



## Achievements and Implications of HIV Prevention Programme among Injecting Drug Users: A Systematic Evaluation of HAF II Project in Bayelsa State, Nigeria

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### ABSTRACT

**Background:** The HIV epidemic appears to be generalized with new infections occurring among persons perceived to be practicing low risk sex in Bayelsa State. The epidemic appeared to be concentrated among the sub-populations including injecting drug users (IDUs). Intervention therefore needed to ameliorate this problem hence, this paper presents achievements of HIV prevention programme among IDUs in Bayelsa state including its implications for programming.

**Methods:** This was an intervention project conducted among injecting drug users in five purposive selected local government areas (LGAs) in Bayelsa State, Nigeria. Centre for Development and Empowerment of Commercial Motorcyclist (CEDECOM) was engaged by Bayelsa State Agency for Control of AIDS and funded under the HIV and AIDS fund (HAF) II project to scale up HIV prevention among injecting drug users. The project was carried out between April, 2016 and January, 2017. The estimated sample size for this intervention was 210 IDUs and minimum prevention package intervention (MPPI) was adopted in the implementation of this project activities. Data were entered on DHIS2 platform and later exported and analyzed using Microsoft Excel. Data were presented using descriptive statistics such as percentage, simple proportion and frequency.

**Results:** The overall target population reached during this intervention was 440 given a target reached of 209.5%. All the 36 community dialogues that took place during the course of this project occurred in the first quarter with a total number of 54 male influencers participated in dialogues and sensitization activities during this period. A total number of 440 peers were registered during this period and a total number of 11,346 male condoms and 656 female condoms were distributed. A total of 243 (55.2%) of the registered peers were reached with all the three stages of MPPI and 427 (97.0%) were reached with HCT. Among these, 21 (4.9%) were tested positive to HIV.

**Conclusion:** This intervention was a success as it scaled up HIV prevention services among injecting drug users in the state. To optimize the effectiveness of this type of intervention in reducing HIV infection among this risk group, future programs should be based on principles related to equity and gender balance.

**Keywords:** HAF II project, Injecting drug users, Minimum prevention package intervention, HIV/AIDS

## **I. INTRODUCTION**

Injecting drug use has been identified in over 50 developing countries, and HIV transmission associated with injecting drug use has been reported in at least half of these [1]. In addition, HIV seroprevalence among injectors accounts for the majority or a large minority of all HIV positive cases in some developing countries. Snorting of cocaine and smoking of crack cocaine are also prevalent in several developing countries [2]. The risky sexual behaviour associated with this type of drug use contributes to HIV spread among the non-injecting population. The high rate of HIV seroprevalence among the drug-using risk group in itself poses a major health problem of international concern. However, drug-related HIV transmission does not remain within the confines of this group. Drug users also function as a “bridging group,” that is, a bridge for HIV transmission between a core HIV risk group and the general population. In most areas where HIV is prevalent among injecting drug users, the drug users act as the primary source for HIV transmission in the heterosexual population and in prenatal transmission as well [3]. Thus, the extent of the HIV pandemic associated with drug use in some developing countries has expanded beyond this risk group to include the sexual partners and children of drug users. This has important economic and policy implications for decisions regarding HIV prevention and intervention measures targeted to certain risk groups.

