

Achievements and Implications of HIV Prevention Programme among Short Distance Drivers: A Systematic Evaluation of HAF II Project In Plateau State, Nigeria

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Abstract: HIV prevention interventions have often focused on drivers because of their high-risk behaviour, mobility and ability to spread infections to new geographical areas. Reducing HIV infection among drivers could have a potential beneficial impact on HIV infection at large. This paper therefore presents achievements and implications of HIV prevention activities among short distance drivers (SDDs) in Plateau State, Nigeria.

This was an intervention project conducted among taxi and tricycle drivers including motorcycle riders in seven purposive selected local government areas (LGAs) in Plateau State, Nigeria. The estimated sample size for this intervention was 33,960 and this project was carried out between 2013 and 2016 by eleven civil society organizations engaged and funded by Plateau State Agency for the Control of AIDS under the HIV and AIDS fund (HAF) II project. The minimum prevention package intervention (MPPI) was adopted in the implementation of this project and data was collected using data collecting and reporting tools which were entered into DHIS2 platform and later exported into Microsoft Excel and analyzed using same.

A total of 34 community dialogues were held during this intervention and a total of 655 influencers participated. A total of 13928 peers were registered by peer educators during this intervention. Among these, 13351 (95.9%) were males and 577 (4.1%) were females. A total of 6185 of the registered peers were reached with HIV education and 15488 persons were counseled, tested and received results during this intervention. Among these, 93 (0.6%) persons were tested positive to HIV. A total of 125123 condoms were required for this intervention while 19762 (15.8%) condoms were distributed. A total of 1354 persons were referred for STI treatment.

The low rates of HIV testing and overall low coverage of this intervention underscore the need for stronger interventions. It is recommended that continuous intervention programmes and seminars on HIV prevention practices should be organized by nongovernmental organizations and ministry of health within the motor parks for the drivers, to inform the drivers and equip them with skill to protect them from the infection.

Keywords: HAF II project, Short distance drivers, Minimum prevention package intervention, HIV/AIDS

I. INTRODUCTION

About 80% of HIV infection in Nigeria was estimated to be due to heterosexual relationship, and transport workers (especially drivers) together with other groups that included men who have sex with men (MSM), injection drug users (IDUs), members of the armed forces (and their partners) were estimated to account for 40% of new HIV infections in Nigeria [1-2]. Several HIV/AIDS related behavior and social studies had identified drivers as an important HIV/AIDS occupational risk group. It was observed in these studies that drivers were constantly away from home because of their occupational itinerary, where they become vulnerable to non-marital sex, extramarital sex and sexual intercourse with female sex workers; all in an HIV/AIDS high risk cycle of overlapping sexual partnerships and large sexual networks [3-4]. In a report by the World Bank Group [5], the transport sector was identified as a social vector in the transmission of HIV/AIDS similar to other high risk behaviors such as injecting drug use and commercial sex which fuel the epidemic. Truck drivers were found to constitute 70% of clients of commercial sex workers, twice as likely to acquire HIV infection compared to workers in low risk occupations, and serve as bridge populations linking the general populations [5]. The 2012 report of The National HIV and AIDS and Reproductive Health Surveys (NARHS) however revealed a downward trend of HIV prevalence from 7.7% to 2.3% among the general population [6], hinting as well that there have been significant declines in the rate of new infections due to several intervention efforts, some of which have concerned drivers [6].

Studies have however shown that despite high risk behaviours, long distance drivers consider themselves at low risk and so are not taking preventive measures in protecting themselves [7] hence the need for concerted efforts to be put in place to ensure that new infections are at least contained leading to zero new infections. This article thus presents the achievements and implications of HIV prevention programme among SDDs in Plateau State, Nigeria.

II. METHODS

STUDY DESIGN

This was an intervention project conducted among taxi and tricycle drivers including motorcycle riders in seven purposive selected local government areas (LGAs) in Plateau State, Nigeria. The communities selected for this project were highly vulnerable communities for the short distant drivers (SDDs) due to the business activities in this environment.

