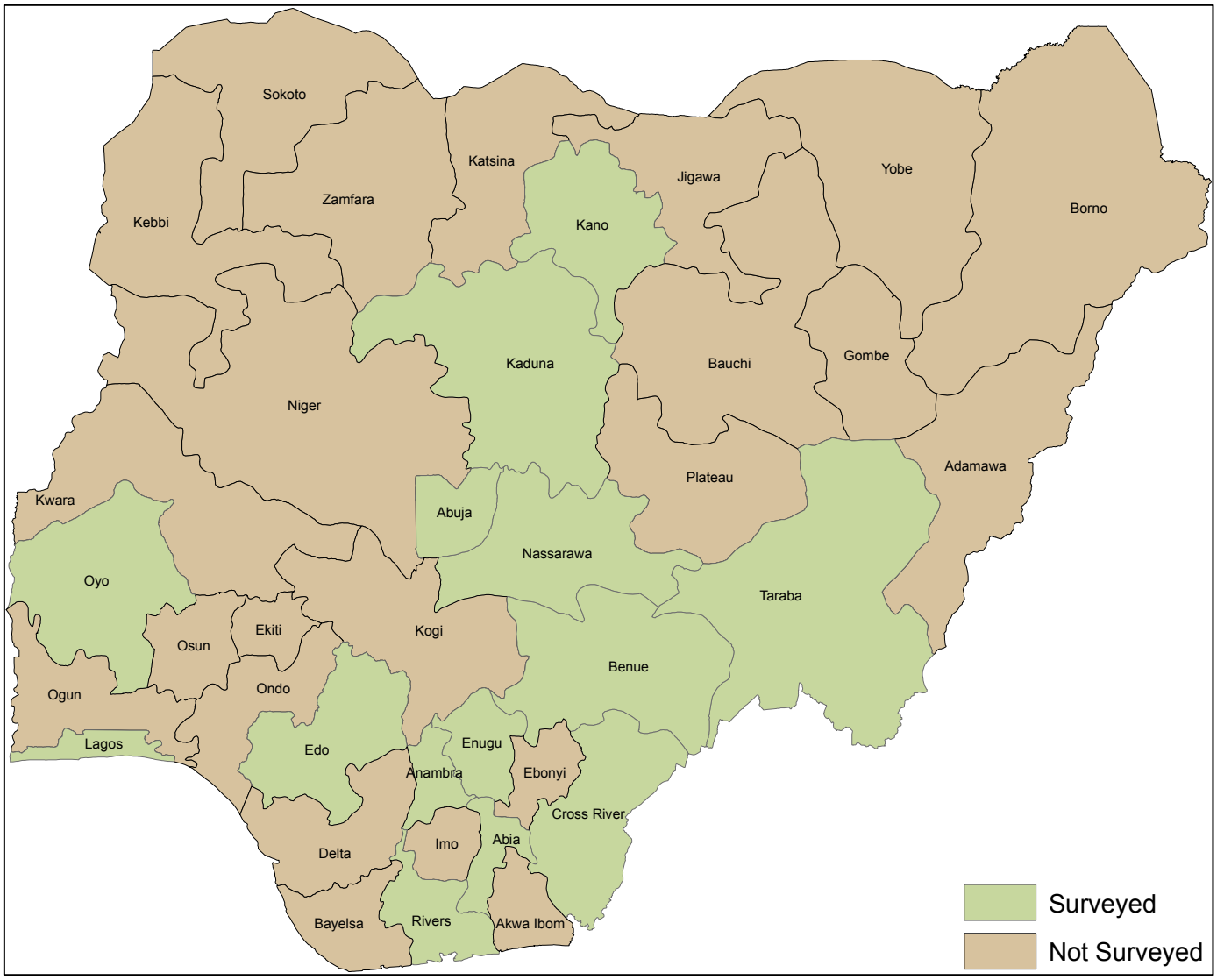
NATIONAL HIV/AIDS & STIs CONTROL PROGRAMME
FEDERAL MINISTRY OF HEALTH, NIGERIA

INTEGRATED BIOLOGICAL AND BEHAVIOURAL SURVEILLANCE SURVEY (IBBSS) 2014

November, 2015

MAP OF NIGERIA SHOWING THE IBBSS STATES



FOREWORD

It is over three decades since the HIV virus was discovered in Nigeria. Since then, HIV & AIDS has remained one of the major public health burdens both at global and national levels. In order to contain the epidemic, the Federal Ministry of Health established the National AIDS and STIs Control Programme (NASCP) in 1992 with the aim of designing and implementing interventions towards preventing, controlling and mitigating the impact of the epidemic.

The Federal Ministry of Health through the NASCP and with the support from stakeholders has successfully conducted various surveys that have provided data on the impact of HIV and AIDS in Nigeria. Information from these surveys has been used for advocacy to government and various organisations within and outside Nigeria. Findings from the surveys have also guided planning and implementation of strategies for the prevention and control of the disease in Nigeria.

The HIV epidemic in Nigeria is classified as generalized, and yet it was important to understand the dynamics of the epidemic among key population groups whose activities are likely to have impact on our efforts at controlling the disease among the general population. Evidence from previous surveys on key population groups provided strong evidence on the burden of HIV infection among these groups and its impact on the general population.

The results of the 2014 IBBSS being presented in this report, have further established the burden of the epidemic among the Key Populations (KP) as well as the linkages between them and the general population. Information from this report, other surveys and researches will provide robust evidence to guide key stakeholders in designing and implementing appropriate strategies and interventions towards a steady reversal of the HIV epidemic in Nigeria.

I hereby present the 2014 IBBSS report to all stakeholders involved in the fight against the HIV & AIDS epidemic in Nigeria especially those engaged in providing services to the key populations groups.

L. N. Awute, mni
Permanent Secretary
Federal Ministry of Health.

PREFACE

The National AIDS and STIs Control programme (NASCP) and its stakeholders have developed several interventions and strategies towards the control and mitigation of the impact of the HIV epidemic in Nigeria. One of the key strategies is continuous monitoring and surveillance of the HIV epidemic through clinics and population based surveys. The results from the surveys have served as basis for planning and targeted interventions in the fight against HIV and AIDS in Nigeria.

The first and second Integrated Biological and Behavioural Surveillance Surveys (IBBSS) were conducted in 2007 and 2010. Results of these surveys provided robust evidence on the burden of HIV infection and how it affects some groups within the society. It identified probable drivers of the epidemic and previously unrecognized high-risk groups. The findings further revealed the sexual behavioural linkages that exist between the high-risk (or key population) groups and the general population. The results also confirmed high level of HIV infection among members of these high-risk groups.

The goal of the IBBSS is to obtain serological, behavioural and HIV service coverage data on key and vulnerable populations with a view to developing and expanding the HIV prevention and care services suited to the context of these population groups.

The 2014 IBBSS was implemented through technical committees that designed the protocols and monitored implementation of the survey. The survey was intended to determine behavior and lifestyles which predispose the key populations to HIV.

Findings from this study have confirmed that the HIV prevalence is on the increase among some key population groups especially Men who Sex Men (MSM), People Who Inject Drug (PWID) and Female Who Sell Sex (FWSS). With good understanding of this report, and findings of other national HIV and AIDS surveys and researches, it is hoped that stakeholders will develop appropriate and tailored intervention strategies to break the transmission and reverse the trend of the HIV and AIDS epidemic among high-risk groups and the general population.

It is my belief that this report will provide useful information on the HIV and AIDS epidemic among key population groups in Nigeria. I implore all stakeholders to utilize this document as a guide for developing future intervention plans and strategies toward improving the national response.

I recommend this report for use by government at all levels, development partners, academia, research institutions and other stakeholders.

Dr. Bridget Okoeguale
Director, Public Health
Federal Ministry of Health

ACKNOWLEDGEMENTS

The Federal Ministry of Health acknowledges the efforts of all those who contributed to the successful conduct of the Integrated Biological and Behavioral Surveillance Survey (IBBSS) among the key population groups in Nigeria.

We hereby extend our appreciation to members of the Survey Management and Technical Committees for their technical support and oversight during the course of this survey.

We particularly acknowledge the financial support provided by the Global Funds to fight AIDS, TB and Malaria (GFATM) and the USAID through Society for Family Health (SFH) and Family Health International (FHI360), respectively.

We also recognize the technical inputs from the World Health Organisation (WHO) Nigeria, Population Council and the Heartland Alliance.

It is our hope that this report will be a good reference document that will assist in advocacy and programme planning towards improved implementation of the HIV & AIDS programme in Nigeria.

Dr. Evelyn Ngige
National Coordinator
HIV & AIDS Division

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ACRONYMS

AFPAC	Armed Forces Program on AIDS Control
AIDS	Acquired Immunodeficiency Syndrome
ANC	Ante-Natal Care
APIN	AIDS Preventive Initiative in Nigeria
BCC	Behavioural Change Communication
BSS	Behavioural Surveillance Survey
CDC	Center for Disease Control and Prevention
DFID/UKaid	Department for International Development/United Kingdom Agency for International Development
FHI	Family Health International
FMoH	Federal Ministry of Health
FSW	Female Sex Workers
FWSS	Female Who Sell Sex
GHAIN	Global HIV/AIDS Initiative Nigeria
HIV	Human Immunodeficiency Virus
IBBSS	Integrated Biological and Behavioural Surveillance Survey
IEC	Information, Education and Communication
IMPACT	Implementing HIV/AIDS Prevention and Care
KAP	Key Affected Population
LACA	Local Government Action Committee on AIDS
MSM	Men who have sex with Men
NACA	National Agency for Control of AIDS
NASCP	National AIDS/STD Control Programme
NGO	Non-Governmental Organization
NNRIMS	Nigeria National Response Information Management System
NPC	National Population Commission
PACA	Police Action Committee on AIDS
PHSC	Protection of Human Subjects Committee
PI	Prevention Indicator
PLWHIV	People Living with HIV/AIDS
PPS	Probability Proportionate to Size
PWID	People Who Inject Drugs
UNAIDS	Joint United Nations Programme on AIDS

RDS	Respondent Driven Sampling
SACA	State AIDS Control Agency
SAPC	State AIDS Control Programme Coordinator
SFH	Society for Family Health
SMC	Survey Management Committee
SAPC	State AIDS Programme Coordinator
STD	Sexually Transmitted Disease
STI	Sexually Transmitted Infection
TC	Technical Committee
TLS	Time Location Sampling
UNAIDS	Joint United Nations Program on HIV/AIDS
USAID	United States Agency for International Development
WB	World Bank
WHO	World Health Organization

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EXECUTIVE SUMMARY

This report highlights the findings of an Integrated Biological and Behavioural Surveillance Survey (IBBSS) among six target groups considered to be most at risk of HIV & AIDS in Nigeria. These groups are the Females Who Sell Sex (FWSS), Men who have sex with Men (MSM), People Who Inject Drugs (PWID), Transport Workers (TW) and officers and men of the Armed Forces and the Police.

The current national prevalence of HIV in Nigeria subsumes the disproportionate contributions of these specific population groups to the epidemic of HIV in the country. Therefore, the main objectives of the survey were to assess the knowledge and beliefs of high-risk groups about HIV & AIDS, determine the prevalence of HIV infection among these high risk groups and obtain data that will permit comparison of past levels of risk behaviours, and HIV infection among the groups so as to obtain a trend.

This is the third round of the IBBSS among these target groups. The study of FWSS was conducted in 13 States and the FCT – namely Abia, Anambra, Benue, Cross River, Edo, Enugu, Kano, Kaduna, Lagos, Nassarawa, Oyo, Rivers and Taraba, while studies involving MSM and PWID were limited to Cross River, Enugu, Kaduna, Kano, Oyo, Lagos, Rivers and the FCT. Study of the Army, Police and TW was conducted in Anambra, Benue, Cross River, Edo, Kaduna, Lagos and Nassarawa states, and the FCT.

The samples of the uniformed officers and men, TW and brothel-based Females Who Sell Sex (BBFWSS) were selected using a cluster sampling method with a probability proportional to size (PPS). The transport workers, Non brothel-based Female Who Sell Sex (NBBFWSS) were selected using 'Time location sampling method (TLS)' while the 'Respondent Driven Sampling' (RDS) technique was used for MSM and PWID.

The survey had two main components, the behavioural and biological component both of which received appropriate ethical clearance from the National Health Research and Ethics Committee (NHREC) before the commencement of the survey. The biological component of the survey was undertaken by testing for HIV in blood specimen drawn from all individuals recruited for the survey. All respondents were offered counseling and testing for HIV. Those who tested positive were counseled and referred to health facilities that offer ART services within their locality.

The sample size estimated for this survey was 26,440, but there was a short fall of 3,609 (13.6%) that were not available for statistical analysis either because some of the expected sample size could not be met (this constituted more than 80% of the shortfall) or some questionnaires had some incomplete responses and were excluded from statistical analysis. The MSM group had the highest number of shortfalls of about 45% of the MSM sample size estimated for interview, and this accounted for about 83% of the total shortfalls.

The average age of the 22,831 respondents was 30.1 years. The MSM group was the youngest (average age of 23.6 years) while the Police group was the oldest with an average age of 37.1 years. About 25% of the Police were females compared to only 7% of PWIDs, while all the transport workers were males and most of the Armed Forces were males, with some few females. A low proportion of FWSS, about 1.6% for the brothel-based and 2.2% for non brothel-based, 5% of MSM and a fifth of PWIDs were currently married and lived with their spouses. The literacy rate was high for all groups, with less than 1% reporting not having a formal education, and about a fifth of non brothel-based FWSS compared to only 6% of brothel based had tertiary education.

The overall HIV prevalence among the target groups was 9.5% and this was highest among MSM (22.9%), followed by BBFWSS (19.4%), NBBFWSS (8.6%), PWID (3.4%), Police (2.5%), Transport workers (1.6%) and Armed Forces (1.5%). There was a general decline in prevalence across the studied groups, between 2010 and 2014, with the NBBFWSS showing the highest drop (21.1 – 8.6 per cent). The Police, Armed Forces and Transport Workers maintained prevalence rates below the national, as was observed in 2010. However, the MSM showed remarkable increase from 17.2 to 22.9 %.

The awareness of HIV & AIDS was generally high, with nearly more than 99% in each vulnerable groups reporting ever- heard of HIV & AIDS. A fair proportion of each group knew a close relative or friend with HIV & AIDS; as high as 54% of Police and as low as 46% of the Armed forces. On the other hand, almost 47% of the Armed forces reported to have known someone who had died of AIDS and the lowest proportion was among the NBBFWSS (29%).

Almost a quarter of the vulnerable groups had comprehensive knowledge of HIV transmission and prevention based on UNAIDS indicators.

Almost all the respondents in the target groups have heard of male condoms. While almost all the FWSS (99%) and MSM (93%) had ever used condom, condom use was least among TW (70%). But a low percentage used it consistently, as low as 1.4% with regular partners among transport workers, 27% with boyfriend/girlfriend among BBFWSS and 54% with casual partners among the police.

Consistent condom use was higher during commercial sex (83%). The Armed Forces (81%) had the highest proportion of them using condom with commercial partners; while the lowest was among MSM (61%). Also BBFWSS had high consistent condom use with casual partners (83%).

High proportions (83% - 95%) of the vulnerable groups had heard of sexually transmitted diseases, lowest among TW (83%). But about 20% of FWSS reported ever had unusual genital discharge and this was less than 10% in other vulnerable groups, with the least among the army. It was found that the pharmacy or chemist and private hospital/clinic were the major sources the FWSS, MSM and PWID patronized for the treatment of STI, while the Army patronized public hospital/clinic and the transport workers patronized pharmacy or chemist, as well as traditional healers.

The study assessed stigma and discrimination against PLHIV. The result showed that 68% of BBFWSS, 77% of MSM, 58% of PWID, 81% of Armed forces, 70% of Police and 53% of TW reported they were “willing to eat with HIV/AIDS patients”

A good proportion of the respondents have had an HIV test, the highest being among the Armed Forces (92%) and the lowest among TW (51%). A high proportion of all the target groups, ranging from 77% to 99% underwent the test voluntarily and also received their results.

The major sources of information on HIV & AIDS were the radio, television and health workers. The transport workers (93%) had the highest proportion of those who received information on HIV/AIDS from the radio, while the police (83%) had the highest proportion of those who heard from television; 63% of the Armed Forces did so from the health workers.

In conclusion, the prevalence of HIV among these high-risk groups was higher than the national average of 3.4% reported in the NARHS Plus 2012. The MSM has overtaken the BBFWSS as the group with the highest HIV prevalence in Nigeria. Furthermore, the HIV prevalence among FWSS has significantly reduced. Therefore, there is need to continue to intensify effective intervention

programmes for the prevention of HIV & AIDS among the Most at Risk Population (MARP) particularly the MSM and FWSS.

1 INTRODUCTION AND BACKGROUND

1.1 Introduction

HIV & AIDS is one of the most serious health problems worldwide with an estimated 35 million adults and 3.2 million children living with the virus in 2014. It is one of the leading causes of death in sub-Saharan Africa[1]. The fight against the HIV epidemic has received remarkable support from government and their partners. Thus, it is imperative to monitor and evaluate the various intervention programmes put in place to control the spread of this disease. There has been an increased emphasis on the need to use biomarkers to monitor progress on the effectiveness of intervention programmes among the general population and selected groups of interest. It is recognized that these selected groups contribute disproportionately to the HIV & AIDS epidemic.

Nigeria with a growth rate of 3.2% is projected to have a population of approximately 180 million[2] as at 2014. The country's adult HIV prevalence from the antenatal clinic (ANC) survey increased from 1.8% in 1991 to 4.5% in 1996, 5.8% in 2001, decreased to 5.0% in 2003, 4.4% in 2005 and 4.1% in 2010[3] (Figure 1). The number of people living with HIV in Nigeria as at 2014 is estimated to be 3.4 million[4]. In two and a half decades, the HIV infection in Nigeria has moved from an initial concentrated epidemic to a generalized epidemic and to the current mixed epidemic. Unfortunately, the current national HIV prevalence in Nigeria masks the disproportional contributions of the key affected population (KAP) to the epidemic. One of the earliest national responses to the HIV and AIDS epidemic in Nigeria was the setting up of a surveillance system to determine the magnitude of the HIV situation, as well as monitoring the trends of the epidemic.

[1] UNAIDS (2014). Global AIDS Response Progress Report

[2] Federal Republic of Nigeria Official Gazette (2009). Legal Notice on Publication of 2006 Census Final Results. Official Gazette of the Federal Republic of Nigeria, Vol.96, No. 2 of 2nd February, 2009.

[3] FMOH (1991, 1996, 2001, 2003, 2005 and 2010). Technical report, National HIV Sero-prevalence Sentinel Survey among Pregnant Women Attending Ante-Natal Clinics in Nigeria.

[4] NASCP (2015). 2014 Annual Report on HIV & AIDS Health Sector Response in Nigeria

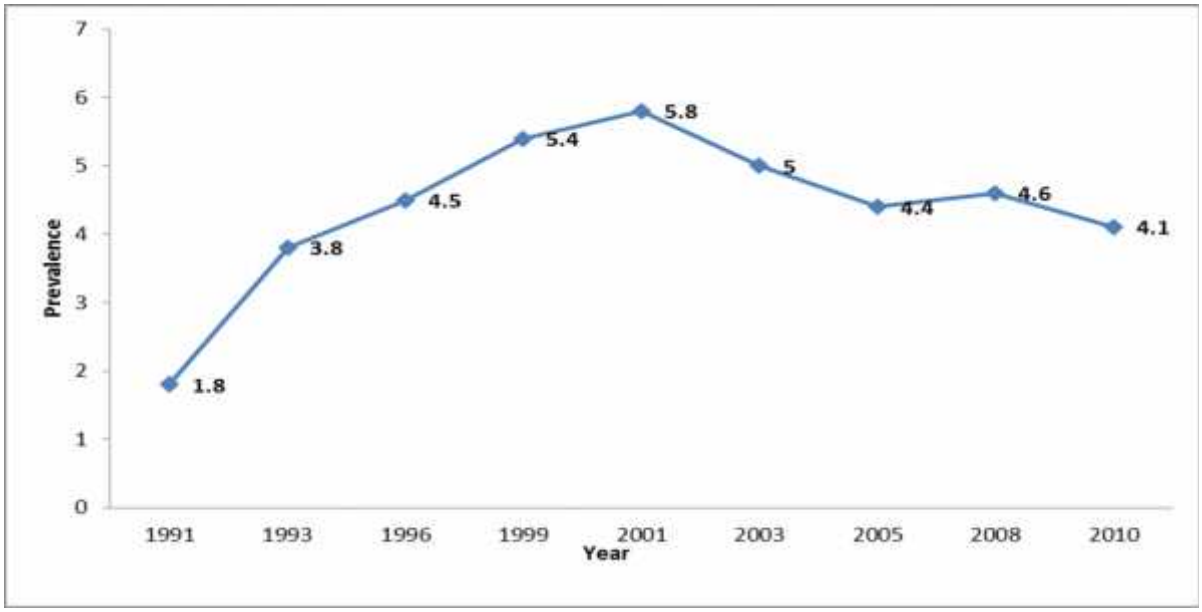

Figure 1: Trend in the prevalence of HIV in Nigeria

1.2 Rationale

The Federal Ministry of Health, (FMOH) recognized the need for continuous monitoring of HIV infection among sub-populations with higher risk behaviours[5]. Hence, the FMOH commissioned the Integrated Biological and Behavioural Surveillance Survey (IBBSS) in 2007[6]. The introduction of a biological component into this survey was the first of its kind in Nigeria. A second round of the survey was conducted in 2010[7]. The 2014 survey is the third round of the IBBSS for the key populations (KP).

The 2010 IBBSS surveyed 14,987 members of selected key and vulnerable populations for HIV. These target populations included Female Sex Workers (FSW), Men who have sex with Men (MSM), Injecting Drug Users (IDU), Transport Workers (TWs), members of the Nigerian Armed Forces and members of the Nigerian Police. The study was conducted in eight states and the Federal Capital Territory (FCT). The study examined knowledge, attitudes and behaviours, as well as HIV prevalence. Sample sizes were sufficient to allow reliable state-level estimates for most variables of interest. The 2007 baseline IBBSS provided critical information to track the progress of the HIV epidemic in selected high-risk groups, by comparing information gathered in Nigeria's National Behavioural Surveillance Survey (BSS) among same key populations in 2002 and 2005. The 2010 IBBSS exercise provided not only an opportunity to compare behavioural information with previous surveys, but also to compare biological information with the 2007 exercise.

The MSM is a difficult group to identify and locate. In 2010 IBBSS, the HIV prevalence in this group ranged from 2.4% in Cross River to 37.6% in the FCT when compared to the general population prevalence of 3.4% (2012 NARHS Plus). The MSM group have high rate of partner exchange and some also sell and buy sex from other men.

Apart from the MSM, the PWID is also a group that is considered to be at higher risk of contracting and spreading HIV through sharing of contaminated needles and indulgence in

[5] FMOH (2000 and 2005) Behavioural Surveillance Surveys
[6] FMoH (2007). HIV/STI Integrated Biological and Behavioural Surveillance Survey (IBBSS).
[7] FMoH (2010). HIV Integrated Biological and Behavioural Surveillance Survey (IBBSS).

unsafe sex, either with the opposite or same sex. The population-based HIV prevalence among this group from the last 2010 IBBSS ranged from 3.0% in Lagos to 9.3% in the FCT.

This 2014 IBBSS similarly surveyed other groups with higher risk of HIV infection: FWSS, (formerly FSW); MSM, PWID (formerly IDU), TW, members of the Armed Forces and the Police. The IBBSS 2014 leverages lessons learnt from the 2012 National Reproductive Health Survey Plus (NARHS Plus), the ANC Surveillance and the 2010 IBBSS in measuring the behavioural risk factors and HIV prevalence among selected key and vulnerable populations in Nigeria. The findings from this study would complement the knowledge gained from previous surveys so that effective education, prevention, and treatment programmes can be designed and implemented. In addition, it will provide valuable information for stakeholders' on the description and understanding of HIV dynamics among the key populations.

1.3 Goal and Objectives

1.3.1 Goal

The main goal of this study is to obtain HIV serological and behavioural information on key and vulnerable populations with a view to developing HIV prevention and care programmes suited to their context.

1.3.2 Objectives

The specific objectives of the survey were to:

- Assess knowledge and beliefs of high-risk groups about STI and HIV & AIDS
- Determine their current risk behaviours
- Assess key target population-level trends in risk behaviours over time
- Determine the prevalence of HIV infection among the high risk groups
- Provide information to guide future programme planning
- Provide appropriate, sustainable non-stigmatising opportunities for key populations to access HIV prevention services, including referrals for HIV positive persons.

2 METHODOLOGY

2.1 Target populations and states

The 2014 IBBSS was conducted among the Key Affected Population (KAP) in 13 selected states of Nigeria and the Federal Capital Territory (FCT). The IBBSS was undertaken among 7 target groups namely: brothel-based females who sell sex (BBFWSS), non-brothel-based females who sell sex (NBBFWSS), men who have sex with men (MSM), people who inject drugs (PWID), transport workers (TW), members of the armed forces (Air Force, Navy and Army), and the Police.

Selected states by zone include:
South West zone: Lagos and Oyo
South South zone: Cross River, Edo and Rivers
South East zone: Abia, Anambra and Enugu
North West zone: Kaduna and Kano
North Central zone: Benue, FCT and Nasarawa
North East zone: Taraba

2.1.1 Females Who Sell Sex (FWSS)

A female who sells sex is defined as **any woman 15 years[8,9] and above who has received money or other valuable gifts/incentives in exchange for sexual favours** in areas such as brothels, bars, restaurants, gardens, night clubs, hotels and on the street or from a residence in the last 12 months preceding the survey. Females who sell sex are found in several cities and towns in Nigeria. Females who sell sex are further disaggregated into brothel based and non brothel based FWSS. The brothel based include those FWSS who operate from brothels, while the non brothel based are those who operate from streets, clubs or other social venues that are not designated as brothels.

2.1.2 Men Who Have Sex with Men (MSM)

A man who has sex with other men is defined as any male 15 years and above, resident in the respective state at the time of the survey, **who has engaged in oral or anal sexual activities with other men in the 12 months preceding the survey**.

2.1.3 People Who Inject Drugs (PWID)

A person who injects drug (PWID) is defined as any person 15 years and above who has injected drugs recreationally at least once in the past 12 months.

2.1.4 Transport Workers, Armed Forces (Army, Navy &Air force) and the Police

These three groups are considered to be at high risk of contracting and spreading HIV because of their interaction with FWSS, as well as the tendency among them to have multiple casual sex partners. Because of the nature of their jobs, these population groups often spend a considerable proportion of their time away from home. While away from home, they may engage in sex with FWSS or casual sex partners. Although previous studies have found their HIV prevalence to be lower than that of the general population.[10].

2.2 Sample size

The formula for the estimation of the sample size for each vulnerable group and the rationale is presented in Appendix 1.

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[8] Child Rights Act 2003
[9] Children and Young Persons Act, Laws of Nigeria 131 of 1954
[10] FMOH 2007 and 2010. Integrated Biological and Behavioural Sentinel Survey

The estimates obtained from the 2010 IBBSS were used as the values required for the indicators to compute sample sizes for the 2014 IBBSS. The main indicators used in calculating the sample sizes for the behavioural component were: "consistent use of condoms with clients or partners in the last 12 months" for the FWSS and MSM; "always used sterile equipment" for PWID as obtained in the 2010 IBBSS. For transport workers, Police and Armed forces, the indicator was "consistent condom use with girlfriend in last 12 months". However, the prevalence of HIV was used to estimate the sample sizes considering the biological aspect of the study. The larger of the two (behavioural or biological) sample sizes calculated was chosen as the minimum sample size. These are approximated to the nearest round figure. As the null hypothesis was that there has been no increase in preventive behaviour among the target populations studied, two-tailed test of significance was used.
In addition, to account for the intra-group correlation or clustering effects inherent in all recruitment strategies, a design effect of 2.0 was incorporated.

Sample sizes for the behavioural component were calculated to detect a 10% change in the indicator of interest for all the target groups. A confidence level of 95% was considered adequate at a power of 80%. All sample sizes were inclusive of a 10% refusal rate. In the cases of members of the Armed Forces and the Police, where available, a list of officers at military bases/Police stations was used as the sampling frame for random sampling.

Table 1: Summary of estimated sample size IBBSS 2014.

STATE	FWSS		MSM	Uniform Personnel		Transport Workers	PWID	Total
	Brothel based	Non brothel		Armed forces	Police			
Abia	300	300						600
Anambra	300	300		300	300	300		1500
Benue	300	300		300	300	300		1500
Cross River	300	300	862	300	300	300	261	2623
Edo	300	300		300	300	300		1500
Enugu	300	300	845				389	1834
FCT	300	300	843	300	300	300	759	3102
Kaduna	300	300	851	300	300	300	536	2887
Kano	300	300	805	300	300	300	303	2608
Lagos	300	300	755	300	300	300	404	2659
Nasarawa	300	300		300	300	300		1500
Oyo	300	300	781				312	1693
Rivers	300	300	845				389	1834
Taraba	300	300						600
Total	4200	4200	6587	2700	2700	2700	3353	26,440

2.3 Sampling of Target Groups

Respondent Driven Sampling (RDS)[11] method was used to recruit MSM and PWID, while Time Location Sampling (TLS)[12] technique was used to select non-brothel based FWSS and

[11] RDS is a method that combines "snowball sampling" with a mathematical model that weights the sample to compensate for the fact that the sample was collected in a non-random way. Characterized by long referral chains (to ensure that all members of the target population can be reached) and a statistical theory of the sampling process which controls for bias including the effects of choice of seeds and differences in network size, RDS overcomes the shortcomings of institutional sampling (coverage) and snow-ball type methods (statistical validity). By making chain-referral into a probability sampling method and consequently resolving the dilemma of a choice between coverage and statistical validity, RDS has become the most appropriate method for reaching the hard-to-reach population groups. The RDS process starts with the recruitment of the initial seeds each of who recruits a maximum of two to three members from their population group.

transport workers. The brothel-based FWSS, armed forces, and police were selected using a two-stage cluster sampling technique. For the FWSS, each brothel or bar or streets represented a cluster and at the first stage of sampling, 48 clusters were randomly selected from the list of clusters already prepared. A sample of 6 FWSS was subsequently recruited from each cluster using probability proportionate to size.

The Respondent-driven sampling (RDS) adopted for the selection of MSM and PWID, a modified form of snowball sampling, offers several advantages for hard to reach populations. The RDS not only serves to achieve the desired sample size, it also permits the identification of new networks and characteristics within those networks.

The Armed Forces and Police were selected using a two-stage cluster sampling procedure from the military or police units. Clusters were selected using probability proportionate to size (PPS) with a fixed number of participants recruited from each cluster.

The details of the sampling procedures are presented in Appendix 2

Prior to the commencement of the survey, members of the communities, NGOs working with the target populations, NASCP Officials, State AIDS Program Coordinators (SAPC) and key informants for each target group assisted in the identification of various locations where the target groups could be found. A list of sites where the population groups were located, how and when they can be reached for information and services and the essential distinguishing characteristics of these sites was prepared.

Table 2: Target groups, States and Sampling Strategy

Target groups	STATES	sampling strategy
Brothel-based FWSS	Abia, Anambra, Benue, Cross River, Edo, Enugu, FCT, Kaduna, Kano, Lagos, Nasarawa, Rivers, Taraba	Cluster (PPS)
Non-Brothel based FWSS	Abia, Anambra, Benue, Cross River, Edo, Enugu, FCT, Kaduna, Kano, Lagos, Nasarawa, Rivers, Taraba	Cluster (TLS)
MSM	Cross River, Enugu, FCT, Kaduna, Kano, Lagos, Oyo, Rivers	RDS
PWID	Cross River, Enugu, FCT, Kaduna, Kano, Lagos, Oyo, Rivers	RDS
Transport Workers	Anambra, Benue, Cross River, Edo, FCT, Kaduna, Kano, Lagos, Nasarawa, Rivers	Cluster (TLS)
Armed Forces	Anambra, Benue, Cross River, Edo, FCT, Kaduna, Kano, Lagos, Nasarawa, Rivers	Cluster (PPS)
Police	Anambra, Benue, Cross River, Edo, FCT, Kaduna, Kano, Lagos, Nasarawa, Rivers,	Cluster (PPS)

[12] TLS is a form of cluster sampling that contains both time and location dimensions. TLS provides the opportunity to reach members of a target population who access certain locations at any point in time. The process starts by creating time * location PSU (PSU that have both a time and a location dimensions) from which a random sample is selected. At the second stage all or a sub-sample of randomly selected population members who appear at the site during a designated time interval of fixed length, for example 4 hours, are interviewed. To the extent that all members of a target population access the locations at some point in time, TLS is a probability sampling method because: (i) all population members have a non-zero chance of selection as long as the time-location sampling frame is complete; and (ii) the selection probabilities can be calculated by taking the time dimension as well as the space dimension into account

2.3.1 Brothel-Based Females Who Sell Sex

The brothel-based FWSS were selected using a two-stage cluster sampling procedure[13]. Brothels were considered as clusters. For each brothel listed, information was collected on the approximate number of FWSS living there to estimate the cumulative measure of size. The measure of size permitted sample allocation by probability proportional to size (PPS).

Clusters were selected using PPS with a fixed number of FWSS to be recruited from each cluster. Individual participants were selected from the total number of FWSS in the site. Where the actual number of FWSS in each brothel is the same or very close to the estimated number of FWSS from the mapping exercise, the brothel-based FWSS samples was self-weighted and did not require weighting during analysis. All FWSS within each of the clusters were interviewed and those who consented received serological testing

2.3.2 Non-Brothel Based Females Who Sell Sex

The non-brothel based FWSS were recruited using the time location sampling approach. Working through relevant NGOs and SAPC in different cities/towns, and using information from the 2010 IBBSS and the epidemic appraisal of MARPs, a list of streets and other outdoor locations where FWSS usually congregate (including information on the time of the day when they congregate there) was generated. Additional information was sought from key informants.

Time-location cluster was defined as the location, the days of the week and the peak time that non-brothel-based FWSS congregate. The TLS clusters were selected using PPS with a fixed number of FWSS to be recruited from each cluster. Individual participants were randomly selected by the supervisor from the total number of FWSS at the site during each site visit.

2.3.3 Men who have Sex with Men

The Respondent Driven Sampling (RDS) was employed to recruit MSM. As explained above, the RDS methodology started with the recruitment of the seeds from members of the target group. Seeds were identified through the NGO networks that historically provide support and services for MSM community. These NGO networks also provided a linked service delivery platform to ensure appropriate and non-discriminatory follow-up.

Approximately three seeds were recruited initially in a staggered fashion, with more seeds added to boost recruitment as needed. Seeds were selected to reflect the diversity within the MSM population (i.e., by age, typology, ethnicity, geographic area, sex work and socio-economic status).

These seeds were the first MSM participants to be recruited by the investigators after meeting all eligibility criteria. The objectives of the survey and their expected roles of recruiting their peers were clearly explained to them. They completed all parts of the study (behavioural and biological) and each seed was given three vouchers to recruit his peers into the study. Vouchers were numbered to include the identification number of the recruiter. The number of vouchers given to each recruiter was limited to three to ensure that a broad array of subjects had an opportunity to recruit, to avoid the emergence of semi-professional recruiters, and to preclude turf battles over recruitment rights. Participants were screened by known MSM to ensure they were really members of the target population. The MSM selected as seeds were persons who had personal networks that were large and diverse, who were motivated and enthusiastic about the goals of the study, well-regarded by their peers and influential within their networks. A network analysis form was also filled by respondents to indicate the size of each network.

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[13] The two stage cluster sampling used brothels in the urban towns as clusters. The information from mapping activities gave the number of FWSS in each cluster. Fixed number of FWSS in each cluster was then randomly selected.

2.3.4 People Who Inject Drugs

The Respondent Driven Sampling (RDS) was applied to recruit PWID. The epidemic appraisal of most-at-risk populations (MARPs) conducted by the National Agency for the Control of AIDS (NACA) and other stakeholders in 2012 guided the selection of sites. In addition, the services of researchers and NGOs in this field were sought to identify seeds and validate the selected sites.

The seeds were the first PWID to be recruited by the investigators. They were briefed on the objectives of the survey and their expected roles in recruiting their peers. They completed all parts of the study (behavioural and biological) and each was given three vouchers to recruit their peers into the study. Vouchers were numbered to include the identification number of the recruiter. The number of vouchers given to each recruiter was limited to three to ensure that a broad array of subjects had an opportunity to recruit, to avoid the emergence of semi-professional recruiters, and to preclude turf battles over recruitment rights.

2.3.5 Transport Workers (TW)

Time-location sampling procedure was utilised for recruiting transport workers. The survey sampled only male transport workers.

Different categories of transport workers were included in the sampling frame. This includes:

Long distance drivers/attaches/assistants of heavy duty vehicles (e.g. trailers) who spend days on the road before reaching their final destinations;

Interstate commercial bus and taxi drivers who travel relatively long and medium distances, the majority of whom do not return to their originating station until the second/third day – this category of drivers most often sleep in the destination towns and not along the routes as do the long distance drivers;

Intrastate commercial bus and taxi drivers who operate within a city or between relatively short distances and return to their usual place of residence at the end of each day; and

Commercial motorcyclists (popularly known as Okada), who transport persons from place to place within a city.

Mapping of major transport parks were done in collaboration with the transport workers union and NGOs that work with them. The mapping provided information on the number of TWs and peak periods of operation. Recruitment of TWs was done at peak periods.

2.3.6 Armed Forces

The Armed Forces were selected using a two-stage cluster sampling procedure. Military bases were considered as clusters. All bases in the chosen states comprised the sampling frame. The number of individuals chosen from each base was selected using PPS with a fixed number of participants recruited from each base. A list of all military personnel present at each base on the day of the survey was obtained. Using this list, the eligible persons were extracted, from which the survey participants were randomly selected. The resultant list was provided to the unit commander requesting that the selected persons present themselves for interviews.

2.3.7 Police

The Police were selected using a two-stage cluster sampling procedure. Police stations were considered as clusters. All stations in the survey state capital constituted the sampling frame. The stations were selected using random sampling with PPS, with a fixed number of participants recruited from each station. A list of all police personnel present at the station on the day of the survey was obtained. Using this list, the eligible persons were extracted, from which the survey participants were randomly selected. The resultant list was provided to the unit commander requesting that the selected persons present themselves for interviews. When the estimated number of target group members in the state was less than the required sample

size, a "take-all" approach was used where all members of the target group in the zone's catchment area were recruited for the survey.

2.4 Study Procedures

2.4.1 Pre-Surveillance Mapping of Primary Sampling Units (PSU)/Formative Research

The main objective of the pre-surveillance mapping exercise was to identify and list sites where the population groups are located (or can be reached), how and when they could be reached for information, and the essential distinguishing characteristics of these sites. Complete listing of sites and their important characteristics was done. The times of the day (and/or days of the week) when target group members could be reached and the approximate size of the target group at the site were documented.

2.4.2 Data Collection Processes

Target populations fell into two categories on the basis of whether respondents were interviewed and tested in central locations (for MSM and PWID) or at population specific locations (for BBFWSS, NBBFWSS, TW, Armed Forces and the Police). The data collection process comprised the following steps;

- Introduction and explanation of the study
- Obtaining consent for the behavioural component from participants
- Conducting interview for behavioural data
- Obtaining consent for the biological component from the participants
- Conducting pre-test counselling
- Conducting the biological component (taking blood sample; conducting HIV test and collecting dried blood spots (DBS) sample)
- Recording the HIV test result
- Disclosure of HIV test result to participant
- Providing participant with post-test counselling
- Referring participants for follow up services.
- Preparing the dried blood spot (DBS) for transportation.

2.4.3 Data Collection Tool

The biological data were collected through HIV testing and documentation of result in the appropriate survey forms. The behavioural data collection for all target groups was by personal interview (in private or in settings that guarantee the confidentiality of information provided by the respondent) using a structured standard pre-coded questionnaire. The questionnaires were pilot tested prior to the start-up of fieldwork. It contained questions that allowed for the calculation of indicators specific to each of the vulnerable groups. In general, the tool covered the following thematic areas;

- Demographic and mobility characteristics,
- Use of alcohol and substances,
- Knowledge and beliefs about HIV transmission and prevention
- Knowledge about STI and STI treatment-seeking behaviour
- Stigma and Discrimination
- Condom use
- Sexual history
- Injecting drugs
- Seeking voluntary HIV tests
- Anal sex
- Sex work
- Exposure to interventions

In order to ensure the quality implementation of survey processes, interviewers and counsellors were well trained. The field team for each target group, in each state, consisted of 4 interviewers, 1 supervisor and 2 counsellor/testers.

2.4.4 Field Counselling and Testing Procedures:

An individual eligible for inclusion in the survey and who had completed the questionnaire was invited for HIV counselling and testing. The Counsellor/Tester provided pre-test counselling and obtained informed consent. The participant was informed of the short duration of the testing procedure. Blood sample collection was by finger prick. The Counsellor/Tester performed parallel HIV testing using Determine and Stat Pak rapid test kits. All discordant tests from the screening were re-tested using Unigold rapid test kit as a tie-breaker.

At the time of the rapid testing, the Counsellor/Tester also obtained dried blood spots (DBS) from the participant. The DBS is known to provide a platform for the use of ELISA which is an internationally accepted assay for surveillance. Universal precautions were also observed by all counsellor/tester drawing or handling blood or blood products. Personal protective gear (laboratory coats, gloves and eye protection were provided. All bio-hazardous wastes were decontaminated and disposed appropriately.

2.4.5 Quality Control for Laboratory Testing

At the end of the sample collection all the DBS were carefully packed and transported by the State Laboratory Scientist to the FMOH designated centre in accordance with sample collection and transportation Job aids. All the collected DBS were transported to Early Infant Diagnosis laboratory at Federal Medical Centre, Jalingo, Taraba State for quality assurance testing. Samples arriving at testing laboratories were logged into a registry and examined for quality. Poor quality specimens that lacked appropriate labeling, excessive haemolysis, low specimen volume, and specimens transported without cold packs or arriving at testing sites were documented and rejected. Quality control testing was done using a third generation ELISA based antibody (EIA) test kit (Genscreen^{TM} HIV-1/2 Version 2.0), as recommended by international guidelines for surveillance.

The DBS of all positives, all discordant samples and a randomly selected 10% of negatives were re-tested for quality assurance. Disparity between the EIA and the rapid tests was 2.95%; thus, there was no need for total re-testing of all samples from any of the states. Hence, all field HIV testing results were used for data analysis. After quality assurance testing, all remaining DBS were appropriately stored at designated centre by the FMOH. Universal precautions were also observed during quality control testing.

2.4.6 Linkage to Services

All respondents who tested positive to HIV were referred to a designated counselling and testing (CT) centre within the vicinity, for HIV post-test counselling and further referral to ART site for the management.

2.5 Data Quality Assurance and Management

The objective of the data quality assurance was to ensure homogeneity, completeness of records from the field, reliability, accuracy, consistency and coherency.

2.5.1 Training:

All fieldworkers, including supervisors, interviewers and counsellor/testers were trained to familiarize them with the survey objectives and enhance their understanding of their roles in the survey, as well as the need for good quality data. The supervisors were experienced and were trained in a four-day central level training. At the central level training, each question in the questionnaire was reviewed; rehearsed and all identified challenges were addressed. The

technical committee members supervising the field teams were also part of the training. A four-day state level training was then conducted for the interviewers and counsellor/testers prior to commencement of the data collection activity.

2.5.2 Field supervision

During the field work, the supervisors reviewed the completed questionnaires immediately the interview session ended. Identified mistakes were corrected before the respondent left the site. The completed questionnaires were also further reviewed by the State AIDS Program Coordinator and the Technical Committee members supervising the teams in each State. The technical committee members also supervised the sampling techniques to ensure that the teams adhered to the sampling methods described for the different groups. In addition, supervisors used survey guideline for the selection of respondents.

2.5.3 Data flow on the field

The SAPC coordinated the study activities including data collection as well as storage and transportation of samples. The Counsellor/Tester ensured proper handling of DBS samples and gave them to the state laboratory scientist who registered them in the field log book. The completed questionnaires were handed over to the SAPC on a daily basis. The questionnaires and DBS samples were then transmitted to the FMOH on weekly basis for data entry.

2.5.4 Data Entry

Data entry was done using CSPro with pre-programmed consistency checks. At least 25% of the questionnaires entered daily by each entry clerk were re-entered for the behavioural data while 100% double data entry was achieved for the biological data for quality control purposes. The data entry clerks were supervised by three supervisors who reviewed and validated all questionnaires entered.

2.5.5 Data Cleaning

The data was cleaned and analyzed using SPSS version. Frequency counts were carried out to check consistency and assess cleanness of the database. The data cleaning included the following:

- Checking ages outside the age range criteria
- Cross checking all corresponding skips to the questionnaire
- Reviewing the cluster allocations
- Cross checking the questionnaire completion responses from the interviewers in the database with the records in the supervisors log to ensure that they matched.
- Tallying the supervisors log of blood samples collected to ensure that recorded numbers of samples collected matched the results recorded in the database
- Reviewing crosscheck answers to questions with previous answers

Variables were re-coded according to the indicators to be measured. Denominators were standardized and composite indicators created. A clean database was used to generate the necessary tables in accordance with the pre-approved data analysis plan.

2.5.6 Data Analysis

The overarching objective of this study was to determine the prevalence of HIV infection among key and vulnerable populations as well as the behaviours that drive the epidemic.Therefore, the data analysis focused on highlighting HIV and risk factor prevalence at the state and national levels. The HIV prevalence was calculated as the percentages of the blood samples that were positive and its corresponding 95% confidence intervals. Chi square test was used to assess the significance of the association between risk behaviours and HIV

infection. Fisher exact test was used whenever Chi-square test results were not valid for 2x2 tables.

2.5.7 RDSAT

RDS relies on peer recruitment; however, peer recruitment can lead to significant selection bias. Selection bias is a threat to the validity of the results obtained for various indicators, including HIV prevalence. For example, if HIV risk is much higher in those who have larger networks (e.g. MSM sex workers or gay-identified MSM) than those with smaller networks, then the un-weighted HIV prevalence is likely to be an overestimate. This is because those with larger networks have a greater probability of getting into the sample and be oversampled. If the oversampled group (i.e. the group with larger networks) has a higher HIV prevalence, then the sample (un-weighted) HIV prevalence will be over-estimated. Additionally, with any peer recruitment, it is also likely that people tend to recruit others like themselves, and that some are more efficient at recruiting peers. This kind of recruitment behaviour may lead to over-sampling of certain sub-groups, leading to a biased sample. Analysis in the RDSAT software was used for HIV prevalence of MSM and IDU where data was collected using the RDS. It adjusts for selection bias, recruitment patterns, and the differences in network size by reducing the over-representation of those with larger network sizes, in the sample. This ensures proper analytical adjustment of a non-probability sampling methodology.

2.6 Ethical Review

The protocol, consent forms and -questionnaires were approved by National Health Research and Ethics Committee (NHREC), Nigeria and the Protection of Human Subjects Committee of Family Health International/CDC. Approval was obtained from both review bodies prior to subject recruitment. The participants recruited through the RDS process were adequately compensated and this helped to motivate participation in the study. Other ethical issues are shown in Appendix 5

3 RESULTS

3.1 Demographic characteristics

3.1.1 Study Sample

The study was carried out in 13 states of Nigeria and the FCT, Abuja. The estimated sample size was 26,440 but information was collected from a total of 22,831 individuals. Thus, 3,609 (13.6%) either refused or were not available to be interviewed or did not complete their questionnaires sufficiently enough for any meaningful statistical analysis. The incomplete questionnaires were excluded from the final analysis.

The sample achieved from each state for surveyed groups are as shown in Table 3.

Table 3: Samples size achieved by target group by State, IBBSS, 2014

STATE	FWSS		MSM	Armed forces		Transport workers	PWID	Total
	Brothel based	Non brothel			Police			
Abia	269	276						545
Anambra	300	302		300	299	300		1501
Benue	300	299		301	299	299		1498
Cross River	255	165	504	300	298	299	226	2047
Edo	298	301		300	299	299		1497
Enugu	274	251	458				375	1358
FCT	298	301	637	300	302	299	669	2806
Kaduna	299	298	505	300	298	299	504	2503
Kano	299	276	125	239	296	300	285	1820
Lagos	296	300	426	300	298	300	391	2311
Nasarawa	300	300		299	299	299		1497
Oyo	300	292	452				310	1354
Rivers	302	301	504				390	1497
Taraba	300	297						597
Total	**4090**	**3959**	**3611**	**2639**	**2688**	**2694**	**3150**	**22, 831**

3.1.2 Age

The overall mean age of all respondents was 30.1 years (SD±9.1 years). The MSM group was the youngest (mean age=23.6 years, SD±5.1 years) while the Police group was the oldest with a mean age of 37.1 years (SD±8.4 years). The non-brothel based FWSS with almost 48% of them less than 25 years (mean age =25.8 years, SD±5.7years) were younger than the brothel based FWSS (mean age =28.3 years, SD±6.5 years).

Among the uniform personnel surveyed, the armed forces, with a mean age of 34.6 years, (SD±9.1years) were younger than the police (37.1 years). The transport workers had a similar age distribution as the armed forces (mean = 35.8 years, (SD±10.7 years), about 13% less than 25 years and only 2% below 20 years of age.

About 7% of all the respondents were less than 20 years of age and the MSM had the highest proportion while none of the respondents from the police or armed forces was in this age group. The youngest respondents were 15 years of age which were among the FWSS and MSM [Table 4].