Heterosexual intercourse is the major route for HIV transmission in Nigeria accounting for over 80% of the infections with the majority of remaining HIV infections among key affected populations [4]. Other modes of transmission such as intravenous drug use and same-sex intercourse are now growing in importance [4]. Importantly, it has recently been modelled that the high-risk groups which constitute about 1% of the general population in Nigeria and involving men that have sex with men (MSM), female sex workers (FSWs) and injecting drug users (IDUs) will significantly contribute to new HIV infections in the coming years [5]. These groups and their partners will contribute to 40% of new infections while people practicing low-risk sex (heterosexual) in the general population will contribute to 42% of the infections due to low condom use and high sexual networking [5]. In Bayelsa state according to NACA [5], the HIV epidemic appears to be generalized with new infections occurring among persons perceived to be practicing low risk sex in the State, the epidemic appeared to be concentrated among the sub-populations of FSWs, MSM and IDUs than other vulnerable populations like the in- and out- of- school youths. The HIV prevalence of Bayelsa State in 2012 was 9.1% according to NACA [6] and it is still posing a great challenge to the people of the state due to rapid socio-economic challenges including an accelerated rate of urbanization that has been witnessed in the last few years. Scientific evidence supports a comprehensive package of structural, biomedical and behavioural interventions as the optimal HIV prevention strategy for reducing HIV infection incident among IDUs [7-9]. Combination prevention intervention such as Minimum Prevention Package Intervention (MPPI) involves the strategic, coordinated use of different classes of prevention activities that operate on multiple levels (individual, relationship, community, societal) and respond to the specific needs of relevant audiences and documented modes of HIV transmission [8]. Hence, this paper presents HIV prevention programme using MPPI among injecting drug users in Bayelsa state including its achievements and implications for programming.

## **II. METHODOLOGY**

### **Study Design**

This was an intervention project conducted among injecting drug users in five purposive selected local government areas (LGAs) in Bayelsa State, Nigeria. Centre for Development and Empowerment of Commercial Motorcyclist (CEDECOM) was engaged by Bayelsa State Agency for Control of AIDS (BYSACA) and funded under the HIV and AIDS fund (HAF) II project to scale up HIV prevention among injecting drug users. The project was conducted between April, 2016 and January, 2017.

### **Study Area**

Bayelsa is situated in Niger Delta of the South-South geographical zone of Nigeria. It shares boundaries with Delta State on the North, Rivers State on the East and the Atlantic Ocean on the West and South. It is a picture square tropical rain forest, with a total land area of 9,656 square kilometers. More than three quarters of this (8453 square kilometers) area is occupied by waters and is predominately riverine, full of lakes, creeks, swamps and marshy land, with moderately low land stretching from Ekeremor to Brass Local Government Areas. Bayelsa State is a major oil and gas producing area and contributes to over 30% of Nigeria's oil production.

### **Study Population**

This intervention was carried out among the injecting drug users in Brass, Nembe, Sagbama, Southern Ijaw and Yenagoa local government areas, Bayelsa State, Nigeria

### **Sample Size**

The estimated sample size for this intervention was 210 IDUs

### **Start-Up Training**

In order to provide a platform to educate and acquaint project staff on expectations, deliverables, target audience, reporting timelines among others, a start-up training and capacity building for project staff and project management team was conducted before the commencement of the intervention phase took place and reviews of such meetings continued as the project progressed. Start-up training was held by BYSACA together with key members of implementing organization team where they were well informed of the project and its processes. The aim of the training was to strengthen their capacity for better understanding of the minimum package prevention intervention (MPPI) for optimum project implementation. They were trained on thematic areas including but not limited to drivers of HIV and AIDS epidemic in Nigeria, care and services for people living with HIV (PLHIV), implementation plan for civil society organization (CSOs) on the HAF II project, importance of community dialogues and advocacy visits, monitoring and evaluation system for prevention.

### **Description of Intervention**

The minimum prevention package intervention was adopted in the implementation of this project. Project interventions are categorized under the three components of MPPI which are structural, behavioural and biomedical interventions. Activities carried out under each of the component are summarized below;

#### **Structural Intervention**

In order to address structural barriers such as cultural believes and practices that hinder people access and utilization of appropriate HIV prevention, treatment and care services, the implementing organization organized series of community dialogues, outreaches, sensitization and awareness creation across all the project communities with the aim of sensitizing community stakeholders on HIV and AIDS situation and to recruit community volunteers among them to be trained as peer educators (PEs). The advocacy teams visited and dialogued with numerous community leaders and gatekeepers including brothel, bunk, hotspot owners, and influencers of IDUs in the project communities to secure their supports and commitments. The advocacy targets involved kings and chiefs, community development committee chairmen, local action for the control of AIDS coordinators and M&E officers, HIV/AIDS focal persons, brothel and bunk owners and managers, youth and women leaders. The session attracted a number of influencers who also participated in various awareness programs. They were introduced to the basics of HIV and AIDS which includes the mode of transmission and prevention as well as the cycle of HIV (how untreated HIV becomes AIDS). The aim was to bring community stake holders together, properly intimate them about the project to be implemented, discuss possible success routes for the project, and start making efforts towards community ownership of the project.