STUDY AREA

The study area for the project was Plateau State, Nigeria. This is one of the states in the North-Central geo-political Zone. The state covers an area of about 26,899 square kilometers bounded in the North East by Bauchi State, North West by Kaduna State, South East by Taraba State and to the South and South West by Nasarawa State. Plateau state has a

total population of 3,206, 531 people. The population of state from 2006 census was 1,598,998 males and 1,607,533 females with an annual growth rate of about 2.7%. The State has three senatorial zones and 17 Local Government Areas with a land area of 30,913km.

STUDY POPULATION

The study population are short distance drivers operating within Shendam, Pankshin, Jos North, Lantnag North, Jos South, Mangu and Bakin Ladi LGAs. Only drivers who were active for a period of one year preceding the intervention and were present at the time of the project were recruited for this intervention.

SAMPLE SIZE

The estimated sample size for this intervention was 33,960 short distance drivers

DESCRIPTION OF INTERVENTION

This intervention was carried out between 2013 and 2016 by eleven civil society organizations (CSOs) engaged and funded by Plateau State Agency for the Control of AIDS (PLACA) under the HIV and AIDS fund (HAF) II project of the World Bank HIV programme development project (HPDP) II. These CSOs are Fahariya Adolescent Development Network (FAANET), Youth Information and Leadership Training Centre, (YI<C), Country Women Association of Nigeria (COWAN), Inter Gender Development Centre (IGDC), Relief and Hope Foundation (RAHF) and Help International. Others are Halt AIDS, AIDS Care Education and Training (ACET), Youth Adolescence Reflection Action Centre (YARAC), Community Initiative for Sustainable Development (COIN) and Bish Integrated Services. The minimum prevention package intervention (MPPI) 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

This intervention was implemented through community mobilization, dialogue, advocacy visit and individual empowerment such as income generating activities. Interactive sessions were held to pave way for success of project. These interventions aim was to promote individual protection and respect as well as societal and cultural norms, practices and beliefs that will make individual participate and decrease vulnerability. Advocacy visits were held with the chairmen of various parks including motorcycle riders associations, tricycles associations and national union of road transport workers within the communities under the study area.

BEHAVIOURAL INTERVENTION

Behavioural intervention targeted an individual and community level through outreach and peer education to promote individual risk reduction. Outreach was used to make initial contact with the short distance drivers using Interpersonal communication (IPC) and focus group discussions targeted at key stakeholders, influencers, gatekeepers and potential peer educators to connect them with programmes and services. Peer education was the major approach employed which enable people to work with people of similar characteristics-age, social or occupational settings (peer group) making them become active players in the educational process rather than passive recipients of a set message. Peer educators were selected and trained among the SDD who in-turn selected peers to reach out to using cohort sessions held in a minimum of 2 times and maximum of 3 times in a month with an interval of 15 or 10 days respectively.

BIOMEDICAL INTERVENTION

Biomedical interventions implemented during this project include sexually transmitted infections (STIs) screening and treatment, condom distribution and other clinical services tuberculosis (TB) screening and linkages that promote the health of the targeted population. Trained counselor testers carried out mobile HIV counselling and testing (HCT) for study participants and those tested positive of HIV were referred and followed up for adequate management. Both male and female condoms were also distributed amongst participants.

DATA ANALYSIS

Data was collected using data collecting and reporting tools, the data were entered into DHIS2 platform and later exported into Microsoft Excel and analyzed using same. Data were presented using descriptive statistics such as percentage, simple proportion and frequency.

ETHICAL CONSIDERATION

Written permission was sought and obtained from the management of the transport Chairmen. The project participants were informed of the objectives of the study, and told that participation was voluntary before written informed consent was obtained.