3.1.3 Sex

Only the Police and PWID had both sexes surveyed. About 25% of the Police were females compared to only 7% of PWIDs. However, the female PWID were too few for any statistically meaningful disaggregation of data by sex, Table 4.

3.1.4 Marital status

The marital status and living arrangements of all the respondents are as shown in Table 3.2. About 88% of FWSS and MSM were not married and did not live with a sex partner. Also, only a few of the brothel-based (1.5%) and non-brothel-based (2.0%) FWSS were currently married and lived with their spouses. A lower proportion of brothel based (0.5%) and non brothel based (0.2%) FWSS were currently married but living with other sex partners. Also, 4.4% of MSM were currently married and live with a spouse while 6.7% were not married but live with sex partners. High proportions (88.0%) of MSM were not married and did not live with a sex partner. But about 22% of PWID were currently married and lived with a spouse while about 70% were not married and did not live with any sex partner. Among the male dominated occupational groups, 55.4% of the armed forces, 67.9% of the police, and 62.7% of transport workers were currently married and lived with their spouses. About 28% of the Armed forces and transport workers were neither married nor lived with any sex partner.

3.1.5 Educational status

About two-thirds of brothel-based and non-brothel based FWSS had at least a secondary education. A higher proportion of non-brothel based FWSS (19.7%) than the brothel based (6.2%) had tertiary education.

Majority of the MSM completed their secondary education (63.3%), 28.3% completed tertiary education while a few of them had never attended school. About two third of the PWID completed secondary education while almost a fifth had tertiary education and less than 1.0% never had formal education.

All the armed forces respondents had some form of education, with most of them having completed secondary education (57.3%) and about 40% with tertiary education. This distribution is very similar to that of the police where everyone had at least a primary education. But most of the TWs had either completed secondary (53.0%) or primary education (32.5%). There were only 3% of the TWs who had no formal education and 11.4% had tertiary education.

A low proportion of respondents in all groups (2.1%) did not have any formal education while as high as 76% completed at least primary education. The armed forces and police had higher proportions of people with tertiary education than any other group. The brothel based FWSS had the highest proportion who never attended school.

Table 4: Percentage distribution of all respondents by demographic characteristics, IBBSS, Nigeria, 2014

Characteristics	FWSS		MSM	Armed forces	Police	Transport workers	PWID	All
	Brothel based	Non brothel based						
Age group in years								
15-19	5.0	8.8	20.9	0.7	0.0	2.2	5.4	6.8
20-24	24.5	39.0	45.9	14.5	1.6	10.4	26.0	25.1
25-49	70.5	52.3	33.1	84.8	98.3	87.5	68.6	68.1
Mean Age (SD)	28.3±6.5	25.8±5.7	23.6 ±5.1	34.6±9.1	37.1±8.4	35.8±10.7	30.1±9.3	30.1±9.1
Sex								
Male			100.0	89.6	74.9	100.0	93.1	59.6
Female	100.0	100.0		10.4	25.1		6.9	40.4
Marital status								
Currently married, live with spouse	1.5	2.0	4.4	55.4	67.9	62.7	21.9	26.1
Currently married, live with other sex partner	0.5	0.2	0.3	1.4	2.3	0.3	0.7	0.7
Currently married, not living with spouse or other sex partner	1.7	0.7	0.6	11.2	9.7	2.4	2.3	3.6
Not married live with sex partner	8.7	9.2	6.7	2.4	3.2	3.8	5.3	6.0
Not married, live without sex partner	87.7	87.9	88.0	29.5	16.9	30.8	69.8	63.5
Highest level of Education								
Never attended school	6.3	1.9	0.4	0.4	0.0	3.1	0.9	2.1
Primary education	20.5	10.6	7.5	2.8	5.8	32.5	13.6	13.5
Secondary education	67.0	67.8	63.3	57.3	55.9	53.0	66.3	62.5
Tertiary education	6.2	19.7	28.3	39.6	38.3	11.4	19.1	22.0
Religion								
No religion	0.9	1.3	0.3	0.1	0.1	0.2	0.5	0.6
Christian	92.6	87.3	70.3	66.9	80.8	52.5	72.1	76.2
Islam	6.1	10.9	29.1	33.0	19.0	46.0	27.1	22.9
Traditional	0.3	0.4	0.3	0.1	0.1	0.4	0.3	0.3
Total	**4090**	**3959**	**3611**	**2693**	**2688**	**2694**	**3150**	**22831**

3.2 Mobility and social habit

3.2.1 Mobility

Increased mobility has been associated with risky sexual behaviour. The mobility status of respondents was assessed by asking whether they had been away from their homes continuously for one month or more in the 12 months preceding the survey date. Figure 2 below shows that all groups were quite mobile. Based on this measure of mobility, the least mobile groups were the Police and TW (32.6% and 38.7%, respectively). Out of those surveyed, BBFWSS, MSM and Armed Forces were the most likely to have spent a month or more away from home. There were however state level differences (see Appendix 4.1).

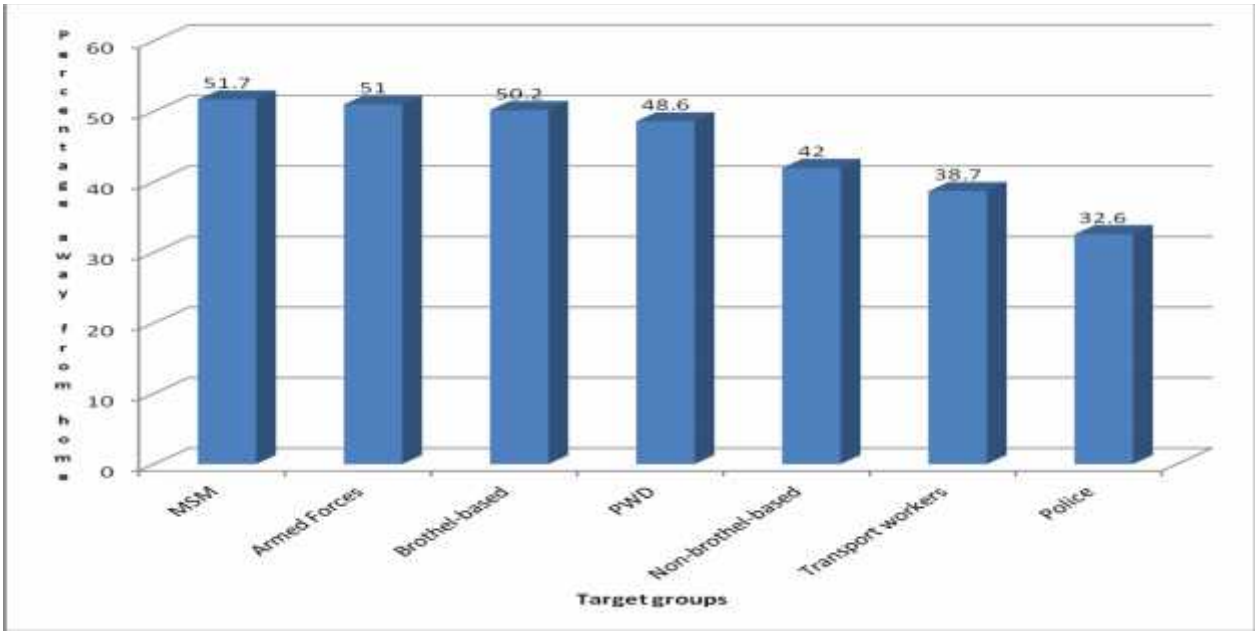

Figure 2: Percentage distribution of respondents who were continuously away from home for one month or more in the last 12 months, IBBSS, Nigeria, 2014

3.2.2 Use of Alcohol

Respondents were asked whether they consume alcohol and how frequently. The percentage distribution of daily alcohol consumption among the different target groups in the last four weeks prior to survey date by age and State are presented in Figure 3 below. Figure 3 below shows that the PWID were more likely to consume alcohol everyday compared to the other study groups, followed by BBFWSS and NBBFWSS. On the other hand, the use of alcohol was lower among the Armed Forces, followed by MSM and the Police.

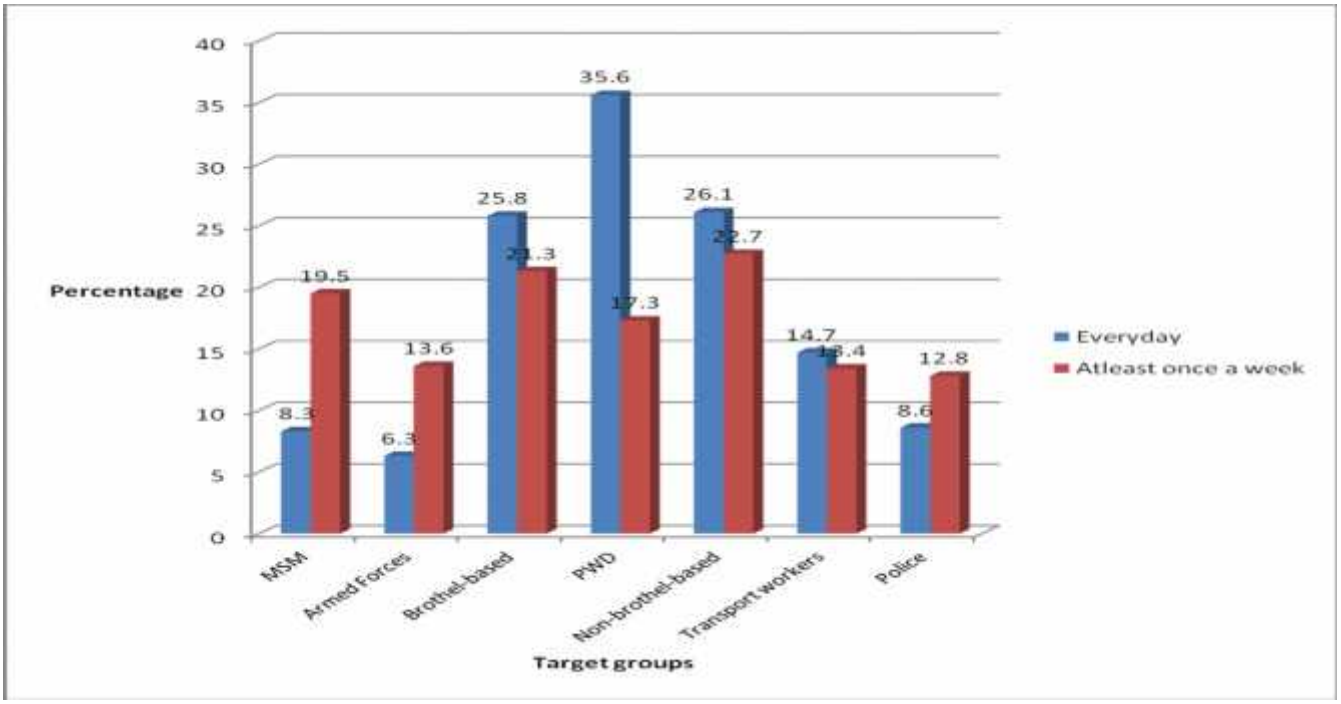

Figure 3: Percentage distribution of respondents who drank alcohol every day and at least once a week, four weeks prior to the survey date. IBBSS, Nigeria, 2014.

3.2.3 Drugs and other substances ever used

Respondents were asked the types of recreational drugs and other substances they had ever tried. About 74%, 70%, and 63% of PWID had ever tried marijuana, cocaine and heroin, respectively. However, a lower proportion of TW (17%), BBFWSS (15.2%), NBBFWSS (14.0), and MSM (15.4%), reported ever using marijuana as shown in Figure 4.

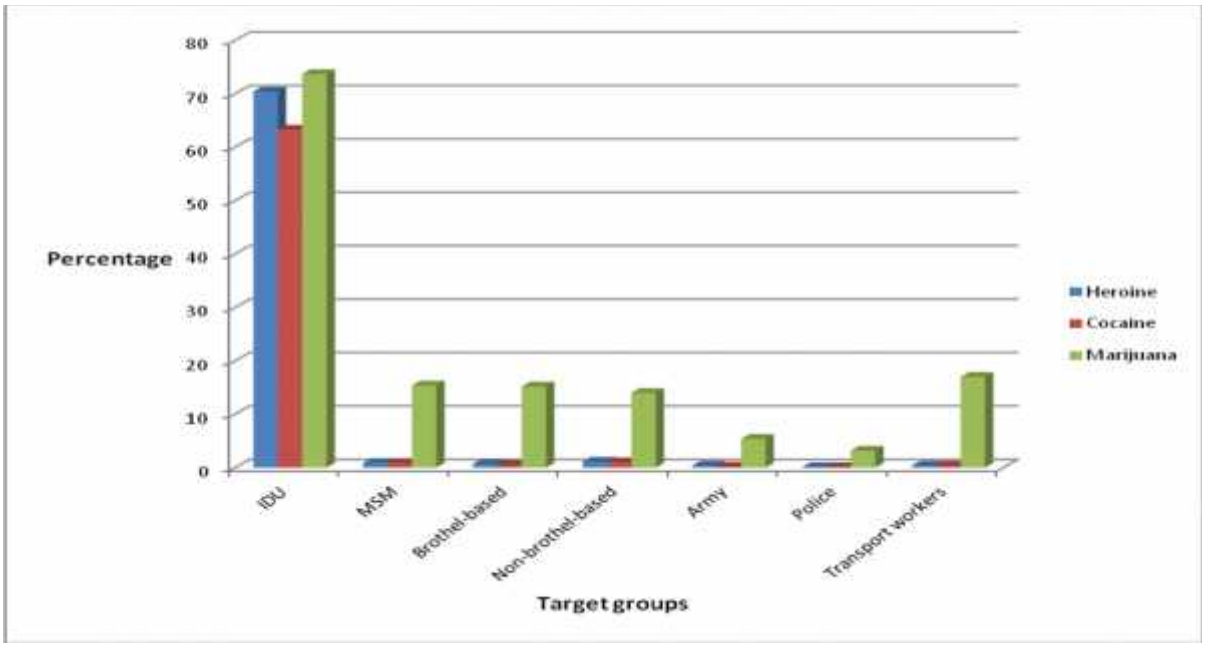

Figure 4: Percentage of target groups who ever tried Heroine, Cocaine and Marijuana, IBBSS Nigeria, 2014

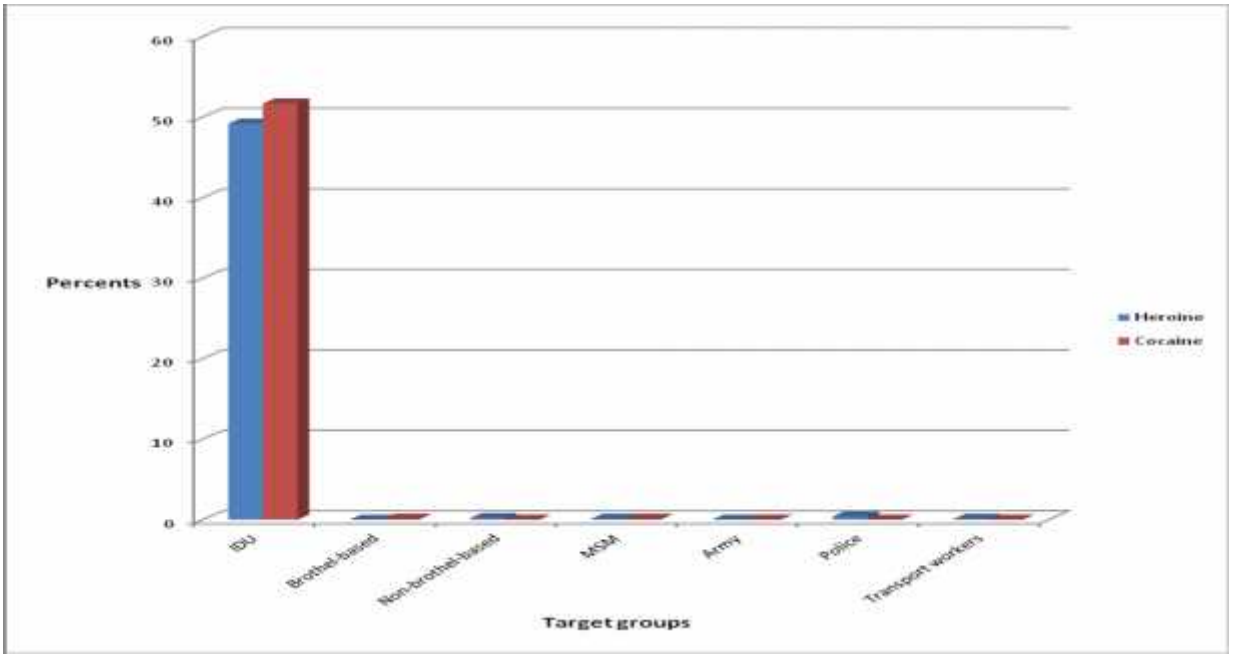

Figure 5: Percentage of target groups who ever used Heroine and Cocaine in the last four weeks before the survey; IBBSS Nigeria, 2014

3.2.4 Drugs and other substances used in the last 12 months preceding the survey

The respondents who had tried injecting recreational drugs in the 12 months prior to the survey were asked which drug(s) they used four weeks prior to survey. The findings illustrated in Figure 4 revealed a low proportion of respondents who had used these drugs or substances. Cocaine with heroine and heroine alone were the commonest drugs ever used by 7% of all respondents while all other drugs and substances were used by 3% or less of the respondents. However, analysis by type of vulnerable key target populations revealed that the use of these substances was mostly reported by PWID. About 52% of PWID had used cocaine without heroine, 49% had used heroine without cocaine and more than a fifth ever used "crack" (21%), heroin and cocaine (22.2%). Also, 19% of the PWID had used any other drug not mentioned and only 10% had used pentazocine, in the last 4 weeks prior to the survey date as presented in Appendix 4.5.

Table 5: Percentage distribution of type of drugs ever used by all respondents among vulnerable groups, IBBSS, Nigeria, 2014

Characteristics	Cocaine	Heroine	Marijuana	Glue	Pethidine	Pentazocine	Chinese capsules	Amphetamines	Total
Vulnerable Group									
Brothel-based	0.7	0.5	15.2	0.3	0.0	0.1	0.1	0.1	4,090
Non-brothel-based	1.1	1.0	14.0	0.7	0.2	0.2	0.6	0.1	3,959
MSM	0.9	0.9	15.4	0.8	0.4	0.3	1.0	0.2	3,611
PWID	70.4	63.3	73.7	12.0	12.5	19.5	19.4	9.3	3,150
Armed Forces	0.4	0.2	5.4	0.2	0.0	0.0	0.2	0.0	2,639
Police	0.1	0.1	3.2	0.0	0.0	0.0	0.1	0.1	2,688
Transport workers	0.4	0.4	17.0	0.5	0.1	0.0	0.3	0.1	2,694
Total	**10.3**	**9.3**	**20.8**	**2.0**	**1.8**	**2.2**	**2.5**	**1.4**	**22,831**

3.2.5 Drugs ever injected

Respondents who had tried injecting recreational drugs in the 12 months prior to the survey were asked if they had ever injected such drugs in the last four weeks prior to survey date. .
The responses also revealed that only the PWID indicated injection of some of these drugs.

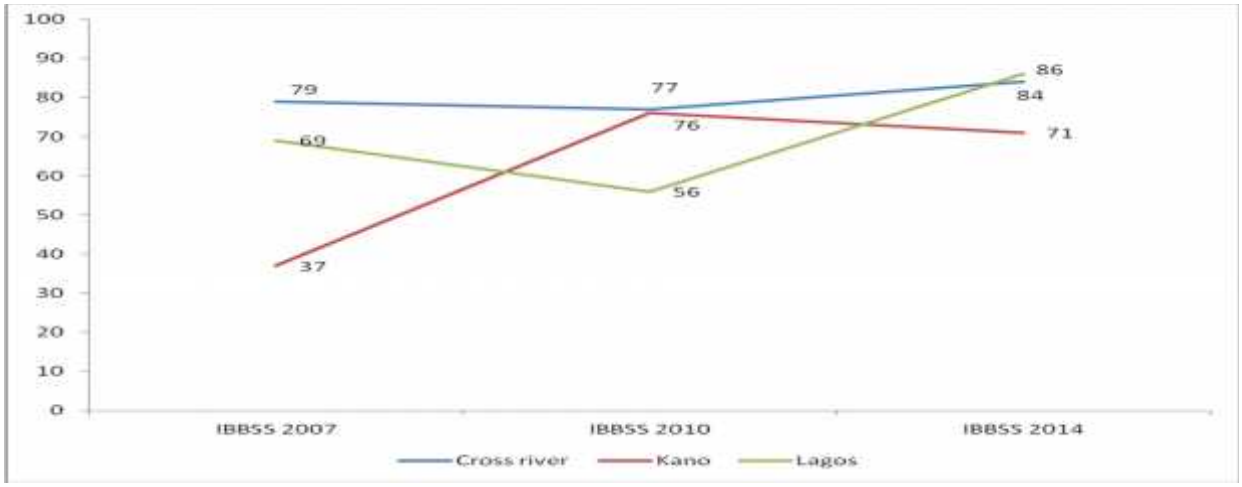

Figure 6: Proportion of PWID who reported always use of sterile injecting equipment in the last 1 month prior to the survey by state (IBBSS, 2007-2014)

3.3 HIV Prevalence

Figure 7 shows the weighted HIV prevalence for all groups except MSM and PWID where crude rates are reported. Men who have sex with men (MSM) had the highest prevalence of HIV of 23% (95% CI: 21.4 – 24.4) and followed by brothel-based female who sell sex (BBFWSS) with19.4%; 95% CI: (18.1 –20.6). The HIV prevalence was less than 10% among non-brothel based female who sell sex, NBFWSS (8.6%; 95% CI: (7.7 – 9.6), while it was less than 4% among the other vulnerable groups with the least prevalence of HIV reported among the Armed Forces [1.5%; 95% CI: (1.1 – 2.0)] and transport workers [1.6%; 95% CI:(1.1 -2.1)].

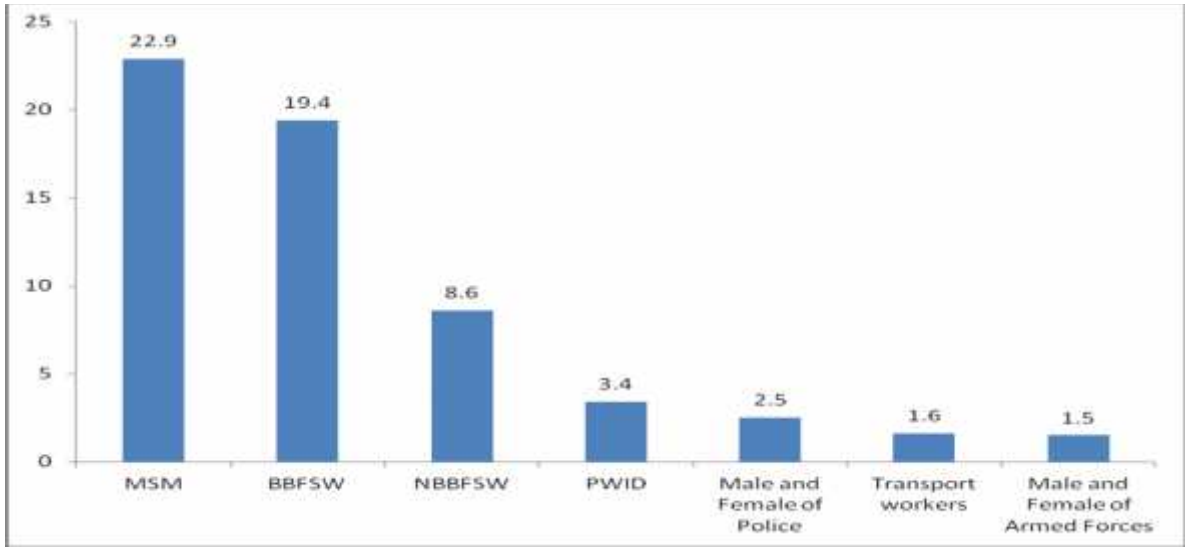

Figure 7: HIV Prevalence among the different vulnerable groups, Nigeria, IBBSS 2014

*Prevalence in MSM and IDU are based on crude rates and not weighted.

3.3.1 HIV Prevalence among BBFWSS and NBBFWSS

Figure 8 shows the HIV prevalence among BBFWSS and NBBFWSS. Prevalence is highest among the BBFWSS in Taraba state and lowest among the BBFWSS in Edo state, while among the NBBFWSS, it is highest in Kano and lowest in Abia.

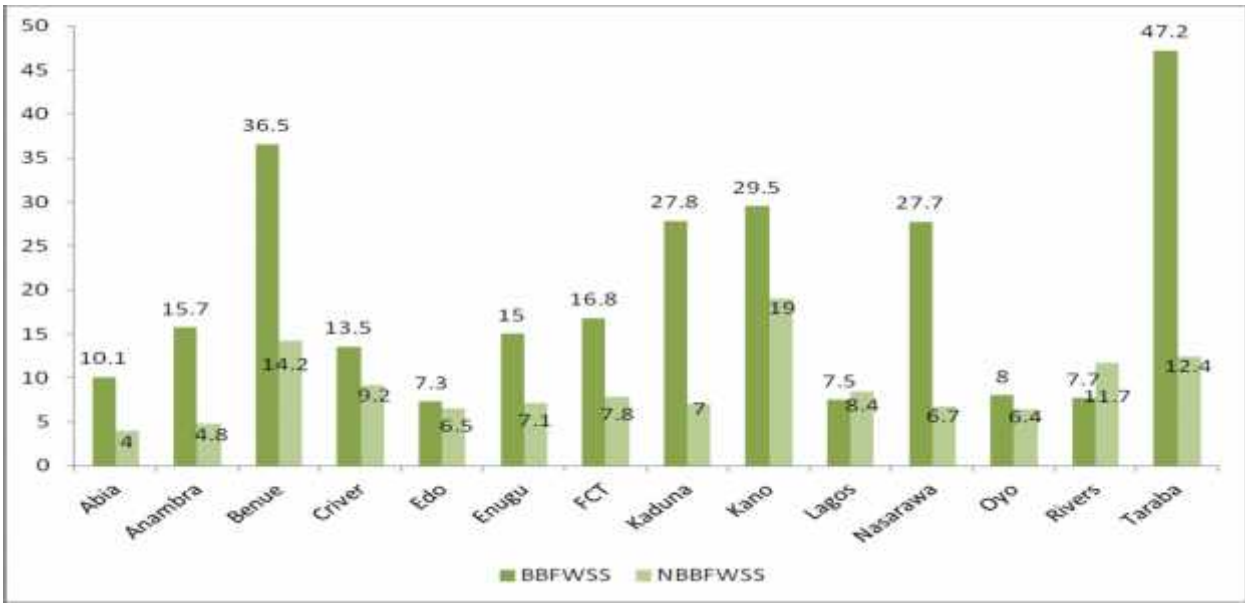

Figure 8: Prevalence of HIV among BBFWSS and NBBFWSS by state, IBBSS, Nigeria 2014

The estimates of HIV prevalence by selected socio-demographic characteristics for BBFWSS and NBBFWSS are presented in Table 6. The result shows that HIV prevalence decreased with age for both BBFWSS and NBBFWSS. Also HIV prevalence increased with years of sex work and decreased with level of education.

Table 6: HIV Prevalence among brothel-based and Non brothel-based FWSS by selected demographic characteristics, IBBSS; Nigeria, 2014

Demographic Characteristics	Prevalence	95% confidence interval	Total (N)
Brothel Based FWSS			
Age group (years)			
15-19	11.2	6.7 - 15.7	188
20-24	13.8	11.6 – 16.0	913
25-49	21.9	20.3 – 23.6	2556
Years in sex work			
Less than a year	18.7	16.9 – 20.4	1886
1- 2	17.9	15.7 – 20.1	1155
3 -4	23.8	19.7 – 28.0	403
5+	24.9	19.1 – 30.7	213
Education			
No formal education	36.2	29.9 - 42.5	221
Primary	26.5	23.3 – 29.6	755
Secondary	16.3	14.8 – 17.7	2469
Tertiary	12.3	7.8 – 16.7	212
Marital status			
Currently married	27.5	19.5 – 35.5	120
Never married	17.7	16.4 – 19.0	3315
Others(Widowed/Separated/Divorced)	33.7	28.4 – 38.9	312
Overall	19.4	18.1 – 20.6	3657
Non Brothel Based FWSS			
Age group (years)			
15-19	6.4	3.5 – 9.2	282
20-24	7.5	6.0 – 9.0	1238
25-49	9.9	8.4 – 11.3	1618
Years in sex work			
Less than a year	7.2	5.7 – 8.6	1185
1- 2	8.0	6.4 – 10.0	1178
3 -4	10.3	7.3 – 13.2	408
5+	13.6	10.1 – 17.1	367
Education			
No formal education	23.1	12.8 – 33.3	65
Primary	14.1	10.3 – 17.8	334
Secondary	8.1	6.9 – 9.2	2116
Tertiary	6.1	4.2 – 8.0	623
Marital status			
Currently married	3.9	0.16 – 7.7	102
Never married	8.6	7.5 – 9.6	2738
Others(Widowed/Separated/Divorced)	10.7	7.2 – 14.3	298
Overall	**8.6**	**7.6 – 9.6**	**3138**

3.3.2 HIV Prevalence among MSM and PWID

Among MSM in all states surveyed, HIV prevalence was above 10%. In Lagos state, the HIV prevalence was highest (41.3%), followed by Rivers state (40.7%) and the FCT with 30.1%, HIV prevalence was lowest in Cross River state (11.3%).

Figures 9 and 10 compare state specific adjusted/weighted HIV prevalence using RDSAT and unadjusted/un-weighted HIV prevalence estimates for MSM and PWID. Lagos, Rivers and the FCT had higher burdens of the HIV infection among MSM compared to other states surveyed. Among PWIDs, the estimated HIV prevalence was highest in Kano followed by the FCT.

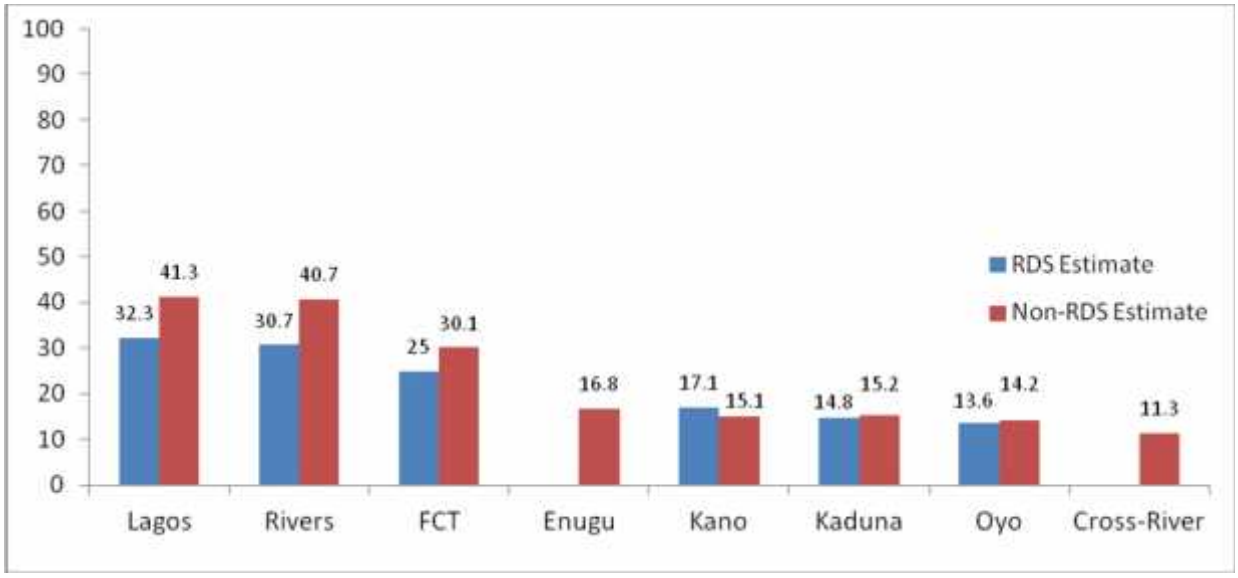

Figure 9: RDS and Non-RDS estimates of HIV prevalence among MSM by State; IBBSS Nigeria 2014

HIV prevalence increased with age for both MSM and PWID. Unlike among MSM where HIV prevalence increased with the level of education, it decreased with age among PWID. The Non-RDS estimate of the prevalence of HIV was consistently higher among MSM in Lagos, Rivers and FCT as shown in Figure 9. But Figure 9 shows no remarkable difference in the estimates with or without RDS weighting.

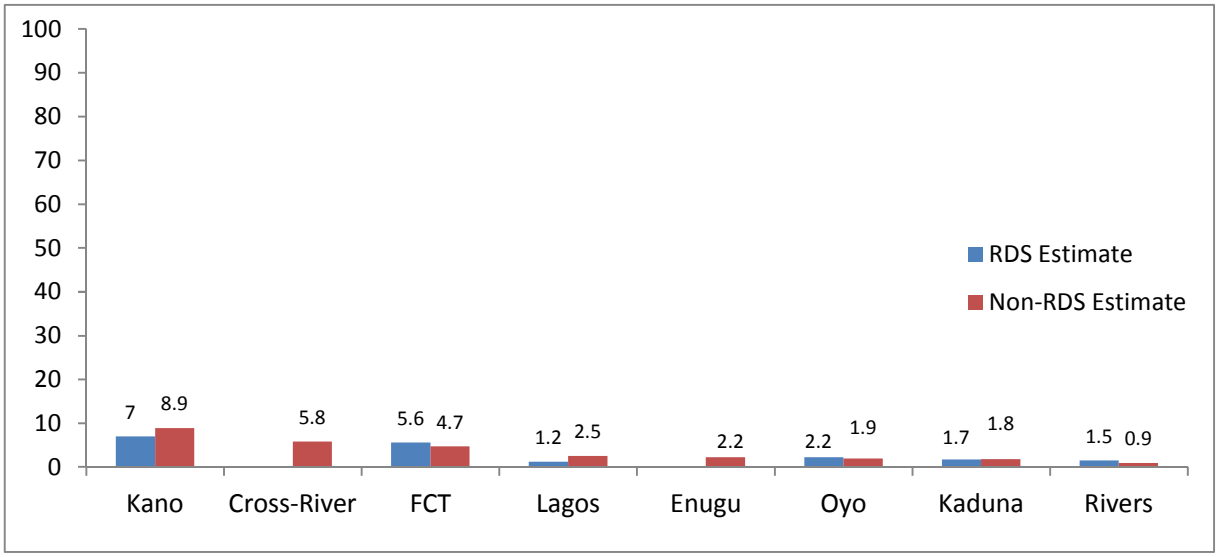

Figure 10: RDS and Non-RDS estimates of HIV prevalence among PWID by State; IBBSS Nigeria 2014

Table 7: HIV Prevalence among MSM and PWID by selected demographic characteristics, IBBSS, Nigeria, 2014

Demographic Characteristics	Prevalence	95% confidence interval	Total (N)
MSM			
Age group (years)			
15-19	12.4	9.9 – 14.9	662
20-24	21.4	19.0 – 23.3	1433
25-49	32.3	29.4 – 35.2	1009
Education			
No formal education	18.2	4.6 – 41.0	11
Primary	16.4	11.6 – 21.1	232
Secondary	20.5	18.8 – 22.3	2018
Tertiary	30.5	27.4 – 33.6	843
Marital status			
Currently married	21.7	15.4 – 28.0	166
Never married	22.9	21.3 – 24.5	2715
Others(Widowed/Separated/Divorced)	24.2	18.6 – 29.8	223
Overall	22.9	21.4 – 24.4	3104
PWID			
Age group (years)			
15-19	3.1	0.5-5.8	162
20-24	2.3	1.3-3.3	785
25-49	3.9	3.1-4.7	2056
Sex			
Male	2.6	2.0-3.2	2794
Female	13.9	9.2-18.6	209
Education			
No formal education	3.7	#.# -10.8	27
Primary	3.8	2.0 -5.6	420
Secondary	3.5	2.7 -4.3	1977
Tertiary	2.8	1.5 -4.1	579
Marital status			
Currently married	3.4	2.1-4.7	743
Never married	3.3	2.5-4.1	2103
Others (Widowed/Separated/Divorced)	5.7	2.1;9.3	157
Overall	**3.4**	**2.8 - 4.1**	**3003**

#. # Negative value because of small sample size

3.3.3 HIV Prevalence among Armed Forces, Police and Transport Workers

Among the Armed Forces, Police and Transport workers, HIV prevalence was highest in the FCT (4.8%) and lowest in Kano state (0.0%) among the Police. Anambra state had the highest HIV prevalence among the Armed forces (4, 3%) and prevalence was highest in Benue state among Transport workers (4.3%).

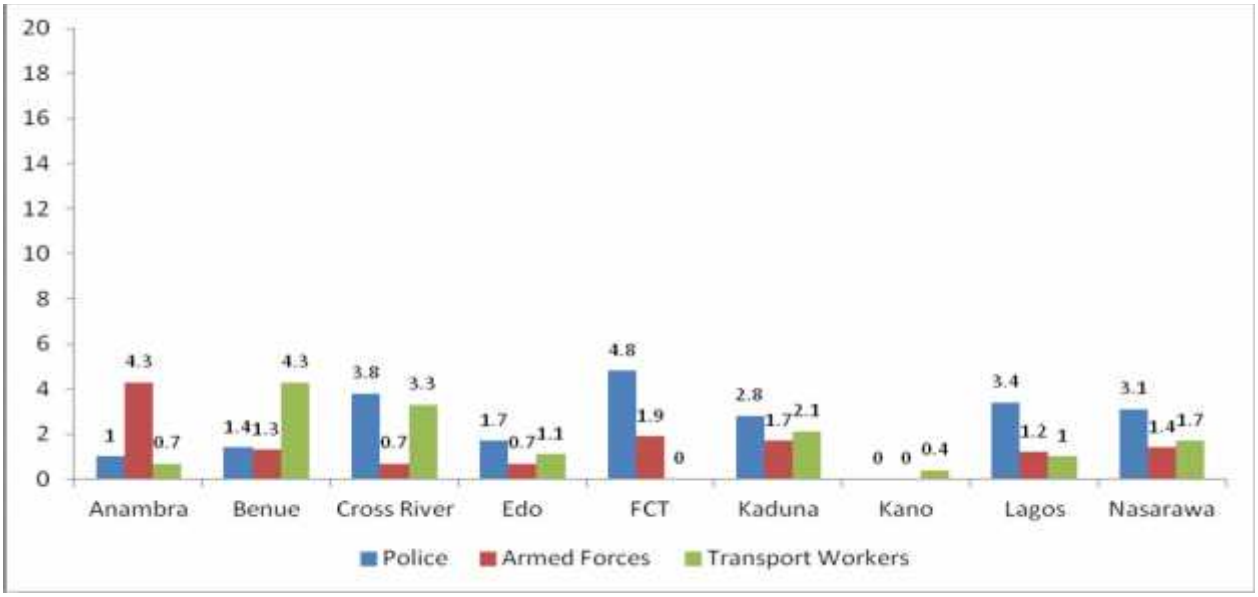

Figure 11: HIV among Armed forces, Police and Transport workers.

Table 8 shows that unlike transport workers, the lowest HIV prevalence was among respondents with tertiary education among Armed Forces and the police. HIV prevalence was also highest among those 25 years and above in all groups.

Table 8: HIV Prevalence among Armed Forces, Police and Transport workers (TW)

Demographic Characteristics	Prevalence	95% confidence interval	Sample size
ARMED FORCES			
Age group (years)			
15-19	0	0	19
20-24	0.3	0.3 – 0.8	361
25-49	1.8	1.2 – 2.3	2096
Sex			
Male	1.6	1.1– 2.1	2228
Female	0.8	0.3-1.9	248
Education			
No formal education	0	0	9
Primary	1.5	1.4 – 4.4	67
Secondary	1.7	1.0 – 2.4	1400
Tertiary	1.3	0.6 – 2.0	1000
Marital status			
Currently married	1.5	1.0– 2.1	1692
Never married	1.4	0.5 – 2.2	723
Others(Widowed/Separated/Divorced)	3.3	1.2 – 7.7	61
Overall	**1.5**	**1.1 – 2.0**	**2476**
POLICE			
Age group (years)			
15-19	0	-	1
20-24	0	-	41
25-49	2.5	1.9 – 3.1	2523
Sex			
Male	2.0	1.6 – 2.6	1918
Female	3.9	2.4 – 5.3	647
Education			
No formal education	0	0	0
Primary	2.7	0.09 – 5.2	150
Secondary	2.8	1.9 – 3.6	1454
Tertiary	2.0	1.1 – 2.9	961
Marital status			
Currently married	2.0	1.4 – 2.7	2049
Never married	4.6	2.6 – 6.6	434
Others(Widowed/Separated/Divorced)	1.2	1.2 – 3.6	82
Overall	2.5	1.9 – 3.1	2565
TRANSPORT WORKERS			
Age group (years)			
15-19	0	0	55
20-24	0.4	0.4 – 1.2	257
25-49	1.8	1.2 – 2.4	2152
Education			
No formal education	4.2	0.5 – 8.8	72
Primary	1.0	0.3 – 1.7	817
Secondary	1.7	1.0 – 2.4	1299
Tertiary	2.5	0.7 – 4.4	276
Marital status	1.8	2.4	1619
Currently married	10.1	3.8 – 16.4	756
Never married	2.2	0.8 – 5.3	89
Others(Widowed/Separated/Divorced)			
Overall	**1.6**	**1.1 -2.1**	**2464**

3.3.4 HIV Prevalence among consistent and non-users of condom

Findings in table 9 below shows that only eight (8) brothel-based FWSS reported they never used condom and one of them was HIV positive. But the number was too small for any meaningful statistical deduction. However, an odd finding was the higher proportion of HIV positives among brothel based FWSS who used condom in their last sex act (20%) compared to those who never did (11%).

The HIV prevalence among each vulnerable group or key affected populations using and not using condoms consistently prevailed no statistical significant difference at the 5% level for BBFWSS, NBBFWSS, PWID and TW. But among MSM, Armed Forces and Police the HIV prevalence appeared higher among those who did not use condom consistently.

Table 9: HIV prevalence among consistent and non consistent-users of condom by vulnerable group by State, IBBSS, and Nigeria 2014

Vulnerable group	Used condom every time in the last 12 months(consistent use)					
	YES			NO		
	HIV Prevalence	95% Confidence Interval	Sample size	HIV Prevalence	95% Confidence Interval	Sample size
BBFWSS	19.3	17.7 - 20.9	2421	19.7	17.4 – 21.9	1199
NBBFWSS	8.7	7.5 – 10.0	1989	8.8	7.1 – 10.5	1114
MSM	20.3	18.1 – 22.6	1264	24.6	22.1 – 27.1	1170
ARMED FORCES	0.7	0.3 – 1.1	1978	1.8	0.8 – 2.9	604
Transport Workers	1.8	1.0 – 2.6	1044	1.6	0.6 – 2.6	573
PWID	4.0	2.8 – 5.2	1046	3.5	2.4 – 4.6	1172
Police	2.4	1.4 – 3.3	967	3.5	1.9 – 5.1	485
Overall	10.2	9.6 – 10.8	9709	11.1	10.3 – 11.9	6317

3.3.5 HIV Prevalence among BBFWSS and NBBFWSS by selected risk factors

Table 10 shows that the proportion of HIV positives was higher among FWSS with at least 5 years of selling sex, but lowest among those who reported having 5 or more clients per day on the average and 5 or more clients on the last day of selling sex prior to survey.

Also as shown in Table 10, the HIV prevalence rose with number of years in sex work. There was no consistent trend with number of partners per day. Among the BBFWSS, those who consumed alcohol on daily basis and those who had more than 5 clients the last day they worked had prevalence less than the overall for this group, while those who perceived self at high risk of contracting HIV had a rate higher than the overall.

Table 10: Prevalence of HIV among BBFWSS and NBBFWSS by number of sexual partners, IBBSS, Nigeria, 2014

	BBFSW			NBBFSW		
	HIV Prevalence	95% Confidence Interval	Total	HIV Prevalence	95% Confidence Interval	Total
No of years in sex work						
Less than 1yr	16.3	14.0 – 18.5	1009	7.3	5.4 – 9.2	714
1-2yrs	18.5	16.4 – 20.6	1307	8.1	6.6 -9.5	1360
3-4yrs	21.4	18.1- 24.6	608	7.6	5.3 – 9.9	527
5yrs and above	27.4	23.4 – 31.4	474	13.9	10.4 – 17.3	382
Total	**19.6**	**18.3 – 20.9**	**3398**	**8.5**	**7.5 – 9.6**	**2983**
Average No. of clients/day						
Less than 1	0.0		4	0.0		5
1-2	22.2	17.5 – 27.0	297	8.6	7.2 – 9.9	1609
3-4	20.7	18.1 – 23.3	935	9.9	7.9 – 11.9	855
5 and above	18.5	16.9 – 20.0	2399	7.0	5.0 – 8.9	658
Total	**19.3**	**18.1 – 20.6**	**3635**	**8.6**	**7.6 – 9.6**	**3127**
Average No of clients/week						
Less than 1	15.3	6.1 – 24.4	59	8.2	0.5 – 15.8	49
1-2	17.6	4.8 – 30.5	34	8.1	4.9 – 11.4	271
3-4	25.5	13.9 – 37.0	55	10.8	7.6 – 14.0	352
5 and above	19.3	18.0 – 20.6	3480	8.4	7.3 – 9.5	2452
Total	**19.3**	**18.0 – 20.6**	**3628**	**8.6**	**7.6 – 9.6**	**3124**
No of clients/last day of sex work						
Less than 1	23.8	17.6 – 29.9	185	11.7	7.3 – 16.0	206
1-2	22.5	19.6 – 25.4	790	8.5	7.2 – 9.7	1879
3-4	22.4	20.0 – 24.8	1163	9.0	6.8 – 11.3	620
5 and above	14.8	13.0 – 16.6	1501	7.1	4.7 – 9.6	421
Total	**19.3**	**18.1 – 20.6**	**3639**	**8.6**	**7.6 – 9.6**	**3126**

Table 11: HIV prevalence among female who sell sex by selected risk factors, IBBSS, 2014

Risk Factors	HIV Prevalence	95% Confidence Interval	Sample Size	HIV Prevalence	95% Confidence Interval	Sample Size
	YES			NO		
BBFSW						
Daily Alcohol Consumption	16.7	14.3 -19.1	933	20.3	18.8 - 21.8	2724
Perceives Self at Risk of Contracting HIV Infection	21.8	19.5- 24.2	1200	18.2	16.6-19.7	2457
Had More than 5 clients last day of work	15.2	13.0 - 17.4	1024	21.0	19.4 - 22.5	2633
NBBFSW						
Daily Alcohol Consumption	8.6	6.7 - 10.6	822	8.6	7.5- 9.8	2316
Perceives Self at Risk of Contracting HIV Infection	9.3	7.7 - 11.0	1202	8.2	7.0 - 9.4	1936
Had More than 5 clients last day of work	7.5	4.5- 10.6	292	8.8	7.7- 9.8	2846

3.3.6 HIV Prevalence among MSM and PWID by selected risk factors

Table 12 also showed that MSM who perceived themselves to be at risk of HIV infection and those who were receptive in the last 6 months prior to this survey had a higher HIV prevalence. However, it was the reverse for all the other selected risk factors.

People who inject drugs and perceived themselves to be at higher risk of contracting HIV infection had a higher proportion of HIV positives than those who did not as shown in Table 12. Also, a slightly higher proportion of HIV positives were found among those who injected drugs more than once in the last month prior to survey date, those who used needle which have been used by someone else and those who had sex with a commercial female sex partner in the last 12 months prior to the survey date.

Table 12: HIV prevalence among MSM and PWID by selected risk factors, IBBSS, Nigeria 2014

Risk Factors	Prevalence	Confidence Interval	Sample Size	Prevalence	Confidence Interval	Sample Size
	YES			NO		
MSM						
Daily Alcohol Consumption	10.4	6.6-14.2	249	24.0	22.4 - 25.6	2855
Perceives Self at Risk of Contracting HIV Infection	27.3	24.3 - 30.3	872	21.2	19.5-22.9	2232
Had sex with FSW/ commercial partner in last 12 months	17.5	13.9 - 21.0	440	23.6	21.9 - 25.2	2583
Was insertive partner in last 6 months	22.2	20.5-23.9	2316	25.0	22.0 - 28.0	788
Was receptive partner in last 6 months	25.0	23.1- 26.8	2200	17.9	15.4- 20.4	904
Was paid for sex with male partner in last 6 months	21.6	18.3-25.0	573	23.2	21.6 - 24.8	2531
Sold Sex to male partner in last 6 months(paying partner)	20.2	17.9-22.5	1192	24.6	22.7 - 26.5	1912
Use condom last anal sex with a male partner	23.6	21.9- 25.4	2245	19.8	16.7 - 23.0	625
PWID						
Daily Alcohol Consumption	2.2	1.4 - 3.1	1070	4.1	3.2 - 5.0	1933
Perceives Self at Risk of Contracting HIV Infection	4.7	3.1 - 6.3	683	3.1	2.4 - 3.8	2320
Had sex with FSW/ commercial partner in last 12months	2.9	1.8 - 4.1	784	2.6	1.8 - 3.4	1418
Started Injecting drugs less than 20yrs of age	3.3	2.1 - 4.6	786	3.5	2.7 - 4.3	2174
Has been injecting drugs for ≥3years	3.1	2.3 - 3.9	1831	4.0	2.8 - 5.1	1128
Injected drug more than once in past one month	3.6	2.8 - 4.3	2362	2.8	1.5 - 4.1	641
Injected with needle used by someone else in past one month	3.6	2.4 - 4.8	977	3.4	2.6 - 4.1	2026
Injected with needle which has been used by another person	0	-	14	1.6	0.2 – 2.9	308

3.3.7 HIV Prevalence among Armed forces, Police and Transport Workers by selected risk factors

Table 13 revealed that for the Armed Forces, a higher proportion of HIV positives were found among those who consumed alcohol on a daily basis, perceived themselves at risk of contracting HIV infection and had sex with FWSS in the last 12 months prior to the survey date. Though the proportion that was HIV positive was low among transport workers, a similar pattern in the practice of these risky behaviours was observed. As for the police, only those who had sex with a FWSS in the last 12 months prior to survey date had a higher proportion of HIV positives than those who did not.