#### **Behavioural intervention**

This aspect involves change in behaviour aimed at influencing beneficiaries to adopt healthy behaviours so as to reduce their risk for HIV infection. Such behaviours include partner reduction, correct and consistent use of condom, good health seeking behaviour for prompt treatment of STIs, treatment referral, follow-up and HIV counselling and testing (HCT).

#### **Identification, selection and capacity building of peer educators (PEs)**

The implementing organizations identified and trained voluntary peer educators among the IDUs who also reached a number of their peers located in various 'hot spots' within their closed and secluded communities on HIV and AIDS related issues. They were trained on HIV/AIDS prevention peer education and were also introduced to the concept of MPPI and how to conduct and report their peer education activities. A special simplified manual and PE activities guide was developed by CEDECOM and handed over to all PEs during the training. The peer educators were involved in contact making referrals, distribution of IEC materials, demonstration and distribution of condoms, running education and training sessions, mobilizing peer members and advocacy. The peer educators ensured 2 to 3 regular contacts with their peers in 10 to 15 days' interval within a period of 2 or 3 months.

#### **Selection criteria for PEs**

Those who were recruited as PEs met certain criteria including being a resident within the project community, being able to read and write, and availability within the project community for a period of 10 months

### **Condom Distribution**

Condom messages were given on the importance and need for consistent and correct condom use. Proper and correct use of condoms was demonstrated and a number of condoms were distributed within the project communities. Some PEs also did condom forecasting for their peers and distributed the commodity which was made available by the project management team.

### **Biomedical Intervention**

#### ***HIV Counseling and Testing***

The implementing organization mobile team conducted HCT and referral services among IDUs, their mentors, bunk owners and service providers in different locations within the project communities. Many IDUs and their clients, as well as brothel patrons and service providers were reached with HCT and other health checks were conducted by this team. Numerous individuals used the opportunity to know their HIV status and perform other free medical health checks including blood pressure test.

#### ***Referral***

Trained Counsellor Testers made several referrals for STIs and HIV care and treatment in various health care facilities. Clients diagnosed for STIs and HIV were tracked and escorted to the health facilities for care/treatment.

### **Review Meetings**

Several review meetings which were avenues to help improve on best practices were held by the implementing CSO and other stakeholders. The aim was to discuss the project achievement with respect to target, experience and challenges. It was an avenue to address the challenges of PEs and to ensure correctness and consistency of their data for good and proper reporting. One of the major activities of the HAF process was to conduct review meetings to ensure compliance and achievement of objective(s) of the project, and periodic review to establish if the project has made the desired impact on its target population. This involved a continuous process of assessing implemented activities against pre-defined indicators.

### **Project Management Meeting (PMM)**

Project management meeting (PMM) was organized among the key actors of the implementing organization including project officers, monitoring and evaluation (M&E) officers and account officers to discuss issues like strategies development for implementation, analysis of progress, identification and training of volunteers in various project thematic areas, re-coaching of trainees on peer educator tracking forms, monitoring visit during peer sessions, field/data collection, preparation/submission of tranche reports, M&E checklist for tool documentation and target achievements.

### **Monitoring and Evaluation (M&E) Visit**

Several M&E visits and activities were carried out by the implementing CSO and other project team actors to ensure that activities were implemented as planned and that the data recorded and reported were accurate and valid. It was also to incorporate a system of analysis, supervision and review which led to remedial actions to improve performance. The M&E team led by the M&E Officer was also involved in monitoring and tracking of clients referred to health facilities for referral services and other services after being tested positive. For the monitoring and supervision to yield reasonable success in the project locations, key questions were incorporated in a short precise M&E tool to facilitate the evaluator's job to attain useful and specific data during supervision and monitoring visits to the implementation sites. The responses retrieved provided an overview of the impact of interventions; highlighting areas of success and the major areas that required improvement.

