3</sup>Centre for Development and Empowerment of Commercial Motorcyclist, Yenagoa, Nigeria

<sup>4</sup>Department of Sociology, Faculty of Social Science, University of Ibadan, Ibadan, Nigeria

<sup>5</sup>Department of Health Promotion and Education, Faculty of Public Health, College of Medicine, University of Ibadan, Ibadan, Nigeria

<sup>6</sup>HIV Programme Development Project, World Bank, Abuja, Nigeria <sup>7</sup>National Agency for the Control of AIDS, Abuja, Nigeria

# ABSTRACT

**Background:** Targeted interventions among men who have sex with men (MSM) could have a considerable effect in slowing the spread of HIV epidemic. This paper therefore presents the achievements and implications of HIV prevention programme among MSM in Bayelsa State, Nigeria

**Methods:** The project was an intervention study carried out among MSM in Bayelsa State, Nigeria. The calculated sample size for this project was 155 MSM and snowball sampling technique was used for their selection. The project adopted the minimum prevention package intervention (MPPI) and data collected with output indicators were entered into the District Health Information Software (DHIS) 2, exported into Microsoft Excel and analysed using same.

**Results:** The overall target population reached during this intervention was 381 MSM given a target reached of 245.8%. A total of 35 community dialogues were held within the duration of the intervention and 49 influencers participated. The number of peers registered during the intervention were 203 and out of the total number of condom (20582) required for this intervention, only 15235 (74.0%) were distributed. A total of 185 (91.1%) of the registered peers were reached with all the three stages of MPPI and 381 (245.8%) were reached with HCT. Among these, 17 (4.5%) were tested positive to HIV.

**Conclusion:** This study showed an HIV prevalence of 4.5% among men who have sex with men in Bayelsa state at the time of the intervention. Given this high HIV prevalence, it is vital to enact more targeted and evidence-based prevention programs for these men.

**Keywords:** HAF II project, Men who have sex with men, HIV, Minimum prevention package intervention, HIV/AIDS

# I. INTRODUCTION

In 2013, roughly over 35 million persons were deemed to be living with HIV, and about 2.3 million people became infected with HIV across the world in the same year alone [1]. Across the world, certain populations are deemed to be more vulnerable to acquisition and transmission of HIV than other adults who are also of reproductive age. Among these are men who have sex with men (MSM) [2]. Globally, men who have sex with men are 19 times more likely to be living with HIV than the general population. This figure is rising in some regions such as Asia [3]. During 2011, men who have sex with men accounted for 41% of new HIV infections in Western Europe, 56% in Peru and 63% in the United States of America (USA) [3]. In Jamaica, one in three men who have sex with men are living with HIV [4]. Men who have sex with men constitute the second most-at-risk populations affected by the epidemic in Nigeria. HIV prevalence among MSM in Nigeria was 3 times higher than the general population, and stood at 13.5% at the time and later at 17.2% in 2010 [5-6]. Also, MSM are believed to contribute about 10% of the annual new infections among both males and females within the country, due to their sexual networking with heterosexual partners [6].

The UNGASS Country progress report of 2010 points to low consistent condom use in anal sex, high biological risk of HIV acquisition associated with unprotected anal sex and low level of exposure to

<sup>&</sup>lt;sup>1</sup>Blue Gate Public Health Promotion Initiative, Ibadan, Nigeria

<sup>&</sup>lt;sup>2</sup>Bayelsa State Agency for the Control of AIDS, Yenagoa, Nigeria

interventions as being major factors responsible for the high prevalence of HIV among MSM [5]. The National Agency for the Control of AIDS [5] estimated the percentage of protected sexual acts among MSM to be 52.8% based on the percentage of them that used a condom in the last sex with men in non-commercial sex. A secondary analysis of the 2010 Integrated Biological and Behavioral Sentinel Survey (IBBSS) data involving 1545 MSM between 18 and 49 years showed that high number MSM practice risky sexual behaviour that is driven by alcohol and multiple male partners [7]. Nigerian MSM often live double lives of publicly engaging in heterosexual relationships and same-sex relationships secretly [8]. Men who have sex with men also experience conflicts between their cultural, religious, family values, and expectations and their sexual identities [8]. According to the first national IBBSS (2007), the HIV prevalence among MSM in Nigeria was 3 times higher than the general population and about half had sex with both men and women [9]. Despite this, Nigerian MSM do not consider themselves as having a higher risk of HIV infection compared with the general population [9]. High HIV prevalence among men who have sex with men is evidence that prevention strategies are failing to reach this group. Targeted interventions at this group could have a considerable effect in slowing the spread of the epidemic. This paper therefore presents the achievements and implications of HIV prevention programme among MSM in Bayelsa State, Nigeria

# II. METHODOLOGY

# Study Design

The project was an intervention study carried out among MSM in Bayelsa State, Nigeria. It focused on factors that tend to drive the spread of HIV epidemic to reduce the incidence of new infections and prevalence of HIV and AIDS in State.