Table 13: HIV prevalence by selected Risk Factors among Armed Forces, Police and Transport Workers, IBBSS, Nigeria, 2014

Risk Factors	HIV Prevalence	95% Confidence Interval	Sample Size	HIV Prevalence	95 % Confidence Interval	Sample Size
	YES			NO		
ARMED FORCES						
Daily Alcohol Consumption	4.4	1.2 - 7.6	159	1.3	0.9 - 1.8	2317
Perceives Self at Risk of Contracting HIV Infection	2.4	0.9 - 3.8	423	1.4	0.9 - 1.9	2053
Had sex with FWSS/ commercial partner in last 12months	3.3	0.5 - 6.2	150	1.5	1.0 - 2.1	1905
POLICE						
Daily Alcohol Consumption	0.9	0.2 - 3.1	217	2.6	2.0- 3.2	2348
Perceives Self at Risk of Contracting HIV Infection	2.3	1.0 - 3.7	470	2.5	1.8 - 3.2	2095
Had sex with FWSS/ commercial partner in last 12months	2.8	0.1 - 4.9	106	2.0	1.4 - 2.7	1675
TRANSPORT WORKERS						
Daily Alcohol Consumption	1.9	0.5 - 3.3	365	1.6	1.0 - 2.1	2099
Perceives Self at Risk of Contracting HIV Infection	2.1	1.0 -3.2	629	1.5	0.9 -2.0	1835
Had sex with FWSS/ commercial partner in last 12months	1.8	0.2 - 3.4	279	1.7	1.1 -2.3	1879

3.3.8 HIV Prevalence Trend Analysis

3.3.8.1 Comparative trend of HIV prevalence among study groups, IBBSS Nigeria 2007, 2010 and 2014

Figure 12 shows a consistent decline in the prevalence of HIV among the FWSS, PWID, and Transport workers from 2007 to 2014. But HIV prevalence increased among MSM from 13.5% in 2007 to 22.9% in 2014. A slight increase was also observed among the Police officers from the 2010 result while HIV prevalence remained the same within the Armed Forces.

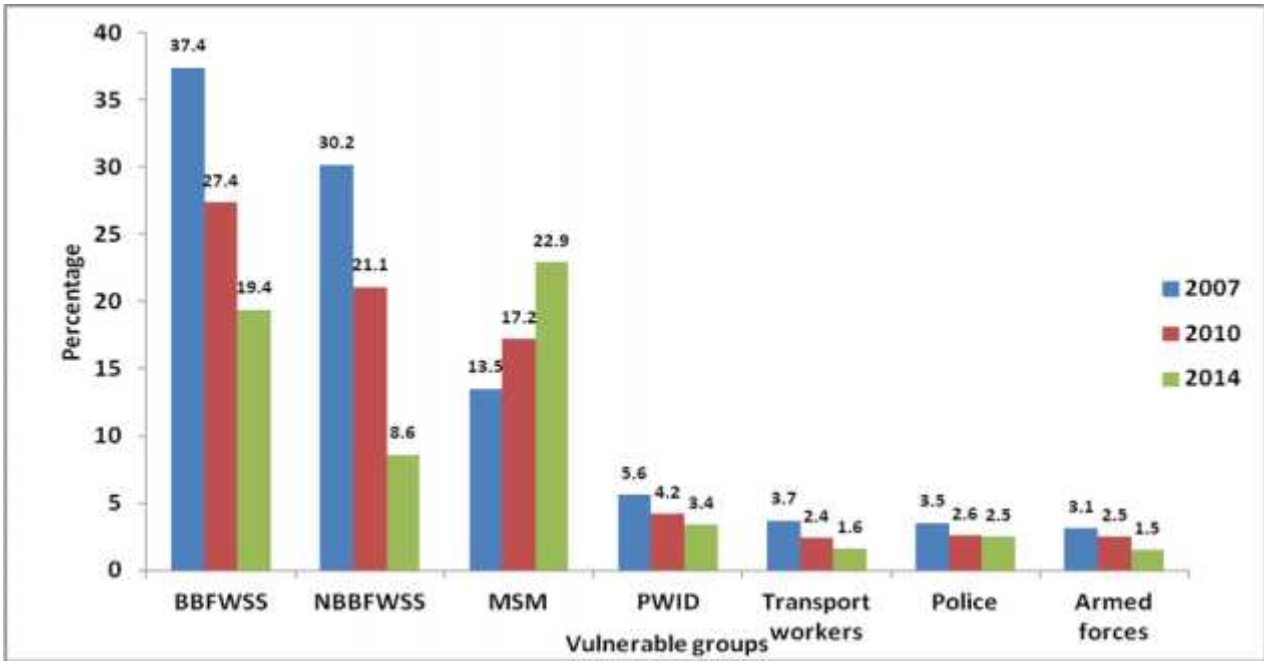

Figure 12: Proportion of HIV positive in Nigeria by vulnerable group, (IBBSS, 2007-2014)

3.4 HIV/AIDS- KNOWLEDGE, ATTITUDES AND BEHAVIOUR

3.4.1 Awareness of HIV & AIDS

Awareness of HIV & AIDS was generally high (.above 90%) among all groups as shown in figure 13 below.

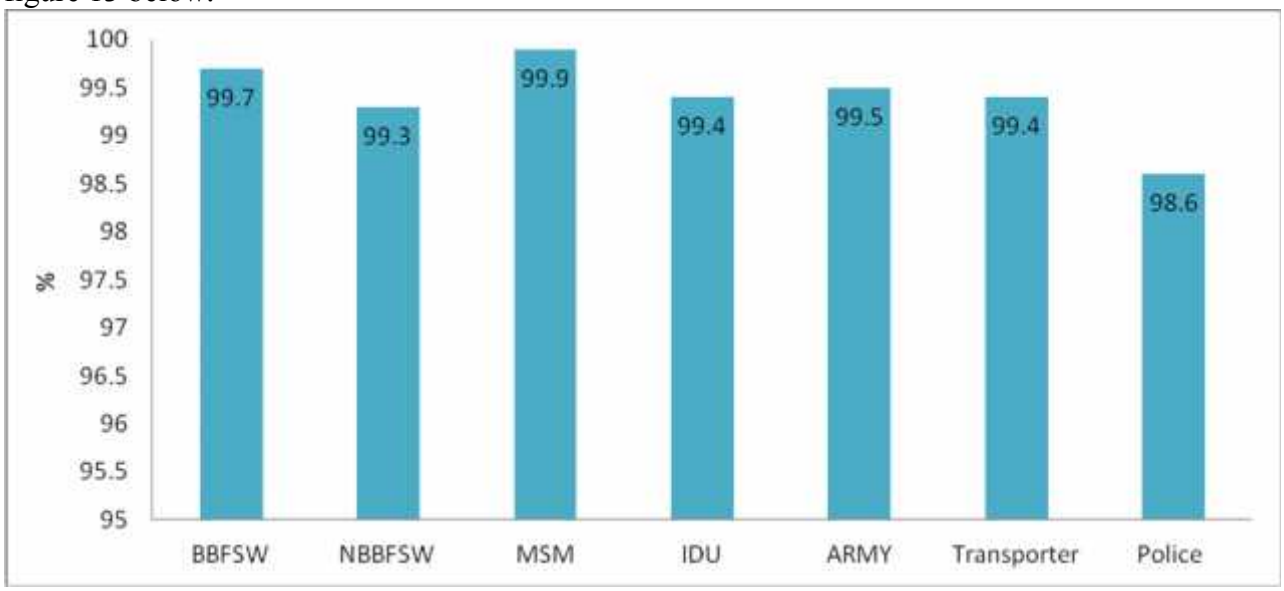

Figure 13: Proportion of those in each vulnerable group aware of HIV & AIDS; Nigeria, IBBSS, 2014

3.4.2 Knowledge of a close relative or friend infected with HIV or someone who died of HIV/AIDS

3.4.2.1 Knowledge of someone infected with HIV.

Figure 14 showed that a little above half of brothel based FWSS (53%) and less than half of non-brothel based FWSS (46%) had a close relative or friend infected with HIV or died of AIDs. The MSM and PWID shared the same proportion (51.6%). The highest proportion was recorded amongst the Police (54%) while the Armed forces and the TW reported the similar proportion (46%).

Figure 14: Distribution of vulnerable groups who knew close relative infected with HIV or died of AIDS, by Selected Characteristics; Nigeria, IBBSS, 2014

Table 14 showed that apart from the Armed forces, the older age group (25 years and above) had higher proportions who knew a close relative or friend infected with HIV or died of AIDS. Also, respondents with tertiary education in each vulnerable group had the highest proportion of those whose close relative or friend was infected with HIV & AIDS.

Table 14: Percentage distribution of vulnerable groups who knew close relative or friend infected with HIV or died of AIDS, by Selected Characteristics; Nigeria, IBBSS, 2014

	Vulnerable groups						
	BBFWSS	NBBFWSS	MSM	PWID	Armed Forces	TWs	Police
Characteristics	n=1726	n=1346	n=1639	n=1496	n=1367	n=975	n=1057
Age group in years							
15-19	38.8	47.3	38.8	40.7	33.3	35.3	100.0
20-24	48.6	43.2	46.7	45.7	49.6	40.7	61.5
25+	55.5	48.6	60.6	54.1	45.1	47.1	54.0
Education Level							
No formal education	56.2	60.0	-	72.7	-	45.8	-
Primary education	55.8	49.4	48.1	43.6	48.6	41.3	55.3
Secondary Education	52.2	44.2	47.5	52.1	45.0	45.4	57.0
Tertiary education	52.5	49.5	59.0	54.0	46.3	61.1	50.2
Marital Status							
Currently married living with	68.0	63.2	64.9	55.1	46.6	48.7	55.1
Currently married, living with other sexual partner	83.3	-	40.0	84.6	45.8	25.0	84.6
Currently married, not living with other sexual partner	69.2	50.0	53.8	75.0	40.8	20.0	75.0
Not married living with sexual partner	71.0	69.2	41.3	60.0	41.7	33.3	60.0
Not married, Not living with sexual partner	50.0	42.1	51.6	48.7	45.4	45.1	48.7
Total	**53.4**	**46.4**	**51.6**	**51.6**	**45.5**	**46.3**	**54.1**

3.4.2.2 Knowledge of someone who died of AIDS.

Figure 15 shows the proportion of respondents from each of the groups who knew someone that died of HIV and AIDS. The highest proportion of those who knew someone who had died of HIV and AIDS was found among the Armed forces with 46.9% followed by the PWID (44.0%), then the MSM (37.8%). The least was recorded amongst the NBBFWSS (28.5%).

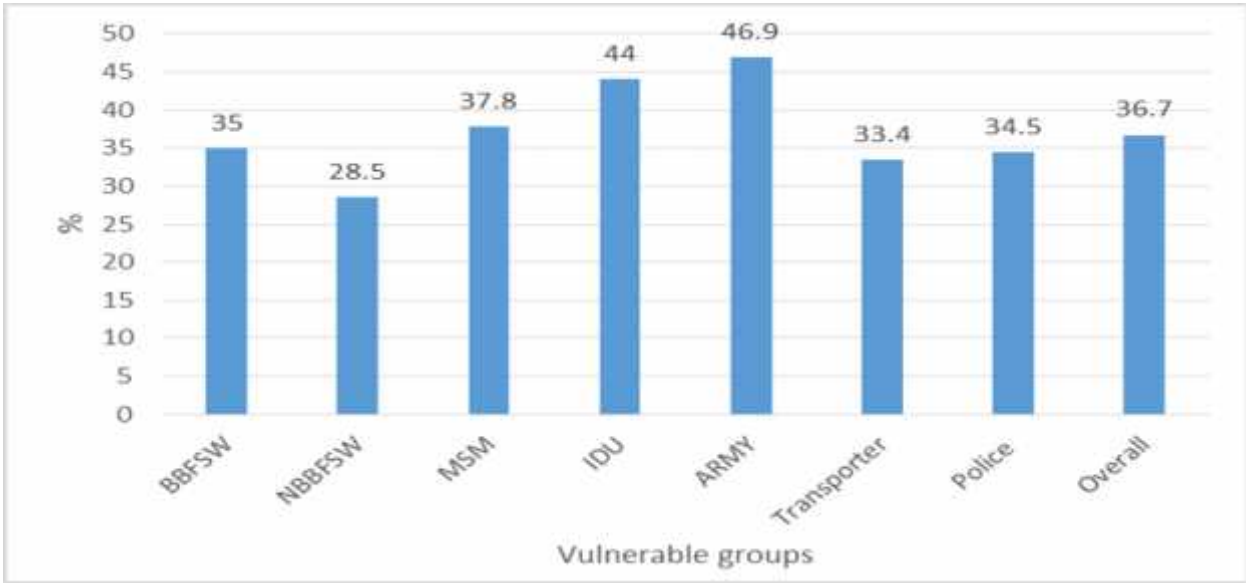

Figure 15: Percentage distribution of each vulnerable group who knew someone that died of HIV & AIDS

Table 15: Percentage distribution of vulnerable groups who knew anyone that died of HIV/AIDS, by Selected Characteristics; Nigeria, IBBSS, 2014

	Vulnerable Groups						
Characteristics	**BBFWSS**	**NBBFWSS**	**MSM**	**PWID**	**Armed Forces**	**TWs**	**Police**
Age group in years	**n=4050**	**n=3871**	**n=3598**	**n=3106**	**n=2620**	**n=2649**	**n=2660**
15-19	26.1	32.9	27.8	26.8	27.8	26.9	100.0
20-24	29.7	27.2	33.1	39.4	30.4	31.0	25.6
25+	37.5	28.9	50.5	47.1	49.8	33.8	34.6
Education Level							
No formal education	48.1	45.3	-	34.5	66.7	22.4	-
Primary education	37.4	34.6	43.1	38.8	43.8	31.4	25.7
Secondary Education	32.8	26.3	33.4	42.1	42.1	33.6	33.6
Tertiary education	37.4	31.5	47.1	54.5	53.7	40.4	37.0
Marital Status							
Currently married living with spouse	30.5	16.0	61.6	42.8	50.7	35.1	40.1
Currently married, living with other sexual partner	66.7	-	72.7	47.8	59.5	33.3	50.3
Currently married, not living with other sexual partner	52.3	27.6	54.5	43.7	50.8	34.9	41.6
Not married living with sexual partner	50.6	49.9	49.6	48.8	33.3	38.1	47.2
Not married, Not living with sexual partner	33.0	26.7	35.4	44.0	38.8	29.1	33.9
Total	**35.0**	**28.5**	**37.8**	**44.0**	**46.9**	**33.4**	**34.5**

3.4.3 Knowledge of HIV & AIDS prevention methods

Nigeria uses the following indicators to assess the comprehensive knowledge of HIV based on the UNAIDS standard. These indicators include: "Knowing that a healthy looking person can have HIV, staying faithful with one uninfected partner and using condoms consistently can protect against HIV; as well as rejecting the major misconceptions that HIV cannot be transmitted through mosquito bites and sharing of meals with an infected partner".

Figure 16 shows that the MSM (40%) reported the highest proportion that got correctly all the five parameters for UNAIDS indicators for the prevention of HIV/AIDS and the least

proportion (9%) was the brothel-based FWSS. Knowledge of parameters for UNAIDS indicator for HIV knowledge was highest amongst respondents with tertiary education across all study groups except for the Armed forces.

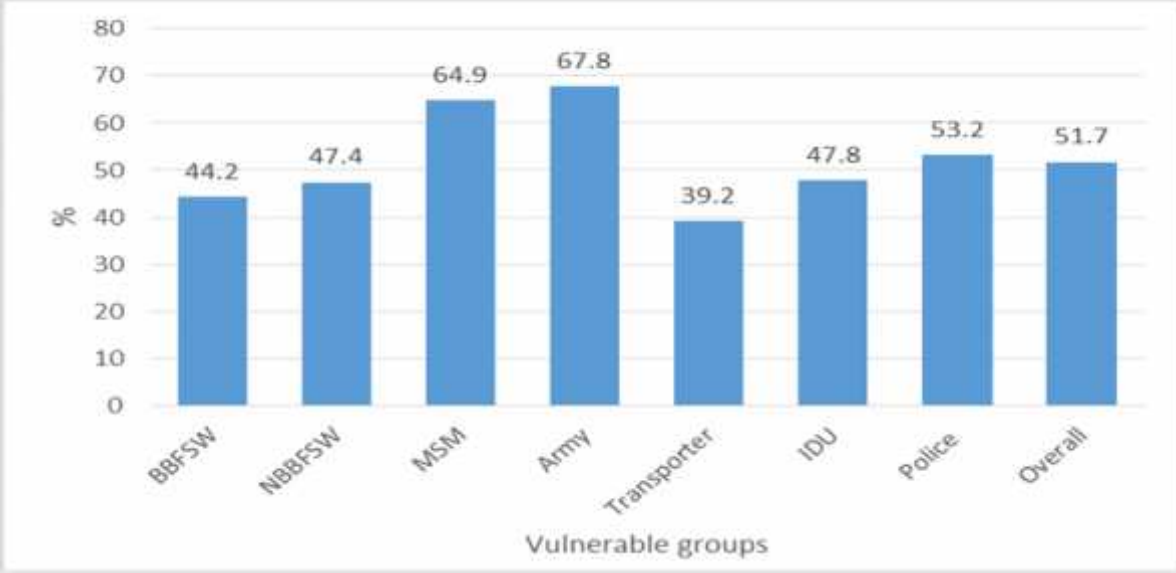

Figure 16: Percentage distribution of comprehensive prevention knowledge by all respondents who knew all the five UNAIDs indicators of preventing HIV/AIDS by the Vulnerable Groups, Nigeria, IBBSS, 2014

The findings in figure 16 shows that slightly more than half of all respondents (51.7%) knew all the UNAIDS indicators; this was least among transport workers (39.2%) and highest among Armed Forces (67.8%). Others are MSM (64.9%), Police (53.1%), PWID (48.4%), NBBFWSS (47.4%) and BBFWSS (44.4%).

Those who knew all the 5 parameters for UNAIDS prevention indicators was highest in the age group 25 years and above in each of the most at risk groups MSM(70.3%), Armed Forces (68.5%), Police (53.3%) and transport workers (39.6%), BBFWSS (45.8%) and NBBFWSS (48.8%) respectively except the PWID where it was highest among 20- 24 years old group (50.2%). Also, those with tertiary education reported the highest proportion in each of the target populations.

3.4.4 Knowledge of HIV/AIDS prevention methods among FWSS.

Table 16 showed that about 95% of the FWSS either brothel- based or non-brothel based knew that the correct use of condom each time they had sex could be protective against HIV with little or no differentials with each demographic characteristics. Over three-quarters of the brothel and non-based FWSS (76.5% and 81.4%) knew that being faithful to one uninfected partner could decrease their chance of contracting HIV while about two thirds of brothel based and three quarters of non-brothel based knew abstinence from sex could prevent them from HIV infection. The highest proportion of FWSS with correct knowledge of these indicators was those with tertiary education.

Table 16: Percentage distribution of brothel based FWSS who knew the UNAIDS indicators for HIV prevention by age and State; Nigeria, IBBSS, 2014

Characteristics	BBFWSS			NBBFWSS		
	Abstinence from sex	Being faithful to partner	Correct use of condom	Abstinence from sex	Being faithful to partner	Correct use of condom
Age group in years	n=4058			n=3873		
15-19	70.3	71.3	92.0	76.3	82.0	95.0
20-24	69.4	76.3	95.0	73.8	80.9	95.1
25+	67.1	76.9	94.6	76.0	81.8	94.3
Educational Level						
No formal education	68.3	74.1	83.9	77.3	84.0	86.7
Primary education	674	74.5	94.4	78.2	84.8	94.6
Secondary Education	67.6	76.7	95.6	74.1	80.7	95.2
Tertiary education	70.4	82.6	95.6	77.1	81.7	93.6
Marital Status						
Currently married living with spouse	69.5	72.9	93.2	72.7	74.0	92.2
Currently married, living with other sexual partner	72.2	77.8	94.4	57.1	71.4	85.7
Currently married, not living with other sexual partner	65.7	70.1	95.5	65.5	82.8	89.7
Not married living with sexual partner	57.0	67.4	86.8	65.2	71.0	93.0
Not married, Not living with sexual partner	68.9	77.5	95.4	76.4	82.7	94.9
Total	**67.8**	**76.5**	**94.6**	**75.2**	**81.4**	**94.6**

3.4.5 Men having sex with men (MSM)

Table 17 shows that about 85% of MSM knew abstinence from sexual intercourse could prevent one from HIV infection, while 92% and 96% knew that faithfulness to an uninfected partner and using condom at each sex act, respectively are ways of preventing HIV infection. All currently married MSM and those living with other sexual partner knew that using condom at each sex act was a way of preventing HIV infection and all those with no formal education knew that abstinence and use of condoms are preventive methods.

Table 17: Percentage distribution of MSM and PWIDs who knew the UNAIDS indicators for HIV prevention by age and State; Nigeria, IBBSS 2014

	MSM			PWID		
Characteristics	Abstinence	Being faithful to partner	Correct use of condom	Abstinence	Being faithful to partner	Correct use of condom
Age group in years	**n=3596**			**n=3106**		
15-19	83.7	90.2	95.1	91.1	94.6	97.5
20-24	84.3	93.1	96.2	90.8	93.8	96.8
25+	86.1	92.9	97.7	87.6	89.3	95.6
Educational Level						
No formal education	100.0	91.7	100.0	86.2	75.9	73.1
Primary education	90.3	91.2	95.1	83.7	86.0	93.5
Secondary Education	82.6	91.8	95.9	89.3	91.9	96.8
Tertiary education	88.2	94.3	97.7	89.9	91.1	96.1
Marital Status						
Currently married living with spouse	85.4	93.1	97.5	88.4	89.6	95.9
Currently married, living with other sexual partner	90.9	90.9	100.0	91.3	73.9	95.7
Currently married, not living with other sexual partner	81.8	86.4	95.5	90.1	90.1	88.7
Not married living with sexual partner	85.8	87.9	94.2	81.3	88.5	95.2
Not married, Not living with sexual partner	84.6	92.8	96.6	89.2	91.5	96.4
Total	**84.7**	**92.4**	**96.4**	**88.6**	**90.8**	**96.0**

3.4.6 People Who Inject Drugs (PWID)

Table 17 shows that a high percentage of the PWID (96%) knew correct use of condom could prevent HIV infection while a lower proportion knew that being faithful to one uninfected partner (91%) and abstinence from sex (87%) are other ways of preventing HIV infection. This appeared to be associated with their level of education as the higher the educational level, the higher was the percentage who knew all the preventive methods.

3.4.7 Armed Forces, Police and Transport Workers

The findings presented in Table 18 shows that a high percentage of the Armed Forces (95%) knew that being faithful to one uninfected partner was a strategy of preventing HIV infection and transmission. The proportion of the police who knew that the consistent use of condom (86%) and faithfulness to uninfected partner (88%) could prevent HIV infection was slightly lower than the Armed Forces (93% and 95% respectively). The same proportion of the Police and Armed Forces (85%) knew abstinence from sex could prevent HIV infection. More than four-fifths of the Transport workers knew all the preventive methods.

Table 18: Percentage distribution of Police, Armed Forces and Transport Workers who knew the UNAIDS indicators for HIV Prevention by age and state; Nigeria, IBBSS, 2014

	Armed Forces			TWs			Police		
Characteristics	Abstinence	Being faithful to partner	Correct use of condom	Abstinence	Being faithful to partner	Correct use of condom	Abstinence	Being faithful to partner	Correct use of condom
	n=2621			n=2651			n=2662		
Age group in years									
15-19	72.2	94.4	100.0	75.0	74.0	86.5	100.0	-	100.0
20-24	85.9	94.1	92.0	87.0	87.2	85.2	79.1	90.7	81.4
25+	86.1	94.7	92.9	85.9	87.0	82.5	85.3	88.5	86.7
Education Level									
No formal education	88.9	91.7	77.8	86.8	86.7	77.3	-	-	-
Primary education	70.8	91.0	89.0	84.2	84.4	79.6	88.7	82.0	75.2
Secondary Education	83.9	91.4	94.1	83.4	86.8	85.6	85.2	87.8	85.6
Tertiary education	88.4	94.3	95.8	84.7	85.3	84.0	84.7	89.6	87.2
Marital Status									
Currently married living with spouse	85.6	94.8	93.1	83.5	86.0	80.9	84.7	88.0	85.2
Currently married, living with other sexual partner	89.2	97.3	97.3	55.6	88.9	88.9	95.0	86.7	93.3
Currently married, not living with other sexual partner	92.2	96.9	94.2	74.6	90.5	84.1	84.6	87.3	82.2
Not married living with sexual partner	84.1	96.8	93.7	77.3	79.4	88.7	82.1	88.1	82.1
Not married, Not living with sexual partner	84.3	93.0	91.4	86.6	95.0	85.9	87.1	88.6	87.9
Total	**86.0**	**94.6**	**92.8**	**83.9**	**85.8**	**82.8**	**85.2**	**88.0**	**85.5**

3.4.8 Knowledge that a healthy looking person can be infected with HIV

Table 19 reveals that an average of 92% of all the vulnerable groups knew that a healthy looking person could be HIV positive. This was lower among PWID (89%), and highest amongst Armed Forces (96%). The distribution of such knowledge by age appeared uniform. However, it was found that respondents with tertiary education in each vulnerable group had higher proportions of those who knew a healthy looking person could be HIV positive.

Table 19: Percentage distribution of vulnerable groups who knew a healthy looking person can have HIV by selected demographic variables; Nigeria, IBBSS, 2014

	Vulnerable groups						
Characteristics	BBF WSS	NBBFWSS	MSM	PWID	Armed Forces	TWs	Police
	n=4051	n=3867	n=3598	n=3107	n=2620	n=2651	n=2656
Age group in years							
15-19	85.1	84.9	94.0	86.2	88.9	78.8	100.0
20-24	89.9	90.5	95.3	88.2	95.7	88.1	90.7
25+	90.3	92.5	95.6	90.0	96.2	90.9	93.3
Education Level							
No formal education	84.9	87.8	91.7	79.3	88.9	85.5	
Primary education	87.6	89.7	88.7	84.7	89.0	87.9	85.3
Secondary Education	91.1	90.9	95.3	89.3	95.5	91.9	93.4
Tertiary education	96.0	92.9	96.5	93.5	97.5	91.6	94.2
Marital Status							
Currently married living with spouse	86.4	94.8	91.2	90.3	95.7	91.3	92.8
Currently married, living with other sexual partner	94.4	71.4	100.0	78.3	91.9	77.8	88.1
Currently married, not living with other sexual partner	89.2	93.1	86.4	90.1	96.9	88.9	95.4
Not married living with sexual partner	88.7	87.0	93.8	83.1	98.4	87.6	98.8
Not married, Not living with sexual partner	90.5	91.4	95.5	89.6	96.5	89.0	93.5
Total	**90.3**	**91.1**	**95.1**	**89.3**	**96.1**	**90.3**	**93.3**

3.4.9 Misconceptions about HIV/AIDS

The PWID and Transport workers seemed to have the highest percentage with misconceptions about the transmission of HIV infection, as more than 20% felt it could be transmitted through mosquito bites and sharing meal or toilets with HIV infected person. Figure 17 show that the Armed forces had the least proportions of those with misconceptions.

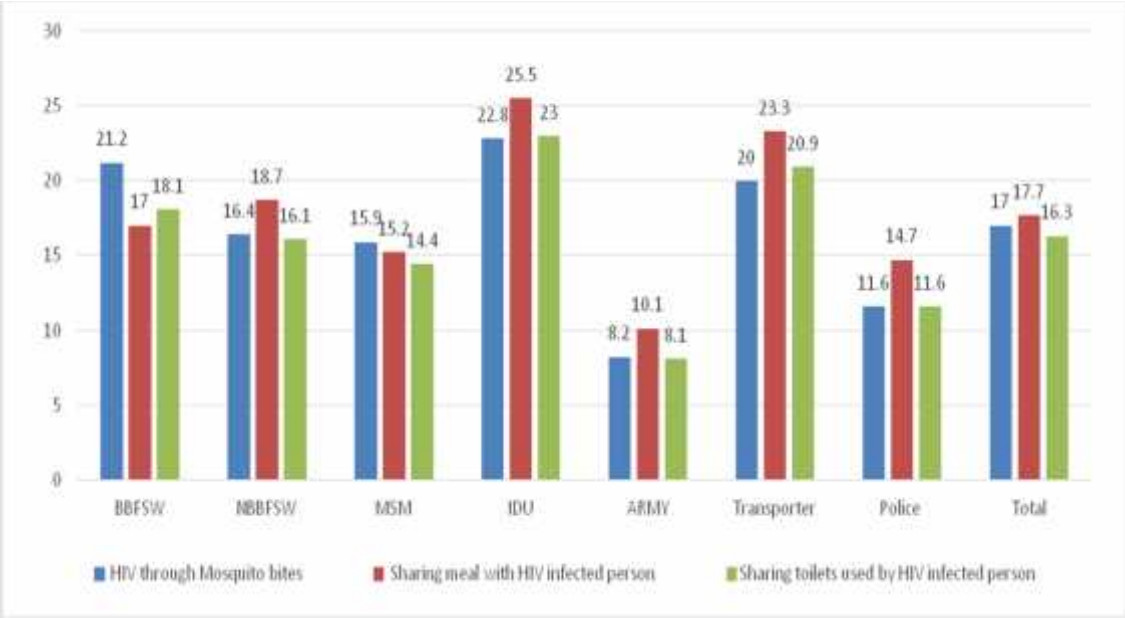

Figure 17: Percentage distribution of respondents who had misconceptions about the methods of HIV transmission by each vulnerable group, Nigeria IBBSS 2014

3.4.9.1 Female Who Sell Sex

Overall, an average of 17% of FWSS had one misconception or the other about the transmission of HIV infection. Table 20 shows that about a fifth of brothel (21%) and 16% of non-brothel based FWSS had the misconception that a person can get HIV from mosquito bites. Also, less than a fifth of brothel (17%) and non-brothel (19%) had the misconception that it was possible to be infected with HIV by sharing meals with HIV infected persons. The misconception of getting HIV by sharing toilets with an infected partner was similar to that of mosquito bite with 18% of brothel based FWSS and 16% of non-brothel based FWSS expressing this view.

Table 20: Percentage distribution of female who sell sex who had misconceptions about the methods of transmission of HIV by Selected Characteristics; Nigeria IBBSS, 2014

	BBFWSS			NBBFWS		
Characteristics	**HIV through Mosquito bites**	**Sharing meal with HIV infected person**	**Sharing toilets used by HIV infected person**	**HIV through Mosquito bites**	**Sharing meal with HIV infected person**	**Sharing toilets used by HIV infected person**
	n=4045			**n=3866**		
Age group in years						
15-19	29.2	16.9	20.9	18.3	22.8	19.6
20-24	23.4	19.2	19.0	16.9	19.0	16.0
25+	19.9	16.1	17.7	15.8	17.8	15.5
Educational Level						
No formal education	21.6	20.8	20.1	18.7	22.7	20.3
Primary education	22.9	17.7	19.2	16.9	17.9	18.9
Secondary Education	21.1	16.8	18.0	16.7	19.1	16.4
Tertiary education	16.2	11.9	13.8	15.0	17.2	12.9
Marital Status						
Currently married living with spouse	23.7	10.2	22.0	19.5	15.6	18.2
Currently married, living with other	16.7	33.3	27.8	28.6	14.3	28.6
Currently married, not living with other	31.3	16.4	15.2	13.8	20.7	24.1
Not married living with sexual partner	18.0	20.0	16.7	15.4	27.2	16.0
Not married, Not living with sexual	21.4	16.7	18.2	16.4	17.8	15.9
Total	**21.2**	**17.0**	**18.1**	**16.4**	**18.7**	**16.1**

3.4.9.2 Men having sex with men (MSM) and Persons Who Injects Drug (PWID)

As shown in Table 21, about 16% of MSM and 23% of PWID thought that HIV can be transmitted by mosquito bites, while 15% of MSM and 26% of PWID felt sharing meals with HIV infected person was another source of HIV transmission. A similar proportion, 14% of MSM and 23% of PWID felt that one can be infected with HIV by sharing toilets with an infected person.

Table 21: Percentage distribution of MSM and PWID' who had misconceptions about the transmission of HIV by Selected Characteristics; Nigeria IBBSS, 2014

	MSM			PWID		
Characteristics	**HIV through Mosquito bites**	**Sharing meal with HIV infected person**	**Sharing toilets used by HIV infected person**	**HIV through Mosquito bites**	**Sharing meal with HIV infected person**	**Sharing toilets used by HIV infected person**
	n=3596			**n=3106**		
Age group in years						
15-19	19.6	17.6	18.8	23.2	34.5	22.0
20-24	15.8	14.9	14.1	23.9	23.4	23.4
25+	11.6	11.6	12.2	22.4	23.6	22.9
Educational Level						
No formal education	-	16.7	8.3	48.3	37.9	48.3
Primary education	25.3	23.3	26.1	32.8	33.6	33.7
Secondary Education	17.2	15.4	15.7	22.9	25.5	22.6
Tertiary education	8.6	9.7	8.6	14.1	19.1	15.6
Marital Status						
Currently married living with spouse	16.4	14.5	19.5	25.0	28.2	27.0
Currently married, living with other sexual partner	9.1	-	9.1	34.8	52.2	30.4
Currently married, not living with other sexual partner	31.8	31.8	27.3	23.9	36.6	25.4
Not married living with sexual partner	25.0	30.0	28.8	29.5	33.1	35.5
Not married, Not living with sexual	14.3	13.1	13.0	21.5	23.5	20.6
Total	**15.9**	**15.2**	**14.4**	**22.8**	**25.5**	**23.0**

3.4.9.3 Armed Forces, Police and Transport Workers

Generally, transport workers reported a higher level of misconceptions compared to other group as shown in Table 22.

Table 22: Percentage distribution of male occupational groups' who had misconceptions about the transmission of HIV by Selected Characteristics; Nigeria IBBSS, 2014

	Armed Forces			TWs			Police		
Characteristics	HIV through Mosquito bites	Sharing meal with HIV infected person	Sharing toilets used by HIV infected person	HIV through Mosquito bites	Sharing meal with HIV infected person	Sharing toilets used by HIV infected person	HIV through Mosquito bites	Sharing meal with HIV infected person	Sharing toilets used by HIV infected person
	n=2618			n=2645			n=2652		
Age group in years									
15-19	11.1	11.1	16.7	28.8	13.5	23.1	-	-	-
20-24	13.1	9.9	11.0	25.8	26.4	26.1	11.6	11.6	4.7
25-49	7.5	10.1	7.6	19.9	23.2	20.3	11.6	14.7	11.7
Educational Level									
No formal education	11.1	11.1	11.1	18.7	36.8	26.7			
Primary education	13.7	13.7	9.6	21.9	23.8	27.3	9.3	18.0	9.4
Secondary Education	9.7	10.7	8.5	20.7	22.7	18.4	13.3	14.4	11.7
Tertiary education	5.9	9.0	7.5	17.6	21.4	13.0	9.3	14.6	11.7
Marital Status									
Currently married living with spouse	7.6	10.9	7.6	19.7	22.6	19.9	11.3	15.1	12.4
Currently married, living with other sexual partner	8.1	5.4	10.8	22.2	22.2	22.2	8.3	23.3	18.6
Currently married, not living with other sexual partner	8.8	8.8	9.5	19.0	42.9	30.2	12.0	10.0	8.6
Not married living with sexual partner	6.3	11.1	3.2	31.2	27.1	26.8	16.7	7.1	7.1
Not married, Not living with sexual partner	9.7	9.1	9.0	21.6	22.8	21.5	11.8	16.0	10.0
Total	**8.2**	**10.1**	**8.1**	**20.0**	**23.3**	**20.9**	**11.6**	**14.7**	**11.6**

3.4.9.4 Knowledge of HIV transmission

The respondents' knowledge of HIV transmission was further assessed by asking them if one can get infected by injecting with needles used by other persons, transfusion with unscreened blood or transmission of the virus to an unborn child by an HIV infected pregnant mother.
Figure 18 showed the 64% of MSM compared to 45% of TW knew HIV can be transmitted from an infected pregnant woman to her unborn child. The analysis in each target populations is described in subsequent sections.

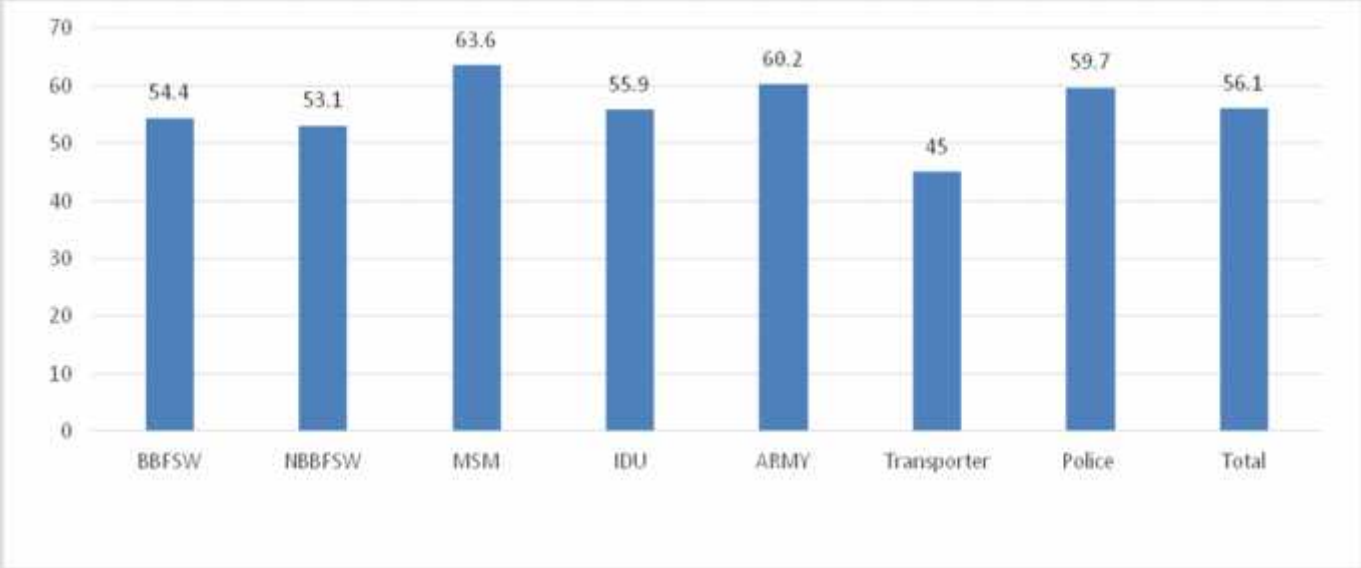

Figure 18: Percentage distribution of respondents who knew HIV can be transmitted from an infected pregnant woman to an unborn child (PMTCT) by each vulnerable group, Nigeria IBBSS 2014

3.4.9.5 Female Who Sell Sex

Table 23 shows that a good proportion of the brothel and non-brothel based FWSS knew using of used needles (95%) and transfusion with unscreened blood (96%) as HIV transmission routes. But their knowledge on transmission from an HIV positive mother to her unborn child was poor among brothel based FWSS (54%) and slightly poorer among non-brothel based FWSS (53%).

Again those with tertiary education had higher proportions with knowledge of mother to child transmission of HIV.

Table 23: Percentage distribution of female who sell sex who think HIV can be transmitted by injection with used needle or through blood transfusion or through mother to unborn child by Selected Characteristics; IBBSS, 2014

Characteristics	BBFWSS			NBBFWSS		
	Injection with used needles	Transfusion with unscreened blood	Infected pregnant woman to unborn child	Injection with used needles	Transfusion with unscreened blood	Infected pregnant woman to unborn child
	n=4053			n=3869		
Age group in years						
15-19	92.0	93.5	46.5	95.9	96.4	45.8
20-24	95.1	96.4	53.1	95.4	96.1	51.9
25-49	95.6	95.9	55.5	96.5	96.0	55.2
Educational Level						
No formal education	91.5	93.0	48.8	91.9	93.2	41.9
Primary education	94.8	95.1	54.4	96.3	95.8	45.9
Secondary Education	95.7	96.3	54.4	96.0	95.9	52.4
Tertiary education	96.0	96.9	60.5	96.6	97.2	60.3
Marital Status						
Currently married living with spouse	96.6	94.9	55.9	96.1	97.4	68.8
Currently married, living with other sexual partner	94.4	83.3	66.7	85.7	100.0	71.4
Currently married, not living with other sexual partner	97.0	95.5	41.8	100.0	93.1	58.6
Not married living with sexual partner	94.4	95.2	53.2	95.5	95.2	42.7
Not married, Not living with sexual partner	95.3	96.1	54.7	96.1	96.2	53.1
Total	**95.3**	**95.9**	**54.4**	**96.0**	**96.1**	**53.1**

3.4.9.6 Men having sex with men (MSM) and Persons who inject drugs (PWID)

Table 24 shows that more than 95% of MSM and PWID knew transfusion with unscreened blood and injecting with used needles could lead to HIV infection. However 64% of MSM and 56% of PWID knew that an HIV positive pregnant mother can transmit HIV to her unborn child. MSM and PWID in older age group 25 years and above and those with tertiary education reported the highest proportion of knowledge on mother to child transmission of HIV.

Table 24: Percentage distribution of MSM and PWID who think HIV can be transmitted by injection with used needle or through blood transfusion or through mother to unborn child by Selected Characteristics; Nigeria, IBBSS 2014

	MSM			PWID		
Characteristics	Injection with used needles	Transfusion with unscreened blood	Infected pregnant woman to unborn child	Injection with used needles	Transfusion with unscreened blood	Infected pregnant woman to unborn child
	n=3599			n=3107		
Age group in years						
15-19	97.6	96.1	56.6	95.2	97.6	50.0
20-24	97.6	97.3	62.2	94.2	95.4	47.5
25-49	97.6	97.1	70.0	95.6	95.6	59.6
Educational Level						
No formal education	100.0	100.0	16.7	82.8	93.1	48.3
Primary education	95.2	92.8	62.7	94.0	95.1	51.5
Secondary Education	98.1	97.2	60.2	95.4	95.7	53.8
Tertiary education	97.0	98.1	72.5	96.1	96.3	66.7
Marital Status						
Currently married living with spouse	97.5	97.5	74.8	96.2	96.5	62.1
Currently married, living with other sexual partner	90.9	100.0	72.7	95.7	95.7	60.9
Currently married, not living with other sexual partner	95.5	95.5	59.1	84.5	95.8	53.5
Not married living with sexual partner	97.5	96.2	68.8	94.0	92.8	51.8
Not married, Not living with sexual partner	97.6	97.2	62.6	95.4	95.7	54.3
Total	**97.6**	**97.1**	**63.6**	**95.2**	**95.7**	**55.9**

3.4.9.7 Armed Forces, Police and Transport Workers

Table 25 shows a high proportion of the Armed Forces (98%), the Police (96%) and transport workers (94%) knew that using of unscreened blood and injecting with used needles are possible routes of HIV transmission. However, about 60% of the Armed Forces, 60% of the police and 45% of transport workers knew HIV can be transmitted from an HIV infected pregnant mother to her unborn child (33%). The higher the level of education the higher was the proportion with knowledge of HIV transmission.

Table 25: Percentage distribution of uniformed forces and transport workers who think HIV can be transmitted by injection with used needle or through blood transfusion or through mother to unborn child by Selected Characteristics Nigeria, ; IBBSS, 2014

	Armed Forces			Transport Workers			Police		
Characteristics	Injection with used needles	Transfusion with unscreened blood	Infected pregnant woman to unborn child	Injection with used needles	Transfusion with unscreened blood	Infected pregnant woman to unborn child	Injection with used needles	Transfusion with unscreened blood	Infected pregnant woman to unborn child
	n=2619			n=26			n=2660		
Age group in years									
15-19	94.4	100.0	55.6	90.4	92.3	30.8	100.0	100.0	100.0
20-24	97.6	98.1	62.1	92.6	95.5	36.8	93.0	93.0	53.5
25+	97.7	98.0	60.0	94.7	96.3	46.2	95.7	96.1	59.7
Educational Level									
No formal education	88.9	88.9	66.7	94.7	97.3	40.0		-	-
Primary education	100.0	97.3	58.9	92.8	95.0	39.3	91.3	94.7	52.0
Secondary Education	97.2	97.8	58.5	94.6	96.6	46.2	95.6	95.3	57.5
Tertiary education	98.3	98.0	62.7	97.4	96.8	56.9	96.5	97.4	63.9
Marital Status									
Currently married living with spouse	97.5	98.1	59.5	95.3	96.9	46.4	96.1	96.1	58.6
Currently married, living with other sexual partner	97.3	97.3	64.9	100.0	100.0	33.3	93.3	93.3	61.7
Currently married, not living with other sexual partner	99.0	98.6	61.7	90.5	96.8	33.3	96.1	96.1	63.1
Not married living with sexual partner	98.4	100.0	68.3	92.8	95.9	41.2	98.8	98.8	57.1
Not married, Not living with sexual partner	97.5	97.4	60.2	92.9	94.5	46.6	95.7	95.7	62.3
Total	**97.7**	**98.0**	**60.2**	**94.4**	**96.1**	**45.0**	**95.7**	**96.0**	**59.7**

3.4.9.8 Personal Risk Perception of Contracting HIV

About 27% of all the vulnerable groups expressed a feeling that they were at high risk of contracting HIV infection. Figure 19 showed the proportion of each vulnerable group that felt they have high risk of contracting HIV/AIDS. The Armed Forces (18%) had the least proportion while the non brothel-based FWSS (38%) had the highest proportion that felt they were at high risk of HIV.

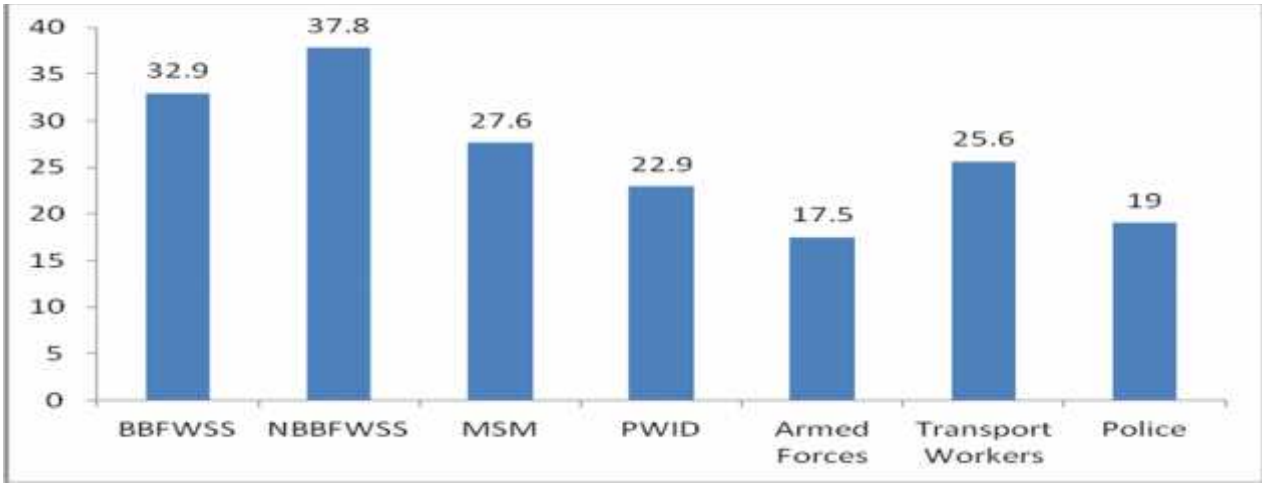

Figure 19: Percentage distribution of respondents who perceived they were at risk of HIV infection

Table 26 shows the distribution of the proportion at high risk of contracting HIV by selected demographic characteristics. Apart from the TW, the highest proportion who reported to be at risk of HIV infection was in the highest age group 25 years and above. This was with those with tertiary education among BBFWSS, NBBFWSS, MSM, PWID, Armed forces and Police.