### **Data Management**

#### ***Capacity Building on Data Entry***

In order to ensure quality data, key project staff attended the District Health Information Management System (DHIS2) training conducted by BYSACA for uniform state platform collation of data. During the training, the implementing organization was coached on how to enter the collected data on the platform.

#### ***Data Quality Assurance (DQA)***

Data quality assurance was carried out and this provided a platform for evaluating the performance and impact of the project implemented. During project management meeting, it was discussed how to carry out the DQA, which sites to visit, which PE conductor should be involved, logistics, location/sites, thematic areas and number of days to carry out the activity. Profiling the data to discover inconsistencies and other anomalies in the

data, as well as performing data cleansing activities (e.g. removing outliers, missing data interpolation) to improve the data quality was also done.

### Data Analysis

Data were entered on DHIS2 platform and later exported and analyzed using Microsoft Excel. Data were presented using descriptive statistics such as percentage, simple proportion and frequency.

### Ethical consideration

It was ensured that there was confidentiality during HIV counseling and testing and permission was adequately sought from various community leaders before approaching the target audience within such community. Client Intake Form used during the HCT were also kept where unauthorized persons could not gain access to it.

## III. RESULT

The findings are presented based on the levels of intervention: structural, behavioural and biomedical interventions. The overall target population reached during this intervention was 440 given a target reached of 209.5%.

### Structural Intervention

All the 36 community dialogues that took place during the course of this project occurred in the first quarter with a total number of 54 male influencers participated in dialogues and sensitization activities during this period (Table 1).

**Table 1: Structural Intervention**

Period	Number of community dialogues/ Advocacy visit	No of influencers participated in the community dialogue		
		Male	Female	(Total)
1 <sup>st</sup> Quarter	36 (100%)	54	0	54 (100%)
2 <sup>nd</sup> Quarter	0 (0.0%)	0	0	0 (0.0%)
<b>Total</b>	<b>36</b>	<b>54</b>	<b>0</b>	<b>54</b>

### Behavioural Intervention

A total number of 440 peers were registered during this period out of which 111 male peers were registered in the first quarter and 329 male peers were registered in the second quarter. No female peer was registered during this period. During the project period, a total number of 11,346 male condoms and 656 female condoms were distributed out of which 41.7% of male condoms and 46.3% of female condoms were distributed in the first quarter while 58.3% of male condoms and 53.7% of female condoms were distributed in the second quarter. In a similar pattern, a total number of 6, 612 male condoms were distributed in the second quarter with 100.0% of this distribution to males (Table 2). Most lubricants were distributed to males as 97.8% of 371 lubricants distributed in the first quarter were distributed to males and only 2.2% were distributed to females. All the 311 lubricants distributed in the second quarter were distributed to males (Table 3).

**Table 2: Behavioural Intervention (Condom distribution)**

Period	Male condoms distributed for male n (%)	Male condoms distributed for Female n (%)	Total Male condoms distributed n (%)	Female condoms distributed for male n (%)	Female condoms distributed for Female n (%)	Total Female condoms distributed n (%)
1 <sup>st</sup> Q	4642 (98.1%)	92 (1.9%)	4734 (41.7%)	304 (100%)	0 (0.0%)	304 (46.3%)
2 <sup>nd</sup> Q	6612 (100%)	0 (0.0%)	6612(58.3%)	352 (100%)	0 (0.0%)	352 (53.7%)
<b>Total</b>	<b>11254</b>	<b>92</b>	<b>11346</b>	<b>656</b>	<b>0</b>	<b>656</b>