# Study Area

Bayelsa, one of the six states in Nigeria's South South geopolitical zone, was created in 1996. The State which covers an area of 9,415.8 km<sup>2</sup>, is bordered by Rivers and Delta States and to the south by the Gulf of Guinea; and is divided into 8 local government areas (LGAs), with the capital located in Yenegoa. The total population from the 2006 census was 1,704,515 (874,083 males and 830,432 females). The four main languages spoken are Izon, Nembe, Epie-Atissa and Ogbia [10].

# **Study Population**

The study population are men who have sex with men in 4 out of 8 LGAs in the State. The LGAs are Brass, Ogbia, Sagbama and Southern Ijaw.

# Sample Size and Sampling Technique

The calculated sample size for this project was 155 MSM. Snowball sampling technique was used for the selection of the participants.

# **The Intervention Process**

Centre for Development and Empowerment of commercial Motorcyclists (CEDECOM) which is one of the Civil Society Organizations (CSOs) in Nigeria was engaged by the Bayelsa State Agency for the Control of AIDS and funded under the HIV and AIDS fund (HAF) II project of the World Bank. The project adopted the minimum prevention package intervention (MPPI) and activities are classified under structural, behavioural, biomedical interventions. Activities conducted under each of the three levels of MPPI were as follows:

# Structural Intervention

The structural level of the intervention included community-based interventions with the purpose of creating adequate access to information and services among MSM. This level of interventions focused mainly on community dialogues and advocacy visits to stakeholders. Community dialogues focused on addressing structural and cultural barriers hindering MSM from accessing and utilizing appropriate HIV prevention, treatment and care services as well as ensuring enabling environment for the acceptability of MSM within the communities they belong.

# **Behavioural Intervention**

Behavioural change intervention which included the use of Priority for Local AIDS Control Efforts (PLACE) approach was aimed at influencing participants to adopt healthy behaviours, whilst reducing their risk for HIV infection was employed herein. The behavioural change intervention was carried out by Peer Educators (PEs) selected among MSM. These selected PEs recruited peers among MSM who they reached out to during PLACE sessions using MPPI. The peer/cohort sessions was a monthly program carried out by PEs with their peers or cohorts registered into the project. Each of the PEs has a minimum of 8 and maximum of 12 members

in their cohort. They meet at least 2 times or at most 3 times in an interval of 15 days or 10 days respectively in a month to discuss HIV and other related issues including sexual and reproductive health as contained in their training manual. After a minimum of 6 contacts, the peers were provided with HCT and graduated having completed the modules in the manual. Issues discussed during such sessions included partner reduction, condom negotiation and use, lubricant use, good health seeking behaviour for prompt treatment of STIs, treatment referral, follow-up and HCT. Condoms were also distributed to the participants.

#### **Biomedical Intervention**

The biomedical level of intervention was with the aim of increasing access to HIV services among MSM, including HIV counseling and testing (HCT) services, care linkages and antiretroviral therapy. Mobile HCT services were carried out for all peer educators and their cohorts as well as other members of the community. Those tested positive were referred to health facilities for care and support while others were counselled to adopt a non-risky behavioural style of life.

#### **Data Collection**

Data collection was done using various data collection and reporting tools including HIV Client intake forms, Referral form, Peer education monthly summary form, National prevention monthly summary form among others. HIV counseling and testing was documented using the client intake form. Data on peer education was collected by peer educators during peer education session while HCT data was collected by the counselor testers.

#### Data Analysis

Data collected with output indicators using data reporting tools were entered into the District Health Information Software (DHIS) 2. The data were exported into Microsoft Excel and analysed using same. They are were analysed with aid of descriptive statistics and represented in tables and charts.

#### **Ethical Issues**

Prior to the commencement of the intervention, the proposal was subjected to a two-stage review and ethical approval to conduct the research was obtained from the National and the State Ethical Review Committee, Federal Ministry of Health, Nigeria. The criteria for selection of samples included voluntary declaration of participation in the study and the ability for transmission of information. The HIV tests were done under HCT tents within the community, with only one client attended to at a time to ensure privacy of the client. The HIV client intake forms were kept in a safe place to ensure confidentiality. Those that tested positive were confidentially referred for appropriate treatment using referral form.