Table 26: Percentage distribution of each vulnerable group that felt they were at risk of infection with HIV by Selected Characteristics; Nigeria, IBBSS 2014

Characteristics	BBFWSS	NBBFWSS	MSM	PWID	Armed Forces	Transport Workers	Police
	n=4054	n=3856	n=3587	n=3105	n=2610	n=2640	n=2654
Age group in years							
15-19	28.9	37.5	27.9	20.2	5.6	23.1	-
20-24	31.9	36.2	26.1	21.1	17.1	26.8	11.9
25-49	33.6	38.9	29.4	23.9	17.7	25.6	19.1
Educational Level							
No formal education	32.0	36.0		24.1		15.8	
Primary education	32.7	35.1	21.4	23.7	11.1	19.4	16.0
Secondary Education	32.2	38.6	26.9	21.2	17.4	29.7	18.4
Tertiary education	42.3	36.4	31.2	28.5	18.3	27.2	20.3
Marital Status							
Currently married living with spouse	28.8	37.8	23.3	20.0	16.4	24.2	17.9
Currently married, living with other sexual partner	27.8	42.9	36.4	30.4	21.6	11.1	25.0
Currently married, not living with other sexual partner	40.3	37.9	22.7	28.2	18.8	9.5	20.0
Not married living with sexual partner	42.1	29.8	24.2	27.7	17.5	26.8	22.6
Not married, Not living with sexual partner	32.0	38.6	28.1	23.2	19.0	29.8	21.5
Total	**32.9**	**37.8**	**27.6**	**22.9**	**17.5**	**25.6**	**19.0**

3.4.9.9 Reasons for feeling at risk of HIV

The reason for self- perception of HIV risk expressed by the highest proportion of each vulnerable group were frequent change of sexual partners, by almost 80% of FWSS, use of narcotics by a third of PWID, inconsistent use of condoms by about 50% of MSM, sharing of clippers by 60% of TW. The proportion of each vulnerable group giving each of the mentioned reasons is described in subsequent sections.

3.4.9.10 Reasons for FWSS self-perception of HIV risk

The distribution of FWSS, (brothel and non-brothel based)' reasons for feeling at high risk are presented in Table 27. This table revealed that about 79% of FWSS, brothel and non-brothel based attributed frequent change of sex partners as the major reason why they perceived themselves at risk of HIV infection.

The second major reason expressed by almost a third of non-brothel based FWSS (32%) and less than a quarter of brothel based FWSS (21%) was that they did not use condoms every time they had sex. The injection of narcotics as a reason for perceiving at risk of HIV was very low as this was reported by both brother-based (2%) and non-brothel-based FWSS (3%).

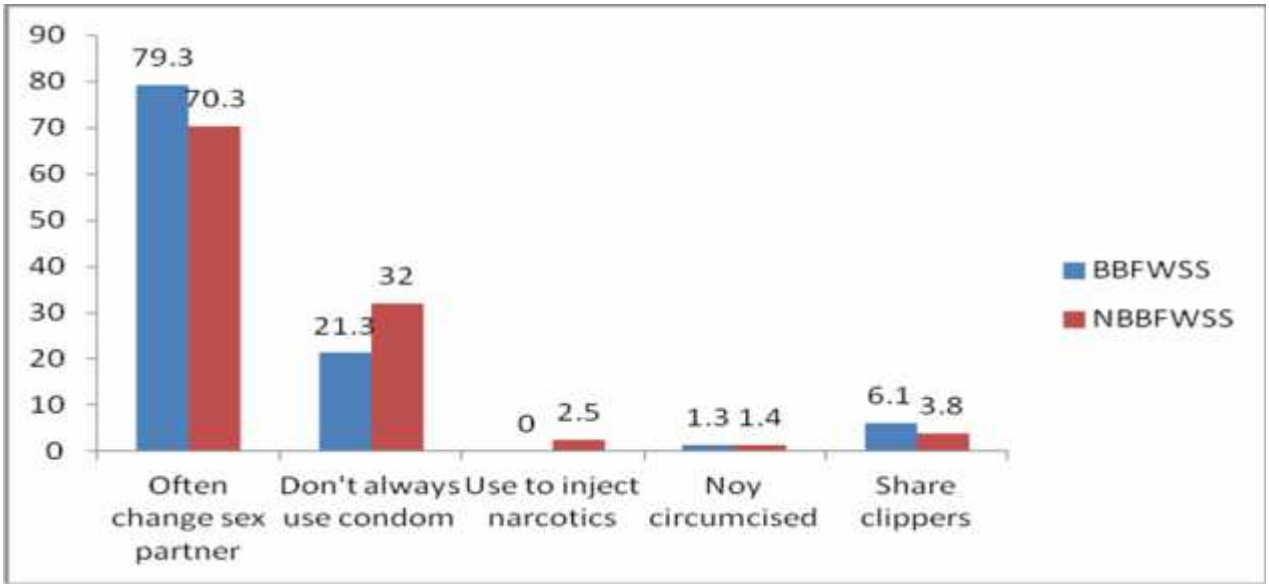

Figure 20: Proportion of FWSS who perceived specific reasons for being

Table 27: Percentage distribution of FWSS's reasons for feeling at risk of HIV by selected characteristics, Nigeria, IBBSS 2014

	BBFWSS					NBBFWSS				
Characteristics	Often change sex partner	Don't always use condoms	Use injected narcotics	Not circum cised	Share clippers	Often change sex partner	Don't always use condoms	Use injected narcotics	Not circum cised	Share clippers
	n=13522					n=1482				
Age group in years										
15-19	82.0	13.3	-	-	3.3	66.7	39.1	2.3	0.8	5.5
20-24	79.4	25.2	2.5	1.2	4.7	76.6	33.7	2.2	0.9	3.8
25+	79.3	20.5	1.7	1.4	6.7	81.4	29.6	2.7	1.8	3.5
Educational Level										
No formal education	83.1	11.1	1.3	-	3.8	75.9	39.3	7.1	3.6	3.6
Primary education	73.3	26.7	1.1	-	8.3	76.9	38.1	3.6	2.2	1.4
Secondary Education	82.0	20.3 22.9	2.0	1.6	5.5	79.0	29.6	2.0	.9	3.9
Tertiary education	69.2		2.9	2.9	6.7	76.6	37.0	3.2	2.5	4.6
Marital Status										
Currently married living with	68.4	22.2	-	-	-	46.4	48.3	-	-	-
Currently married, living with other sexual partner	60.0	40.0	-	20.0	40.0	33.3	66.7	-	-	-
Currently married, not living with other sexual partner	80.8	11.5	-	-	7.7	81.8	27.3	-	-	-
Not married living with sexual partner	79.9	25.7	4.8	-	11.6	80.7	40.2	5.7	0.9	15.1
Not married, Not living with sexual partner	77.3	20.9	1.5	1.4	5.3	78.8	30.9	2.3	1.5	3.0
Total	**79.3**	**21.3**	**1.8**	**1.3**	**6.1**	**79.3**	**32.0**	**2.5**	**1.4**	**3.8**

3.4.9.11 Reasons for feeling at risk of HIV among MSM and PWIDs

The data in Table 28, illustrated by Figure 21 shows that commonest reason for feeling at risk of HIV among MSM was inconsistent use of condoms expressed by 51% of them. This was followed by frequent change of sex partner by about 48% of them. The least was use of injecting narcotic by about 1.2%. Also, 35% of PWID reported their risk of HIV was due to frequent change of sex partners but the commonest reason both target groups was attributed to non- use of condom 47% of PWID and 51% MSM.. There were no appreciable differentials in the reasons given by age, sex, education and marital status.

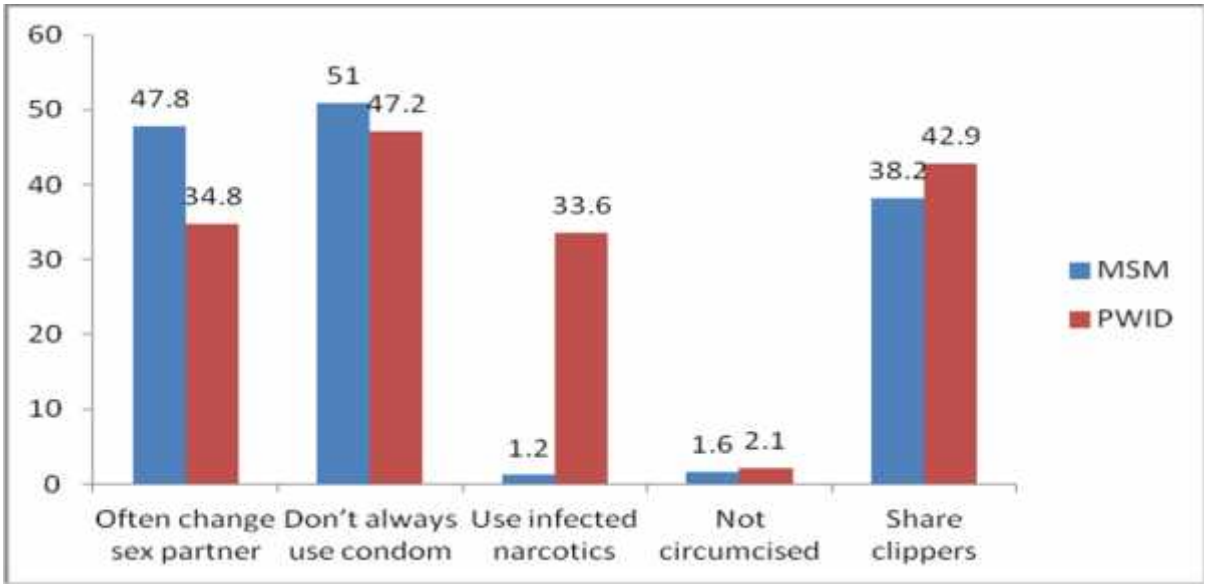

Figure 21: Proportion of MSM and PWID who perceived specific risks

Table 28: Percentage distribution of MSM and PWIDs reasons for feeling at risk of HIV by age and State, Nigeria, IBBSS 2014

	MSM					MFPWID				
Characteristics	Often change sex partner	Don't always use condoms	Use injected narcotics	Not circumcised	Share clippers	Often change sex partner	Don't always use condoms	Use injected narcotics	Not circumcised	Share clippers
	n=987					**n=761**				
Age group in years										
15-19	43.3	59.2	1.4	1.0	40.5	41.2	61.8	32.4	-	44.1
20-24	48.5	47.2	0.9	1.4	40.5	36.9	56.4	27.4	1.1	42.5
25+	49.7	50.7	1.4	2.3	33.9	33.8	43.2	35.2	2.6	43.0
Educational Level										
No formal education	-	-	-	-	-	11.1	44.4	33.3	-	33.3
Primary education	53.8	65.4	-	-	26.9	32.8	35.3	36.2	-	43.1
Secondary education	47.5	53.5	1.3	1.4	39.2	37.8	48.8	32.4	1.9	45.4
Tertiary education	47.4	43.4	1.3	2.3	38.1	29.3	50.9	35.3	4.1	36.6
Marital Status										
Currently married living with spouse	52.8	48.6	-	-	28.6	36.7	39.0	32.0	2.0	44.5
Currently married, living with other sexual partner	25.0	100.0	-	-	-	12.5	62.5	50.0	-	25.0
Currently married, not living with other sexual partner	40.0	80.0	-	-	40.0	31.8	50.0	31.8	33.3	54.5
Not married living with sexual partner	41.7	47.5	-	3.3	26.7	34.0	58.0	36.0	-	28.0
Not married, Not living with sexual partner	48.2	51.0	1.4	1.6	39.5	34.8	48.0	33.7	0.8	43.6
Total	**47.8**	**51.0**	**1.2**	**1.6**	**38.2**	**34.8**	**47.2**	**33.6**	**2.1**	**42.9**

3.4.9.12 Reasons for feeling at risk of HIV among Armed Forces, Police and Transport workers

The major reason by the Armed Forces for feeling at high risk of HIV/AIDS was sharing of clippers expressed by 41% followed by frequent change of sex partner (27%) and non consistent use of condoms. Also sharing of clippers was the major reason given by Transport Workers (62%) and the Police (36%). However, a low proportion of the three target groups reported the use of narcotics as a risk factor for contracting HIV. The Figure 22 showed the reasons for self-perception of contracting HIV for the Armed Forces, Transport Workers and Police respectively.

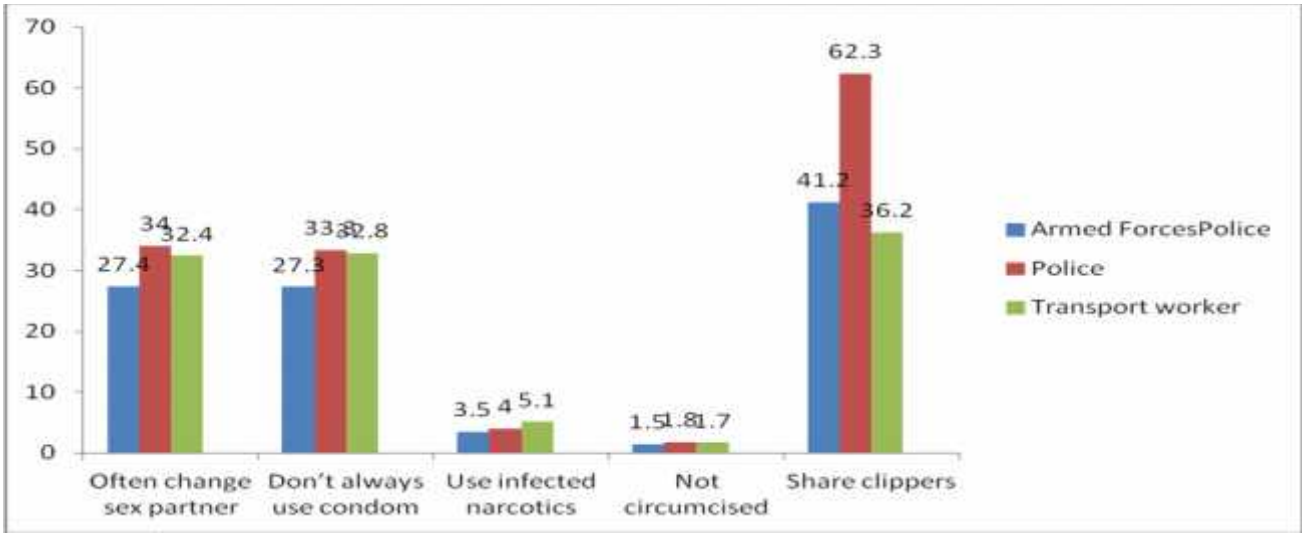

Figure 22: Proportion of Armed Forces, Police and Transport workers who perceived specific reasons for being at risk of HIV infection, Nigeria IBBSS 2014

Table 29: Percentage distribution of Police, Armed Forces and Transport workers' reasons for feeling at risk of HIV by selected demographics, Nigeria, IBBSS 2014

	Armed forces					Police					Transport worker				
Characteristics	Often change sex partner	Don't always use condoms	Use injected narcotics	Not circumcised	Share clipper	Often change sex partner	Don't always use condoms	Use injected narcotics	Not circumcised	Share clipper	Often change sex partner	Don't always use condoms	Use injected narcotics	Not circumcised	Share clipper
	n=457					**n=683**					**n=531**				
Age group															
15-19	-	100.0	-	-	-	25.0	25.0	8.3	-	83.3	-	-	-	-	-
20-24	31.8	34.8	4.5	4.5	45.5	31.5	35.6	2.8	-	59.7	42.9	57.1	-	-	42.9
25+	26.7	25.8	3.4	1.0	40.6	34.4	33.2	4.0	2.0	62.1	32.4	32.4	5.2	1.7	36.2
Educational Level															
No formal education	-	-	-	-	-	15.4	30.8	-	-	46.2	-	-	-	-	-
Primary education	25.0	12.5	-	-	25.0	24.1	21.2	2.4	1.2	58.8	21.7	39.1	4.3		47.8
Secondary Education	29.2	28.6	4.0	2.0	45.2	38.4	37.7	5.0	2.2	63.2	33.1	32.0	4.6	2.5	40.3
Tertiary education	25.0	26.3	3.1	1.0	36.6	34.1	35.3	2.4	1.2	67.1	32.6	33.3	7.1	.9	29.9
Marital Status															
Currently married living	25.8	23.6	4.2	1.3	40.8	26.2	28.0	3.7	2.0	61.4	33.6	26.8	6.3	2.1	34.9
Currently married, living with other sexual partner	42.9	28.6	14.3	-	57.1	100.0	-	-	0	-	26.7	53.3	13.3	6.7	53.3
Currently married, not living with other sexual partner	14.5	18.2	3.6	-	37.0	33.3	28.6	33.3	33.3	50.0	31.0	39.3	-	-	41.1
Not married living with sexual partner	40.0	40.0	10.0	10.0	40.0	26.9	53.8	3.8	-	69.2	38.1	52.4	-	-	38.1
Not married, Not living with sexual partner	33.1	35.9	1.4	2.1	42.8	47.3	40.2	3.7	0.8	63.5	28.7	42.0	4.0	1.0	35.0
Total	**27.4**	**27.3**	**3.5**	**1.5**	**41.2**	**34.0**	**33.3**	**4.0**	**1.8**	**62.3**	**32.4**	**32.8**	**5.1**	**1.7**	**36.2**

3.5 SEXUAL BEHAVIOUR AND CONDOM USE

3.5.1 Ever had sex

Most of the respondents were sexually active. Ninety nine point four percent (99.4 %) of MSM, 98% of PWIDs, 98% of Police, 97% of the Armed forces (97%) and 94% of the transport workers reported being sexually active.

3.5.2 Age at first sex

The proportion who ever had sex in each vulnerable group, disaggregated by age, gender, state, and highest educational level is shown in Table 30. The overall median age at first sex was 18 years for males and 17 years for females among all the key affected groups as shown in Table 30.

The median age at first sex for both males and females increased with age. For males, the reported median age at first sex was 15 years in the lowest age group, 15-19 years and 19 years for those 25 years and above, while for females, the median ages were 15 years and 18 years, respectively. The FWSS and MSM had the least median age at first sex (15 years), while the Army respondents and transport workers reported the highest (20 years). Females from Taraba, Enugu and Benue States reported the least median age at first sex (16 years) while Rivers State reported the least age at first sex for males of 15 years. The highest median age of 20 years was found among males from Anambra, Edo, and Kano States. Generally the median age of sex debut, was lower among MSM, PWID (17 years) for males than respondents from the Army, Police and transport workers (20 years) as shown in Table 30.

Table 30: Age at first sex of respondents among those who ever had sex according to sex and vulnerable groups by selected characteristics; Nigeria, IBBSS, 2014

	Mean		Median	
Age group	**Male**	**Female**	**Male**	**Female**
15-19	14.8	15.2	15.0	15.0
20-24	16.4	16.7	17.0	17.0
25 and above	19.7	17.6	19.0	18.0
All ages	18.6	17.2	18.0	17.0
Vulnerable groups				
BBFSW	-	16.7	-	17.0
NBBFSW	-	17.1	-	17.0
MSM	16.6	-	17.0	-
Armed Forces	20.2	20.0	20.0	20.0
Transport Workers	19.9	-	20.0	-
Injecting Drugs Users	17.4	17.6	17.0	18.0
Police	20.7	19.8	20.0	19.0
State				
Abia	-	17.2	-	17.0
Anambra	19.6	17.4	20.0	17.0
Benue	19.4	16.3	19.0	16.0
Cross-river	17.8	17.0	18.0	17.0
Edo	20.0	17.6	20.0	18.0
Enugu	17.3	16.6	17.0	16.0
FCT	19.1	17.9	19.0	18.0
Kaduna	18.7	17.2	18.0	17.0
Kano	21.3	16.7	20.0	17.0
Lagos	18.5	17.8	18.0	18.0
Nasarawa	19.9	17.2	16.4	17.0
Oyo	16.4	18.1	16.0	18.0
Rivers	15.2	17.0	15.0	17.0
Taraba	-	16.5	-	16.0
Total	**18.6**	**17.2**	**18.0**	**17.0**

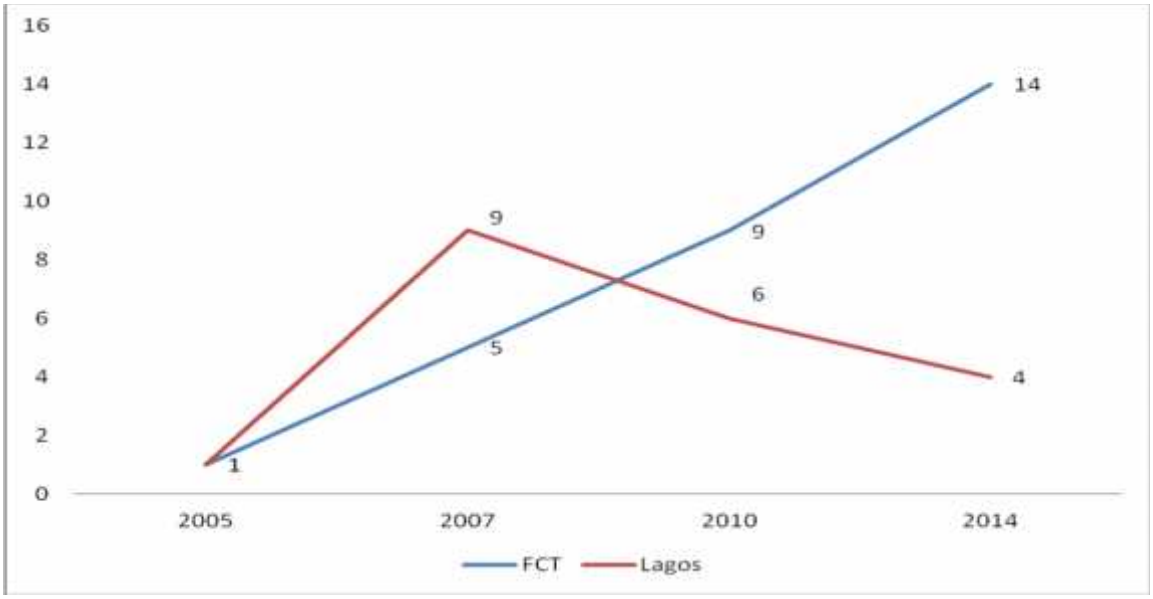

Figure 23: Proportion of Armed forces who have had sex with a FWSS in the past 12 months by state (IBBSS, 2005-2014)

The proportion of the Police who had sex with a FWSS in the past 12 months prior to the survey in Cross River increased from 8% in 2010 to 16% in 2014, however, it declined in Kano and Lagos states in 2014 from their values in the previous surveys as shown in figure 24.

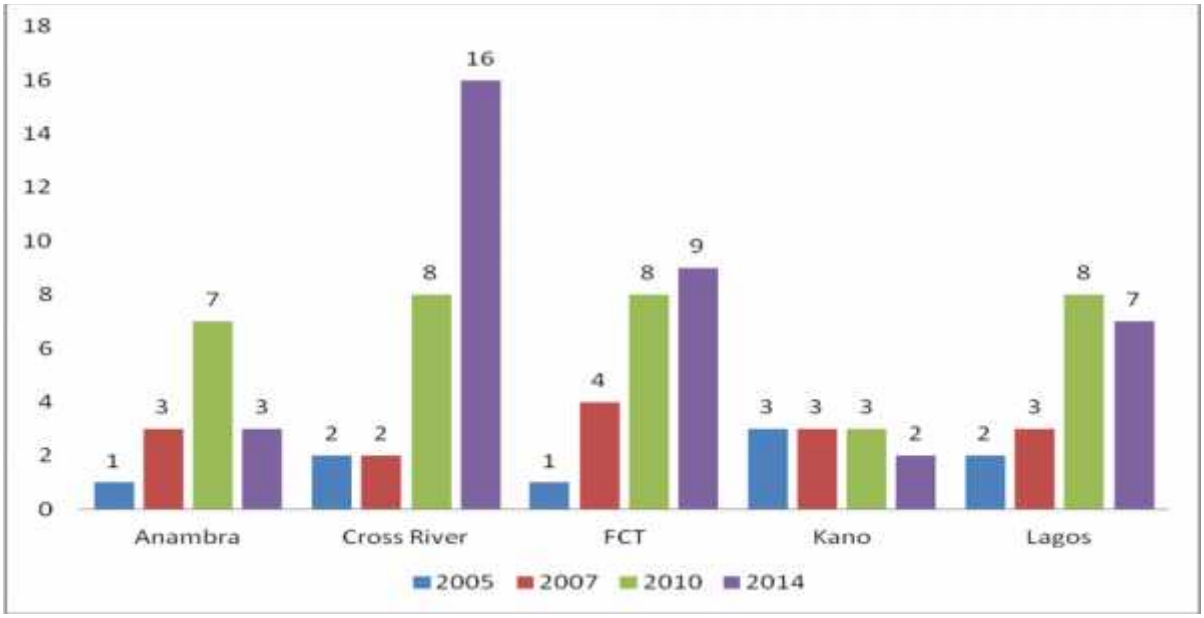

Figure 24: Proportion of Police who have had sex with a FWSS in the past 12 months by state IBBSS (2005-2014)

Figure 25 shows that the proportion of transport workers who had sex with a FWSS in the last 12 months prior the survey increased in Anambra, Edo, FCT and Lagos but declined in Cross-rivers and Kano states.

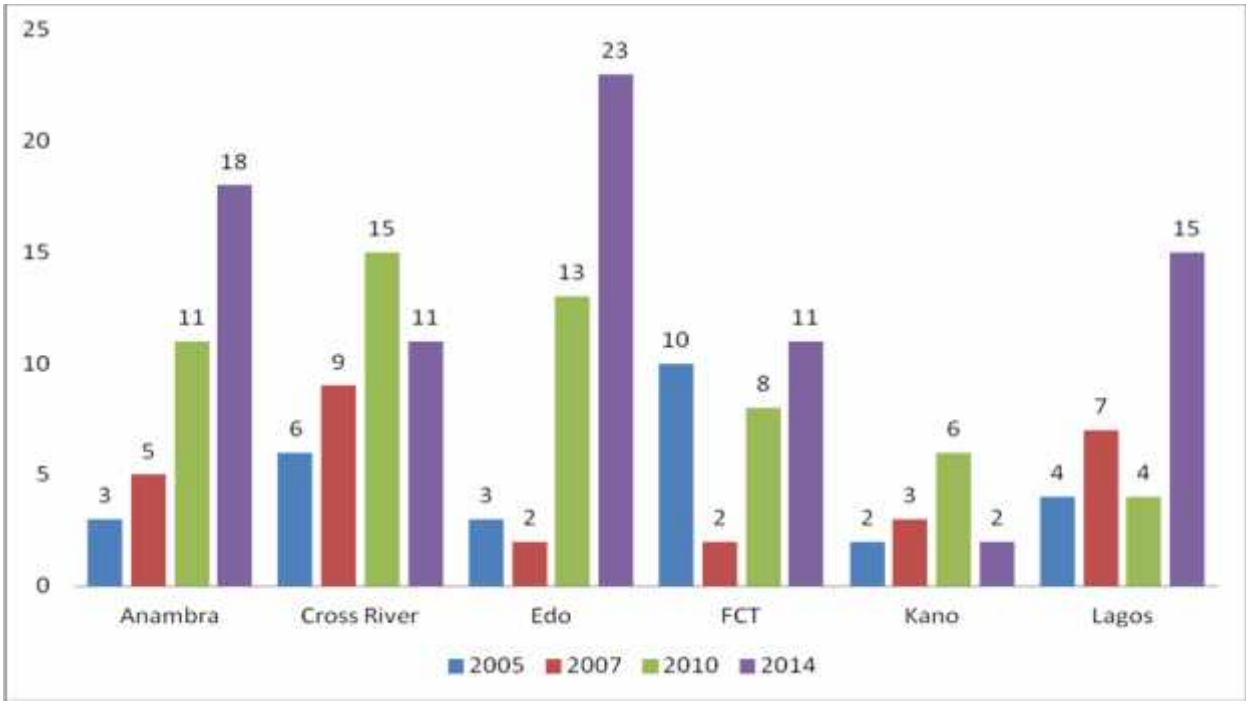

Figure 25: Proportion of Transport Workers who have had sex with a FWSS in the past 12 months by state IBBS (2005-2014)

3.5.3 Female Condoms

The awareness of female condoms amongst FWSS was high (Table 31). A higher proportion of the brothel based FWSS (91%) than the non-brothel based (85%) had heard of female condoms. In spite of the high level of awareness only 26% of BBFWSS and 29% of NBBFWSS had ever used female condoms. Previous use of female condoms ranged from 33% amongst BBFSW in FCT to 6.8% amongst NBBFWSS in Anambra state.

Five percent (5%) of BBFWSS and 9% of NBBFWSS reported charging a higher rate for sex without using a condom.

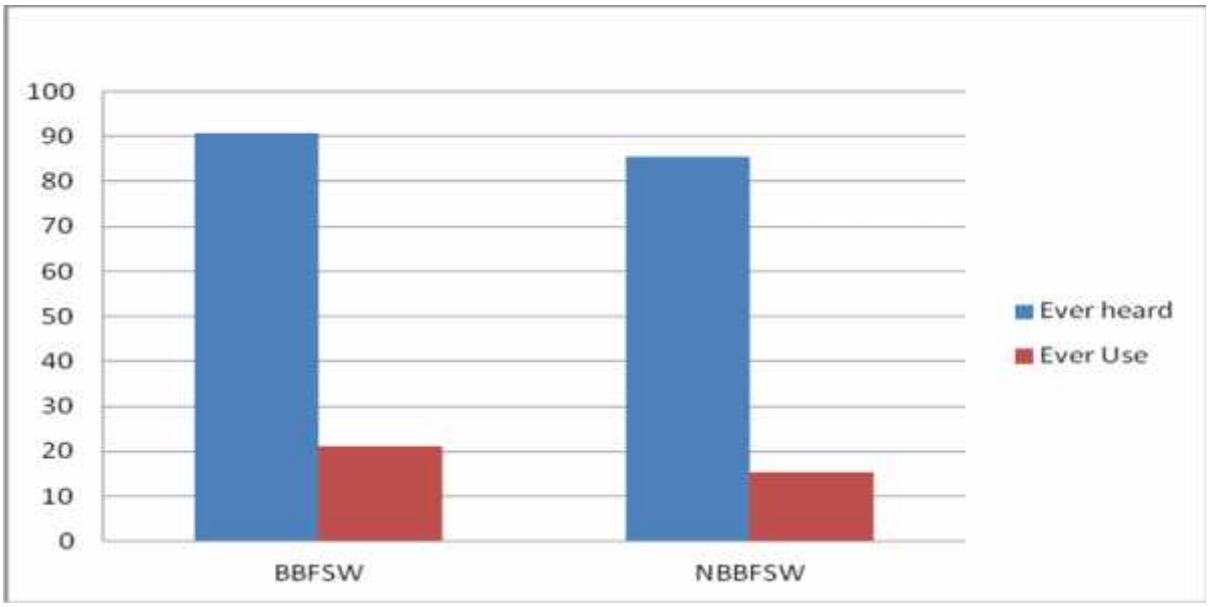

Figure 26: Percentage distribution of brothel and non-brothel based FWSS who ever heard and ever used female condom, IBBSS, Nigeria, 2014

Table 31: Percentage distribution of respondents' knowledge and use of female condom

	BBFWSS			NBBFWSS		
	Ever Heard of Female Condom	Ever Used Female Condom	Charge more for Sex without Condom	Ever Heard of Female Condom	Ever Used Female Condom	Charge more for Sex without Condom
Age group						
15-19	79.2	11.9	5.6	76.9	9.4	12.1
20-24	89.3	18.0	4.3	83.7	11.4	8.7
25 and above	91.8	22.7	4.9	88.1	18.8	7.9
State						
Abia	95.2	14.8	3.7	95.2	15.4	0.7
Anambra	85.7	9.3	4.4	77.7	6.8	11.0
Benue	98.3	20.7	0.7	94.3	15.6	5.1
Cross-river	73.7	14.4	3.6	80.0	24.2	2.5
Edo	94.6	29.5	6.1	90.7	20.2	7.8
Enugu	91.2	19.3	5.2	86.5	18.5	4.2
FCT	91.8	32.7	0.0	89.2	12.5	6.9
Kaduna	94.6	20.9	14.9	92.2	15.4	20.7
Kano	93.2	26.4	3.8	87.4	21.9	6.9
Lagos	94.2	11.6	4.4	96.7	10.0	3.7
Nasarawa	91.3	28.1	4.8	67.0	16.7	23.8
Oyo	93.6	16.0	2.3	89.0	13.1	7.2
Rivers	90.7	21.3	10.4	87.1	16.4	10.6
Taraba	78.0	28.2	2.1	61.1	11.0	4.4
Total	**90.6**	**21.1**	**4.7**	**85.4**	**15.3**	**8.6**

3.5.4 Forced Sex without Condom use

Table 32 shows the proportion of the FWSS who reported ever been forced to have sex without the use of condom. A higher proportion of non-brothel based (13%) FWSS than the brothel based (7%) reported ever been forced to have sex without condom use.

Table 32: Percentage distribution of respondents' who have been forced to have sex without condom; arrested by law enforcement agency by age and state among FWSS; Nigeria, IBBSS, 2014

	BBFWSS			NBBFWSS		
	Ever been forced to have sex without condom	Ever been forced to have sex without condom in last12months by any person	Ever been arrested by law agency in last 6mths	Ever been forced to have sex without condom	Last 12mths ever been forced to have sex	Ever been arrested by law agency in last 6mths
Age group						
15-19	12.1	8.6	53.4	18.5	17.0	51.0
20-24	8.4	6.4	51.7	14.1	11.4	48.0
25 and above	6.7	4.3	50.7	12.2	9.6	51.2
State						
Abia	2.3	1.5	34.9	6.2	5.5	38.4
Anambra	7.7	5.3	25.0	17.6	14.6	86.4
Benue	3.7	2.7	52.0	21.4	17.7	25.4
Cross-river	8.0	5.7	47.5	14.8	13.0	42.4
Edo	10.2	9.2	51.7	10.7	10.0	52.2
Enugu	11.2	7.8	76.3	16.9	10.3	88.8
FCT	8.6	4.1	81.9	10.7	8.0	67.8
Kaduna	3.0	2.0	64.5	8.8	7.8	57.0
Kano	2.8	1.0	22.4	8.8	8.0	32.2
Lagos	4.8	3.4	43.2	12.0	9.4	48.7
Nasarawa	12.9	8.1	62.3	19.8	17.4	30.7
Oyo	5.1	2.4	70.0	10.3	8.3	46.2
Rivers	16.2	10.8	40.1	20.7	14.8	42.9
Taraba	7.0	6.3	43.3	10.5	8.8	40.1
Total	**7.4 (4028)**	**5.0 (4024)**	**51.1(4090)**	**13.5(3880)**	**11.0 (3877)**	**49.9 (3959)**

*non-response not included

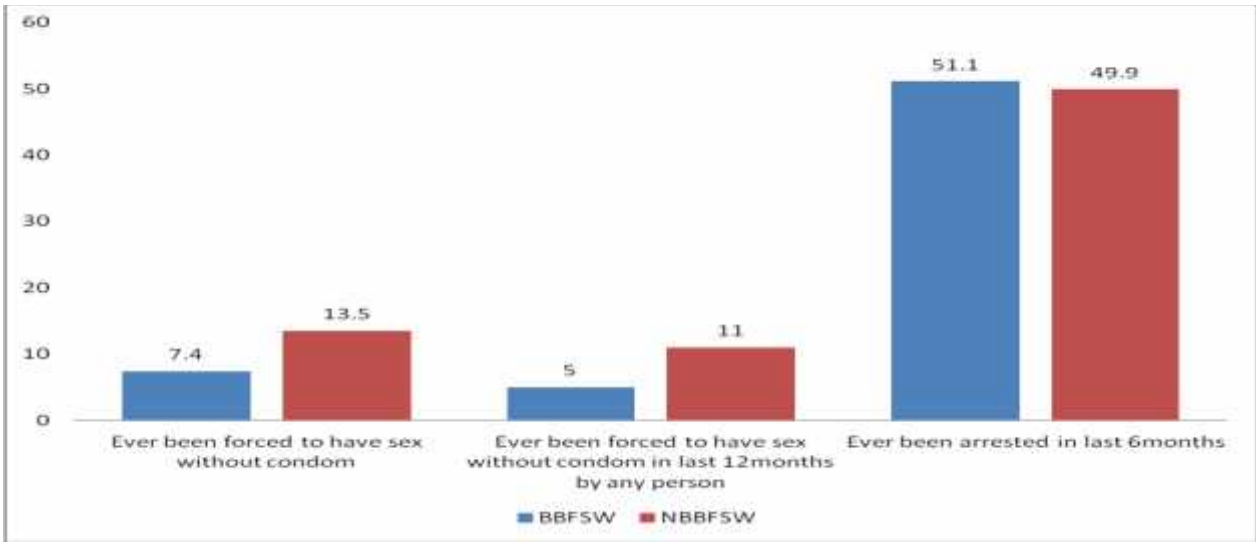

Figure 27: Percentage distribution of brothel and non-brothel based FWSS who have sex without condom and ever been arrested by law enforcement agency, IBBSS, Nigeria, 2014.

3.5.5 Arrest by Law enforcement agency

Fifty one percent (51%) of BBFWSS and 50% of NBBFWSS had been arrested by law enforcement officers within the 6 months preceding the survey (Figure 27). Arrests were highest in the FCT (82%) amongst the BBFWSS and lowest in Kano State (22%) amongst the same group.

3.5.6 Oral and Anal Sex

A higher percentage of the BBFWSS had had oral sex (14%) compared to anal sex (3%) according to the results presented in Table 33. The highest proportion who had oral sex was reported in Kaduna State (35%) and the least in Cross-river State (4%); while that of anal sex was highest in Rivers (7%) followed by Enugu and Kaduna (6%) states. The lowest frequency was from Benue and Oyo (1%) states.

For the non-brothel based FWSS, 29% had had oral sex compared to anal sex (6%). The highest proportion that had had oral sex was found in Kaduna State (53%) and the least in Cross-river State (10%). For anal sex, it was found most among those in Kaduna State (15%) and least in Anambra State (1%).

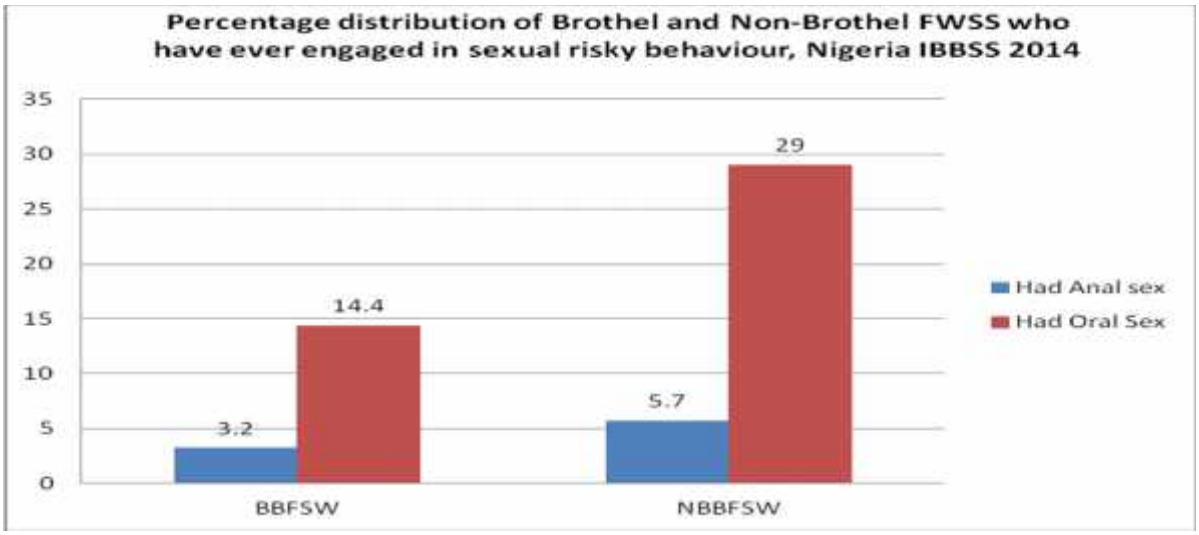

Table 33: Percentage distribution of respondents' risky sexual behaviour and selected characteristics among the FWSS; Nigeria, IBBSS, 2014

Ever had anal sex								
	BROTHEL BASED FWSS				NON BROTHEL BASED FWSS			
	%	N	%	N	%	N	%	N
Age group								
15-19	4.0	8	10.9	22	5.2	18	26.7	92
20-24	4.4	44	16.2	162	5.8	88	28.4	423
25 and above	2.7	78	14.0	400	5.6	115	29.8	607
Total	3.2	130	14.4	584	5.7	221	29.0	1131
State								
Abia	1.5	4	11.9	32	2.9	8	23.8	65
Anambra	3.0	9	19.7	59	1.3	4	20.6	62
Benue	1.0	3	6.0	18	11.7	35	31.8	95
Cross-river	3.9	10	4.3	11	5.5	9	10.3	17
Edo	1.3	4	7.1	21	3.7	11	18.1	54
Enugu	6.3	17	26.2	71	9.8	24	45.1	110
FCT	1.7	5	5.1	15	2.1	6	50.2	147
Kaduna	6.1	18	35.1	105	14.5	43	53.0	157
Kano	2.0	6	29.7	87	5.7	15	18.1	48
Lagos	3.1	9	11.0	32	2.7	8	37.5	112
Nasarawa	2.3	7	9.4	28	8.1	24	28.1	83
Oyo	1.0	3	5.7	17	3.4	10	15.3	44
Rivers	7.4	22	24.2	72	5.8	17	33.9	99
Taraba	4.3	13	5.3	16	2.4	7	12.8	38
Total	**3.2**	**130**	**14.4**	**584**	**5.7**	**221**	**29.0**	**1131**

3.5.7 Awareness of condom

Respondents from all the vulnerable groups were asked whether they had ever heard of condom and the results are shown in Figure 28. It shows that a high proportion of all groups had heard of male condoms with the BBFWSS being more aware with 99.9% and it being lowest amongst the transport workers with (97.4%).

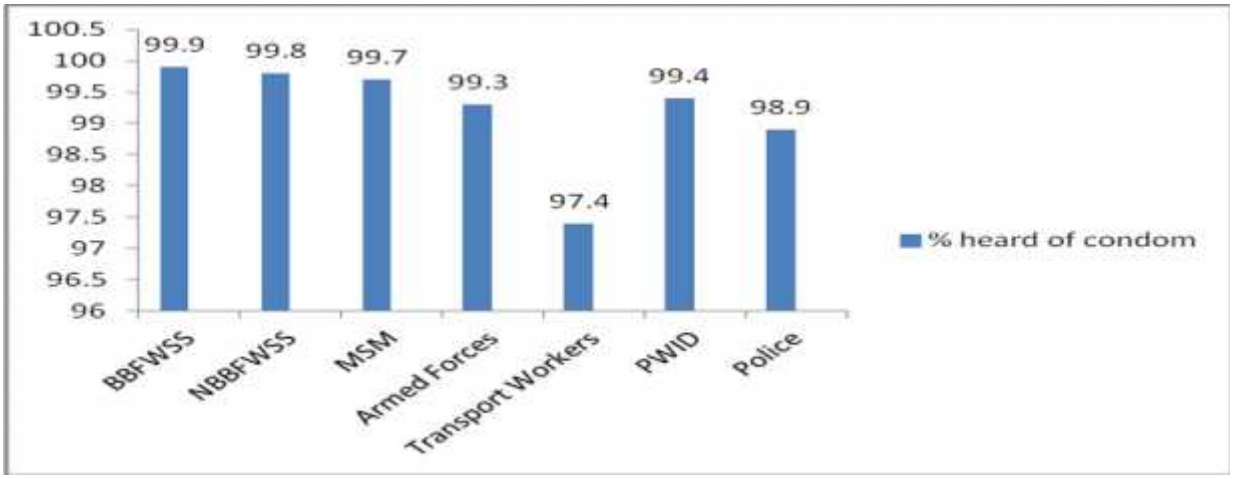

Figure 28: Proportion of each vulnerable group who ever heard of condom, IBBSS, Nigeria 2014

3.5.8 Ever used condom

Use of condoms was high amongst all groups. Figure 29 shows almost 100% of BBFWSS and 99% of NBBFWSS had ever used a male condom. It was lowest amongst the transport workers (70.3%) and the police (75.5%).

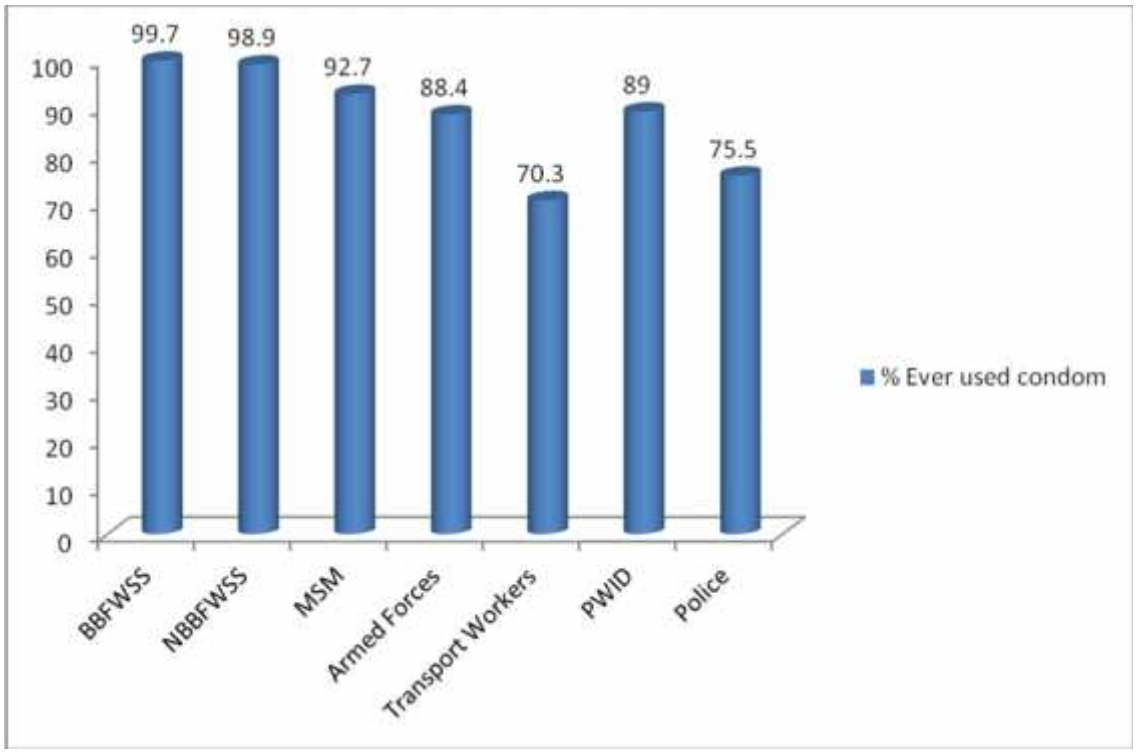

Figure 29: Proportion of each vulnerable group who ever used condom; Nigeria, IBBSS, 2014

3.5.9 Consistency of condom use

Consistency of condoms use during higher risk sex is a proven strategy for reducing HIV transmission. Respondents from all the vulnerable groups were asked if they used condom every time they had sex in the last 12 months with specific types of partners as shown in Figure 30. For FWSS, consistent condom use was mostly with casual sex partners reported by 83% of BBFWSS and 74% of NBBFWSS, while other groups reported higher levels of consistent condoms use when having commercial sexual intercourse.

The analysis of use of condoms in the last sex act with each of the four main sex - partners namely regular, boyfriend/girlfriend, commercial and casual presented in Table 30 for each vulnerable group. It reveals that condom use during last sexual act was highest with commercial sexual partners and lowest with regular partners. Excluding FWSS, 87.1% of persons who had commercial sex in the last 12 months, reported using a condom during the last sexual act.