**Table 3: Behavioural Intervention (Peer registration and lubricant distribution)**

Period	Lubricant distributed			Peer registered		
	Male n (%)	Female n (%)	Total n (%)	Male n (%)	Female n (%)	Total n (%)
1 <sup>st</sup> Q	363 (97.8%)	8 (2.2%)	371 (54.4%)	111 (100%)	0 (0.0%)	111 (25.2%)
2 <sup>nd</sup> Q	311 (100%)	0 (0.0%)	311(45.6%)	329 (100%)	0 (0.0%)	329 (74.8%)
<b>Total</b>	<b>674</b>	<b>8</b>	<b>682</b>	<b>440</b>	<b>0</b>	<b>440</b>

### Biomedical Intervention



The result of the biomedical phase of the intervention which involved various activities such as HCT, referrals for sexually transmitted infections (STI) and STI follow up is presented in Table 4. The project recorded a total number of 434 males and females counseled, tested and got result (CTR) with 64.5% CTR in the first quarter and 35.5% CTR in the second quarter. Only 7 females were counseled and tested during the first and second quarters. Two persons were referred for STI services during the project period and this referral occurred in the second quarter (Table 4).

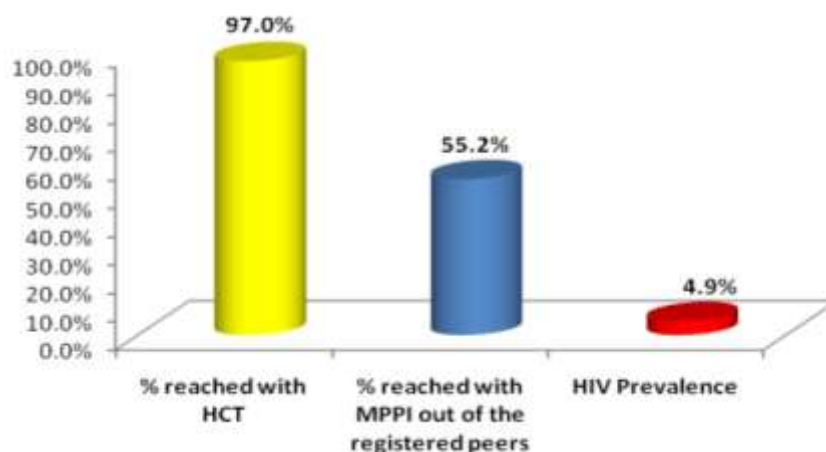
**Table 4: Biomedical Intervention**

Period	No of persons *CTR n (%)			No referred for STI n (%)		
	Male	Female	Total	Male	Female	Total
1 <sup>st</sup> quarter	273(97.5)	7(2.5)	280 (64.5)	0 (0.0)	0 (0.0)	0 (0.0)
2 <sup>nd</sup> quarter	154 (100.0)	0 (0.0)	154 (35.5)	2 (100.0)	0 (0.0)	2 (100.0)
<b>Total</b>	<b>427 (98.4)</b>	<b>7 (1.6)</b>	<b>434 (100.)</b>	<b>2 (100.0)</b>	<b>0 (0.0)</b>	<b>2 (100.0)</b>

\*CTR= Counseled, tested and received result

**Coverage of MPPI, HCT and Prevalence of HIV**

A total of 243 (55.2%) of the registered peers were reached with all the three stages of MPPI and 427 (97.0%) were reached with HCT. Among these, 21 (4.9%) were tested positive to HIV (Fig. 1).



**Fig.:** Coverage of MPPI, HCT and Prevalence of HIV

**IV. DISCUSSION**

All the community dialogues that took place during this project occurred in the first quarter and this probably explained why all the influencers participated in the project were attracted during this same period. It was also probably necessary to do the mobilisation aspect of the project at earlier stage for efficient and smooth running of the intervention. Community involvement is crucial so that people who use drugs are able to actively participate in the planning, delivery and evaluation of the HIV response hence, the need to build the capacity of people who inject drugs to participate meaningfully. Involving this population in planning and service delivery recognizes and utilizes their unique experiences, knowledge and contacts, and contributes to effectively addressing their needs and ensuring that proposed services and interventions have the lowest possible thresholds [10]. In a similar attempt to combat the enormous HIV threat in India, it was reported that the National AIDS Control Programme (NACP) recommends a peer-led intervention and community mobilization approach, whereby high-risk communities consisting of high risk groups such as commercial sex workers, IDUs, MSM, and transgenders themselves take ownership and leadership in HIV prevention [11]. Community dialogue in the current project was very useful as it helped identify and enlist key individuals for sustainable partnership, helped solicit community participation, support and commitment in problem solving for sustainable behaviour change and promoted sharing of information and ideas between individuals of different cadres and backgrounds.