III. RESULT

STRUCTURAL INTERVENTION

A total of 34 community dialogues were held during this intervention and a total of 655 influencers participated. A total of six IGAs were held, most (66.7%) of which were carried out in 2015. Across the study communities, a total of 38 people were referred for IGAs, however only 10 people could benefit from these activities (Table 1).

Structural intervention	2014	2015	2016	Total
	n (%)	n (%)	n (%)	
Number of community dialogue held	10 (29.4)	23 (67.6)	1 (2.9)	34
Number of influencers participated in community dialogues	231 (35.3)	393 (60.0)	31(4.7)	655
Number of IGAs held	1 (16.7)	4 (66.7)	1 (16.7)	6
Number referred for IGAs	10 (26.3)	26 (68.4)	2 (5.3)	38
Number of person benefitted from IGA	3 (30.0)	6 (60.0)	1 (10.0)	10

Table 1: Structural intervention

BEHAVIOURAL INTERVENTION

A total of 13928 peers were registered by peer educators during this intervention. Among these, 13351 (95.9%) were males and 577 (4.1%) were females. Majority 10473 (75.2%) of peers were registered in 2015. On the issue of HIV education training for the peers registered, a total of 6185 peers were reached and only 325 peers were reached in 2016 (Table 2).

Behavioural Intervention	2014	2015	2016	Total
	n (%)	n (%)	n (%)	
Numbers of peers registered	2716 (20.3)	9935 (74.5)	700 (5.2)	13351
Male	39 (6.8)	538 (93.2)	0 (0.0)	577
Female	2755	10473	700	13928
Number of peers reached with HIV education	1211(20.7)	4312(73.7)	325 (5.6)	5848
Male	16 (4.7)	321 (95.3)	0(0.0)	337
Female	1227	4633	325	6185
Total				

Table 2: Behavioural Intervention

BIOMEDICAL INTERVENTION

A total of 15488 persons were counseled, tested and received (CTR) results during this intervention. Among these, larger proportion (14209) were CTR in 2015 and only 512 of persons are females. A total of 93 persons were tested positive to HIV. A total of 125123 condoms were required for this intervention while 19762 (15.8%) condoms were distributed. A total of 1354 persons were referred for STI treatment (Table 3).

Biomedical Intervention	2014	2015	2016	Total
	n (%)	n (%)	n (%)	
Number CTR*				
Male	899 (6.0)	13776 (92.0)	301 (2.0)	14976
Female	48 (9.4)	433 (84.6)	31 (6.0)	512
Total	947	14209	332	15488
No of persons tested positive	3 (3.4)	83 (93.2)	3 (3.4)	89
Male	1 (2.5)	3 (97.5)	0 (0.0)	4
Female	3	86	3	93
Total				
No of persons referred for ART	0 (0.0)	22 (91.7)	2 (8.3)	24
No of condoms required	13026 (10.7)	93077 (76.7)	15273	121376
Male	73 (1.9)	3488 (93.1)	12.6	3747

Female Total	13099	96565	186 (5.0)	125123
No of condoms distributed	5695 (34.7)	4981 (30.4)	5731 (34.9)	16407
Male	20 (0.6)	3176 (94.7)		3355
Female	5715	8157	159 (4.7)	19762
Total			5890	
No of person referred for STI treatment	5(0.4)	736 (55.0)	598 (44.7)	1339
Male	1(6.7)	13(86.7)		15
Female	6	749	1 (0.7)	1354
Total			599	
No of person currently receiving STI treatment	1 (0.7)	149 (98.6)	1 (0.7)	151

*CRT=Counseled, tested and received result

Table 3: Biomedical Intervention

COVERAGE OF MPPI, HCT AND PREVALENCE OF HIV

Out of the 13928 peers registered, only 5989 (43.0%) peers were reached with all the three stages of MPPI while out of the estimated sample size of 33960 for this intervention, 15488 (45.6%) were reached with HCT. Among these, 93 (0.6%) were tested positive to HIV (Fig. 1).