Table 34: Percentage distribution of vulnerable groups' use of condom by type of sex partner; Nigeria, IBBSS, 2014

	Used condom last sex act		Used condom every time last 12 months (consistent use)		Confidence to Convince partner to use condom	
Vulnerable Group by type of partner	%	N	%	N	%	N
All partners						
Brothel Based Sex Workers	91.3	3115	67.2	2718	95.9	3901
Non Brothel Based Sex Workers	92.3	3259	63.5	2481	92.4	3613
MSM	82.6	1738	48.9	1408	0	
Male and Female of the Armed Forces	81.6	995	61.4	1035	0	
Transport Workers	82.9	728	64.8	1154	0	
Males and Female who Inject Drugs (PWID)	83.2	1424	46.9	1084	0	
Male and Female of the Police	75.9	528	66.0	1000	0	
Total	**86.8**	**11787**	**60.0**	**10880**	**94.2**	**7514**
Regular Partner						
Brothel Based Sex Workers	33.1	159	25.4	122	53.9	257
Non Brothel Based Sex Workers	46.2	206	33.2	148	59.7	267
MSM	41.2	153	24.5	91	73.9	275
Male and Female of the Armed Forces	9.8	172	3.0	53	62.1	1022
Transport Workers	6.9	119	1.5	25	50.7	864
Males and Female who Inject Drugs (PWID)	18.6	148	7.6	60	60.4	479
Male and Female of the Police	7.5	158	1.9	40	61.6	1209
Total	**14.5**	**1115**	**7.0**	**539**	**59.1**	**4373**
Boyfriend/Girl friend						
Brothel Based Sex Workers	38.0	804	26.6	560	63.9	1352
Non Brothel Based Sex Workers	54.9	1391	34.0	861	70.8	1795
MSM	69.3	1443	43.9	913	86.2	1796
Male and Female of the Armed Forces	69.0	861	50.9	634	93.2	1160
Transport Workers	58.5	591	39.8	402	83.4	842
Males and Female who Inject Drugs (PWID)	63.6	926	35.8	520	85.0	1238
Male and Female of the Police	54.4	447	36.3	298	86.7	710
Total	**57.4**	**6463**	**37.2**	**4188**	**78.9**	**8893**
Commercial Partner						
Brothel Based Sex Workers	98.6	3991	94.5	3802	0.0	0
Non Brothel Based Sex Workers	97.5	3794	90.3	3509	0.0	0
MSM	86.4	389	63.4	284	88.4	396
Male and Female of the Armed Forces	90.7	137	80.8	122	98.0	148
Transport Workers	88.5	261	76.4	227	92.3	276
Males and Female who Inject Drugs (IDU)	87.8	689	74.5	585	92.4	726
Male and Female of the Police	79.6	90	65.5	74	88.5	100
Total	**96.1**	**9351**	**88.7**	**8603**	**91.6**	**1646**
Casual Partner						
Brothel Based Sex Workers	89.6	318	83.3	295	94.6	336
Non Brothel Based Sex Workers	84.1	481	73.5	414	89.2	512
MSM	77.5	889	57.0	642	88.4	145
Male and Female of the Armed Forces	81.2	203	67.2	160	97.1	231
Transport Workers	72.8	139	62.4	111	89.7	156
Males and Female who Inject Drugs (PWID)	76.9	406	57.9	302	83.5	137
Male and Female of the Police	71.2	111	54.7	81	83.2	119
Total	**79.6**	**2547**	**64.1**	**2005**	**90.3**	**1636**

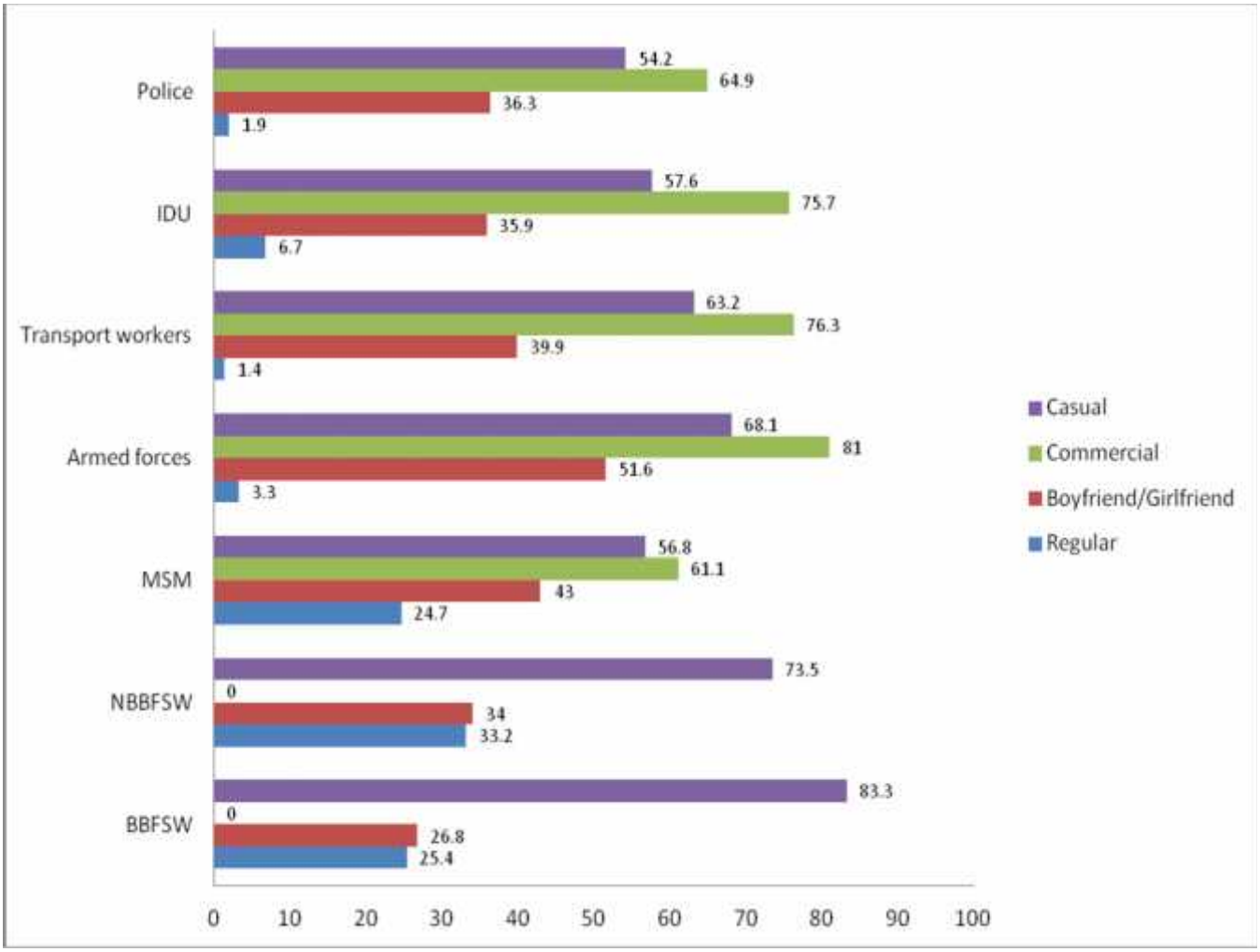

Figure 30: Percentage distribution of vulnerable groups who used condom consistently in the last 12 months prior survey date by type of partner;, Nigeria IBBSS, 2014

3.5.9.1 Consistent condom use with regular partner

Table 35 shows that about 25% of brothel based FWSS and 33% of non-brothel based used condom every time they had sex with their spouse or live-in partner in the last 12 months prior the survey date. A higher proportion, about a third of brothel based FWSS and less than half (46%) of non-brothel FWSS used condom in their last sex act with their regular partners.

About 25% of MSM used condom every time they had sex with their regular partners in the last 12 months prior to survey period. Among the PWID, less than a tenth (7.6%) reported they used condom every time they had sex with their regular partners in the last 12 months, however, a higher proportion (42%) reported they used condom with a regular partner in their last sex act.

A low proportion of the Armed Forces respondents (3.0%) used condom every time they had sex with their regular partners. A very low percentage of the Police respondents (1.9%) used condom every time they had sex with their regular partners in the last 12 months prior to the survey period. The lowest proportion of condom use was found among transport workers where only 1.4% used condom every time they had sex with regular partners in the last 12 months prior the survey period.

3.5.9.2 Consistent Condom Use with Boyfriend/girlfriend

The frequency of condom use with boyfriend/girlfriend among the vulnerable groups is shown in Table 36. Consistent condom use among all groups was generally low. Consistent condom use was higher amongst members of the armed forces amongst whom 51% reported consistent condom use. It was lowest amongst BBFSW who reported only 26.6% consistent condom use. Consistent condom was not related to age.

Amongst FWSS, condom use with regular partners ranged from 69.9% amongst NBBFSW in Taraba state to 2.2% in Rivers state.

The proportion of men having sex with men who used condoms every time with girlfriends 12 months prior to the survey date was 44%. This ranged from 29.5% in FCT to 73% in Enugu state. About a third of PWID (36%) used condom every time they had sex with boyfriend or girlfriend in the past 12 months prior the survey date. Amongst the KAP, persons between the ages of 20 and 24 years reported a higher level of consistent condom use.

Table 35: Percentage distribution of each vulnerable group who used condom consistently in the last 12months with regular partner or spouse by age and state; Nigeria, IBBSS, 2014

	BBFWSS	NBBFWSS	MSM	Armed Forces	TWs	PWID	Police
Characteristics	**Consistently used condom with regular partner or spouse**						
Age group							
15-19	5.6	35.0	37.2	0.0	0.0	0.0	0.0
20-24	23.1	40.0	34.3	7.8	5.2	7.7	8.3
25 and above	27.0	28.0	17.6	2.9	1.3	7.7	1.9
Total	25.4	33.2	24.5	3.0	1.5	7.6	1.9
State							
Abia	5.9	31.4	-	-	-	-	-
Anambra	8.3	10.0	-	2.1	0.0	-	1.3
Benue	14.3	10.3	-	3.9	2.8	-	2.7
Cross-river	10.0	0.0	30.8	3.5	1.5	5.7	1.4
Edo	3.4	4.0	-	2.6	1.0	-	0.9
Enugu	13.6	23.1	20.0	-	-	2.2	-
FCT	16.4	36.4	14.8	4.8	2.7	1.9	2.8
Kaduna	4.8	0.0	19.8	4.6	0.4	8.5	3.3
Kano	5.6	30.0	17.4	2.1	0.5	2.7	1.3
Lagos	7.1	14.3	26.7	0.9	3.1	21.0	2.3
Nasarawa	18.2	19.4	-	3.1	1.5	-	0.9
Oyo	11.5	4.5	36.9	-	-	12.6	-
Rivers	7.7	0.0	30.0	-	-	0.0	-
Taraba	55.9	62.8	-	-	-	-	-
Total	**25.4**	**33.2**	**24.5**	**3.0**	**1.5**	**7.6**	**1.9**

Table 36: Percentage distribution of each vulnerable group who used condom consistently with boyfriend or girlfriend by age and state; Nigeria, IBBSS, 2014

Characteristics	BBFWSS	NBBFWSS	MSM	PWID	Armed Forces	Transport Workers	Police
Age group							
15-19	23.3	36.5	36.7	33.3	27.3	11.8	100.0
20-24	28.7	37.1	45.6	32.9	46.1	39.0	33.3
25 and above	26.0	30.6	45.4	37.4	52.5	40.5	36.3
Total	26.6	34.0	43.9	35.8	41.2	39.8	36.3
State							
Abia	19.9	29.7	-	-	-	-	-
Anambra	14.8	35.9	-	-	59.6	42.3	35.1
Benue	54.5	26.7	-	-	54.1	45.2	53.4
Cross-river	16.4	15.2	54.3	26.6	47.0	52.4	22.3
Edo	14.3	24.8	-	-	46.9	33.1	19.3
Enugu	26.8	30.8	72.6	40.9	-	-	-
FCT	28.6	21.4	29.5	29.8	49.7	56.3	37.9
Kaduna	25.1	26.8	32.8	29.7	42.6	21.3	40.8
Kano	29.7	47.0	23.3	39.3	40.0	20.0	35.6
Lagos	12.7	12.3	59.2	49.5	29.0	30.9	36.2
Nasarawa	18.7	62.5	-	-	72.7	27.5	41.7
Oyo	12.8	21.7	42.9	51.6	-	-	-
Rivers	17.6	2.2	31.6	0.0	-	-	-
Taraba	71.5	69.9	-	-	-	-	-
Total	**26.6**	**34.0**	**43.9**	**35.8**	**50.9**	**39.8**	**36.3**

3.5.9.3 Consistent Condom Use during sexual intercourse with Commercial Partners

Table 37 depicts the percent of the various surveyed groups that consistently use condoms when engaging in commercial sex. The FWSS reported a high level of consistent condom use, with BBFWSS reporting 94.5% and NBBFWSS reporting 90.3% condom use in the last 12 months. This was higher than the 81% reported amongst members of the armed forces and the other occupational groups. MSM had the least consistent condom use with only 63.4%. No definite pattern was seen between within the age groups or the states

Table 37: Percentage distribution of each vulnerable group who used condom consistently with commercial partner by age and state; Nigeria, IBBSS, 2014

	BBFWSS		NBBFWSS		MSM		Armed Forces		Transport Workers		PWID		Police	
Characteristics	**Consistently used condom with commercial partner**													
	%	N	%	N	%	N	%	N	%	N	%	N	%	N
Age group														
15-19	96.0	191	88.0	301	63.5	54	100.0	1	71.4	5	81.6	31	0.0	
20-24	94.9	940	89.8	1361	61.6	141	79.5	35	82.4	28	77.9	204	60.0	3
25 and above	94.3	2673	91.0	1847	66.4	89	81.1	86	75.9	195	72.0	350	65.7	71
Total	94.5	3804	90.3	3509	63.4	284	80.8	122	76.5	228	74.4	585	65.5	74
State														
Abia	95.1	255	96.7	264	-	-	-	-	-	-	-	-	-	-
Anambra	98.0	294	94.4	284	-	-	100.0	18	80.4	41	-	-	83.3	5
Benue	93.0	277	97.0	288	-	-	85.7	30	93.9	31	-	-	88.9	8
Cross-river	95.9	236	96.2	151	93.9	31	60.0	9	69.0	20	61.3	87	56.7	17
Edo	95.9	284	97.0	288	-	-	70.0	7	83.6	56	-	-	30.8	4
Enugu	92.2	249	93.4	228	79.7	55	-	-	-	-	59.2	45	-	-
FCT	97.6	285	91.9	271	52.2	12	81.3	26	64.3	18	85.7	84	83.3	15
Kaduna	86.9	253	79.7	231	57.6	19	64.7	11	61.5	8	86.8	118	55.6	5
Kano	95.9	278	86.0	228	50.0	8	100.0	3	50.0	2	50.8	31	80.0	4
Lagos	97.6	284	94.9	282	92.9	26	66.7	6	83.3	30	51.7	15	66.7	10
Nasarawa	89.7	260	69.4	202	-	-	100.0	12	59.5	22	-	-	75.0	6
Oyo	99.3	294	92.1	267	64.1	107	-	-	-	_	89.5	77	-	-
Rivers	90.2	268	91.8	270	32.9	26	-	-	-	_	81.0	128	-	-
Taraba	95.7	287	86.1	255	-	-	-	-	-	_	-	-	-	-
Total	**94.5**	**3804**	**90.3**	**3509**	**63.4**	**284**	**80.8**	**122**	**76.5**	**228**	**74.4**	**585**	**65.5**	**74**

3.5.9.4 Consistent condom use during sexual intercourse with casual partner

Table 38 shows the percentage of the various groups that consistently use condoms in during sexual intercourse with casual partners. Brothel-based females who sell sex (FWSS) had the highest percentage (83%) that consistently uses condoms during sexual intercourse with casual partners. This is higher than the NBBFWSS (73.5%). Amongst MARPS, the lowest level of consistent condom use was seen in the MSM group (57%).

No pattern was seen in the age groups as these varied with group. No real pattern was seen in the states either. Amongst FWSS the highest levels of consistent condom use was seen in Taraba for both BBFWSS (83%) and NBBFWSS (73.5%) but the lowest values were seen in Nasarawa (39%) for NBBFWSS and Rivers state (50%) for BBFWSS. Interestingly while NBBFWSS in Nasarawa had the lowest level of consistent condom use with casual partners, the BBFWSS in the state had one of the highest levels of consistent condom use amongst FWSS.

Amongst the occupational groups, members of the Armed forces had a higher level of consistent condom use.

Table 38: Percentage distribution of each vulnerable group who used condom consistently in the last 12months with casual sex partner by age and state; Nigeria, IBBSS, 2014

	BBFWSS		NBBFWSS		MSM		Armed Forces		Transport Workers		PWID		Police	
	Consistently use condom with casual partner													
Demographic Characteristics	%	N	%	N	%	N	%	N	%	N	%	N	%	N
Age group														
15-19	76.5	13	53.5	23	54.5	114	0.0	0	0.0	0	55.2	16	-	0
20-24	78.1	75	73.4	185	55.3	320	68.2	30	54.2	13	57.9	106	66.7	2
25 and above	85.9	207	76.9	206	61.4	208	67.0	130	64.5	98	58.1	180	54.5	79
Total	83.3	295	73.5	414	57.0	642	67.2	160	62.4	111	57.9	302	54.7	81
State														
Abia	78.6	11	73.7	28	-	-	-	-	-	-	-	-	-	-
Anambra	90.9	10	63.3	19	-	-	68.0	17	55.6	15	-	-	66.7	12
Benue	75.0	3	76.5	39	-	-	76.9	30	80.0	24	-	-	66.7	6
Cross-River	71.9	23	72.7	8	72.1	62	71.4	10	46.2	6	56.4	53	51.3	20
Edo	76.2	16	60.0	6	-	-	66.7	24	70.4	38	-	-	71.4	5
Enugu	66.7	14	84.2	16	72.1	88	-	-	-	-	53.4	62	-	-
FCT	90.0	9	73.3	33	55.1	54	62.5	20	37.5	3	58.8	30	47.8	11
Kaduna	92.3	36	91.4	64	57.3	43	64.3	9	40.0	2	63.0	114	60.0	9
Kano	0.0	0	66.7	2	70.0	7	56.0	14	100.0	4	61.5	8	25.0	1
Lagos	81.8	9	77.1	27	62.5	50	58.6	17	57.9	11	48.3	14	58.3	14
Nasarawa	92.0	46	38.6	32	-	-	79.2	19	44.4	8	-	-	33.3	3
Oyo	72.7	8	55.2	16	60.7	150	-	-	-	-	57.1	20	-	-
Rivers	50.0	14	52.9	9	46.0	188	-	-	-	-	33.3	1	-	-
Taraba	95.0	96	94.3	115	-	-	-	-	-	-	-	-	-	-
Total	**83.3**	**295**	**73.5**	**414**	**57.0**	**642**	**67.2**	**160**	**62.4**	**111**	**57.9**	**302**	**54.7**	**81**

3.5.9.5 Consistent condom use with all sexual partners.

A fair proportion of respondents used condom consistently with all partners ranging from 47% among PWID to 68% among the brothel based FWSS with an average of 59%. Also, the use of condom in the last sex act was least among the Police respondents (76%) and highest among non-brothel based FWSS (92%). Condom use in the last sex act among the vulnerable groups was – Armed Forces respondents (82%), MSM (83%), PWID (83%) and Transport Workers (83%).

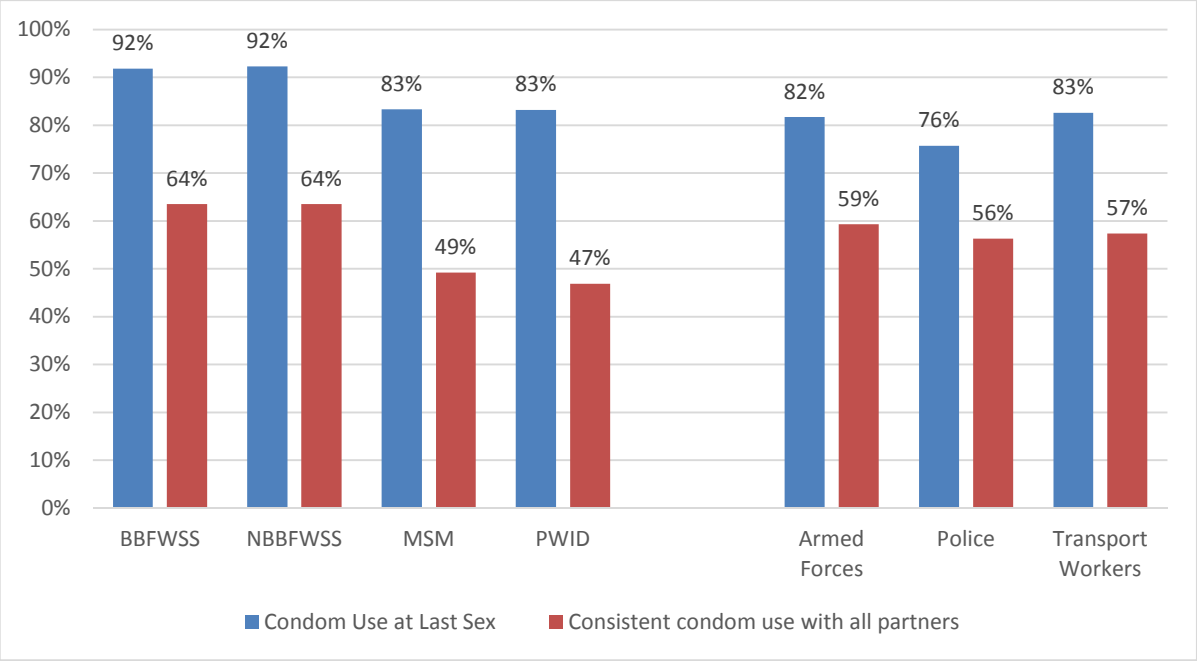

Figure 31: Proportion of various Key Affected Populations and priority groups that reported consistent condom use with all partners, IBBSS Nigeria 2014

3.5.9.6 Consistent condom use by FWSS with clients.

The proportion of FWSS who reported they consistently used condom with their clients in the preceding month prior the survey was higher than its values in the immediate past survey in all the states examined in 2014.

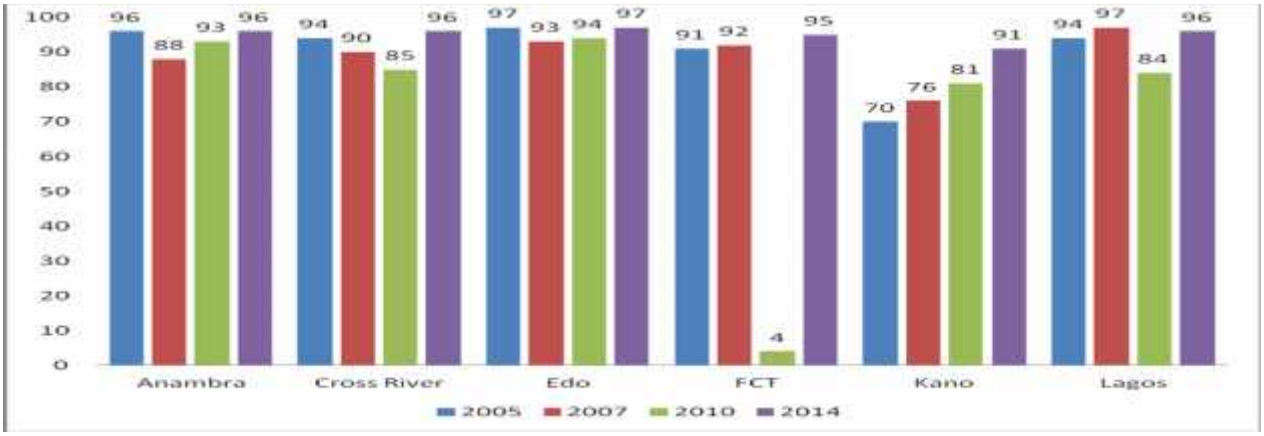

Figure 32: Proportion of FWSS Reporting Consistent condom use with clients in the preceding one month prior to survey by state; IBBSS, Nigeria (2005-2014)

Figure 33 shows an increase in the proportion of MSM who reported using condom consistently with non-paying partner in the preceding month to the survey between 2010 and 2014.

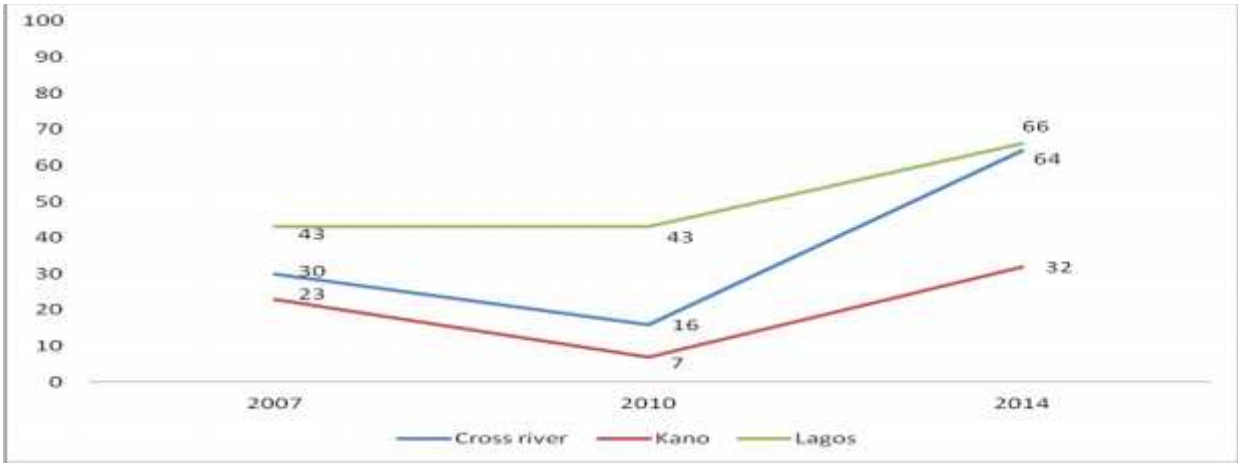

Figure 33: Proportion of MSM Reporting consistent condom use with non-paying partners in the preceding one month to survey date by state (IBBSS, 2005-2014)

3.5.9.7 Ability to convince partner to use condom every time they had sex

Figure 34 shows that the BBFWSS, NBBFWSS and MSM could convince their casual partners most compared to the other three sex partners' categories. But it was the commercial sex partners that the Armed Forces respondents, Police respondents, PWID and transport workers could convince the most.

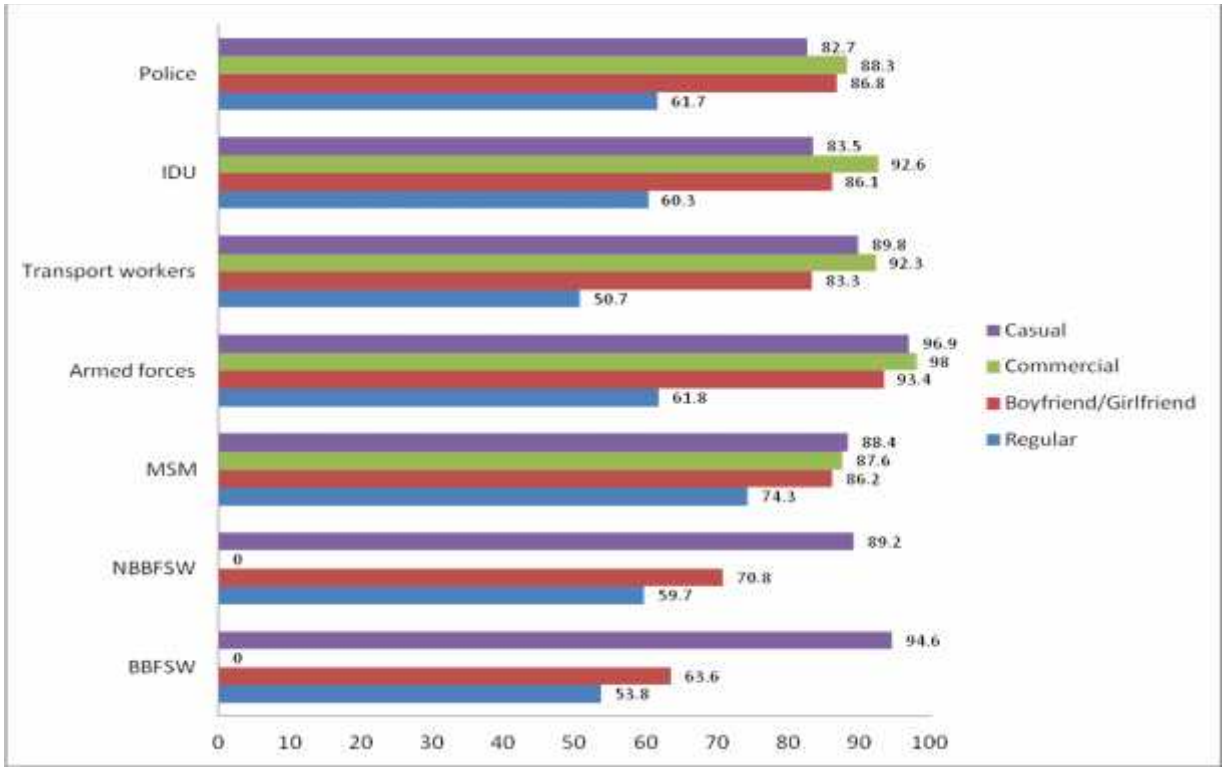

Figure 34: Percentage distribution of vulnerable who had confidence to convince partner to use condom by type of partner; Nigeria, IBBSS, 2014

3.6 SEXUALLY TRANSMITTED INFECTIONS

3.6.1 Awareness of STIs

Figure 35 and Table 39, shows the percentage of each vulnerable group that is aware of STIs. Overall, 92% of the vulnerable groups were aware of STIs. But the MSM, non-brothel based and Armed forces (94 %) had the highest proportion who had ever heard of STIs while the transport workers (84 %) were the least. Generally, awareness of STIs was higher among people with higher level of education across all target groups.

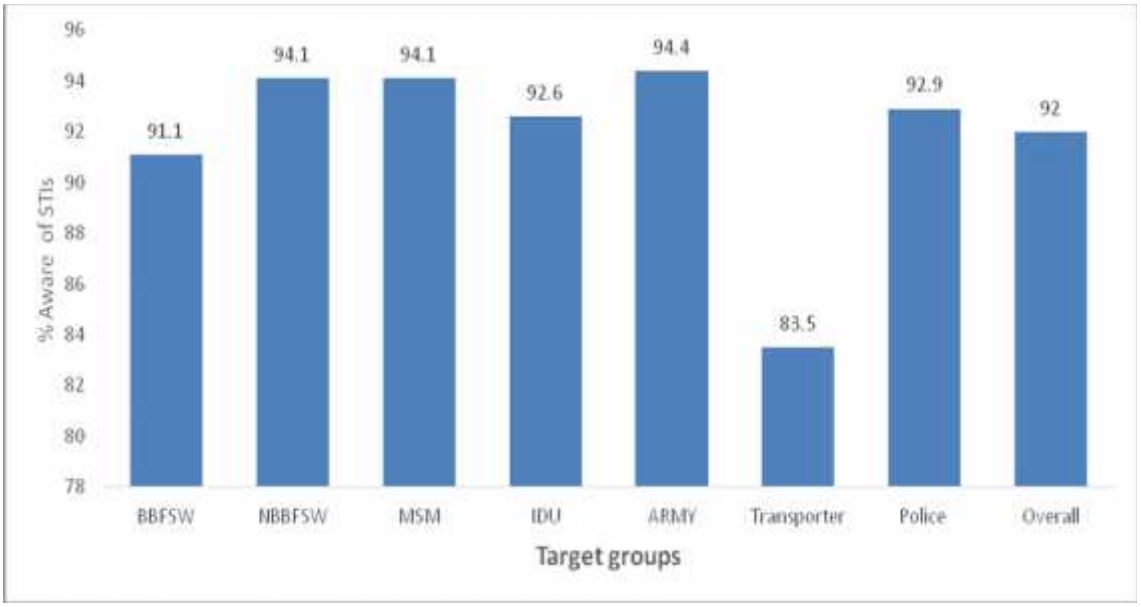

Figure 35: Percentage of Female who sell sex, MSM and PWID who had ever heard of sexually transmitted diseases (STI); IBBSS, Nigeria, 2014

Table 39: Percentage distribution of Female who sell sex, MSM and PWID who had ever heard of sexually transmitted diseases (STI) by selected characteristics; Nigeria, IBBSS, 2014

	BBFWSS		NBBFWSS		MSM		PWID	
	Ever heard of disease transmitted through sex							
Demographic characteristics	%	N	%	N	%	N	%	N
Age in years								
15-19	86.2	203	88.3	343	90.2	754	87.6	169
20-24	88.5	999	94.4	1521	94.5	165	91.9	816
25+	92.4	2866	94.8	2035	95.9	118	93.3	2140
Sex								
Male	-	-	-	-	94.1	359	93.2	2908
Female	91.1	4068	94.1	4068	-	-	85.3	217
Educational level								
No formal education	91.5	260	94.7	75	83.3	12	87.5	32
Primary education	91.1	832	93.5	415	87.6	250	88.9	441
Secondary education	90.8	2723	93.7	2644	93.4	233	92.3	2056
Tertiary education	94.1	253	95.7	765	97.5	992	96.8	596
Marital Status								
Currently married, living with	78.0	59	91.0	78	96.8	158	92.4	684
spouse Currently married, living with other sexual partner	94.7	19	100	7	100.0	11	95.7	23
Currently married, not living with spouse/other sexual partner	94.1	68	96.6	29	95.5	22	87.8	74
Not married living with sexual partner	92.7	357	93.3	358	89.6	241	94.5	165
Not married, not living with sexual partner	91.1	3565	94.2	3427	94.2	3160	92.7	2179
Total	**91.1**	**4068**	**94.1**	**3899**	**94.1**	**359**	**92.6**	**3125**

Table 40: Percentage distribution of Armed Forces, Police and Transport Workers who had ever heard of sexually transmitted diseases (STIs) by selected characteristics; Nigeria, IBBSS, 2014

	Armed Forces		Transport Workers		Police	
	Ever heard of disease transmitted through sex					
Demographic characteristics	%	N	%	n	%	n
Age in years						
15-19	78.9	19	74.1	58	-	1
20-24	89.2	380	75.1	277	77.3	44
25+	95.4	2222	84.8	2344	93.2	2629
Sex						
Male	94.3	2348	83.5	2679	92.8	1999
Female	95.2	273			93.3	675
Educational level						
No formal education	88.9	9	57.0	79		
Primary education	89.0	73	80.5	873	84.4	154
Secondary education	93.1	1484	86.8	1420	91.8	1495
Tertiary education	96.6	1055	84.0	307	95.9	1025
Marital Status						
Currently married, living with spouse	95.1	1454	83.9	1685	92.5	1815
Currently married, living with other sexual partner	97.3	37	75.0	8	95.1	61
Currently married, not living with spouse/other sexual partner	97.0	296	75.8	62	96.5	259
Not married living with sexual partner	90.5	63	85.3	102	91.8	85
Not married, not living with sexual partner	92.2	771	83.3	822	92.7	454
Total	**94.4**	**2621**	**83.5**	**2679**	**92.9**	**2674**

3.6.2 Armed Forces, Police and Transport Workers

There was high awareness of STIs among members of the Armed Forces (94%). Members of the Armed Forces who were above 25 years of age and those with higher level of education had the highest proportions of awareness of STIs as shown in Table 8.2.

The awareness level among the Police (93%) was slightly lower than that of the Armed Forces. Again, there were no appreciable differences in the proportions of those who were aware of STI in the different categories of the selected characteristics of the Police.

The Transport Workers had the least proportion (84%) of awareness of STIs. Police in the higher age groups and those with high level of education recorded the highest level of proportions of awareness of STIs.

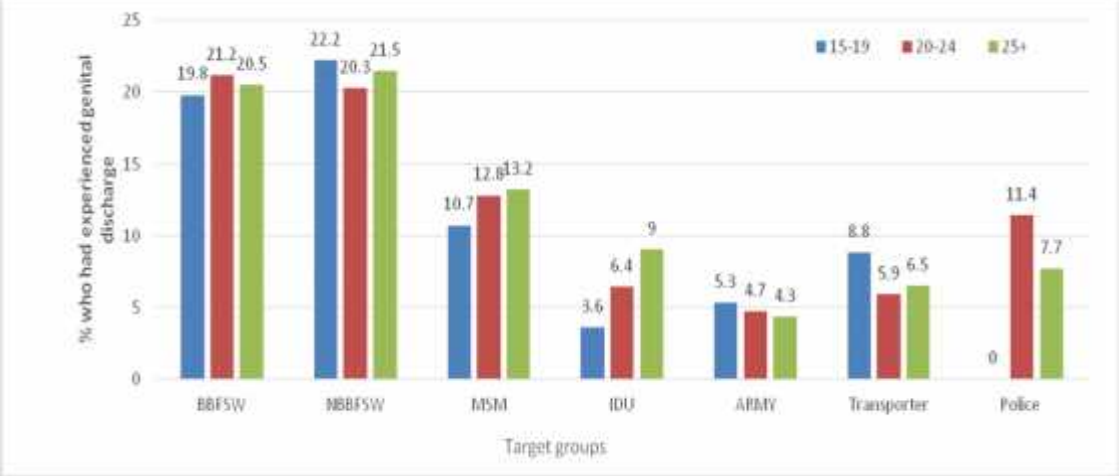

Figure 36: Percentage distribution of each vulnerable group who had genital discharge by age; Nigeria, IBBSS, 2014

3.6.3 Knowledge of symptoms of STIs

Figure 36 shows the percentage distribution of respondents who had genital discharge in the past 12 months prior to the survey date among the vulnerable groups.

3.6.4 Genital discharge

3.6.4.1 Females who sell sex

The results presented in Table 41 shows that 21% of brothel and non-brothel based FWSS had experienced unusual genital discharge within the last 12 months prior to the survey.

3.6.4.2 Men having sex with Men (MSM) and People who inject Drugs (PWID)

About 13% of the MSM and 8% of PWID had experienced unusual genital discharge within the last 12 months prior to the survey date (Table 42). It was higher among the few female PWID (19%) than their male counterparts (7%).

Table 41: Percentage distribution of Females who sell Sex, MSM and PWID who had experienced Genital Discharge among those who had heard of STI by selected characteristics; Nigeria, IBBSS, 2014

	BBFWSS		NBBFWSS		MSM		PWID	
	Had unusual genital Discharge							
Characteristics	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**
Age group								
15-19	19.8	202	22.2	342	10.7	755	3.6	169
20-24	21.2	994	20.3	151	12.8	1654	6.4	816
25+	20.5	2861	21.5	203	13.2	1192	9.0	2148
Sex								
Male	-	-	-	-	12.5	3601	7.2	2916
Female	20.7	4057	21.0	389	-	-	18.9	217
Educational Level								
No formal education	18.5	259	26.7	75	0.0	12	15.6	32
Primary education	20.0	827	20.4	412	19.7	249	10.1	445
Secondary education	20.6	2718	21.1	264	12.1	2348	6.7	2061
Tertiary education	25.7	253	20.8	761	11.9	992	10.4	595
Marital Status								
Currently married, living with	16.9	59	14.3	77	13.8	159	7.2	685
spouse Currently married, living with other sexual partner	36.8	19	28.6	7	27.3	11	21.7	23
Currently married, not living with spouse/other sexual partner	20.6	68	32.1	28	0.0	22	9.5	74
Not married living with sexual partner	27.2	357	24.9	361	21.9	242	13.9	165
Not married, not living with sexual partner	20.0	3554	20.7	3419	11.7	3167	7.6	2186
Total	**20.7**	**4068**	**21.0**	**389**	**12.5**	**3601**	**8.0**	**3133**

3.6.4.3 Male-dominated Occupational Groups-Army, Transport Workers and Police

Table 42 showed the percentage distribution of Armed Forces, Police and transport workers who experiences genital discharge in the last month preceding the survey. The percentages range from 4.3% among member of the armed forces to 7.7% among the police. Female members of this group reported to have higher percentage of genital discharge compare to their male counterpart. No definite pattern seen in the age group and Educational level of these groups.

Table 42: Percentage distribution of Armed Forces, Police and Transport workers who experienced Genital Discharge among by selected characteristics; Nigeria, IBBSS, 2014

Demographic characteristics	Armed Forces		Transport Workers		Police	
	Had unusual genital Discharge					
	%	N	%	N	%	N
Age group in years						
15-19	5.3	19	8.8	57	0.0	1
20-24	4.7	379	5.9	269	11.4	44
25-49	4.3	2226	6.5	2333	7.7	2633
Sex						
Male	3.5	2351	6.5	2659	4.4	2002
Female	11.4	273	-	-	17.6	676
Educational Level						
No formal education	0.0	8	10.4	77	-	-
Primary education	1.4	73	6.1	866	2.0	153
Secondary education	4.6	1484	6.8	1411	8.5	1499
Tertiary education	4.2	1059	4.9	305	7.4	1026
Marital Status						
Currently married living spouse	3.6	157	5.9	1670	7.0	1819
Currently married living with other sexual partner	5.4	37	0.0	9	9.8	61
Currently married, not living with spouse/other sexual partner	4.7	295	4.9	61	8.8	260
Not married living with sexual partner	9.7	62	7.8	102	10.6	85
Not married, not living with sexual partner	5.2	773	7.7	817	9.1	453
Total	**4.3**	**2624**	**6.7**	**2659**	**7.7**	**2678**

3.6.4.4 Genital Ulcer/Sore

Table 43 below describes the percentage of KAP who experienced genital ulcer/sore 12 months preceding the survey. The percentage was highest among BBFWSS (7.2%) and lowest among MSM (4.6%). Those with no formal education among BBFWSS, NBBFWSS and PWID have the higher percentage of genital ulcer/sore reported (8.9%, 17.8% and 9.4% respectively) compared with those with primary or higher education.

Table 43: Percentage distribution of BBFWSS, NBBFWSS, MSM and PWID who had experienced Genital Ulcer/Sore among those who had heard of STI by selected characteristics; Nigeria, IBBSS, 2014

Demographic characteristics	BBFWSS		NBBFWSS		MSM		PWID	
	Had a genital ulcer/sore							
	%	N	%	N	%	N	%	N
Age group in years								
15-19	4.0	202	9.4	342	4.5	755	3.6	169
20-24	6.7	996	6.4	1514	4.5	1654	3.4	816
25+	7.4	2860	6.7	2027	4.9	1193	7.7	2149
Sex								
Male	-	-	-	-	4.6	3602	5.6	2917
Female	7.1	4058	6.8	3883	-	-	17.5	217
Educational Level								
No formal education	8.9	259	17.8	73	0.0	12	9.4	32
Primary education	8.0	830	7.3	412	5.6	250	8.1	445
Secondary education	6.7	2717	6.4	2638	4.6	2347	5.6	2060
Tertiary education	6.0	252	7.0	760	4.5	993	7.5	597
Marital Status								
Currently married, living with spouse	6.8	59	4.0	75	5.0	159	8.0	685
Living with other sexual partner	15.8	19	0.0	7	27.3	11	13.0	23
Currently married, not living with spouse/other sexual partner	7.4	68	3.4	29	0.0	22	9.5	74
Not married living with sexual partner	7.8	357	6.7	360	8.3	242	9.7	165
Not married, not living with sexual partner	6.9	3555	6.9	3412	4.3	3168	5.4	2187
Total	**7.2**	**4058**	**6.8**	**3883**	**4.6**	**3602**	**6.4**	**3134**

Figure 37: Percentage distribution of vulnerable groups who had Genital Ulcer/Sore by age; Nigeria, IBBSS, 2014

Table 44: Percentage distribution of Armed Forces, Police and Transport Workers who had experienced Genital Ulcer/Sore among those who had heard of STI by selected characteristics; Nigeria, IBBSS, 2014

Demographic characteristics	Armed Forces		Transport Workers		Police	
	Had a genital ulcer/sore					
	%	N	%	N	%	N
Age group in years						
15-19	5.3	19	1.8	57	0.0	1
20-24	1.6	379	2.2	269	9.3	43
25+	1.1	2227	1.7	2333	2.2	2629
Educational Level						
No formal education	0.0	9	1.3	77	-	-
Primary education	1.4	73	1.7	867	0.0	153
Secondary education	1.3	1484	1.8	1410	2.5	1497
Tertiary education	1.0	1059	2.0	305	2.3	1023
Marital Status						
Currently married living with spouse	1.0	1458	1.3	1670	1.9	1782
Currently married living with other sexual partner	0.0	37	0.0	9	8.2	56
Currently married, not living with spouse/other sexual partner	1.0	295	1.6	61	2.7	252
Not married living with sexual partner	3.2	62	1.0	102	3.5	82
Not married, not living with sexual partner	1.4	773	2.8	817	2.7	439
Total	**1.1**	**2625**	**1.8**	**2659**	**2.3**	**2673**

3.6.5 Sources of treatment for STIs

Figure 38 shows the proportion of the vulnerable groups patronizing identified sources of treatment for STIs. The commonest was the pharmacy or chemist patronized by 32% of all vulnerable groups. This is followed by private hospital or clinic (26%). The least source patronized by only 1.3% of all the respondents was 'friend'.

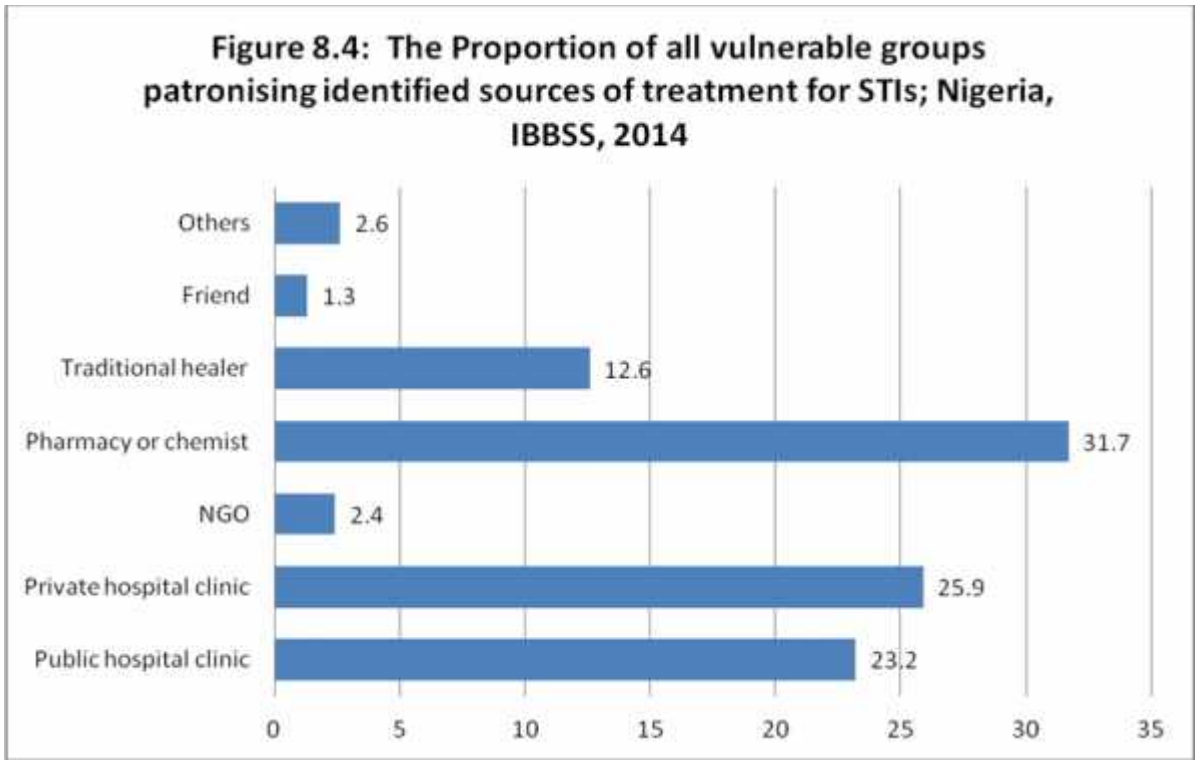

Figure 38: Proportion of all vulnerable groups patronising identified sources of treatment for STIs, Nigeria, IBBSS, 2014.

3.6.5.1 Females Who Sell Sex – Brothel-based and Non brothel-based

Table 45 shows that the pharmacy or chemist was the most patronized source by the brothel based FWSS (36%) for STI treatment in the last 12 months prior to the survey, next to it was the private hospital/clinic visited by about 30% while 22% of them obtained treatment from a public hospital/clinic. The least patronized were NGOs reported by 0.7% of the BBFWSS while about 9% consulted traditional healers for treatment.

Table 46 revealed NBBFWSS has a similar pattern of the sources for STI treatment as the chemist or pharmacy was the most patronized (33%) followed by private hospital/clinic (26%) and public hospital/clinic (23%). The least source was friend reported by only 1.3%. About 13% reported patronizing the traditional healers.

Table 45: Percentage distribution of STI treatment sources patronized by BBFWSS among those who had STI symptoms by selected characteristics; Nigeria, IBBSS, 2014.