The behavioural intervention program aimed at changing the behaviours of the IDUs incorporated both male and female condom distribution, lubricant distribution together with peer education. However, more male and female condoms were distributed to males as compared to females and similarly, most lubricants were distributed to males. This was probably due to the fact that female peers were not recruited in the project. Female IDUs not participating in the peer education may stem from internal issues within the female injector which may include fear of partner violence, fear of losing their children to government bodies particularly in a place like Nigeria where injection is illegal, personal financial concerns and fear of losing their partnership. However, a gender sensitive prevention strategy with adequate and effective awareness and education on

condom and lubricant usage as a sustainable option for prevention of STIs prior to distribution could have removed such limiting barriers. Increasing the accessibility and use of condoms among people who use drugs and their partners through targeted distribution programmes is an important component of a comprehensive prevention package. While condoms may be widely available for purchase in most countries, provision of free condoms to populations at high risk aims to significantly increase accessibility and use by removing any barrier that cost may pose. Provision and promotion of both male and female condoms plus lubricants may further increase condom acceptability and use [12-13]. Studies have shown that condoms when used consistently and correctly are highly effective in preventing the sexual transmission of HIV infection. It was observed that in heterosexual HIV sero-discordant relationships (i.e., those involving one infected and one uninfected partner) in which condoms were consistently used, HIV-negative partners were 80% less likely to become infected with HIV compared with persons in similar relationships in which condoms were not used [14]. Moreover, studies have also demonstrated that consistent condom use reduces the risk for other STDs, including chlamydia, gonorrhoea, and trichomoniasis [15-17].

Peer education strategy is an important tool used in this project to facilitate behavioural modification. This is also evidenced in many countries as the approach has been used to reduce risky behaviours among different IDU groups. For instance, outreach intervention facilitated by peers has been successful in cities in the United States and Europe as well as in developing countries, resulting in marked decreases in needle-sharing [18]. In Hong Kong, where HIV sero-prevalence among IDUs is very low, rehabilitated IDUs are trained as interviewers and peer counselors to educate injectors on the street about harm reduction techniques. Analysis indicates a rising awareness of risk factors among these IDUs and declining risk behaviour [19]. Another study of outreach efforts in Bangkok and Rio de Janeiro, Brazil identified behavioural change among IDUs, and found that social network factors were important in influencing this change [18]. Talking about AIDS with drug-using friends was significantly related to behaviour change in both cities. In addition, talking with sex partners about AIDS, years of education, and knowing that someone can have AIDS and look healthy were related to behavioural change. In both cities, there was evidence that large-scale behaviour change among IDUs is associated with stabilization of HIV sero-prevalence and decline in HIV incidence. Peer education in this project selected individuals who shared similar risk behaviours and trained them to increase awareness, impart knowledge and encourage behaviour change among members of their groups. The strategy was empowering to both the educators and to the target group by creating a sense of solidarity and collective action among them. However female IDUs not being reached with behavioural intervention is a major gap since many IDUs are married and sexually active. The sexual transmission of HIV from IDUs to their partners may contribute to increasing feminization of the epidemic.

In this project, majority of people counseled and tested were males and only very small percentage were females. More male involvement in CTR could be as a result of the fact that females who use drugs and/or inject drugs may be reluctant to be tested for HIV since their behaviours are stigmatized and criminalized. Most women involved in such activity may also lack confidence that health care providers will protect their privacy and fear prosecution from law enforcement. Generally, females who inject drugs are more likely to be stigmatized in Nigeria society than male injecting drug users because their activities are considered to be doubly deviant and this may be attributed to their reluctance in counseling and testing activities.