# III. RESULTS

The findings are presented based on the levels of intervention: structural, behavioural and biomedical interventions. The overall target population reached during this intervention was 381 MSM with a target reached of 245.8%.

#### **Structural Intervention**

A total of 35 community dialogues were held within the duration of the intervention, with all being held in the first quarter of the intervention. A total of 49 influencers participated in the community dialogues (Table 1).

Table 1: Structural Intervention					
	Number of community	Influencers participating in			
Period	dialogues held	community dialogue			
1 <sup>st</sup> Quarter	35 (100.0%)	49 (100.0%)			
2 <sup>nd</sup> Quarter	0 (0.0%)	0 (0.0%)			
Total	35	49			

# Table 1: Structural Intervention

#### **Behavioural Intervention**

The number of peers registered during the intervention were 203 out of which 62 (30.5%) were registered in the first quarter. The duration of the intervention programme witnessed the distribution of a total of 829 female condoms and 14,406 male condoms to the participants. More male condoms were distributed in the second quarter of the intervention, with 7,657 male condoms (53.2%) being distributed in the first quarter as against 6,749 (46.8%) male condoms in the preceding quarter. Out of the total number of condom (9,454) required in the first quarter, only 7,157 (75.7%) were distributed while during the second quarter, a total of 8,870 (72.6%) of the required number of condoms were distributed. The number of lubricants distributed for both quarters were 3,797 out of this 53.3% were distributed in the first quarter (Table 2).

Table 2: Behavioural Intervention								
Period	No of Peers				No of			
	registered	No of	No of	No of male	female	No of	No of	
		condoms	condoms	condoms	condoms	lubricants	lubricants	
		required	distributed	distributed	distributed	required	distributed	
1 <sup>st</sup> Quarter	62 (30.5%)	9454 (45.9%)	7157 (47.0%)	6,749 (46.8%)	408 (57.4%)	2250 (59.3%)	1274 (72.3%)	
	141 (69.5%)	11128				1547 (40.7%)	488 (27.7%)	
2 <sup>nd</sup> Quarter		(54.1%)	8078 (53.0%)	7,657 (53.2%)	421 (42.6%)			
Total	203	20582	15235	14406	829	3797	1762	

#### **Biomedical Intervention**

A total of 381 participants were counseled, tested, and received results; this included 207 (54.3%) persons in the first quarter and 174 (45.7%) in the second quarter. Among the tested participants, a total of 17 were tested positive. Nobody was referred for STIs services during the course of the project (Table 3).

Table 3: Biomedical Intervention						
Period	No counseled, tested	No of persons who	No of persons			
	and received result	tested positive	referred for STI			
1st Quarter	207 (54.3%)	8 (47.1%)	0 (0.0%)			
2 <sup>nd</sup> Quarter	174 (45.7%)	9 (52.9%)	0 (0.0%)			
Total	381	17	0			

# Coverage of MPPI, HCT and Prevalence of HIV

A total of 185 (91.1%) of the registered peers were reached with all the three stages of MPPI and 381 (245.8%) were reached with HCT. Among these, 17 (4.5%) were tested positive to HIV (Fig. 1).



Figure 1: Coverage of MPPI, HCT and Prevalence of HIV

# **IV. DISCUSSION**

The National Agency for the Control of AIDS (2010) asserted that there is very limited knowledge of the dynamics of infection transmission amongst MSM in the country due to the considerable focus on heterosexual transmission of the epidemic. The body thus posited that a necessary first step would be to collect more data concerning MSM to facilitate the design of suitable interventions for them. As such, the HAF II intervention was not only a means of collecting data on the group, but also an intervention geared towards curbing the spread of HIV scourge. At the structural level, community dialogues and advocacies were particularly expedient as they served to address both the structural and cultural barriers which had an impact on the access of counseling and testing services, care linkages and antiretroviral therapy. This was necessary because in traditional African societies, and even in urban centres in Nigerian states, there is rampant homophobia, stigma and discrimination against men who have sex with men given that the act is considered punishable under the law in the country, not only culturally, but also religiously a taboo. Interestingly, health workers who are supposed to serve as care linkages are guilty of discriminatory practices. As such, the number of MSM who turned out for community dialogues however was not many. This is in concord with the assertions of NACA [5] and Lung et.al.[11], amongst others who opined that MSM were considered a taboo within general society and as such gave room for restrictions in data collation. Consequently, this was reflected in the low number of community dialogues held, and the fact that they were all held in the first quarter of the intervention programme, and none in the second quarter.