	Brothel based FWSS							
Demographic characteristics	**Public hospital clinic**	**Private hospital clinic**	**NGO**	**Pharmacy or chemist**	**Traditional healer**	**Friend**	**Others**	**Total**
Age group in years								
15-19	23.1	26.9	0.00.	38.5	11.5	0.00.0	0.0	26
20-24	20.6	29.4	0.00.	38.2	9.4	1.2	1.2	170
25-49	22.9	30.1	1.0	34.5	8.6	1.0	2.1	525
50+	-	-	-	-	-	-	-	-
Sex								
Male	-	-	-	-	-	-	-	-
Female	22.3	29.8	0.7	35.5	8.9	1.0	1.8	721
Educational Level								
No formal education	25.6	16.3	2.3	37.2	16.3	0.0	2.3	43
Primary education	21.2	30.7	1.5	35.0	10.2	0.0	1.5	137
Secondary education	22.2	30.1	0.2	36.6	7.5	1.2	2.1	481
Tertiary education	23.3	35.0	1.7	26.7	11.7	1.7	0.0	60
Marital Status								
Currently married, living with spouse	20.6	34.9	0.6	33.4	8.7	0.6	1.2	335
Currently married, living with other sexual partner	25.0	0.0	0.0	62.5	0.0	0.0	12.5	8
Currently married, not living with other sexual partner	20.0	40.0	0.0	20.0	20.0	0.0	0.0	5
Not married living with sexual partner	27.3	27.3	0.0	36.4	9.1	0.0	0.0	11
	23.5	25.7	0.8	37.2	9.2	1.4	2.2	358
Total	**22.3**	**29.8**	**0.7**	**35.5**	**8.9**	**1.0**	**1.8**	**721**

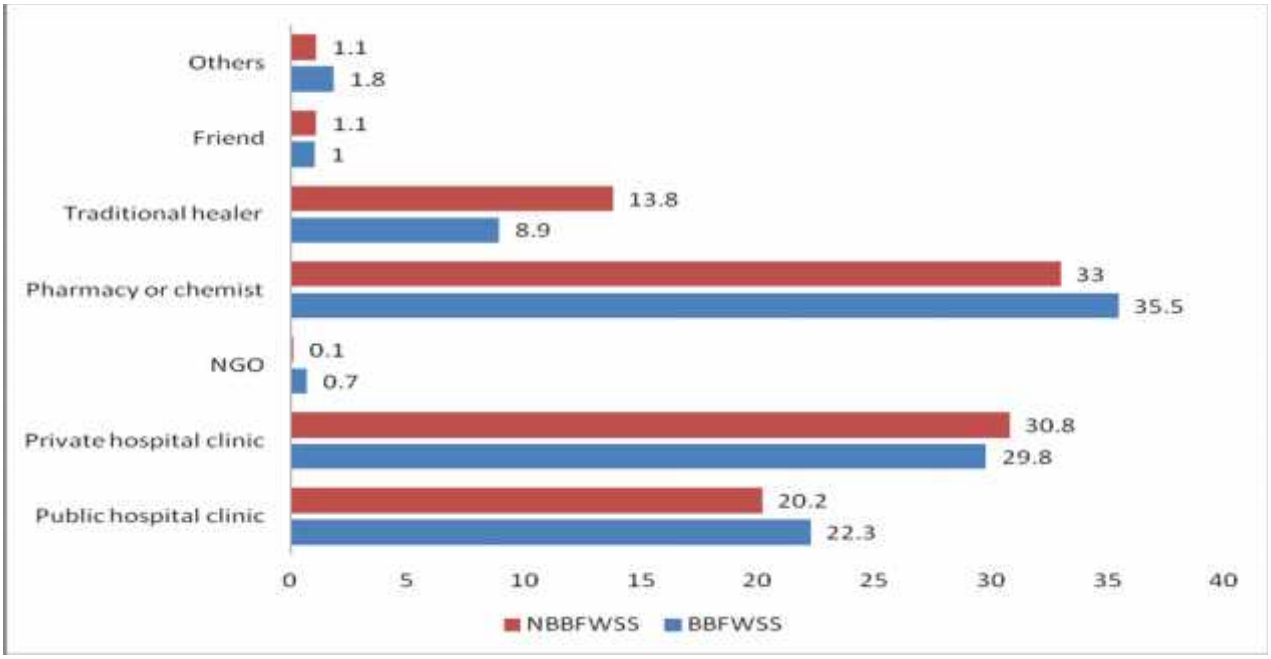

Figure 39: Proportion of BBFWSS and NBBFWSS patronising identified sources of treatment for STIs; Nigeria, IBBSS 2014

Table 46: Percentage distribution of Non-Brothel based females who sell sex by sources of treatment for STIs during last 12months among those who had the symptoms according to selected characteristics; Nigeria, IBBSS, 2014

	Non Brothel based FWSS							
Demographic characteristics	**Public hospital clinic**	**Private hospital clinic**	**NGO**	**Pharmacy or chemist**	**Traditional healer**	**Friend**	**Others**	**Total**
Age group in years								
15-19	18.6	32.9	0.0	32.9	15.7	0.0	0.0	70
20-24	17.6	30.9	0.0	34.5	14.0	1.1	1.1	278
25+	22.2	30.3	0.2	32.0	13.3	1.2	0.7	406
Educational Level								
No formal education	10.5	21.1	0.0	36.8	26.3	0.0	0.0	19
Primary education	21.3	25.0	0.0	38.8	13.8	0.0	1.2	80
Secondary education	21.5	28.7	0.2	31.9	15.7	1.0	0.8	508
Tertiary education	16.3	42.2	0.0	33.3	5.4	2.0	0.7	147
Marital Status								
Currently married living with	28.6	21.4	0.0	7.1	42.9	0.0	0.0	14
spouse Currently married living with other sexual partner	0.0	0.0	0.0	100.0	0.0	0.0	0.0	1
Currently married, not living with other sexual partner	28.6	0.0	0.0	57.1	14.3	0.0	0.0	7
Not married living with sexual partner	27.1	31.8	0.0	24.7	16.5	0.0	0.9	85
Not married, not living with sexual partner	19.0	31.2	0.2	34.3	12.8	1.2	0.8	647
Total	**20.2**	**30.8**	**0.1**	**33.0**	**13.8**	**1.1**	**1.1**	**754**

3.6.5.2 MSM

Table 47 shows that the pharmacy or chemist and public hospitals/clinics were the commonest sources of treatment patronized by about a quarter of the MSM followed by the private hospitals/clinics used by about a fifth of them. The proportion of MSM patronizing each identified sources of treatment for STIs is illustrated in Figure 40.

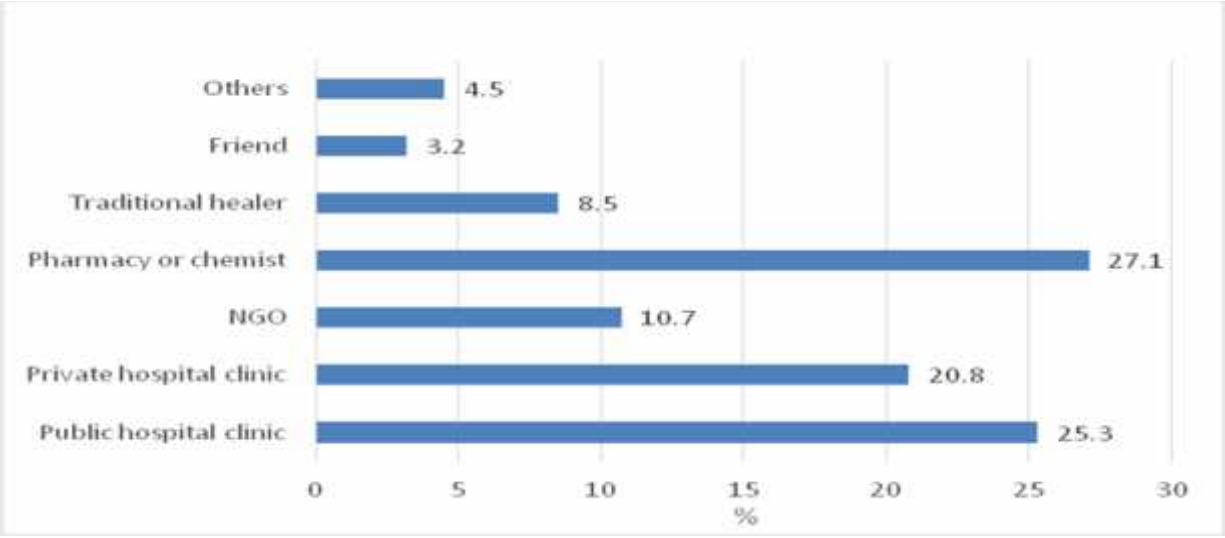

Figure 40: Proportion of MSM patronizing each identified source of STI treatment; Nigeria, IBBSS, 2014

Table 47: Percentage distribution of Men having Sex with Men's sources of treatment for STIs among those who had the symptoms according to selected characteristics; Nigeria, IBBSS, 2014

	MSM							
Characteristics	**Public hospital clinic**	**Private hospital clinic**	**NGO**	**Pharmacy or chemist**	**Traditional healer**	**Friend**	**Others**	**n**
Age in years								
15-19	19.8	28.4	3.7	25.9	12.3	6.2	3.7	81
20-24	26.7	21.6	9.5	26.7	7.8	3.0	4.7	232
25+	25.9	16.6	15.0	28.0	8.5	2.1	4.7	193
Sex								
Male	25.3	20.8	10.7	27.1	8.5	3.2	4.5	506
Female	-	-	-	-	-	-	-	-
Educational Level								
No formal education								
Primary education	30.3	18.2	18.2	15.2	18.2	0.0	0.0	33
Secondary Education	23.4	22.1	6.4	30.5	9.3	4.0	4.4	321
Tertiary education	28.3	18.4	18.4	22.4	4.6	2.0	5.9	152
Marital Status								
Currently married living with spouse	21.9	21.5	12.5	37.5	9.4	0.0	6.2	32
Currently married, living with other sexual partner	33.3	33.3	0.0	0.0	0.0	33.3	0.0	3
Currently married, not living with other sexual partner	0.0	0.0	50.0	50.0	0.0	0.0	0.0	2
Not married living with sexual partner	25.0	11.1	11.1	27.8	16.7	8.3	0.0	36
Not married, Not living with sexual partner	25.6	22.2	10.4	26.3	7.9	2.8	4.8	433
Total	**25.3**	**20.8**	**10.7**	**27.1**	**8.5**	**3.2**	**4.5**	**506**

3.6.5.3 PWID

Table 48 shows that the sources of treatment by people who inject drugs were similar to those of MSM as 31% sought treatment from pharmacy or chemist. However, about 17% obtained treatments from private hospitals/clinics.

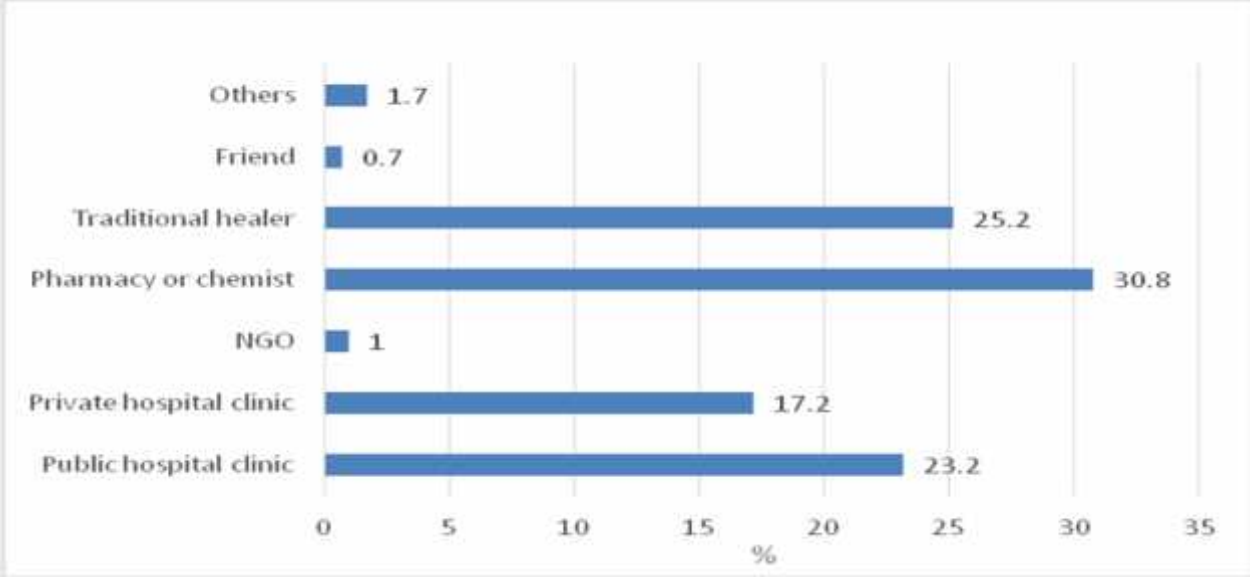

Figure 41: Proportion of PWID patronizing each identified source of STI treatment of HIV/AIDS; Nigeria, IBBSS, 2014

Table 48: Percentage distribution of sources of treatment for STIs among those PWID who reported STI symptoms according to selected characteristics; Nigeria, IBBSS, 2014

	PWID							
Characteristics	**Public hospital clinic**	**Private hospital clinic**	**NGO**	**Pharmacy or chemist**	**Traditional healer**	**Friend**	**Others**	**N**
Age in years								
15-19	25.0	0.0	0.0	37.5	37.5	0.0	0.0	8
20-24	21.1	15.8	0.0	38.6	21.1	0.0	3.5	57
25+	23.2	18.1	1.3	28.7	25.7	0.8	1.3	237
Sex								
Male	22.5	15.2	1.2	31.6	28.3	0.8	0.4	244
Female	25.9	25.9	0.0	27.6	12.1	0.0	6.9	58
Educational level								
No formal education	40.0	40.0	0.0	0.0	20.0	0.0	0.0	5
Primary education	22.2	16.7	0.0	25.9	31.5	0.0	1.9	54
Secondary Education	24.4	11.9	1.8	30.4	29.2	0.6	1.8	168
Tertiary education	20.0	28.0	0.0	37.3	12.0	1.3	1.3	75
Marital Status								
Currently married living with spouse	21.7	14.5	0	23.2	37.7	2.9	0.0	69
Currently married, living with other sexual partner	25.0	50.0	0.0	0.0	0.0	0.0	25.0	04
Currently married, not living with other sexual partner	27.3	45.5	0.0	9.1	18.2	0.0	0.0	11
Not married living with sexual partner	16.7	8.3	0.0	58.3	16.7	0.0	0.0	24
Not married, Not living with sexual partner	24.2	17.0	1.5	32.0	22.7	0.0	0.0	194
Total	**23.2**	**17.2**	**1.0**	**30.8**	**25.2**	**0.7**	**1.7**	**291**

3.6.5.4 Armed Forces, Police and Transport Workers

Table 49 shows that about 45% of respondents in the **Armed Forces** who experienced STI sought treatment from public hospitals/clinics. About (20%) patronized pharmacies or chemists. The private hospitals/clinics were patronized by only 13% of the Armed forces. A low percentage (6%) visited traditional healers. Figure 8.8 illustrated the percentage patronizing these identified sources.

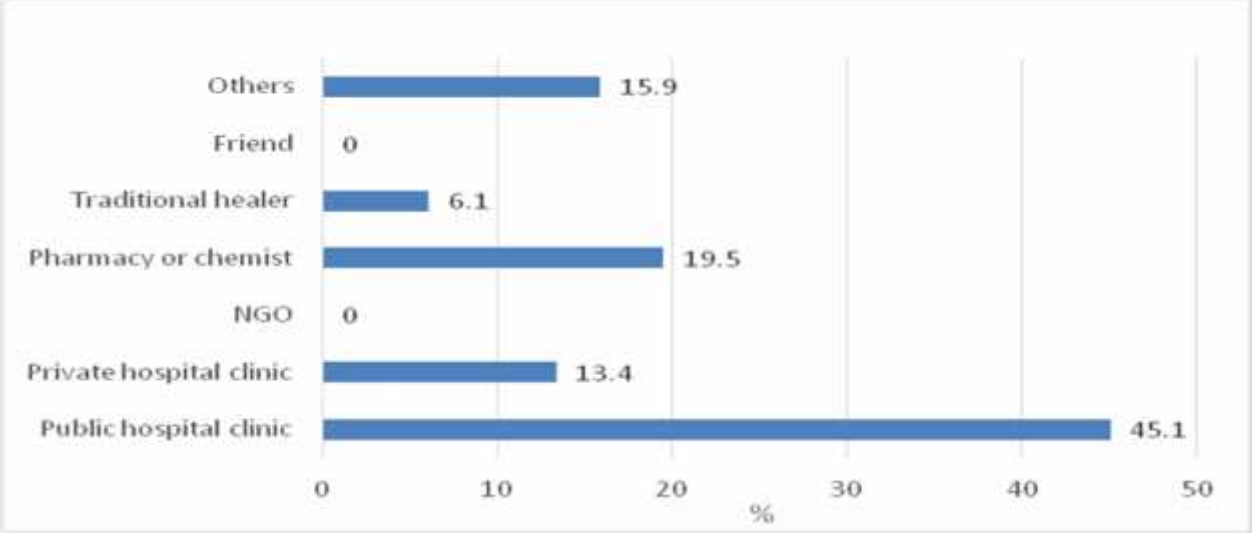

Figure 42b: Proportion of Armed Forces patronizing each identified source for the treatment of STI; Nigeria, IBBSS, 2014

Table 49: Percentage distribution of sources of treatment for STIs among Armed Forces who reported STI symptoms according to selected characteristics; Nigeria, IBBSS, 2014

	Armed forces							
Demographic characteristics	**Public hospital clinic**	**Private hospital clinic**	**NGO**	**Pharmacy or chemist**	**Traditional healer**	**Friend**	**Others**	**n**
Age in years								
15-19	-	-	-	-	-	-	-	-
20-24	35.7	14.3	0.0	14.3	7.1	0.0	28.6	14
25+	47.1	13.2	0.0	20.6	5.9	0.0	13.2	68
Sex								
Male	40.7	13.0	0.0	27.8	9.3	0.0	9.3	54
Female	53.6	14.3	0.0	3.6	0.0	0.0	28.6	28
Educational Level								
No formal education	-	-	-	-	-	-	-	-
Primary education	100.0	0.0	0.0	0.0	0.0	0.0	0.0	1
Secondary Education	35.3	13.7	0.0	25.5	9.8	0.0	15.7	51
Tertiary education	60.0	13.3	0.0	10.0	0.0	0.0	16.7	30
Marital Status								
Currently married	41.7	13.9	0.0	22.2	8.3	0.0	13.9	36
Currently married, living with other sexual partner	50.0	50.0	0.0	0.0	0.0	0.0	0.0	2
Currently married, not living with other sexual partner	55.6	0.0	0.0	11.1	11.1	0.0	22.2	9
Not married living with sexual partner	50.0	16.7	0.0	16.7	0.0	0.0	16.7	6
Not married, Not living with sexual partner	44.8	13.8	0.0	20.7	3.4	0.0	17.2	29
`	**45.1**	**13.4**	**0.0**	**19.5**	**6.1**	**0.0**	**15.9**	**82**

Table 50 and Figure 51 show that the commonest source patronized by a third of the Police respondents was the private hospitals/clinics, while the pharmacy/chemist (28%) and public hospitals/ clinics (28%) were the other major sources used for the treatment of STIs. Only 2% reported using the traditional healers.

Figure 42b: Proportion of Police patronizing each identified source for the treatment of STI; Nigeria, IBBSS, 2014

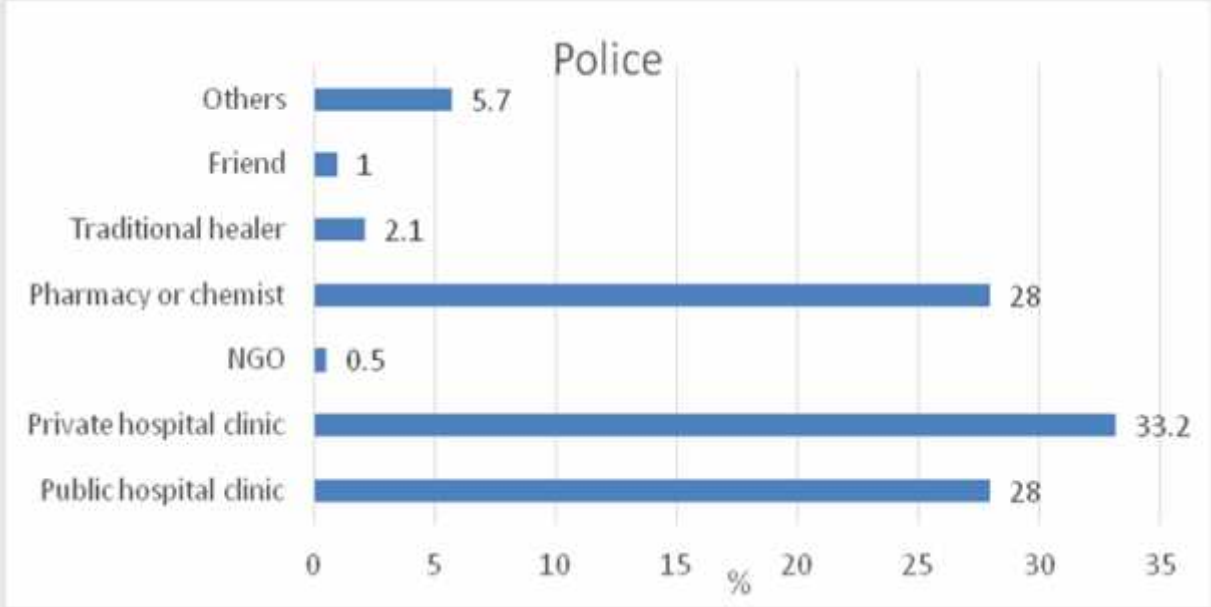

Table 50: Percentage distribution of Police workers' sources of treatment for STIs among those who had the symptoms according to selected characteristics; Nigeria, IBBSS, 2014

Demographic characteristics	Police							
	Public hospital clinic	Private hospital clinic	NGO	Pharmacy or chemist	Traditional healer	Friend	Others	n
Age in years								
15-19	-	-	-	-	-	-	-	-
20-24	25.0	0.0	0.5	50.0	0.0	0.0	25.0	4
25+	28.0	33.9	0.5	27.5	2.1	1.1	5.3	189
Sex								
Male	26.7	26.7	1.2	32.6	4.7	1.2	3.5	86
Female	29.0	38.3	0.0	24.3	0.0	0.9	7.5	107
Education								
No formal education								
Primary education	0.0	25.0	0.0	25.0	0.0	0.0	25.0	4
Secondary Education	29.5	35.2	0.0	26.2	1.6	1.6	4.1	122
Tertiary education	26.9	29.9	1.5	31.3	3.0	0.0	7.5	67
Marital Status								
Currently married living with spouse	27.9	36.1	0.8	23.0	3.3	1.6	4.9	122
Currently married, living with other sexual partner	28.6	28.6	0.0	42.9	0.0	0.0	0.0	7
Currently married, not living with other sexual partner	27.8	22.2	0.0	44.4	0.0	0.0	5.6	18
Not married living with sexual partner	25.0	25.0	0.0	25.0	0.0	0.0	25.0	8
Not married, Not living with sexual partner	28.9	31.6	0.0	34.2	0.0	0.0	5.3	38
Total	**28.0**	**33.2**	**0.5**	**28.0**	**2.1**	**1.0**	**5.7**	**193**

Table 51 shows that the pattern of sources for the treatment of STIs used by the Transport Workers was different from that of the Armed Forces and Police because the pharmacy or chemist (35%) and the traditional healers (30%) were their most reported choices as shown in

Figure 44. Less than a fifth sought treatment from public hospitals/clinics (18%) and the private hospitals/clinics (15%).

Table 51: Percentage distribution of Transport Workers' sources of treatment for STIs among those who had the symptoms according to selected characteristics; Nigeria, IBBSS, 2014

Demographic characteristics	Transport Workers							
	Public hospital clinic	Private hospital clinic	NGO	Pharmacy or chemist	Traditional healer	Friend	Others	n
Age in years								
15-19	0.0	0.0	0.0	0.0	100.0	0.0	0.0	2
20-24	16.7	8.3	0.0	33.3	33.3	0.0	8.3	12
25+	18.5	16.3	0.0	35.6	28.9	0.7	0.0	135
Sex								
Male	18.1	14.3	0.0	34.9	30.2	0.7	0.7	149
Female	-	-	-	-	-	-	-	-
Education								
No formal education	20.0	0.0	0.0	60.0	20.0	0.0	0.0	5
Primary education	9.3	14.0	0.0	32.6	39.5	2.3	2.3	43
Secondary Education	21.1	13.3	0.0	37.8	27.8	0.0	0.0	90
Tertiary education	27.3	45.5	0.0	9.1	18.2	0.0	0.0	11
Marital Status								
Currently married living with spouse	18.7	13.2	0.0	35.2	33.0	0.0	0.0	91
Currently married, living with other sexual partner	0.0	0.0	0.0	50.0	50.0	0.0	0.0	2
Currently married, not living with other sexual partner	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Not married living with sexual partner	16.0	16.7	0.0	16.7	33.3	0.0	0.0	6
Not married, Not living with sexual partner	20.8	20.0	0.0	36.0	27.1	2.0	2.0	50
Total	**18.1**	**15.4**	**0.0**	**34.9**	**30.2**	**0.7**	**0.7**	**149**

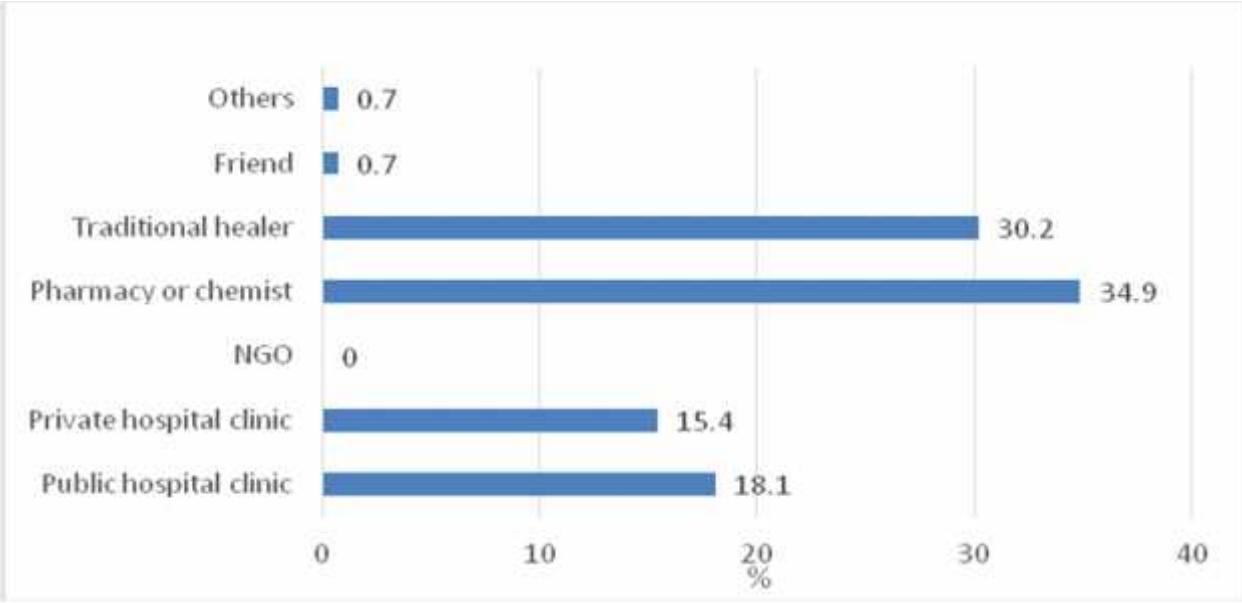

Figure 42: Proportion of Transport Workers patronizing each identified source for the

CONCLUSION

Regardless of the vulnerable group, the findings showed that the pharmacies/chemists (32%) followed by private hospitals/clinics (26%), public hospital/clinics (23%) and traditional healers (13%) were the main sources patronized for the treatment of genital discharge and/or genital sore the last time respondents from the Armed Forces or Police or Transport Workers had them. While most of the Armed Forces respondents patronized the public hospitals/clinics, those in the Police and PWID patronized private hospitals/clinics while the FWSS (brothel or non-brothel based) and transport workers used the pharmacies/chemists. The Transport Workers also constituted the highest vulnerable group using traditional healers.

3.7 ATTITUDES TOWARDS PEOPLE LIVING WITH HIV & AIDS

3.7.1 Females who sell Sex (FWSS)

The attitudes of the females who sell sex (FWSS) towards people living with HIV & AIDS (PLHIV) as indicated by several scenarios are shown in Tables 9.1 and 9.2. The proportion of brothel based FWSS (91%) who reported that they are willing to take care of people living with HIV & AIDS was similar to the non-brothel based FWSS (92%). However, a slightly lower proportion of brothel based FWSS (87%) compared to 90% of non-brothel based FWSS would support that HIV infected students be allowed to attend school with others. Also, a high proportion (85%) of brothel-based and 88% of non brothel-based FWSS were of the opinion that teachers infected with HIV should continue teaching in schools. Examining these three indicators (Care for PLHIV, should HIV positive student be allowed schooling and should HIV positive teacher be allowed to teach), brothel based FWSS from Benue, Kaduna, Kano and Lagos States have the highest proportion with positive attitudes towards PLHIV while, those from Anambra, Oyo and Rivers States had the least proportion though above 75%. For non-brothel based FWSS, Kaduna State had the highest proportions that showed positive attitudes towards PLHIV while those with least positive attitudes were from Oyo State. Table 54 also shows that respondents less than 20 years of age appeared to have lower proportions with positive attitudes based on these three indicators.

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Table 52: Percentage distribution of Females who sell Sex according to attitudes or opinions towards People Living with HIV & AIDS (PLHIV) by selected characteristics; Nigeria, IBBSS, 2014

Characteristics	Attitudes towards PLHIV							
	Brothel based FWSS				Non-Brothel –based FWSS			
	Care for PLHIV	Should HIV positive student be allowed in school	Should HIV positive teacher be allowed to teach	Total	Care for PLHIV	Should HIV positive student be allowed in school	Should HIV positive teacher be allowed to teach	Total
Age group in years								
15-19	86.6	79.1	76.2	202	90.2	86.1	84.9	338
20-24	90.8	83.1	81.4	999	91.7	89.6	87.8	1504
25-49	92.1	88.7	86.4	2850	92.0	90.4	88.5	2019
State								
Abia	93.3	90.3	87.2	268	94.8	95.9	93.7	272
Anambra	88.7	86.3	68.3	300	93.6	89.3	88.0	300
Benue	99.3	97.0	97.0	300	90.3	94.6	89.9	298
Cross-river	92.1	78.9	77.2	254	95.0	88.8	85.7	161
Edo	90.5	83.5	83.2	298	91.6	84.9	86.6	299
Enugu	91.6	80.2	84.3	274	91.6	81.9	84.5	242
FCT	94.9	85.7	87.6	293	96.5	90.0	89.3	291
Kaduna	97.0	96.0	95.3	299	97.3	99.3	99.7	296
Kano	95.9	93.9	94.2	292	95.3	91.1	70.7	262
Lagos	93.8	93.8	94.1	293	98.0	93.0	93.3	300
Nasarawa	88.6	83.2	81.8	299	92.9	89.9	92.6	285
Oyo	78.9	77.9	72.8	298	60.8	71.3	70.0	288
Rivers	83.3	78.6	72.4	296	91.8	89.7	87.9	286
Taraba	94.0	89.6	89.3	299	95.6	94.6	94.9	296
TOTAL	91.5	86.8	84.7	4063	91.7	89.7	87.9	3876

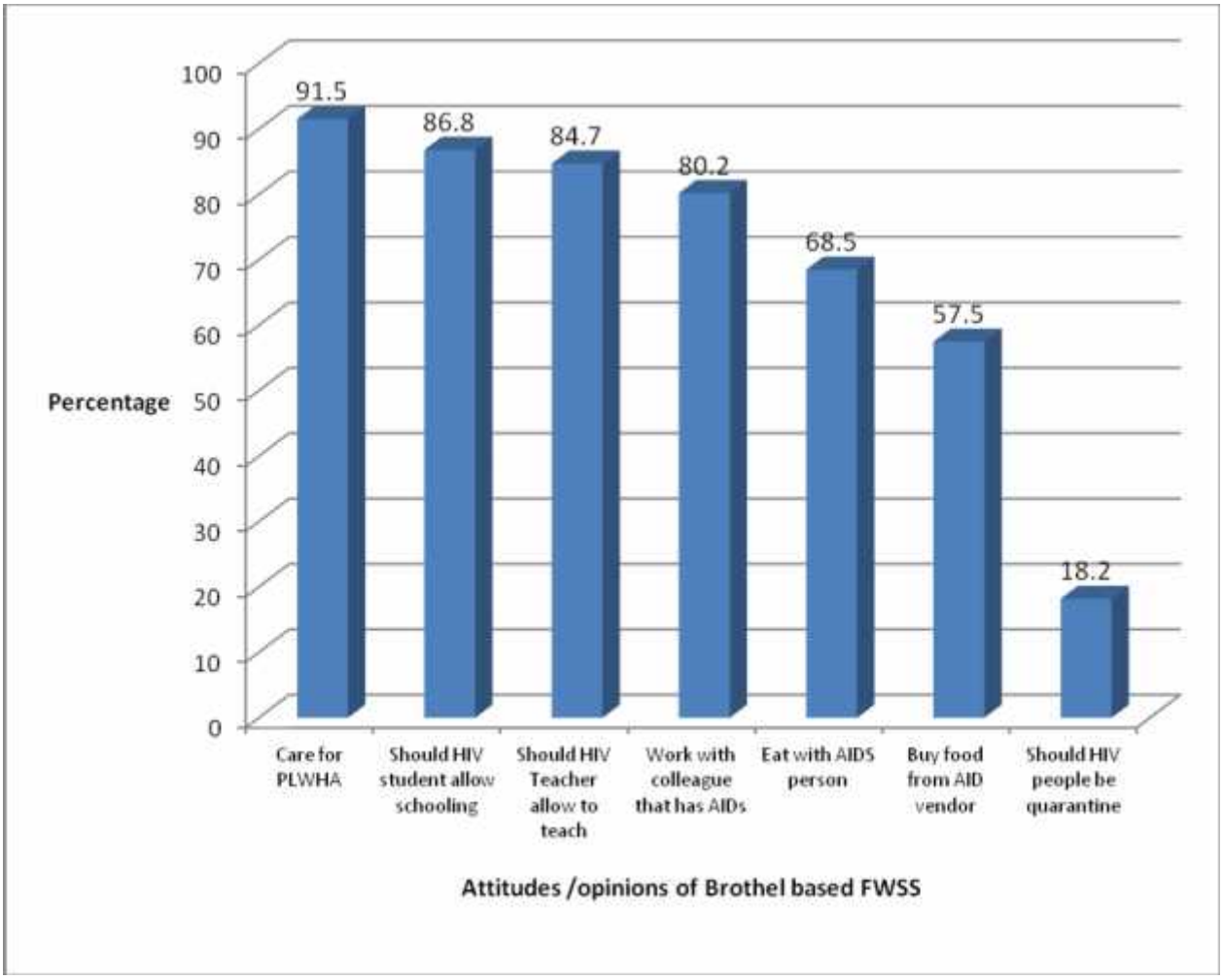

Figure 43: Percentage distribution of Brothel Based FWSS' attitude and opinions towards PLWHA; Nigeria, IBBSS, 2014

From Table 53 shown below, the proportion of brothel based FWSS was similar to non- brothel based FWSS counterparts in terms of the indicators: willingness to buy food from HIV infected food seller (58%), willingness to eat with persons infected with HIV (68%) and willingness to work with HIV infected colleagues (82%). However, less than 20% of brothel based FWSS (18%) and non-brothel based FWSS (15%) were of the negative opinion that HIV infected persons should be quarantined.

For brothel based FWSS, it appeared that older respondents had higher proportion with positive attitudes to PLHIV while no appreciable age differentials was observed among the non-brothel-based FWSS.

Table 53: Percentage distribution of attitudes of Female who sell Sex towards people living with HIV & AIDS by selected characteristics; Nigeria, IBBSS, 2014

	Attitudes towards PLWHA									
Characteristics	Brothel based					Non-Brothel –based				
	Buy food from AIDS vendor	Eat with AIDS person	Work with colleague That has AIDs	Should HIV people be quarantine	Total	Buy food from AIDS vendor	Eat with AIDS person	Work with AIDS colleague	Should HIV people be quarantined	Total
Age group in years										
15-19	53.5	57.5	67.3	31.2	202	59.2	64.6	78.6	16.9	338
20-24	52.3	64.8	76.1	20.8	999	56.2	68.1	82.4	14.8	1511
25-49	59.6	70.6	82.5	16.3	2862	59.3	68.8	82.0	15.2	2027
State										
Abia	47.2	57.1	75.3	8.2	269	45.4	47.6	77.9	4.8	276
Anambra	39.3	39.1	70.0	10.7	300	51.5	69.9	86.6	8.4	302
Benue	94.0	87.0	98.3	4.3	300	85.9	81.5	94.0	3.0	299
Cross-river	58.3	54.7	73.1	39.8	255	62.1	62.7	74.5	27.3	165
Edo	49.8	71.3	76.1	15.5	298	54.8	71.1	70.9	11.7	301
Enugu	57.1	67.2	77.7	12.0	274	44.4	58.6	76.9	11.8	251
FCT	59.8	83.4	91.4	8.6	298	48.1	77.8	90.7	18.1	301
Kaduna	66.9	82..6	93.0	8.4	299	70.9	84.1	98.6	6.8	298
Kano	75.1	75.8	78.5	9.6	299	65.3	61.3	58.7	31.3	276
Lagos	38.6	79.7	84.8	32.1	296	28.3	59.0	81.0	8.0	300
Nasarawa	53.7	61.1	82.8	21.7	300	84.5	80.5	92.3	11.3	300
Oyo	35.2	54.4	69.4	21.8	300	33.4	42.5	65.2	18.5	292
Rivers	46.4	59.7	61.6	50.8	302	47.5	59.8	78.1	51.4	301
Taraba	82.3	83.9	88.3	13.1	300	90.2	89.2	93.6	8.4	297
Total	**57.5**	**68.5**	**80.2**	**18.2**	**4090**	**58.1**	**68.1**	**81.9**	**15.2**	**3959**

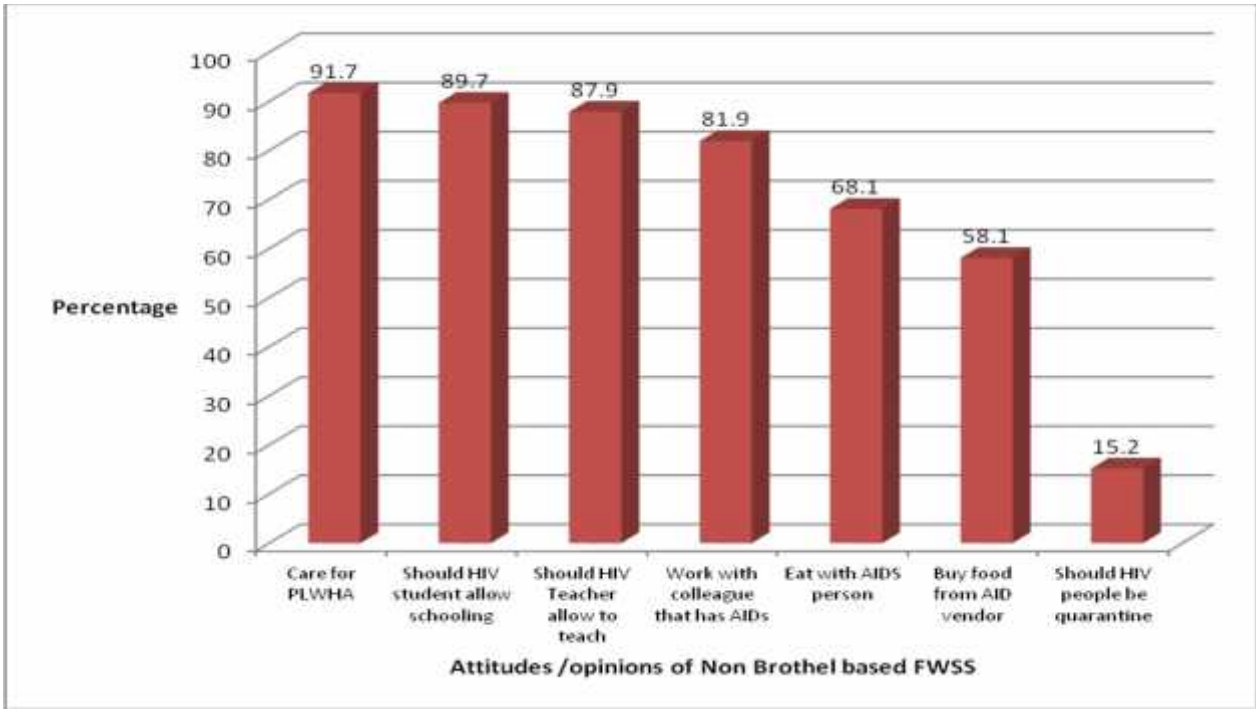

Figure 44: Percentage distribution of Non-Brothel Based FWSS' attitude/opinions towards PLWHA; Nigeria, IBBSS, 2014

3.7.2 MSM

Majority (93%) of the MSM who were willing to care for a relative living with HIV & AIDS in their households supported that teachers infected with HIV but not sick should continue to teach in schools (89%), allow students infected with HIV to continue attending school (90%) and work with HIV infected colleagues (89%). But a lower proportion indicated willingness to eat with HIV infected persons (77%) and to buy food from HIV infected vendors (67%). A low proportion of the MSM (13%) would want them quarantined.

These findings shown in Table 54 also indicated that MSM more than 25 years of age and above had higher proportions with positive attitudes than other MSM in lower age groups. Interestingly, MSM from Enugu State (88%) had higher proportions of persons willing to eat with HIV infected persons than those from other states surveyed.

Table 54: Percentage distribution of MSM attitudes towards people living with HIV & AIDS by selected characteristics; Nigeria, IBBSS, 2014

Characteristics	Men who have sex with men (MSM)							
	Care for PLWHA	Should HIV infected students be allowed to go school	Should HIV teacher infected be allowed to teach	Buy food from HIV infected food vendor	Eat with HIV infected persons	Work with HIV infected colleague	Should HIV infected people be quarantined	Total
Age group in years								
15-19	90.7	86.3	84.7	58.4	68.7	83.9	14.8	754
20-24	93.2	89.6	88.9	65.7	75.8	89.6	13.8	1654
25-49	94.6	93.4	92.9	73.7	82.7	93.8	9.3	1192
State								
Abia	-	-	-	-	-	-	-	-
Anambra	-	-	-	-	-	-	-	-
Benue	-	-	-	-	-	-	-	-
Cross-river	96.4	98.0	96.0	76.4	78.6	91.5	2.4	504
Edo	-	-	-	-		-	-	-
Enugu	94.7	97.8	97.4	89.9	88.5	96.1	17.3	456
FCT	99.2	99.4	98.7	79.3	86.1	97.8	3.0	636
Kaduna	90.2	87.6	86.1	68.1	64.3	83.9	15.0	501
Kano	84.0	76.0	76.8	46.4	67.2	76.0	55.2	125
Lagos	95.5	89.4	90.1	56.7	80.1	94.1	6.2	424
Nasarawa	-	-	-	-	-	-	-	-
Oyo	79.2	72.9	71.2	39.3	58.7	72.6	24.2	451
Rivers	96.6	85.9	85.5	57.2	79.7	93.4	12.2	503
Taraba	-	-	-	-	-	-	-	-
Total	**93.2**	**90.2**	**89.3**	**66.8**	**76.6**	**89.8**	**12.5**	**3600**

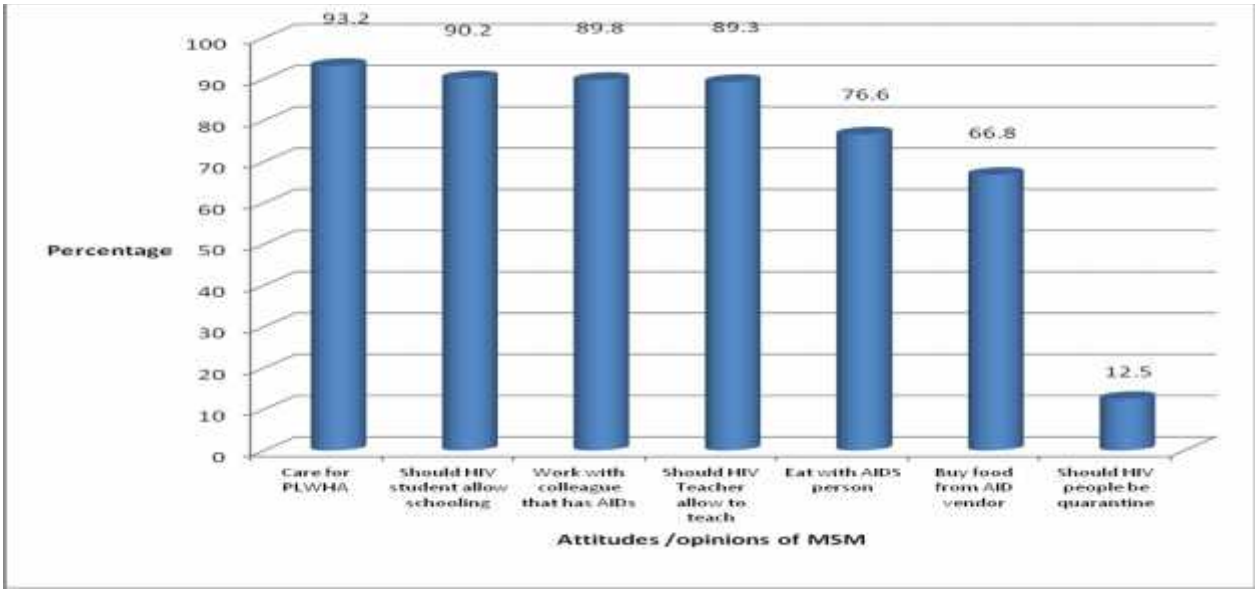

Figure 45: Percentage distribution of MSM's attitude and opinions towards PLHIV; Nigeria, IBBSS, 2014

3.7.3 PWID

Among PWID respondents, Table 55 shows that "willingness to take care of relatives living with HIV in their household" (82%) was the indicator with the highest proportion. This was followed by "willingness to continue working with HIV infected person" (77%), want "students with HIV to continue schooling" (77%), and "teachers with living with HIV to continue teaching in schools" (75%). The lowest proportion was "willing to buy food from HIV infected persons" (49%), followed by "eat with HIV infected person" (59%) while 34% of PIWD would want HIV & AIDS patients to be quarantined. There was generally no appreciable age differential except that the proportion with positive attitudes was least among those 25 years and above. Also, PWID from Kaduna State and FCT had higher proportion with positive attitudes

Table 55: Percentage distribution of PWID attitudes towards People Living with HIV & AIDS by selected characteristics; Nigeria, IBBSS, 2014

Characteristics	PWID							
	Care for PLWHA	Should HIV infected students be allowed to go school	Should HIV teacher infected be allowed to teach	Buy food from HIV infected food vendor	Eat with HIV infected persons	Work with HIV infected colleague	Should HIV infected people be quarantined	Total
Age group in years								
15-19	80.4	71.4	70.2	33.3	51.2	72.0	31.5	168
20-24	84.3	81.8	76.7	49.6	56.5	78.1	30.6	811
25 and above	80.5	74.3	72.8	49.3	58.8	75.8	35.6	2124
State								
Abia	-	-	-	-	-	-	-	-
Anambra	-	-	-	-	-	-	-	-
Benue	-	-	-	-	-	-	-	-
Cross-river	82.3	72.1	71.2	42.5	39.4	67.3	31.7	226
Edo	-	-	-	-	-	-	-	-
Enugu	85.4	81.9	83.8	45.8	52.8	86.8	27.8	370
FCT	92.0	94.6	93.7	55.6	74.7	91.5	23.8	666
Kaduna	98.2	86.9	84.3	48.4	72.6	90.3	10.2	503
Kano	88.0	66.5	65.8	53.2	63.4	67.3	56.3	283
Lagos	66.7	56.3	55.5	49.6	48.3	61.9	46.8	357
Nasarawa	-	-	--	--	-	-	-	-
Oyo	30.3	29.6	28.3	13.0	19.5	33.4	65.3	308
Rivers	86.6	88.9	75.8	66.2	60.0	80.5	37.2	390
Taraba	-	-	-	-	-	-	-	-
Total	**81.5**	**76.1**	**73.7**	**48.5**	**57.8**	**76.2**	**34.1**	**3103**

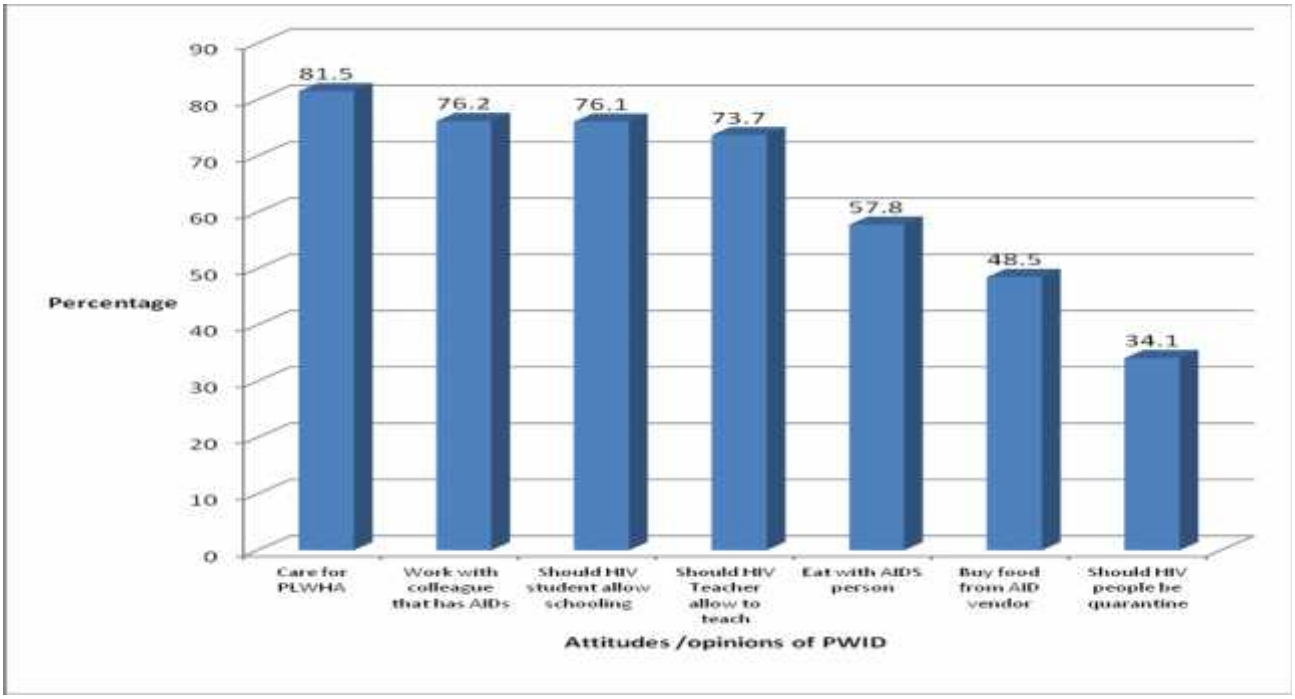

Figure 46: Percentage distribution of PWID's attitude and opinions towards PLHIV; Nigeria, IBBSS, 2014

3.7.4 Armed Forces, Police and Transport Workers

3.7.4.1 Armed Forces

The responses of the Armed Forces to questions pertaining to attitudes to HIV & AIDS are shown in Table 56. The findings showed that over 93% of the Army respondents indicated willingness to work with colleagues that have AIDS (97%), take care of relatives living with HIV & AIDS (95%), allow HIV positive students to continue schooling if not sick (93%), and felt HIV positive teachers should be allowed to continue to teach (93%). On the other hand, only 59% of Armed Forces respondents were willing to buy food from vendors living with AIDS and 82% were willing to eat with them. A very low percentage (8%) believed HIV positive people should be quarantined, higher among respondents in Lagos State (13%), age group 20-24 years (11%) and 25-49 years (12%).