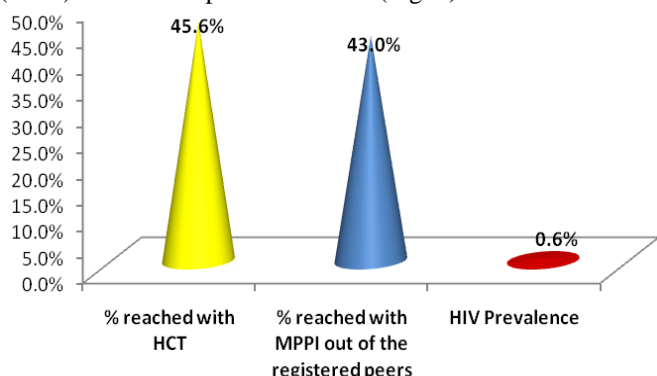


Figure 1: Coverage of MPPI, HCT and Prevalence of HIV

IV. DISCUSSION

This intervention distinguishes itself in that it is based on both an individual and group change behaviour model, designed as a local community-based educational programme with a high level of cooperation and involvement by short distance drivers associations and the individuals themselves. It is a structured programme that maximizes participatory research, including an evaluation design that allows all individuals to benefit from this intervention. Despite the referrals made to income generating activities, only few participants turn out to benefit from the activities, this may be attributed to satisfactions participants derived from their vocation. The numbers of male peer registered outweigh female peers. This is attributed to the fact that men generally dominate transportation industry. It is quite unfortunate that only less than half of the peers registered in this intervention were reached with HIV education and knowledge of HIV/AIDS transmission is essential for a person to make an informed decision about engaging in, or continuing certain behaviours that may increase or disease risk of infection. Eventhough knowledge alone is insufficient, it is assumed to

be a key component of behavioural change decision making, in addition to providing cues for action. Estimating the level of knowledge of HIV/AIDS transmission among groups at risk is crucial in guiding public health programmes, especially those directed towards reducing the transmission of the disease. Reports from studies show that even though awareness and knowledge of some aspects of HIV/AIDS transmission was high among drivers, they lack adequate knowledge of transmission and prevention of the disease [8-9], this could influence their HIV/AIDS related risk perception and behaviours.

The prevalence of 0.6% was recorded in this intervention and this is lower than the state prevalence of 2.3% [6]. This is comparable to findings of Atilola et al., [10] in south west Nigeria where a prevalence of 2.4% was reported. A similar study by Azuonwu et al., [11] among long distance drivers in Nigeria reported an HIV prevalence of 10%. Reports from studies conducted among drivers in other countries with high burden of HIV/AIDS show very high prevalence of HIV infection in multiples of the national average. The report of a study by [12] among drivers in India reported a prevalence of 2.8%. Another survey among truck drivers in South Africa by Delany-Moretiwe et al., [13] reported an HIV prevalence of 26% compared to the National average of 12.2%.

IMPLICATIONS FOR PROGRAMMING

Drivers are in a unique position to help further the HIV/AIDS prevention efforts; they have the potential to change their sexual behaviours and lifestyle as well as to educate and counsel their clientele when they are given the proper health education, training, and motivation to do so. Results from this intervention contribute to the limited published studies in this area of research that may have great implications on the prevention and control of HIV/AIDS. The involvement of necessary stakeholders (chairmen of the parks) during the community dialogues led to a positive turn out and participation of the participants in this intervention. Population mobility and migration contribute to the phenomenon of concurrent sexual partnerships, which is arguably one of the main drivers of the HIV epidemic in Nigeria. Because migrants and mobile workers are regularly separated from their permanent partners, they are more inclined to engage in short or long – term sexual relations with other partners. The high prevalence of HIV/AIDS along the commercial transport corridors throughout Nigeria is evidence that population mobility is linked to the spread of the virus. There is therefore a need to develop and implement a more effective response to HIV prevention for mobile populations. Such response must empower migrants and mobile people with in-depth and comprehensive knowledge about HIV infection that will enable them protect themselves and their partners against infection and reduce onward transmission of HIV. The response must also ensure that services are available on the time when mobile populations want to access them for instance after hours for truck drivers and commercial sex workers. Prevention programmes at the work environment is a feasible strategy, it allows a better understanding of the workers’ setting and development of customized educational intervention.