### **Implications for Programming**

HIV prevention programming that can lead to reduced incidence of HIV and AIDS must incorporate critical components of MPPI which include structural, behavioural and biomedical intervention as undergone in this project. However, extension of such intervention package to other local governments of the state cannot be overemphasized. This program recorded success as most activities were either near or overshot their targets. Generally, the program was a success as HCT reached was 206.7% while MPPI reached was 115.7% of the estimated sample size. However, the percentage reached with MPPI is on the low side when compared to the target reached in this programme despite the fact that a good number of the population were registered as peers for the behavioural intervention. This low achievement may be attributed to low turn-out of peers especially female peers for the cohort session hence failure to meet up with the minimum number of contacts for cohort sessions. Future similar programmes for IDUs in the state should ensure more people are reached with behavioural intervention and MPPI by planning ahead to prevent such challenge even if it may involve the use of incentives. Females must also be specially targeted in any future programming among IDUs in the state using culturally acceptable gender sensitive strategy. It is noteworthy that it may be difficult mobilizing the IDU community without some form of compensation. Since attending community meetings would involve taking some time off from work and therefore forgoing earnings, it does not seem reasonable to the IDUs to voluntarily participate in the meetings or even be a member unless some incentives are provided.

Low involvement of women as reflected in low female peer registration, condom programming and HCT uptake may be an indication that the program is not gender sensitive. Where possible, programmers should

collect sex disaggregated data and use that data to identify and rectify service gaps when proposing harm reduction interventions. Many factors such as gender inequality, social exclusion, stigma and discrimination may all act together to increase the vulnerability of female injecting drug users to HIV infection. It is therefore critical that HIV and AIDS prevention and care programmes address, directly or indirectly, through referrals, service linkages, partnerships etc, their most immediate perceived barriers to accessing HIV and AIDS prevention and care services among this population. The importance of IGAs in an HIV prevention programme like this cannot be over emphasized however, there was no record of IGAs in the current study. Hence, future programme among IDUs should put this into consideration which could be in form of vocational training, employment and micro-finance programmes. Such measures would empower these females to have options and take voluntary and informed decisions regarding adoption of safer practices to prevent the transmission of HIV.

Considering that the program recorded a reasonable number of people reached with counseling and testing, it is evident that outreach workers and peer counselors/educators can be an important and effective resource to help clients identify needs and plan successful referrals. When peer education programmes are well designed and well implemented as a component of an overall HIV prevention strategy, they can contribute towards improving knowledge, attitudes and skills related to HIV. Successful peer education can motivate people to adopt and maintain safer sexual behaviour or minimize risk practices associated with sex and drug use. However, to enhance successful completion of referral and follow up, it is important to incorporate post-test support and services that advice those who test HIV-positive on the meaning of their diagnosis, and on referral to the treatment, care and support and prevention programmes and services available to assist them. This may go a long way in changing the attitude of people referred for STI to do proper follow up and complete their referrals.

## V. CONCLUSION

Minimum package prevention intervention program for HIV prevention in Bayelsa state offered a good prospect for addressing HIV prevention programming and for generating significant and sustained reductions in HIV incidence among the injecting drug users within the state as it relies on the strategic, simultaneous use of complementary behavioural, biomedical and structural prevention strategies. The program has successfully scaled-up demand creation for condoms and HIV counseling and testing among injecting drug users through a mix of structural, behavioural and biomedical interventions. To optimize the effectiveness of this type of intervention in reducing HIV infection among the injecting drug users, future programs should be based on principles related to equity, non discrimination, and voluntaries, and should seek to reach injecting drug users with services regardless of current injection and gender status. In addition, all programs should be conceived with the participation of affected populations. Country leadership, including engagement by multiple sectors of government and collaboration with civil society, is needed to develop and implement, at all levels, the necessary supportive legislation, policies and regulations that facilitate the introduction and scale-up of services.

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