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Table 56: Percentage distribution of the Armed Forces Respondents' attitudes towards People Living with HIV & AIDS by selected characteristics; Nigeria, IBBSS, 2014.

Characteristics	ARMED FORCES							
	Care for PLHIV	Should HIV infected students be allowed to go school	Should HIV teacher infected be allowed to teach	Buy food from HIV infected food vendor	Eat with HIV infected persons	Work with HIV infected colleague	Should HIV infected people be quarantined	Total
Age group in years								
15-19	100.0	100.0	88.9	33.3	77.8	94.4	5.6	18
20-24	93.6	88.3	89.3	47.7	74.6	92.5	10.7	376
25-49	95.1	94.5	94.2	60.5	82.2	97.4	7.4	2231
State								
Abia	-	-	-	-	-	-	-	-
Anambra	93.3	93.3	93.0	50.8	78.9	95.7	8.3	300
Benue	98.3	94.3	93.3	56.1	82.7	95.9	9.2	300
Cross-river	98.0	95.7	95.7	74.2	80.7	97.3	6.0	300
Edo	93.6	92.9	92.6	44.1	80.9	94.6	8.7	300
Enugu	-	-	--	-	-	-	-	-
FCT	97.9	91.0	92.1	54.3	84.7	95.9	10.7	292
Kaduna	96.6	90.3	90.9	56.4	85.5	97.7	5.7	298
Kano	94.5	94.9	96.7	70.2	83.2	99.1	8.1	236
Lagos	88.7	96.7	94.2	51.3	73.3	97.0	9.7	300
Nasarawa	93.6	94.0	92.6	71.6	80.9	97.3	4.7	299
Oyo	-	-	-	-	-	-	-	-
Rivers	-	-	-	-	-	-	-	-
Taraba	-	-	-	-	-	-	-	-
Total	95.0	93.7	93.5	58.5	81.1	96.7	7.9	2625

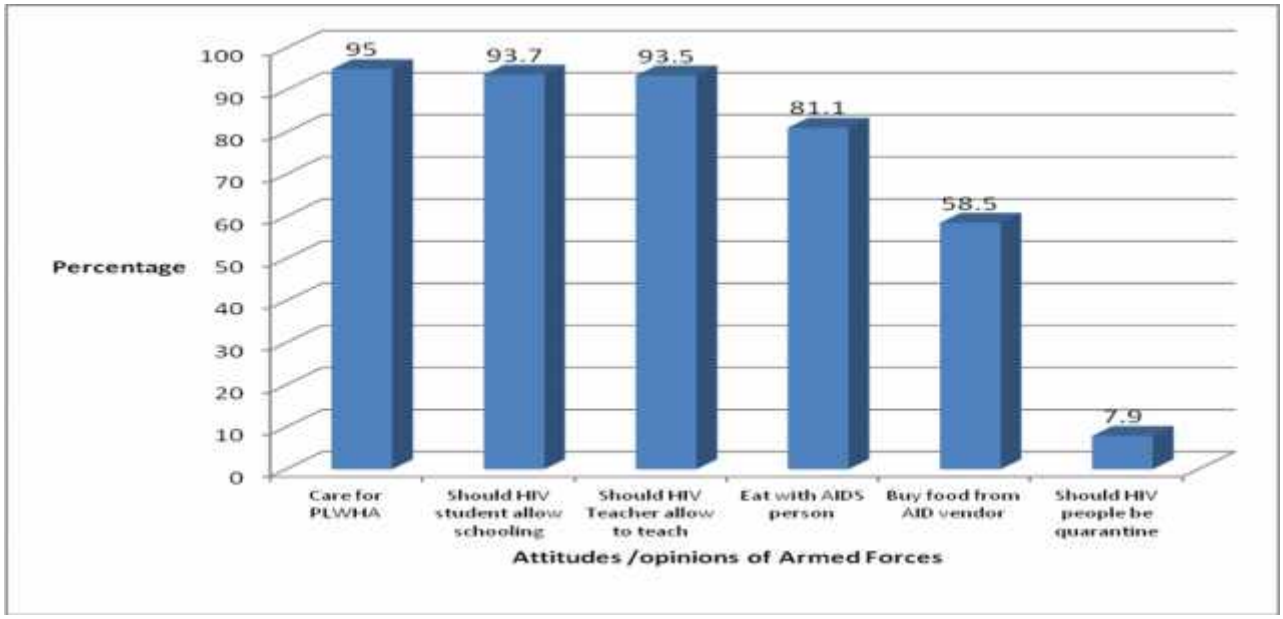

Figure 47: Percentage distribution of Armed Forces respondents' attitude and opinions towards PLWHA; Nigeria, IBBSS, 2014

3.7.4.2 Police

Table 57 shows that majority of the Police respondents (94%) were willing to take care of an HIV infected relative in their household, work with them as colleagues (93%), allow HIV infected teachers to continue teaching in schools if not sick (88%) and allow HIV infected students to continue schooling (88%). A lower proportion was willing to eat with them (71%) or buy food from infected persons (52%). About 14% wanted HIV infected persons quarantined. This was higher among 20-24 year olds (16%) and Police respondents in Kano State (41%). The discrimination to buy food from infected persons was highest among the Police respondents interviewed in Kano State (66%) and least among those from Edo State (25%). Also, respondents from Benue and Nasarawa States had the highest proportion with positive attitudes using these indicators while the least were those from Edo State. There appeared to be no differences in the proportion of female Police respondents who showed favorable attitudes towards PLHIV except in the opinion that HIV infected persons should be quarantined.

Table 57: Percentage distribution of Police respondents' attitudes towards People Living With HIV & AIDS by selected characteristics; Nigeria, IBBSS, 2014

Characteristics	POLICE							
	Care for PLHIV	Should HIV infected students be allowed to go school	Should HIV teacher infected be allowed to teach	Buy food from HIV infected food vendor	Eat with HIV infected persons	Work with HIV infected colleague	Should HIV infected people be quarantined	Total
Age group in years								
15-19	100.0	100.0	100.0	0.0	100.0	100.0	0.0	1
20-24	95.3	95.3	93.0	53.5	76.7	97.7	16.3	43
25-49	94.0	88.2	88.3	52.4	70.4	93.3	13.6	2619
50+								
State								
Abia	-	-	-	-	-	-	-	-
Anambra	93.6	95.9	95.6	46.6	66.1	96.3	6.4	296
Benue	95.0	93.0	94.6	65.9	78.8	97.0	4.7	298
Cross-river	98.3	98.8	98.3	59.7	77.0	99.0	2.7	295
Edo	78.0	78.3	75.9	25.4	51.2	84.7	14.6	298
Enugu	-	-	-	-	-	-	-	-
FCT	94.6	76.6	78.3	46.6	75.3	94.6	13.2	294
Kaduna	93.9	85.7	85.0	62.6	79.2	93.9	13.6	294
Kano	95.9	85.3	86.7	62.3	70.7	91.8	41.3	295
Lagos	97.3	88.6	86.6	36.9	55.6	86.2	18.5	298
Nasarawa	99.0	92.9	93.6	65.5	80.5	96.9	7.5	295
Oyo	-	-	-	-	-	-	-	-
Rivers	-	-	-	-	-	-	-	-
Taraba	-	-	-	-	-	-	-	-
Sex								
Male	94.2	88.5	88.6	53.7	70.8	93.0	15.1	1993
Female	93.1	88.3	87.8	48.6	69.7	94.6	8.6	670
Total	94.0	88.4	88.3	52.4	70.5	93.4	13.6	2663

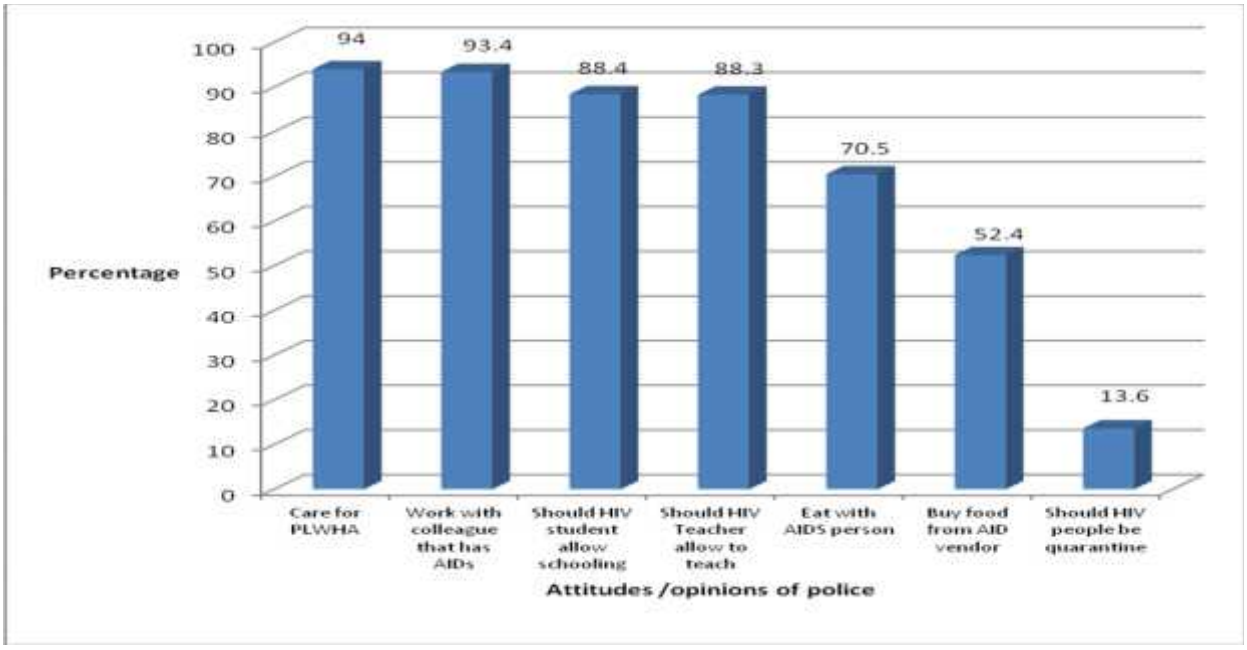

Figure 48: Percentage distribution of Police Respondents' attitude and opinions towards PLHIV; Nigeria, IBBSS, 2014

3.7.4.3 Transport Workers

Most Transport Workers (90%) were willing to take care of relatives living with HIV & AIDS but a lower proportion felt infected students should be allowed to continue in school (78%), infected teachers should be allowed to continue to teach if not sick (77%) and were willing to work with colleagues with HIV & AIDS (78%). However about (54%) were willing to eat with PLHIV while a lower proportion was willing to buy food from HIV vendors (43%). These results were similar in each age group but higher than average among transport workers from Cross-river and Benue States. These results shown in Table 60 also indicated transport workers from Edo State had the least proportions with positive attitudes. About a quarter of the transport workers felt people with HIV & AIDS should be quarantined, highest proportion being among transport workers from Edo State (39%) and least among those located in Cross-river State (8%).

Table 58: Percentage distribution of Transport Workers' attitudes towards People living with HIV & AIDS by selected characteristics; Nigeria, IBBSS, 2014.

Characteristics	TRANSPORT WORKERS							
	Care for PLWHA	Should HIV infected students be allowed to go school	Should HIV teacher infected be allowed to teach	Buy food from HIV infected food vendor	Eat with HIV infected persons	Work with HIV infected colleague	Should HIV infected people be quarantined	Total
Age group in years								
15-19	71.2	63.5	61.5	30.8	48.2	67.3	21.2	52
20-24	89.2	79.2	73.2	42.5	46.5	74.7	27.3	268
25-49	90.9	78.1	77.4	43.4	54.3	78.4	24.0	2328
State								
Abia	-	-	-	-	-	-	-	
Anambra	78.3	73.7	70.0	26.0	48.2	65.7	41.7	299
Benue	93.2	86.3	85.3	49.7	67.0	89.8	12.7	294
Cross-river	96.6	93.9	93.2	52.9	56.3	95.9	7.8	294
Edo	80.8	64.2	65.5	42.7	51.7	71.7	38.7	294
Enugu	-	-	-	-	-	-	-	-
FCT	93.4	71.2	73.3	29.5	52.8	83.3	22.6	288
Kaduna	94.2	87.0	82.5	33.4	43.5	81.6	15.7	292
Kano	93.9	73.5	71.4	54.4	58.5	71.4	33.3	294
Lagos	92.3	70.7	67.0	35.4	37.4	59.5	21.6	298
Nasarawa	90.9	81.1	81.4	63.7	65.2	81.8	23.8	295
Oyo	-	-	-	-	-	-	-	-
Rivers	-	-	-	-	-	-	-	-
Taraba	-	-	-	-	-	-	-	-
Total	90.4	77.9	76.6	43.1	53.4	77.8	24.3	2648

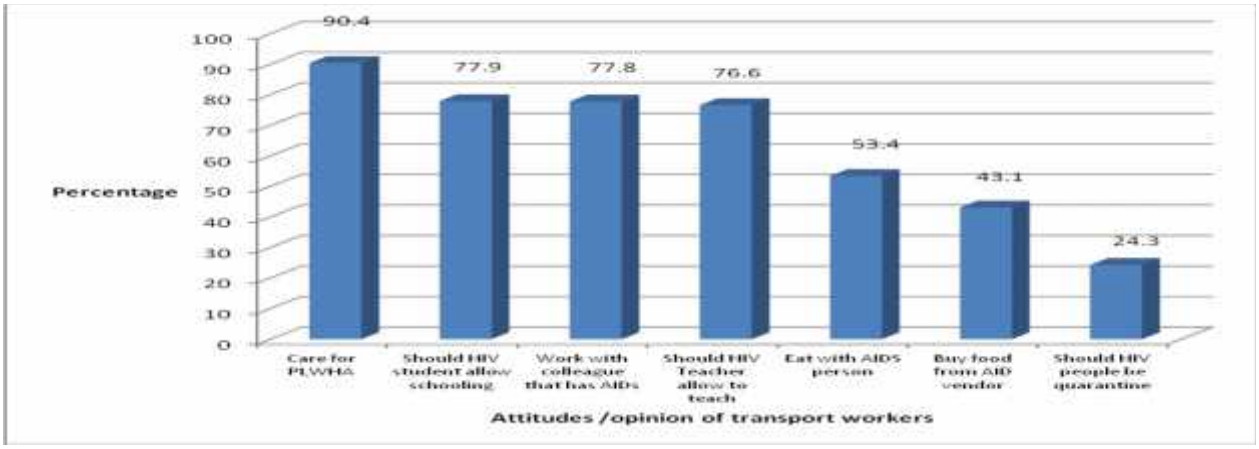

Figure 49: Percentage distribution of Transport Workers' attitude/opinions towards PLHIV; Nigeria, IBBSS, 2014

3.8 HIV VOLUNTARY TESTING AND AWARENESS OF HIV TESTING CENTRE

3.8.1 Females who sell sex

Table 59 shows that 88% of brothel based FWSS reported ever had an HIV test. Those currently married but live with other sex partners (78%), those not married and live without a sex partner (82%) and those less than 20 years of age (75%) had lower values than the overall average for brothel based FWSS.

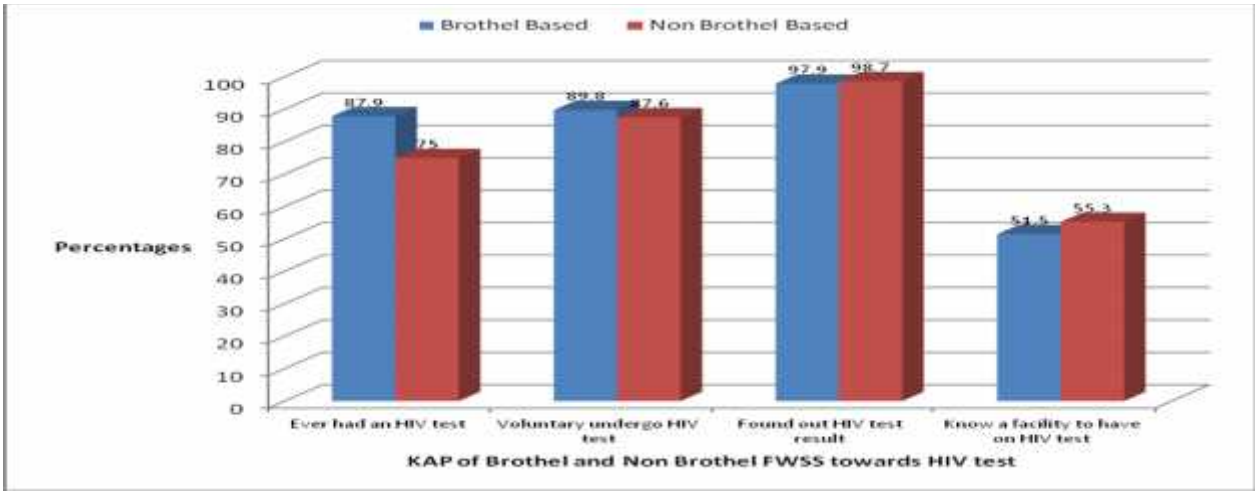

Figure 50: Percentage distribution of Brothel and Non brothel-based FWSS who ever had an HIV test, voluntarily underwent HIV test, found out HIV test results and knew a facility for HIV test; Nigeria, IBBSS, 2014

Table 59 shows that a higher proportion of brothel based FWSS than their non-brothel based counterparts had ever had a HIV test and also underwent voluntary HIV test. However, the reverse was the case for those who knew a facility for HIV test and those who found out their HIV test result which was slightly higher for non-brothel based FWSS than brothel based FWSS. But slightly more than 50% of the FWSS knew a health facility or place in their community where they could receive counselling and testing for HIV & AIDS.

Table 59: Percentage distribution of FWSS who had HIV test and found out the result by selected characteristics; Nigeria, IBBSS, 2014

Characteristics	Brothel based FWSS				Non brothel based FWSS			
	Ever had an HIV test	Voluntary undergo HIV test	Found out HIV test result	Know a facility to have an HIV test	Ever had an HIV test	Voluntary undergo HIV test	Found out HIV test result	Know a facility to have an HIV test
Marital status								
Currently married, live with spouse	89.8	86.5	96.2	55.9	65.8	80.4	95.9	59.7
Currently married, live with other sex partner	77.8	92.9	100.0	66.7	85.7	66.7	100.0	28.6
Currently married, not living with spouse or other sex partner	91.0	88.5	100.0	61.2	82.8	79.2	100.0	75.0
Not married live with sex partner	82.0	89.7	95.9	58.6	61.0	83.4	98.6	62.9
Not married live without sex partner	88.3	89.9	98.1	50.5	76.6	88.2	98.7	54.2
Age group in years								
15-19	74.6	90.1	94.7	39.8	57.4	84.5	98.4	47.2
20-24	84.1	88.8	98.0	46.0	71.4	87.0	98.5	54.5
25-45	89.9	90.1	98.1	54.2	80.7	88.4	98.8	57.2
Highest level of Education								
No formal Educ.	79.5	86.8	98.0	54.3	66.2	85.7	100.0	58.1
Primary Educ.	86.4	90.7	97.4	50.6	68.4	88.4	98.2	49.8
Secondary Educ.	88.4	89.5	98.0	51.0	74.7	88.3	98.5	54.4
Tertiary Educ.	93.7	92.9	98.7	56.5	80.5	85.1	99.3	61.0
Total	**87.9**	**89.8**	**97.9**	**51.5**	**75.0**	**87.6**	**98.7**	**55.3**

3.8.2 MSM and PWID

About 65% of MSM reported ever had a HIV test done, higher among older age groups. For PWID, a lower proportion ever had HIV test (54%) and the distribution among the key characteristics was similar to that of MSM. Approximately 80% of the MSM reported they did their HIV test voluntarily. A very high proportion of both MSM (97%) and PWID (98%) found out their HIV test results. However, 75% of MSM and 60% of PWID knew a health facility or place in their community where they could receive counselling and testing for HIV & AIDS.

Table 60: Percentage distributions of MSM and PWID who had an HIV test and found out their result by selected characteristics; Nigeria, IBBSS, 2014.

Characteristics	MSM				PWID			
	Ever had of HIV test	Voluntary undergo HIV test	Found out HIV test result	Know a facility to have an HIV test	Ever had of HIV test	Voluntary undergo HIV test	Found out HIV test result	Know a facility to have an HIV test
Marital status								
Currently married, live with spouse	78.1	72.6	97.6	82.3	60.1	82.6	97.8	64.5
Currently married, live with other sex partner	81.8	66.7	100.0	90.9	60.9	85.7	92.9	69.6
Currently married, not living with spouse or other sex partner	72.7	75.0	93.8	68.2	53.5	78.9	97.4	69.0
Not married live with sex partner	58.8	82.4	96.5	81.3	58.4	79.4	99.0	63.0
Not married live without sex partner	64.3	80.1	97.7	74.7	51.2	82.2	97.1	58.6
Age group in years								
15-19	40.5	81.5	96.4	64.0	38.7	78.1	96.9	47.9
20-24	63.9	80.1	97.4	75.2	45.6	79.4	97.0	49.9
25-49	80.9	78.9	98.2	82.3	57.9	83.1	97.5	65.4
Highest level of Education								
No formal Educ.	33.3	100.0	75.0	100.0	34.5	90.0	100.0	44.8
Primary Educ.	46.8	70.1	98.3	70.7	42.7	85.2	94.0	57.1
Secondary Educ.	58.3	80.5	97.2	71.7	51.8	82.5	97.5	58.3
Tertiary Educ.	84.6	79.9	98.3	84.4	69.2	79.5	98.5	70.9
Total	**64.6**	**79.8**	**97.6**	**75.2**	**53.7**	**82.1**	**97.4**	**60.4**

Figure 52 illustrates MSM as having a higher proportion of respondents who had ever had an HIV test as well as knew a facility to have an HIV test while a slightly higher percentage of PWIDs voluntarily underwent an HIV test.

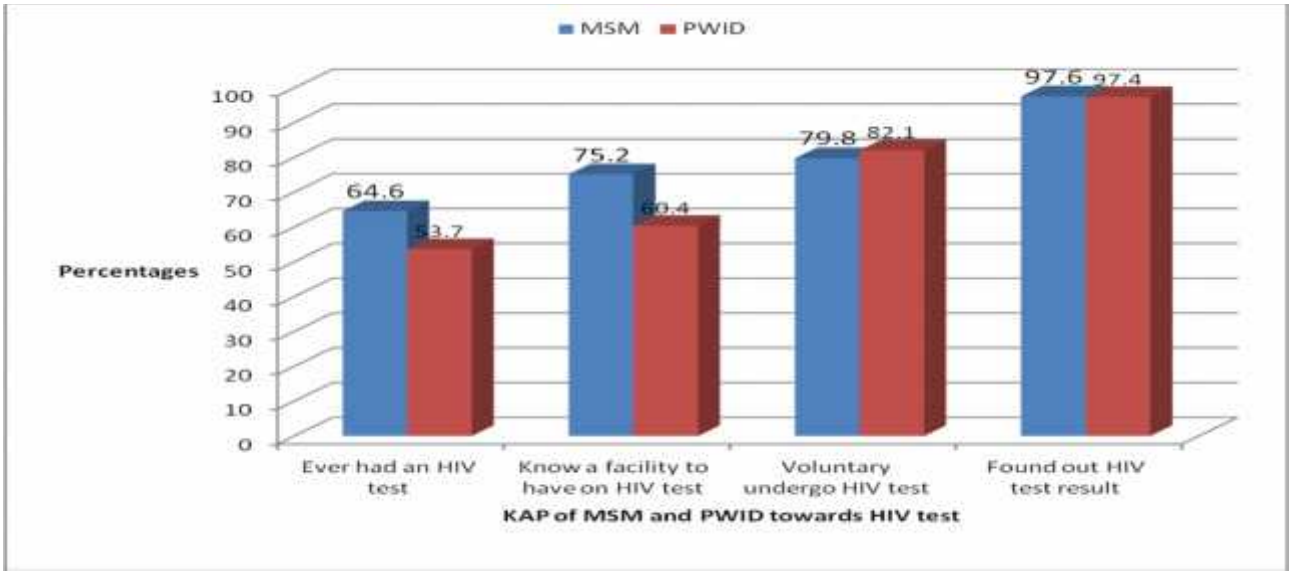

Figure 51: Percentage distribution of MSM and PWID who ever had an HIV test, voluntarily underwent HIV test, found out HIV test results and knew a facility for HIV test; Nigeria, IBBSS, 2014.

Table 61: Percentage distribution of Police, Armed Forces and Transport Workers who ever had an HIV test, voluntarily underwent HIV test, found out HIV test results and knew a facility for HIV test; Nigeria, IBBSS, 2014

Characteristics	Police				Armed Forces				Transport workers			
	Ever had an HIV test	Voluntary undergo HIV test	Found out HIV test result	Know a facility to have an HIV test	Ever had an HIV test	Voluntary undergo HIV test	Found out HIV test result	Know a facility to have an HIV test	Ever had an HIV test	Voluntary undergo HIV test	Found out HIV test result	Know a facility to have an HIV test
Marital status												
Currently married, live with spouse	79.5	79.2	97.3	72.9	95.4	76.0	98.1	82.4	53.5	83.4	97.1	57.0
Currently married, live with other sex partner	78.3	83.0	91.5	69.0	94.6	80.0	100.0	59.5	77.8	85.7	100.0	88.9
Currently married, not living with spouse or other sex partner	81.5	75.4	97.2	67.4	94.5	74.4	97.8	73.8	39.7	100.0	92.0	49.2
Not married live with sex partner	84.5	87.3	98.6	75.0	87.5	83.6	90.9	66.7	56.7	89.1	94.5	59.8
Not married live without sex partner	81.4	83.5	96.7	73.8	85.1	78.0	96.2	69.5	45.1	87.7	98.4	50.6
Age group in years												
15-19	100.0	100.0	100.0	100.0	66.7	58.3	100.0	55.6	19.2	90.0	100.0	32.7
20-24	79.1	88.2	100.0	67.4	81.1	76.6	95.0	67.2	35.1	86.3	96.8	49.1
25-49	80.2	79.8	97.1	72.6	94.1	76.7	97.7	78.7	53.3	85.0	97.2	56.2
50+												
Highest level of Education												
No formal Educ.	-	-	-	-	88.9	62.5	100.0	77.8	35.5	92.6	92.6	26.7
Primary Educ.	65.8	75.0	93.8	69.1	86.3	76.2	98.8	76.7	40.5	83.5	95.4	47.2
Secondary Educ.	78.2	80.4	96.7	70.3	91.2	76.5	97.0	76.0	54.0	85.6	97.6	58.5
Tertiary Educ.	85.1	79.9	98.0	76.3	93.6	76.8	97.9	77.3	69.1	85.2	99.5	68.7
Total	**80.2**	**79.9**	**97.2**	**72.5**	**92.0**	**76.6**	**97.4**	**76.9**	**50.8**	**85.1**	**97.2**	**55.1**

3.8.3 Armed Forces, Police and Transport Workers

Table 62 shows that a higher proportion of the Police (80%) and Armed Forces (92%) than Transport Workers (51%) had ever done an HIV test. The proportion of those who had ever had an HIV test done increased with increased level of education.

Figure 53 shows that a higher percentage of transport workers (85%) than Police (80%) and the Armed Forces (78%) reported they had an HIV test voluntarily and a high proportion (97%) of the Police, Armed Forces and Transport Workers found out their HIV test result afterwards. The Armed Forces (77%) had a higher proportion who knew a facility where HIV test is done than the Police (73%) and transport workers (55%).

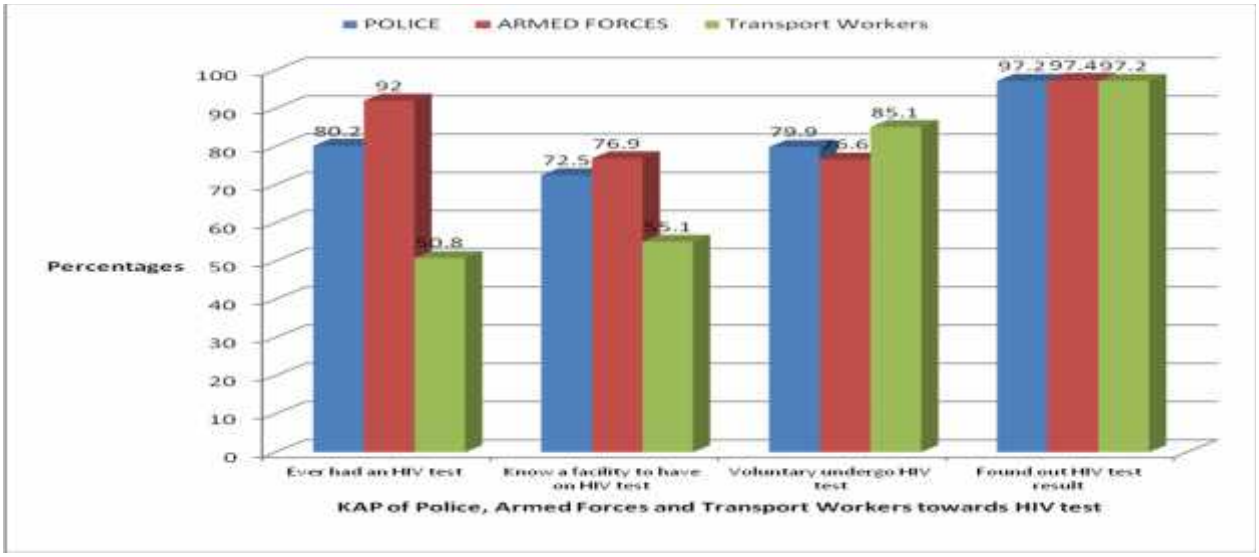

Figure 52: Percentage distribution of Police, Armed Forces and Transport Workers who ever had an HIV test, voluntarily underwent HIV test, found out HIV test results and knew a facility for HIV test; Nigeria, IBBSS, 2014.

Figure 54 above showed that the brothel-based female who sells sex had the highest percentage (86%) that had an HIV test in the last year prior the survey. Interestingly, the transport workers had the least with 61% indicating they had a test.

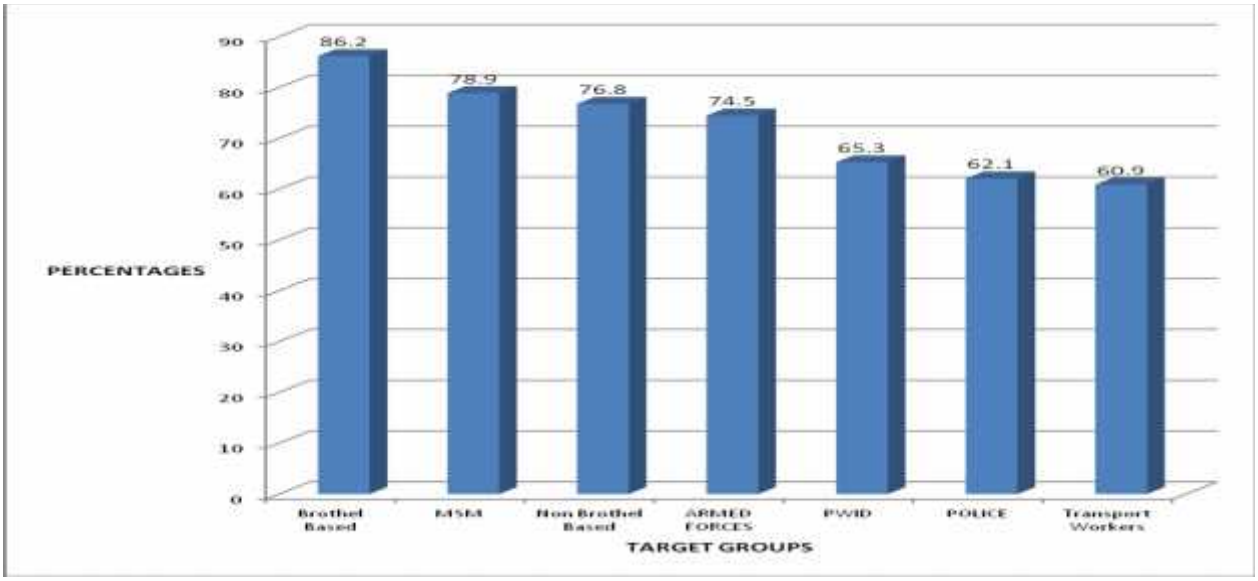

Figure 53: Percentage of each vulnerable group that had an HIV test in the last 12 months Nigeria, IBBSS, 2014

3.8.3.1 Trend in HIV testing among those who ever had an HIV test

Figure 55 showed a gradual increase in the proportion of those who ever had an HIV test among the Armed Forces in Lagos, while it decreased slightly in the FCT to close as the same proportion as Lagos. For the Police, for the trend shown in Figure 56 showed that the proportion who had an HIV test increased appreciably in 2014 compared to previous years. Also Figure 56 shows a similar pattern among TW where the proportion who had an HIV test increased in each of the States except Cross River that witnessed a decline in 2014 compared to 2010.

Figure 54: Proportion of Armed Forces who ever had an HIV test by state

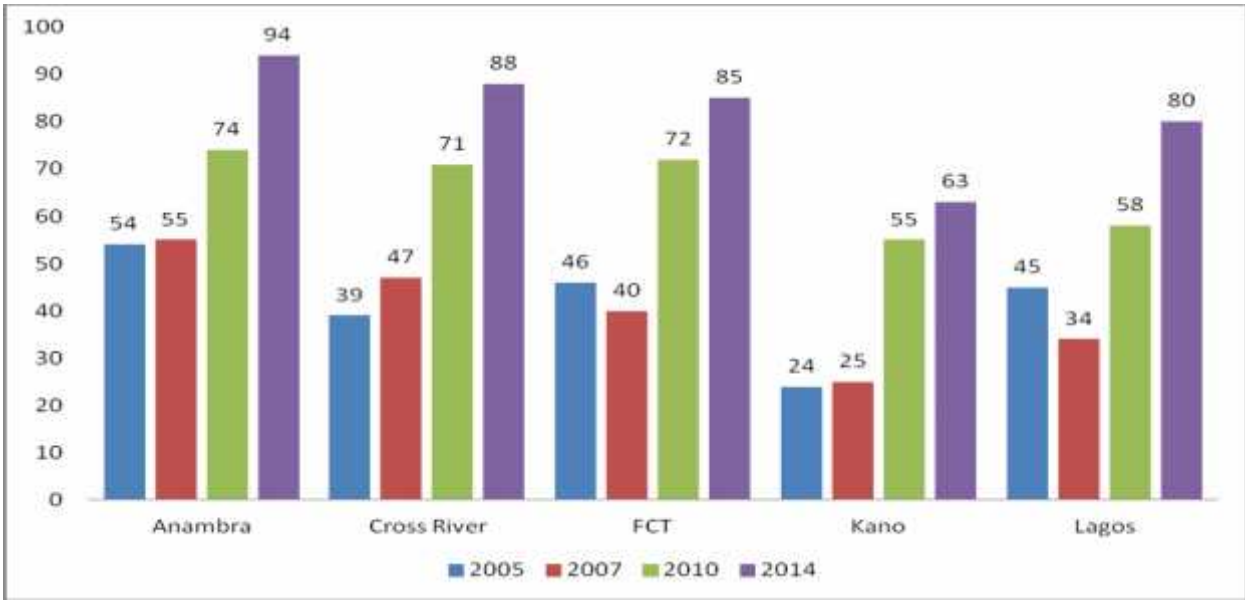

Figure 55: Proportion of Police who ever had an HIV test by State (IBBSS, 2005-2014)

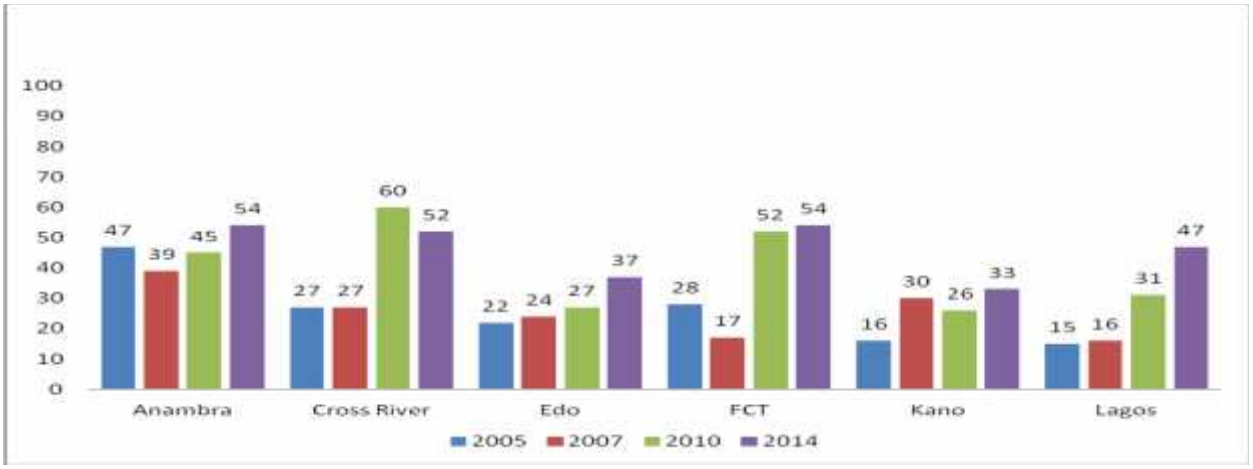

Figure 56: Proportion of Transport workers who ever had an HIV test by State

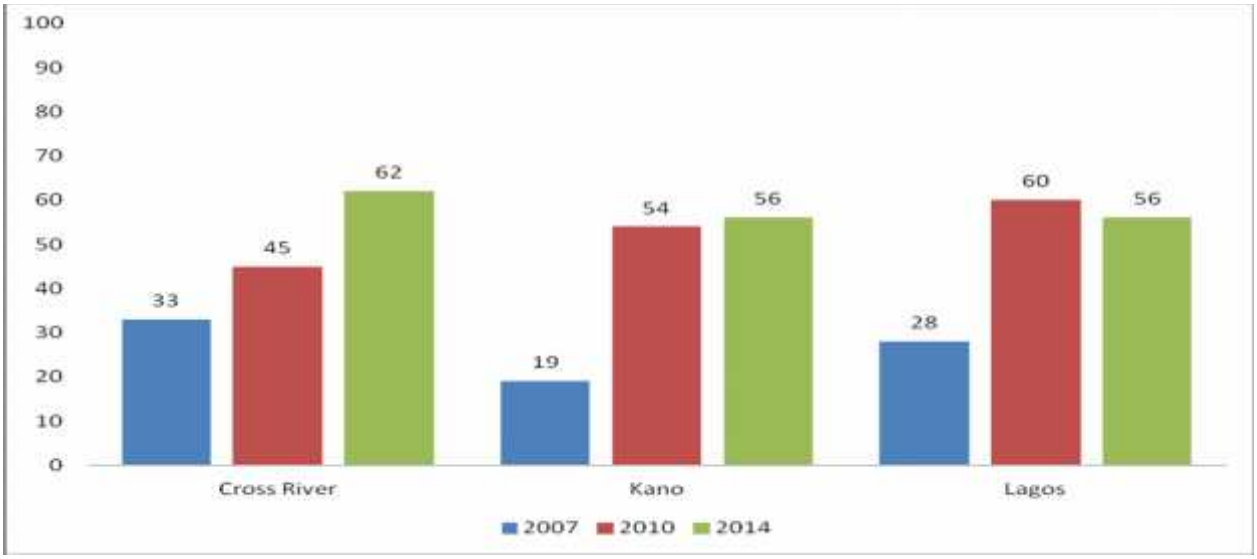

Figure 57: Proportion of PWID who ever had an HIV test by State, (IBBSS, and 2005-2014)

Also, as shown in figure 58, the proportion of PWID who ever had a HIV test increased in Cross Rivers and Kano states but declined gradually in Lagos state. However the pattern among MSM is a gradual increase over the previous two surveys in each of the states.

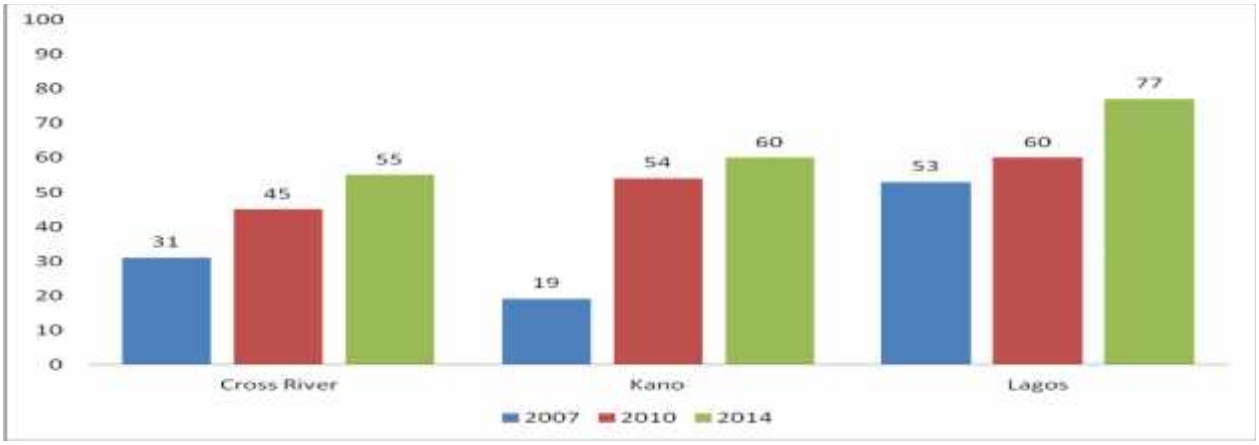

Figure 58: Proportion of MSM who ever had an HIV Test by State (IBBSS, 2005-2014)

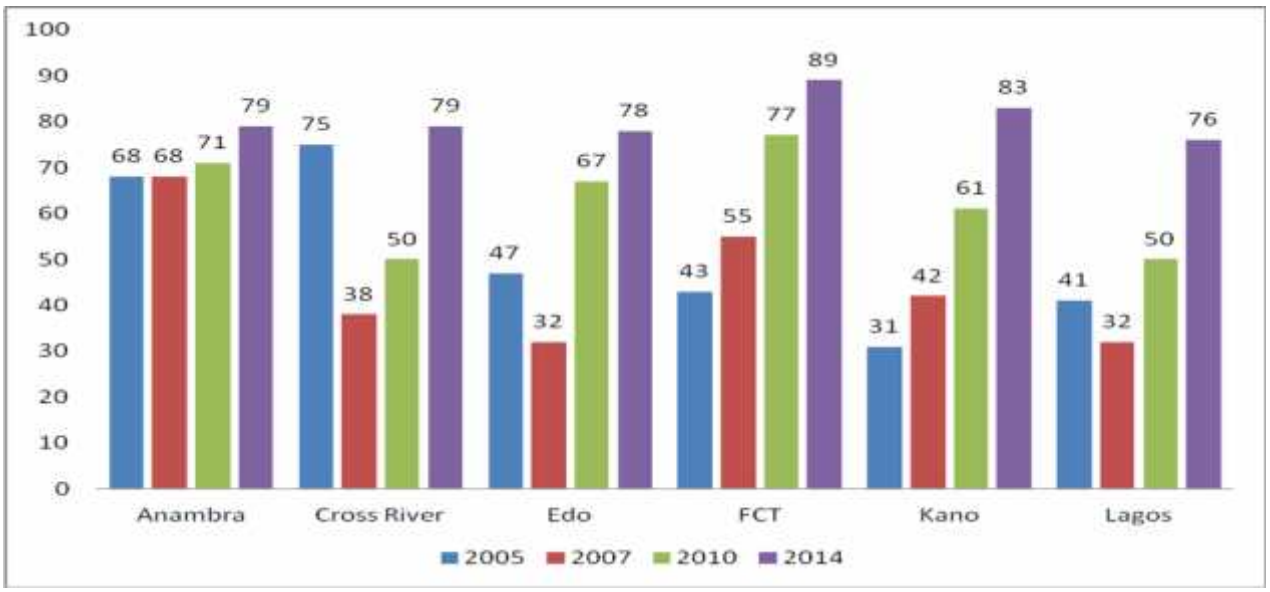

Figure 59: Proportion of FWSS who ever had an HIV Test by State (IBBSS, 2005-2014)

3.8.3.2 HIV test among FWSS

Figure 60 shows that the proportion of FWSS who had an HIV test increased over the previous surveys in the states reaching a highest of 83% among those in Kano.

The proportion of the Armed Forces in the FCT who had sex with a FWSS in the past 12 months prior to the survey gradually increased from 1% in 2005 to as high as 14% in 2014. These results illustrated in figure 60 showed a decline in the proportion among their counterparts in Lagos which decreased from a peak of 9% in 2007 to 4% in 2014.

CONCLUSION

A high proportion of each vulnerable group reported to have ever had an HIV test done, with the highest recorded among the Armed Forces (92%) and the least among the transport workers (51%). A sizeable proportion of these vulnerable groups underwent HIV test voluntarily and also received their HIV test results afterwards. This is a good development as it will help them to know their HIV status, get treatment on time if tested positive and also help to reduce the rate of HIV transmission. The fact that the brothel based FWSS had a high proportion can simply be attributed to the several agencies carrying out studies on HIV & AIDS on a routine basis in the last few years.

A higher proportion of those who have had ever HIV test are those with higher level of education.

The awareness of health facilities for HIV counselling and testing was generally on the average among all the vulnerable groups with the least proportion recorded among brothel based FWSS (52%). There is, therefore, the need to increase publicity of HIV counselling and testing centres in the country to enhance its awareness among all target groups.

3.9 EXPOSURE TO HIV INTERVENTIONS

3.9.1 Ever received information/education on HIV & AIDS

Respondents were asked about the various sources of information on HIV & AIDS they were exposed to for at least 12 months preceding the survey date. Tables 64 and 65 shows that radio (73%), TV (70%) and health workers (51%) were the three major sources of information or education on HIV & AIDS as reported by the vulnerable groups. Less than 40% of the vulnerable groups received from other sources. Figures 61 and 62 also present the sources of information for each of the seven vulnerable groups.

The transport workers (93%) had the highest proportion of those who received information on HIV & AIDS from the radio 12 months prior to survey date, while the least proportion of the vulnerable group receiving information from this source were the brothel based FWSS (54%). Also, the Police respondents (83%) had the highest proportion of those who accessed information through the television while the least was the brothel based FWSS (48%).
The Army respondents (63%) had the highest proportion of those that received HIV & AIDS information from health workers in the last 12 months prior to survey date and the transport workers (39%) were the least from this source. The major sources of information for the MSM and PIWD were the radio and television reported by more than 70% of them.

Table 50: Percentage distribution of respondents' sources of information or service on HIV & AIDS by Vulnerable group; Nigeria, IBBSS, 2014.

Vulnerable Group	Radio	TV	Newspaper	Poster	Health workers	Peer educator	Colleague	Internet
Brothel Based	54.4	48.0	17.5	27.5	61.3	44.1	28.3	4.1
Non-Brothel Based	68.6	65.1	28.8	35.1	52.3	30.6	30.6	14.4
MSM	77.9	76.8	42.8	41.8	44.5	42.7	35.8	29.8
PWID	74.5	72.5	36.6	29.6	39.5	29.8	33.3	13.2
Army	73.2	75.5	45.2	34.9	62.5	25.4	22.2	15.4
Police	82.5	82.9	56.3	42.3	54.9	19.4	32.2	16.0
Transport Workers	92.5	77.1	42.8	32.7	38.6	19.0	40.3	10.5
Total	73.3	69.6	36.7	34.7	50.8	32.1	31.8	15.0

Table 51: Percentage distribution of respondents' sources of information or service on HIV & AIDS by Vulnerable group; Nigeria, IBBSS, 2014.