V. CONCLUSION

This intervention demonstrated that minimum prevention package intervention is effective in improving HIV knowledge and reducing high risk behaviours. The low rates of HIV testing and overall low coverage of this, underscore the need for stronger interventions. It is recommended that continuous intervention programmes and seminars on HIV prevention practices should be organized by nongovernmental organizations and ministry of health within the motor parks for the drivers, to inform the drivers and equip them with skill to protect them from the infection.

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REFERENCES

- [1] Federal Ministry of Health (FMOH). 2012 Global AIDS Response Progress Report. Federal Ministry of Health, Abuja, Nigeria
- [2] UNAIDS (2012). World's AIDS Day Report-Results. Joint United Nations Programme on HIV/AIDS, Geneva, Switzerland
- [3] Dude A, Oruganti G, Kumar V, Mayer KH, Yeldandi V, Schneider JA (2009). HIV infection, genital symptoms and sexual risk behaviors among Indian truck drivers from a large transportation company in South India. *J. Glob. Infect. Dis.* 1(1):21-28
- [4] Ramjee G, Gouws E (2002). Prevalence of HIV among truck drivers visiting sex workers in KwaZulu-Natal, South Africa. *Sex. Transm. Dis.* 29(1):44-49
- [5] World Bank (2013). Transport – HIV/AIDS. The World Bank Group.
- [6] Federal Ministry of Health (FMOH). National Reproductive and Health Survey Plus (NARHS PLUS), 2012. 8 – 11
- [7] Stratford, D., Ellerbrock, T., Akins, J., Hall, H. (2000). Highway cowboys, Old hands and Christian Truckers: Risk behavior for HIV infection among long-haul truckers in Florida. *Soc. Sci. Med.* 50(5):737-49
- [8] Salam A, Janakar BP, Bhayya S (2001). HIV/AIDS awareness among transport workers of Bijapur, Karnataka, India. *Ind. J. Sex. Transm. Dis.* 22:10-13
- [9] Chaturvedi S, Singh Z, Banerjee A, Khera A, Joshi RK, Dhruvajyot D (2006). Sexual behavior among long distance truck drivers. *Ind. J. Comm. Med.* 31(3):153-156
- [10] Atilola GO, Akpan OM, Komolafe IO (2010). HIV/AIDS and the long distance truck drivers in south-western Nigeria: a cross sectional survey on the knowledge, attitude and risk behavior and beliefs of truckers. *J. Infect. Public Health* 3(4):166-78
- [11] Azuonwu O, Erhabor O, Frank-Peterside N (2011). HIV infection in long-distance truck drivers in low income setting in the Niger Delta of Nigeria. *J. Comm. Health* 36(4): 586-7
- [12] Prem Kumar S.G.1, G. Anil Kumar1, Ramesh Poluru1, John A. Schneider2, Lalit Dandona1,3, Lakshmi Vemu4, T. Sudha4, Kenneth H. Mayer5 & Rakhi Dandona. Contact with HIV prevention programmes & willingness for new interventions among truckers in India. *Indian J Med Res* 137, June 2013, pp 1061-1071
- [13] Delany-Moretiwe S, Bello B, Kiross P, Oliff M, Chersich M, Kleinschmidt I (2013). HIV prevalence and risk in long-distance truck drivers in South Africa: a national cross-sectional survey. *Int. J. STD AIDS* 25(6):428-38