At the behavioural level, peers were registered to form a network of MSM and allow for a scenario in which MSM could discuss issues relating to condom negotiation and use, as well as a reduction of high risk sexual behavior. At this level of intervention, correct and consistent use of condoms and lubricants were not only being passed through behavioural change communication, and interpersonal communication, but also driven by the distribution of condoms (both male and female) to the MSM to avoid the complaints of high cost of condoms. The distribution of female condoms amongst MSM was due to the recognition of the fact that many of the MSM also led double-lives often having female sex partners or wives, due to the need to blend into regular society [5]. Furthermore, the use of behavioural level of intervention becomes more important because there is a recognition of the fact that MSM constitute the second most-at-risk populations affected by the scourge of HIV in Nigeria with a 17.2% average prevalence rate [5], and are often driven in their risky sexual behaviour by alcohol and multiple male partners [7, 12]. The prevalence of HIV recorded in this intervention was 4.5%. This is lower than estimates of HIV among MSM in Abuja, Ibadan, and Lagos cities in Nigeria where 34.9%, 11.3%, and 15.2% respectively were reported [11]. One of the earliest studies was published in 2005 in Senegal, where 463 MSM from Dakar and four other urban communities demonstrated an HIV prevalence of 21.5%. A 2005 study of 713 receptive MSM from Khartoum, Sudan, revealed an HIV prevalence of 9.3%. In Kenya, HIV prevalence as high as 43% among MSM was recorded [13-15]. In Nigeria, 13.5% of men who have sex with men were living with HIV in 2007 and in 2015 prevalence had risen to 23% [16], though prevalence varied significantly between sites of study. Specifically, HIV prevalence among MSM in Cross River was 2.8%, 11.7% in Kano, and 25.4% in Lagos [17]. The combination of these studies suggests that even in the generalized HIV epidemics of sub-Saharan Africa, MSM are nearly four times more likely to be infected with HIV than the general population [17].

#### **Implications for Programming**

Specific interventions to key groups may have huge effects on the progress of the epidemic, if properly conducted, it could slow the epidemic; if not, could further aggravate the situation. HCT is an important link in the continuum of HIV prevention and treatment services. There is no gain saying that the spread of the epidemic particularly among MSM can be mitigated by understanding the risk-related behaviors, and needs of the group which may or may not be financial, psychological, health or social. By allocating appropriate resources within an intervention package to these needs, the spread of the epidemic may be cut short. More knowledge and data should for future intervention be collected on the group and the dynamics of infection transmission. Furthermore, there is a need to incorporate income generation activities in any future intervention programmes, this would help many of the MSM to be financially independent, as some individuals do turn to homosexuality due to the lure of financial rewards. Also, as noted in the study, only four out of the eight LGAs in the state were covered. It is likely that many MSM may have been missed hence the need to extend this project to the rest of the LGAs not covered. It is also important to note that guarantees of non-prosecution should be afforded to members of this group in a bid to ensure that the purpose of the intervention is not jeopardized. Many of the most successful HIV programmes aimed at men who have sex with men empower this group and actively involve them in a community setting. In sub-Saharan Africa, studies have shown how HIV services that are targeted at, and run by men who have sex with men, have seen the greatest response and uptake. This avoids the necessity of attending general healthcare settings, where men who have sex with men risk identity and sexual orientation exposure that could be met with stigma and discrimination. Not only is funding needed to provide HIV prevention, testing and treatment for men who have sex with men, but it's also needed to generate research and data to inform effective programming. Without allocated funding for research and programme delivery, high HIV prevalence among men who have sex with men will remain.

# V. CONCLUSION

This study showed an HIV prevalence of 4.5% among men who have sex with men in Bayelsa state at the time of the intervention. Given this high HIV prevalence, it is vital to enact more targeted and evidencebased prevention programs for these men. The goal of these programs is to decrease HIV transmission among men by increasing condom use during anal sex and employing other evidence-based biomedical interventions. Governments and international donors must therefore cease to neglect the HIV epidemic among men who have sex men, and acknowledge the situation.

# ACKNOWLEDGEMENT

The evaluation team wishes to acknowledge the World Bank and the National Agency for the Control of AIDS (NACA) for making available the funding for the evaluation and dissemination of this project intervention. Special appreciation goes Alex Ogreagade, Claude Ujile and Weniebi Zibiya for their support during this project implementation.

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