Vulnerable Group	Place of worship	School	Family member	NGO	Public meeting
Brothel Based	6.2	7.3	20.5	30.8	9.0
Non-Brothel Based	13.6	16.3	20.7	18.4	8.0
MSM	22.0	31.3	21.9	25.8	13.7
PWID	18.2	15.4	17.7	16.9	8.8
Army	10.6	13.9	11.5	22.5	15.0
Police	18.3	13.9	21.7	26.2	14.8
Transport Workers	21.7	13.4	25.9	14.4	19.4
Total	15.5	16.5	20.1	22.8	12.2

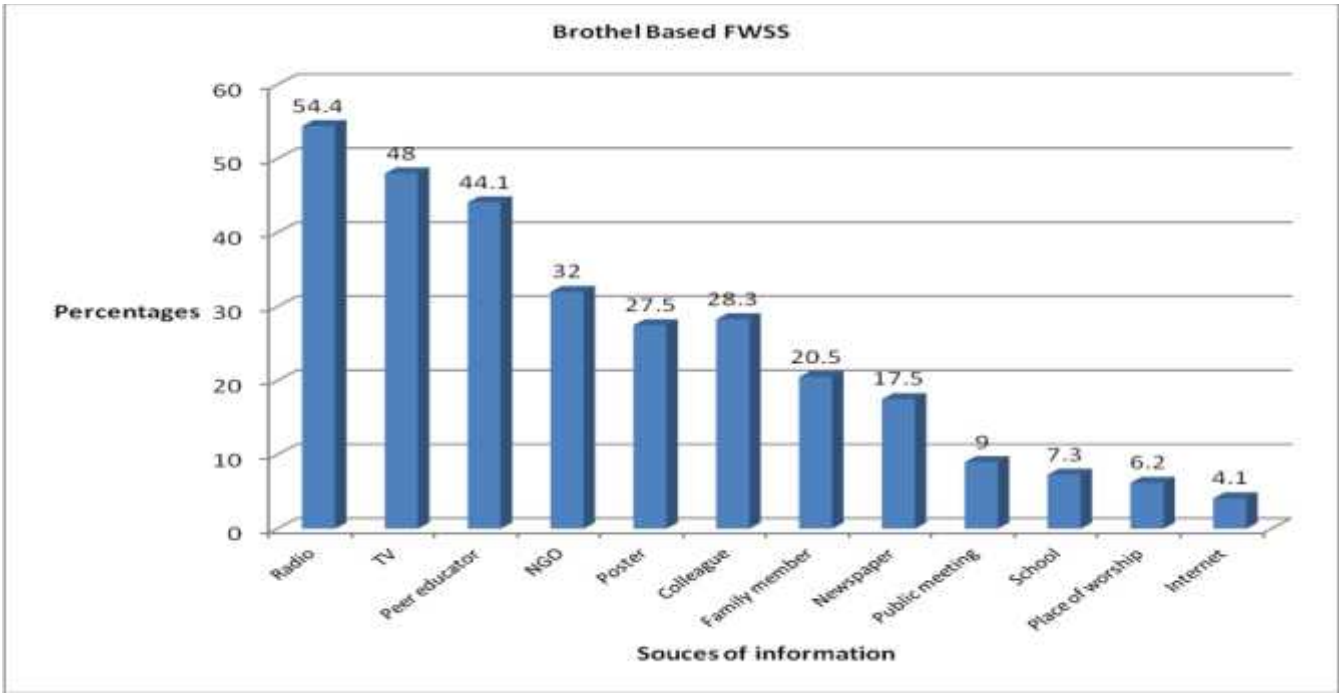

Figure 60: Percentage distribution of Brothel Based FWSS' sources of information on HIV & AIDS; Nigeria, IBBSS, 2014.

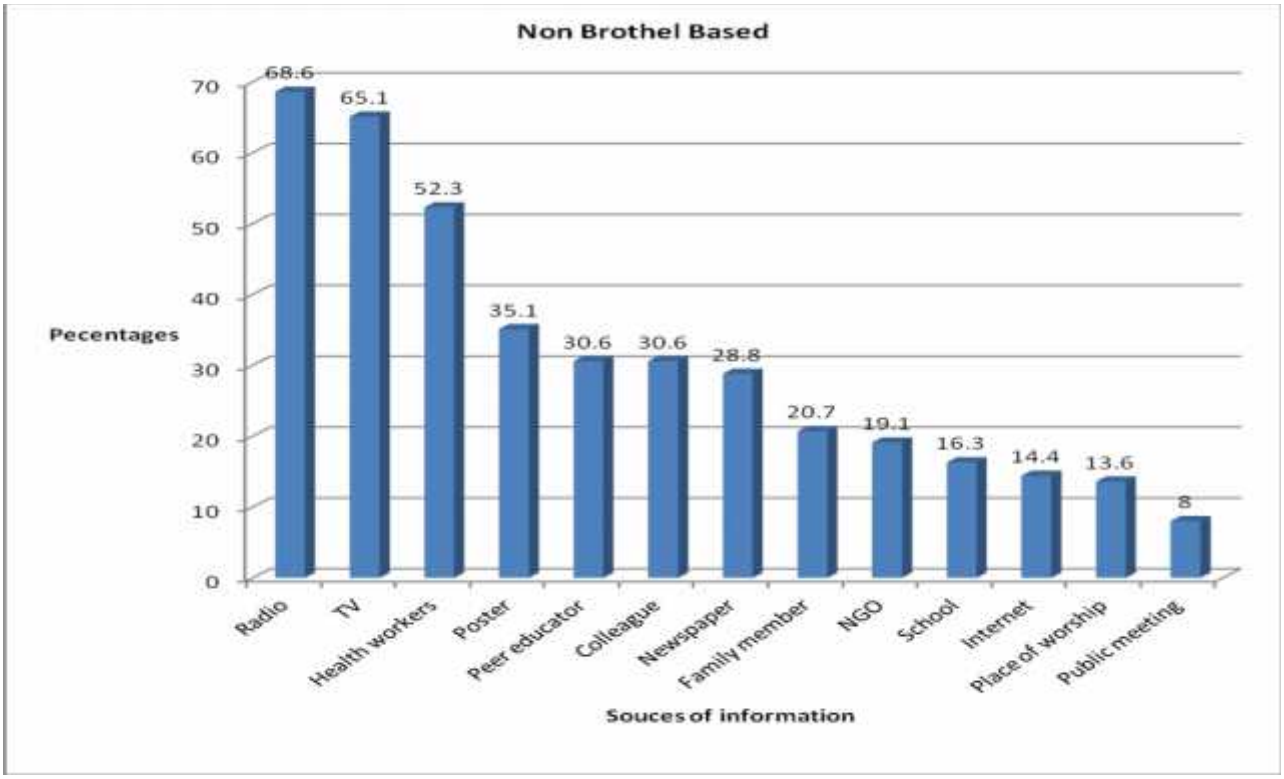

Figure 61: Percentage distribution of Non-Brothel Based FWSS' sources of information on HIV & AIDS; Nigeria, IBBSS, 2014.

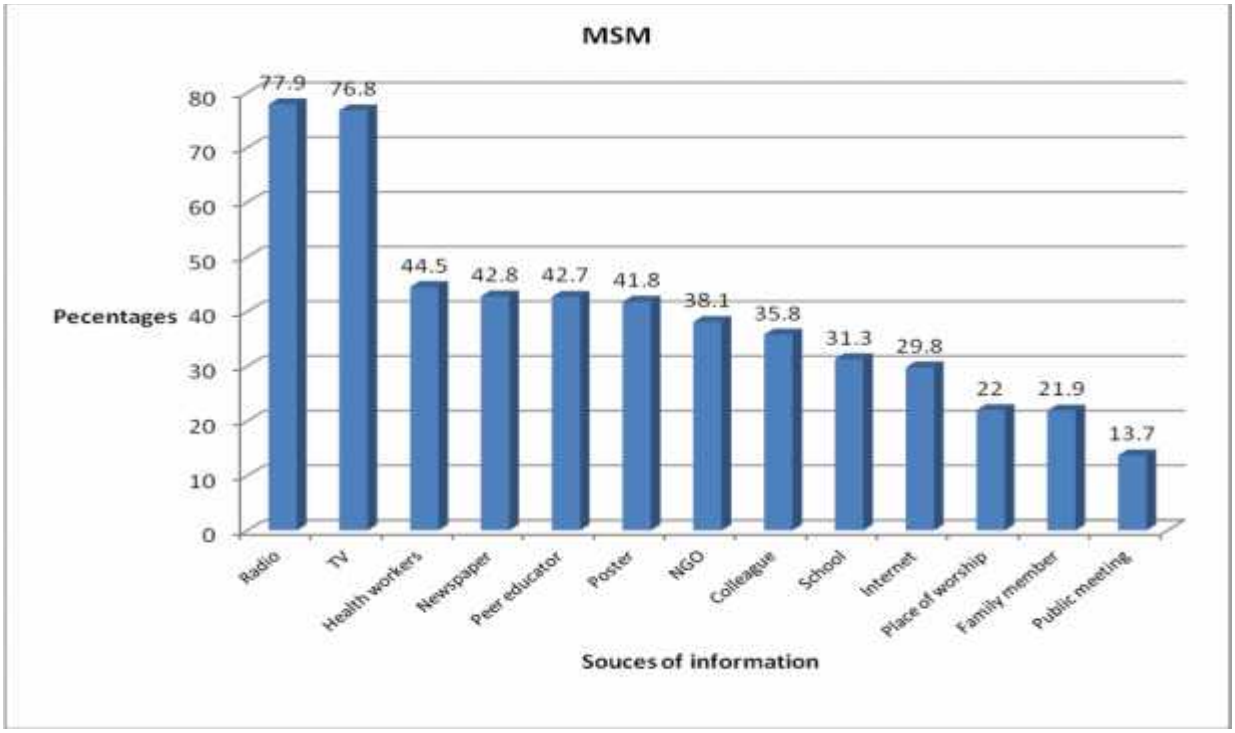

Figure 62: Percentage distribution of MSM sources of information on HIV & AIDS; Nigeria; IBBSS, 2014

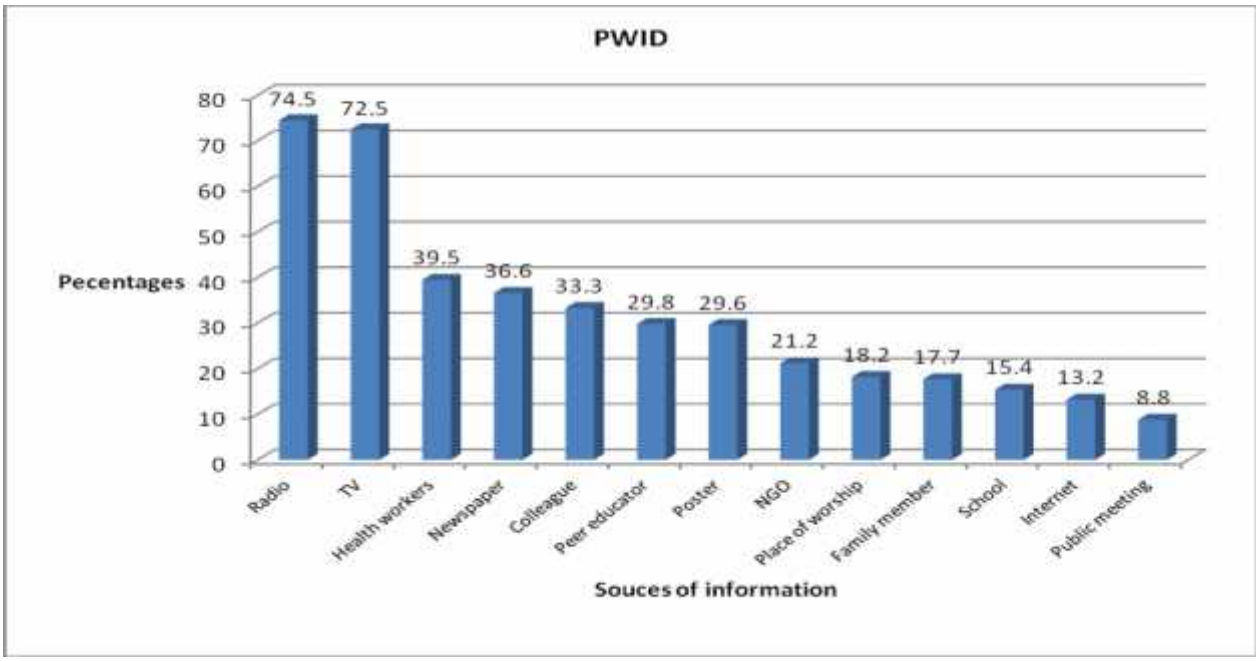

Figure 63: Percentage distribution of PWIDS' sources of information on HIV & AIDS; Nigeria, IBBSS, 2014.

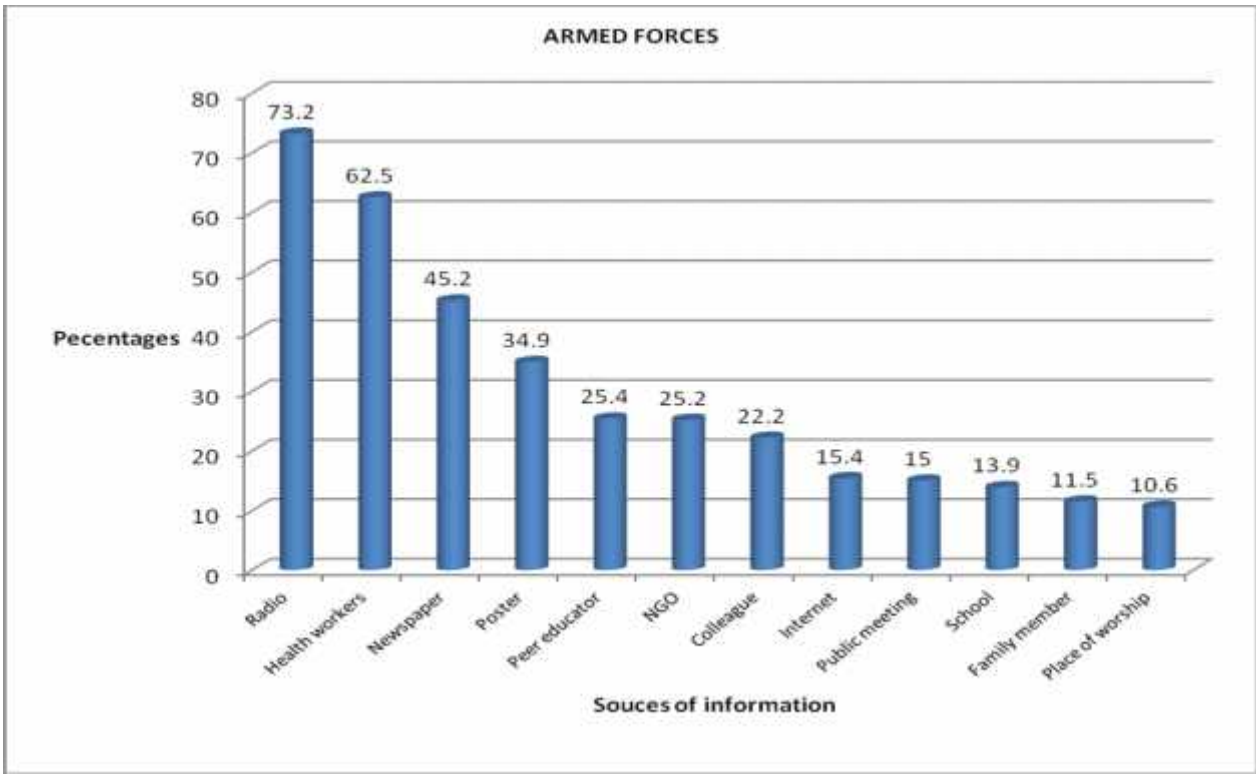

Figure 64: Percentage distribution of Armed Forces' sources of information on HIV & AIDS; Nigeria, IBBSS, 2014.

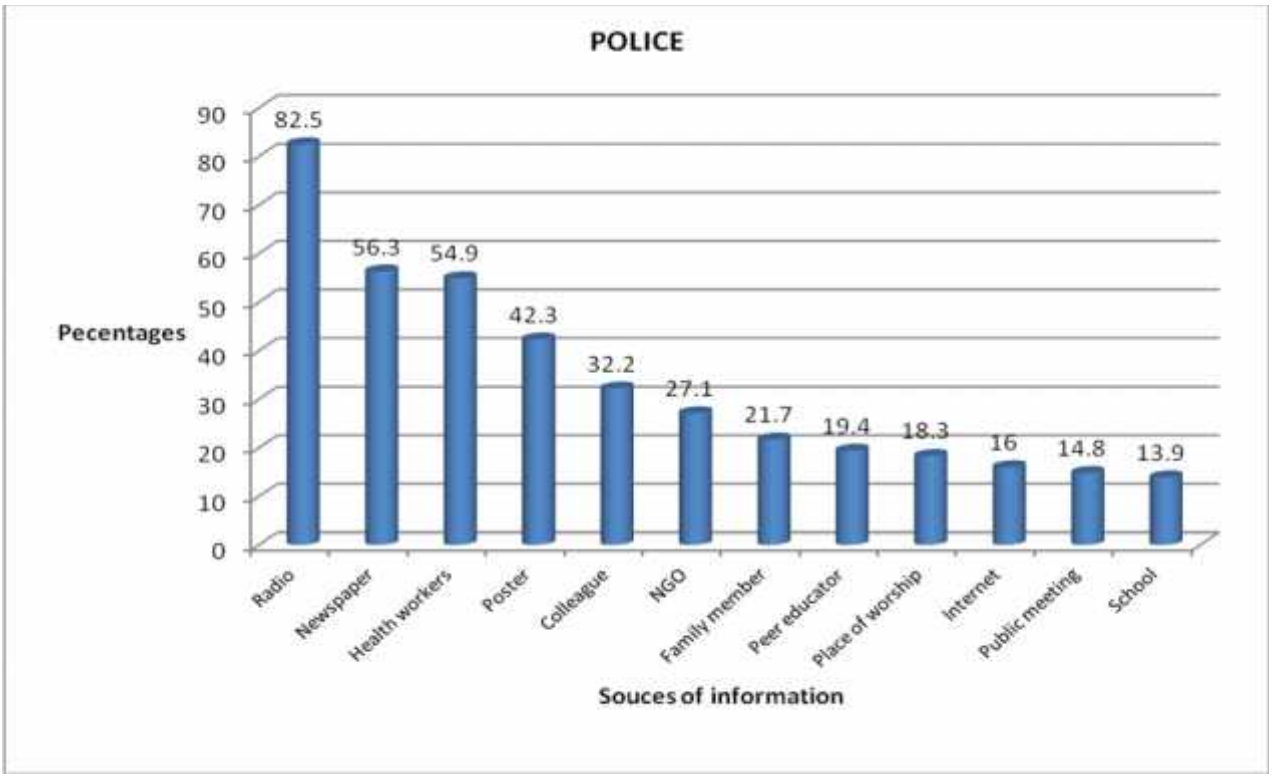

Figure 65: Percentage distribution of Police Respondents' sources of information on HIV & AIDS; Nigeria, IBBSS, 2014.

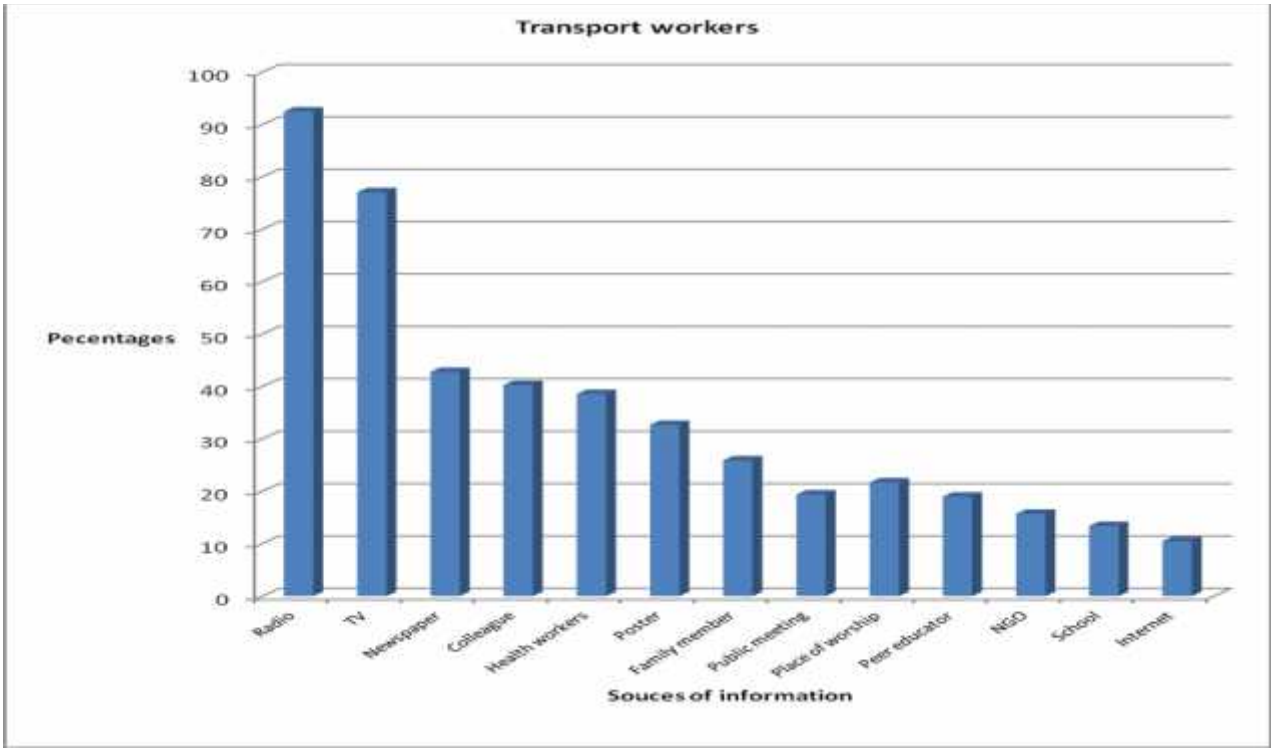

Figure 66: Percentage distribution of Transport Workers' sources of information on HIV & AIDS; Nigeria, IBBSS, 2014.

4 DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

This is the third round of the Integrated Biological and Behavioural Surveillance Survey among key target groups considered to be most at risk of HIV & AIDS and who are supposed to contribute disproportionately to the HIV epidemic in Nigeria. Just like the saying goes *'out of three positive witnesses, the truth shall be established'*, it is always scientifically true that 3 points are enough to draw a straight line. This survey should provide information for the estimation of trends in the prevalence of HIV and behavioural indicators associated with HIV and AIDS among these target groups.

The beauty of this survey is its uniform methodology with the previous two surveys, thereby making the results reliably comparable. Another advantage of this survey is the larger sample size than previous surveys. The benefit of this is the reduction of sampling error and the better precision of estimates of HIV and other risky behaviours among these key affected populations. However, the large shortfall of almost 13% of the estimated sample size needed some comments. The Respondent Driven Sample Methodology used in recruiting the MSM, which accounted for a sizeable proportion of the shortfall observed, is the most appropriate for sampling such population. A possible explanation for the shortfall among the MSM would be whether the seeds did not cover all the socio-economic or age groups and so left out a sizeable number of them. It may also be that assumptions of an infinite population made in the calculation of the sample size estimate might not be correct.

4.1 HIV Prevalence

The decline in HIV prevalence among the target groups, except the MSM, can be attributed to the preventive strategies of all stakeholders in the last 10 years or so. The FWSS showed more striking decline in HIV prevalence between 2007 and 2014, with the NBBFWSS reporting a decline of 21.6%, i.e. from 30.2 in 2007 to 8.6% in 2014; while the BBFWSS recorded a decline of 18%, i.e. from 37.4 in 2007 to 19.4% in 2014. Expectedly, HIV prevalence was significantly higher among -BBFWSS and NBBFWSS who had been 5 years and above in the profession than those with lesser years. The consistently lower prevalence in the NBBFWSS than their BBFWSS counterparts could be attributed to the category and lower number of clients, as well as higher level of education. The fact that FWSS with few numbers of clients per day had lower levels of HIV prevalence supports general belief of attributing level of risk to number of sex partners.

On the other hand, it was observed that Police and Armed Forces had prevalence rates below that of the general population since 2007, while the Transport Workers reported a similar trend between 2010 and 2014. This and the observed decline among the Armed Forces and Transport Workers to an all-time low of less than 2%, in spite of the fact that HIV infected persons now live much longer, deserves applause to government and its partners for effective preventive strategies.

The steep decline among the FWSS is cheering and needs to be investigated for the actual reason behind the improvement.
The steady increase in the prevalence of HIV over the years among the MSM group to a level higher than the FWSS is worrisome. Health program managers should provide more effective prevention programs targeted at the MSM upon better information on the root cause.
The finding that the HIV prevalence was higher among MSM who perceived themselves

at risk of HIV could be that they were already infected before the survey and the higher prevalence among those of them who were receptive may be due to biological factors similar to a higher prevalence among females.

It is, therefore, recommended that more scientific study be undertaken to discover the reasons behind the sustained relatively low prevalence among the Police, Armed Forces and Transport Workers for any best practice that can be adapted for other sub-populations. A similar approach should be adopted for the FWSS; for example, during the Impact Evaluation of the recent World Bank/NACA project for FWSS. A cursory look at some of the study findings of the IBBSS and NARHS in Nigeria shows that the status of Armed Forces, Police and Transport Workers in HIV prevalence cannot be simple explained by their higher adoption of safer behaviour, when compared with the general population.

Based on the findings of this survey and the preceding IBBSS, the PWID, Transport Workers, Police and Armed Forces may no longer be justifiably grouped with the others as "most at risk populations" for HIV and can be considered as being at the same level of risk as the general population in Nigeria.

4.2 Knowledge of HIV and Perception of Risk

The percentage of each vulnerable group who knew that staying with one faithful uninfected partner, using condoms consistently (correctly and every time they had sex), and major misconceptions such as 'that HIV cannot be transmitted through mosquito bites and sharing of meals with an infected partner have been recommended as good indicators of HIV knowledge by the UNAIDS. The MSM group who had the highest proportion with good knowledge of the UNAIDS indicators had the highest prevalence of HIV. This supports the notion that knowledge of preventive methods may not necessarily translate to adherence to its practice.

The findings of higher proportions of respondents with misconceptions about the transmission of HIV infection such as that it could be transmitted through mosquito bites or sharing of meals or toilets with HIV infected person among PWID and Transport Workers could increase the level of stigma and discrimination among these target populations.

The significant increase in HIV prevalence among the target populations who had self-perception of risk of HIV could mean that some of them might already have known themselves to be infected with HIV prior to this survey, particularly the FWSS. And the fact that more than a third of the respondents did not know that HIV can be transmitted from infected pregnant woman to an unborn child, particularly among FWSS, is an indication for more IEC preventive programs on HIV transmission routes.

4.3 HIV Testing

The high proportion of FWSS, MSM and PWID who voluntarily underwent an HIV test can be attributed to HIV Counselling and Voluntary Testing activities widely promoted and brought to the door steps of this category of population through the efforts of different prevention intervention programmes. This also could explain why less than 50% of FWSS knew the facility to have an HIV test. During these testing processes, they were provided with their test results and, therefore, it is not surprising that over 90% reported they found out their HIV status from the test results.

The MSM who had the highest proportion of respondents that knew a facility to have an HIV test also had the highest prevalence of HIV and lowest level of the proportion that underwent the test. What this suggests is that awareness of an HIV testing facility may not translate to its use.

On the other hand, the higher proportion of the Armed forces and Police respondents compared to the Transport Workers who had an HIV test, knew a facility for HIV testing, underwent a voluntary HIV test and found out their results, could be attributed to availability and accessibility of designated testing facilities. However, the general gradual increase in the proportion of each group who had ever had an HIV test is a success story to policy makers and programme managers. The increase was in virtually all the states and it is important to intensify the awareness campaign for everyone to know his/her HIV status.

4.4 Sources of information on HIV & AIDS

The findings of this survey that radio, television and health workers were the major sources of information on HIV & AIDS underscore the need for program managers to intensify the use of these sources mainly, while not ignoring other avenues such as newspapers and posters.

4.5 Condom use and HIV & AIDS

The findings that the prevalence of HIV was statistically significantly higher ($P<0.05$) among MSM and Police who did not use condom than those who did consistently, underscore the need to promote consistent use of condom among these target populations.

In spite of a high awareness of condom among each key affected population, the use of condom had been relatively low. Whereas, condom use is very important especially among sexually active people to reduce the risk of STIs, in particular HIV and unwanted pregnancy, as a result of their usual engagement with multiple sex partners, the proportion of persons who have used condom in last sex act with non marital partner. Thus, one way to ensure prevention from contracting any of the sexual transmitted infections, including HIV, is the consistent use of condom during sexual intercourse with a person who was not their spouse.

4.6 Self- reporting of STI symptoms

It is worthy of note that more than 90% of the target populations except the Transport Workers reported good knowledge of symptoms of STIs. Although self-reported symptoms such as genital discharge and genital ulcer/sore appeared to increase among BBFWSS, NBBFWSS, PWID and MSM, it declined to low levels among the Armed Forces, Police and Transport Workers. These low levels also corroborate the lower levels of HIV among this latter group which reinforces the need to treat them like the general population.

The fact that the chemist or pharmacy was the commonest source of treatment for STIs is an indication of the culture of buying on the counter (prescription) drugs among these groups. The higher patronage of private hospitals/clinics also underscores the low utilization of Nigerian public hospitals/clinics by the groups for the treatment of STI, except for those in government institutions, like the Armed Forces, who patronize their accessible and affordable health care facilities. The patronage of traditional healers, as the second source of STI treatment among transport workers, should raise concern, as they generally rely on the misinformation of the gullible uninformed..Appropriate regulation of the activities of the traditional healers is strongly recommended, especially as their practice sometimes exacerbates certain conditions.

4.7 Attitudes towards PLWHA

The findings that about a third of this target population was not willing to buy food from an HIV infected person and more than 40% did not want to eat with an HIV infected person, derives from the general misconceptions about the transmission of HIV. Thus, policy makers should develop more effective education programs for these key affected populations at high risk of contracting HIV infection using appropriate IEC materials.

5 REFERENCES

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6 APPENDICES

Appendix 1

6.1 Sample sizes

The desired sample size for the behavioural component of the survey is estimated for all the target groups using the following formula:

$$n = D\frac{\left[\sqrt{2P(1-P)}Z_{1-\alpha} + \sqrt{P_1(1-P_1)+P_2(1-P_2)}Z_{1-\beta}\right]^2}{\Delta^2}$$

Where: D = design effect;

P1 = the known/assumed pre-survey value of the indicator of interest or the estimated proportion of the target population with the characteristic of interest at the time of the first survey;

P2 = the value of the indicator of interest at a future date or the of the target population with the characteristic of interest at some future date such that the quantity (P2 - P1) is the size of the magnitude of change it is desired to be able to detect;

P = (P1 + P2) / 2;

Δ = |P2 – P1|

$Z_{1-\alpha}$ = the z-score corresponding to the probability with which it is desired to be able to conclude that an observed change of size (P2 - P1) would not have occurred by chance; and $Z_{1-\beta}$ = the z-score corresponding to the degree of confidence with which it is desired to be certain of detecting a change of size (P2 - P1) if one actually occurred.

α = 0.05 ($Z_{1-\alpha}$ = 1.65) β=0.20 ($Z_{1-\beta}$=0.83)

Because little was known about the current risk behaviours of the target populations in the selected states, we set the pre-survey values of the indicators of interest at 0.5 to ensure that our sample sizes are big enough to detect the desired changes over time.

As the null hypothesis was that there had been no increase in preventive behaviour among the target populations studied, one tailed tests of significance was used behavioural component of the survey.

For the biological component, the EPI-INFO STATCALC computer package (sample size for population surveys) was used to calculate the sample size for each risk group. The EPI-INFO STATCALC computer package calculation is based on the formula:

$$n = \frac{Z_\alpha^2 * P(1-P)}{d^2}$$

Where: n = sample size;

Z_α = 1.96 for α =0.05;

P = the estimated proportion of HIV/AIDS among high risk groups;

d= precision

The prevalence rates used for the selected high risk groups in this study were estimated from a formative biological research conducted in the Federal Capital Territory (FCT) by a GHAIN partner.

6.1 SAMPLING CONSIDERATIONS IN SELECTING THE SAMPLE

The real challenges of the study pertain to locating and convincing eligible participants to participate in the study given the often clandestine and socially unacceptable behaviours of some of the target groups (FWSS, MSM, PWID) as well as the nature of the biomarkers being tested – STIs, including HIV. These challenges will be addressed by:

Involving the target populations in the design and recruitment of study participants;

Working with community leaders, authorities and NGOs to ensure that everyone is informed about the study and that data release is handled in such a manner as to minimize risk and stigma;

Ensuring strict confidentiality of survey participants through non-recording of names;

Adequate training of staff on the study procedures, protection of participants, monitoring procedures, supervision and QA for laboratories.

6.1.1 Female who sell sex (Brothel-based)

The brothel-based females who sell were selected using a two-stage cluster sampling procedure[14]. Working with the field officers of the Society for Family Health, an organization that has done considerable work among the FWSS, and the State AIDS Control Program Coordinators (SAPC), the list of brothels where FWSS live will be updated. For each brothel listed, information was collected on the approximate number of FSW living there to enable us estimate the cumulative measure of size. The information on measure of size will permit sample allocation by probability proportional to size (PPS).

Clusters were selected using PPS with a fixed number of sex workers recruited from each cluster. The cluster sizes of the brothel-based sex workers will be 6 and 48 clusters were selected in each state in order to reach the sample size of 288. Individual participant was selected from the total number of sex workers in the site. In situations where the actual number of sex workers in each brothel was the same (or very close to) as the estimated number of sex workers from the mapping exercise, the brothel-base sex workers samples should be self-weighted and did not require sampling weights during analysis.

But when the estimated number of brothel-based sex workers in the state was less than the sample size of 288, a "take-all" approach was used where all of the sex workers in the state's catchment area were recruited for the survey.

6.1.2 Female who sell sex (Non-Brothel Based)

The non-brothel/street based FWSS were recruited using the time location sampling approach. The TLS is a form of cluster sampling that contains both time and location dimensions. Working through relevant NGOs and SAPC in different cities/towns, we generated a list of streets, bars, night clubs etc. where FSW usually congregate (including information on the time of the day when they congregate there).

Time-location clusters was defined as the location where non-brothel-based sex workers congregate, the day(s) of the week that is the peak time, and the time of the day when the highest number of sex workers are present at the site. TLS clusters were selected using PPS with a fixed number of sex workers recruited from each cluster.

[14] The Time Location Sampling (TLS) procedure (described below for the non-brothel based FSW) could be adopted if there is evidence from the mapping exercise that the population of the brothel-based FSW fluctuates significantly during the day and over time. By using TLS, we would avoid several call-backs to interview those who might not be present on the day of data collection, which may add to survey time and costs.

The cluster size of the non-brothel-based sex workers was 6 and 48 clusters were selected in each state in order to reach the sample size of 288. Individual participant was selected from the total number of sex workers in the site on the day and during the entire time period in the sampling frame. In situations where the actual number of sex workers in each site was the same (or very close to) as the estimated number of sex workers from the mapping exercise, the non brothel-based FWSS samples should be self-weighted and did not require sampling weights during analysis.
But when the estimated number of non- brothel-based sex workers in the state was less than the sample size of 288, a "take-all" approach was used where all of the sex workers in the state's catchment area were recruited for the survey.

6.1.3 Men who have sex with Men

The Respondent Driven Sampling (RDS) was implemented among the MSM. As explained above, the RDS methodology starts with the recruitment of the seeds from the members of the target group. Alliance Rights, Nigeria (AR), a non-governmental organization that has worked to address HIV & AIDS/STI issues among MSM in Nigeria, collaborated with the study team to identify the seeds. Ten seeds were recruited initially and the number of seeds was increased when it was discovered that some of the initial seeds were not recruiting efficiently.
These seeds were the first MSM to be contacted and the objectives of the survey and expected were explained to them. Once a seed completed all parts of the study (behavioural and biologic), he was given three vouchers to recruit his peers into the study. Vouchers were numbered to include the identification number (serial number) of the original recruiter. The number of vouchers given to each recruiter has been limited to three to ensure that a broad array of subjects have an opportunity to recruit, to prevent the emergence of semi-professional recruiters, and to preclude turf battles over recruitment rights. A total 879 MSM was recruited for this study (293 in just 3 states: Cross River, Kano and Lagos).

6.1.4 People who inject drugs

The services of experienced national researchers in this field helped with the recruitment of seeds and coordinating the survey activities for the Injection drug users. Respondents were recruited by Respondent Driven Sampling (RDS) methodology. The seeds were the first IDU to be contacted and were briefed on the objectives of the survey and their expected roles. Once a seed completed all parts of the study (behavioural and biologic), he was given three vouchers to recruit his peers into the study. Vouchers were numbered to include the identification number (serial number) of the original recruiter. The number of vouchers given to each recruiter has been limited to three to ensure that a broad array of subjects have an opportunity to recruit, to prevent the emergence of semi-professional recruiters, and to preclude turf battles over recruitment rights. A total 879 IDUs was recruited for this study (293 in just 3 states: Cross River, Kano and Lagos).

6.1.5 Transport Workers (TW)

The time-location sampling procedure was adopted among the male transport workers. Four categories of transport workers were identified for this study: (i) Long distance drivers/attaches/assistants of heavy duty vehicles (e.g. trailers) that spend a couple of days on the road before reaching their final destinations; (ii) Inter- state commercial bus and taxi drivers who travel relatively long and medium distances majority of whom don't return to their originating station until the second/third day – this category of drivers most often sleep in the destination towns and not along the routes as do the long distance drivers; (iii) Intra state commercial bus and taxi drivers who operate within a city or between relatively short

distances and return to usual place of residence at the end of each day; (iv) Commercial motor cyclists who transport persons from one place to another within a city for a fee. All types of transportation workers were included in the sampling frame. TLS clusters were chosen using PPS, so the proportion of each different transportation worker type in the survey was reflected in the actual proportion in the transport worker population.

In collaboration with Transport Workers union and NGOs that have worked with the Transport Workers, a list of major parks for each category of Transport Workers was compiled. For the long distance truckers the parks were identified along major routes. For other categories of transport workers, the parks were identified in the major cities/towns of destination/operation. The list contained information on the high and low peak periods and the parks were visited to recruit the respondents during the high and low peak hours.

Time-location clusters were defined as the location where transportation workers congregate, the day(s) of the week that was the peak time, and the time of the day when the highest number of workers were present at the site. TLS clusters were selected using PPS with a fixed number of transportation workers recruited from each cluster.

The cluster size of the transportation workers was 9 and a total of 43 total clusters were selected in each state in order to reach the sample size of 384. Individual participants were selected from the total number of workers in the site on the day and during the entire time period in the sampling frame. In situations where the actual number of transportation workers at the site was the same (or very close to) as the estimated number from the mapping exercise, the transportation workers samples should be self-weighted and not require sampling weights during analysis.

When the estimated number of transportation workers in the state was less than the sample size of 384, a "take-all" approach was used where all of the sex workers in the state's catchments area were recruited for the survey.

Ethical Issues

Participation of all respondents in the survey was strictly voluntary. Measures were taken to assure the respect, dignity and freedom of each individual participating in the study. Parental/guardian consent was sought for respondents below the legal age of 18 staying at home, and for those in institutions, permission to interview them and draw blood were obtained from the relevant institutional authorities. In order to guarantee the anonymity of each participant, the names of interviewees, their addresses or other identifying information were not included in the questionnaires or on any biomarker tracking forms. The questionnaires were identified with a code. Stickers with numbered codes were used: on the questionnaire, and the HIV tracking forms. Informed consent was attained from each participant by reading a short paragraph that summarized the study and the role of the participant and assured confidentiality. The form were signed by the participant/or the supervisor\counsellor.

During the interview, basic information was provided about HIV & AIDS, diagnostic testing, condom use, and specific risks for each population.

The SAPC and the field supervisors ensured that the ethical regulations of the project that guarantee voluntary participation and confidential data management were met and pledged to meet all the ethical aspects of the study.

Appendix 4.1: Percentage distribution of respondents away from home continuously for one month in the last 12 months prior to survey date among the STI/HIV Vulnerable group, by age and State, Nigeria, IBBSS 2014

Characteristics	HIV VULNERABLE GROUP							
	Brothel based	Non-brothel based	MSM	Armed Forces	Police	Transport workers	PWID	Total
STATE								
Abia	31.6	45.9	-	-	-	-	-	38.8
Anambra	31.3	36.1	-	40.0	15.1	13.3	-	27.2
Benue	60.3	24.2	-	66.7	40.8	18.1	-	42.0
Cross River	42.5	29.4	37.8	32.3	57.9	58.8	24.0	41.5
Edo	38.3	34.2	-	65.8	19.1	37.5	-	38.9
Enugu	61.3	61.9	40.3	-	-	-	48.3	50.6
FCT	64.2	59.6	66.2	47.2	41.4	92.3	70.5	64.1
Kaduna	48.6	45.8	34.4	39.5	24.9	40.7	53.4	41.5
Kano	57.9	31.6	55.2	57.7	30.5	41.3	29.1	42.0
Lagos	41.5	27.4	58.0	49.3	29.3	35.8	46.9	42.1
Nasarawa	49.8	43.5	-	61.9	35.1	21.1	-	42.3
Oyo	73.6	61.2	63.3	-	-	-	36.5	58.9
Rivers	35.2	32.0	59.6	-	-	-	44.0	45.1
Taraba	65.3	56.6	-	-	-	-	-	61.0
Age in years								
15-19	46.2	37.5	38.0	66.7	0.0	37.0	46.5	40.3
20-24	47.0	39.9	52.0	47.4	34.1	43.8	43.9	45.9
25-49	51.6	44.4	60.1	51.5	32.6	40.8	50.5	45.9
Total (%)	50.2	42.0	51.7	51.0	32.6	38.7	48.6	45.5

Appendix 4.2: Percentage distribution of Female Who Sell Sex, MSM and PWID frequency of drinking alcohol in the last 4 weeks prior survey date by age and State; Nigeria IBBSS, 2014

Characteristics	Female Sex Worker				MSM		PWID	
	Brothel based		Non Brothel based					
	Every day	At least once a week	Every day	At least once a week	Every day	At least once a week	Every day	At least once a week
Age in years								
15-19	20.7	19.2	16.9	18.3	4.8	16.4	36.1	23.1
20-24	26.3	21.2	23.4	21.9	8.7	18.2	36.0	20.8
25-49	26.0	21.5	29.7	24.0	10.0	23.2	35.4	15.6
State								
Abia	19.7	27.5	18.2	33.2	-	-	-	-
Anambra	31.0	25.0	16.6	32.2	-	-	-	-
Benue	17.7	28.7	31.4	39.8	-	-	-	-
Cross River	39.2	16.5	45.5	15.8	6.0	22.0	40.4	27.8
Edo	40.7	15.2	36.8	24.7	-			
Enugu	34.4	17.9	39.9	18.9	18.3	23.3	24.3	14.7
FCT	19.4	28.9	18.8	23.6	2.8	25.0	43.5	20.4
Kaduna	20.7	18.1	26.7	21.3	1.4	5.8	28.4	23.0
Kano	17.3	13.3	26.7	16.9	3.4	2.2	8.8	8.4
Lagos	25.1	32.2	18.7	30.0	8.9	13.4	23.6	7.3
Nasarawa	21.5	22.8	18.0	14.6	-	-	-	-
Oyo	21.1	19.1	19.9	16.8	13.7	23.5	55.8	16.1
Rivers	38.6	16.8	41.0	14.0	11.2	24.8	55.2	18.8
Taraba	16.7	15.7	17.9	11.1	-	-	-	-
Total	**25.8**	**21.3**	**26.1**	**22.7**	**8.3**	**19.5**	**35.6**	**17.3**

Appendix 4.3: Percentage distribution of uniformed officers and Transport workers frequency of drinking alcohol in the last 4 weeks by Selected Characteristics; Nigeria IBBSS, 2014

Characteristics	Armed Forces		Police		Transport workers	
	Every day	At least once a week	Every day	At least once a week	Every day	At least once a week
Age in years						
15-19	5.3	10.5	0.0	0.0	1.7	15.5
20-24	2.3	12.3	4.5	13.6	9.4	14.8
25-49	7.0	13.8	8.6	12.8	15.7	13.1
State						
Abia	-	-	-	-	-	-
Anambra	9.7	11.7	10.5	17.6	30.8	9.7
Benue	5.7	14.3	11.0	12.0	23.7	20.4
Cross River	5.7	21.0	10.2	26.1	10.1	8.0
Edo	9.2	14.2	10.6	9.9	28.6	22.6
Enugu	-	-	-	-	-	-
FCT	9.4	14.8	8.0	14.6	13.0	24.7
Kaduna	7.7	9.3	7.0	10.1	5.4	13.7
Kano	5.0	15.1	5.8	8.2	0.7	2.3
Lagos	2.3	13.7	9.4	4.4	16.7	10.4
Nasarawa	2.3	8.4	4.7	12.8	3.4	8.2
Oyo	-	-	-	-	-	-
Rivers	-	-	-	-	-	-
Taraba	-	-	-	-	-	-
Total	**6.3**	**13.6**	**8.6**	**12.8**	**14.7**	**13.4**

Appendix 4.4: Percentage distribution of type of drugs ever used by all respondents according to Selected Characteristics; IBBSS Nigeria, 2014

Characteristics	Cocaine	Heroine	Marijuana	Glue	Pethidine	Pentazocine	Chinese capsules	Amphetamines	Total
Age in years									
15-19	7.5	5.9	18.0	2.3	1.9	1.4	2.3	1.5	1555
20-24	9.9	8.7	23.7	2.4	2.3	2.4	2.6	1.5	5734
25+	10.8	9.8	20.2	1.8	1.7	2.3	2.5	1.3	15444
State									
Abia	0.2	0.6	17.3	0.0	0.0	0.0	0.0	0.0	545
Anambra	0.3	0.3	16.1	0.2	0.0	0.1	0.1	0.0	1501
Benue	0.3	0.3	13.5	0.5	0.1	0.1	0.4	0.1	1498
Cross River	10.8	4.3	19.2	0.7	0.1	0.1	0.5	0.2	2047
Edo	0.3	0.3	13.2	0.0	0.0	0.1	0.3	0.1	1497
Enugu	20.9	18.0	36.0	3.3	1.0	2.4	5.8	1.6	1358
FCT	9.9	16.3	19.9	2.3	2.6	1.1	3.2	0.7	2806
Kaduna	11.7	15.5	30.8	6.5	5.8	9.9	7.2	7.2	2503
Kano	13.5	14.2	22.7	4.1	2.7	7.3	1.2	1.6	1820
Lagos	14.9	20.0	21.3	3.2	1.9	0.6	1.5	0.8	2311
Nasarawa	1.2	0.7	7.4	0.2	0.2	0.2	0.1	0.1	1497
Oyo	22.2	20.6	30.2	2.6	2.4	2.1	5.5	1.8	1354
Rivers	23.0	16.0	24.4	2.3	6.3	0.8	2.0	0.5	1497
Taraba	0.5	0.3	3.4	0.0	0.0	0.2	0.2	0.0	597

Appendix 4.5: Percent distribution of drugs used in the last 4 weeks by all respondents according to Selected Characteristics; IBBSS, 2014

Age in years	Pentazocine (fortwin)	Heroine Without cocaine	Cocaine without heroine	Heroine &Cocaine	Crack	Pethidine	Anything else	Total
15-19	0.7	4.4	5.7	1.9	2.3	1.5	2.3	1555
20-24	1.5	5.7	6.9	2.4	3.3	1.6	3.1	5732
25+	1.5	7.5	7.5	3.4	2.7	0.9	2.6	15544
State								
Abia	-	-	-	-	-	-	-	-
Anambra	-	-	-	-	-	-	-	-
Benue	-	-	-	-	-	-	-	-
Cross River	0.1	1.9	7.5	0.3	1.1	0.1	4.6	2047
Edo	-	-	-	-	-	-	-	-
Enugu	2.7	16.8	17.8	9.1	14.6	0.3	3.2	1358
FCT	0.6	7.8	8.3	3.2	2.0	1.8	6.7	2806
Kaduna	5.0	8.4	6.4	3.8	10.9	3.3	6.2	2503
Kano	6.0	12.9	6.2	1.8	2.3	0.3	3.0	1820
Lagos	0.3	12.9	11.8	5.3	0.7	0.3	1.4	2311
Nasarawa	0.3	0.1	0.1	0.0	0.0	0.0	0.0	1497
Oyo	1.4	13.9	16.3	11.4	2.2	0.9	1.8	1354
Rivers	0.3	9.5	15.9	4.8	0.7	6.2	0.9	1497
Taraba	0.0	0.0	0.0	0.0	0.0	0.1	0.0	597
Vulnerable Group								
Brothel-based	0.1	0.0	0.1	0.0	0.0	0.1	0.0	4090
Non-brothel-based	0.1	0.2	0.0	0.0	0.0	0.0	0.0	3959
MSM	0.0	0.1	0.1	0.0	0.1	0.0	0.1	3611
PWID	10.1	49.2	51.7	22.2	20.5	8.1	19.3	3150
Armed Forces	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2639
Police	0.4	0.4	0.0	0.0	0.0	0.0	0.0	2688
Transport workers	0.0	0.1	0.0	0.0	0.0	0.0	0.0	2694
Total	**1.4**	**6.8**	**7.2**	**3.0**	**2.8**	**1.1**	**2.7**	**22831**

Appendix 4.6: Percent distribution of drugs injected in the last 4 weeks by respondents according selected characteristics; IBBSS, Nigeria, 2014

Age in years	Pentazocine (fortwin)	Heroine Without cocaine	Cocaine without heroine	Heroine & Cocaine	Crack	Pethidine	Anything else	Total
15-19	0.6	4.2	5.3	1.9	1.6	1.3	1.2	1555
20-24	1.1	5.9	6.2	2.5	1.9	1.4	1.7	5732
25+	1.4	7.2	6.5	3.5	1.8	0.8	1.3	15544
State								
Abia	-	-	-	-	-	-	-	-
Anambra	-	-	-	-	-	-	-	-
Benue	-	-	-	-	-	-	-	-
Cross River	0.1	1.1	7.1	0.2	0.6	0.0	1.2	2047
Edo	-	-	-	-	-	-	-	-
Enugu	2.5	15.9	15.6	8.3	14.6	0.3	2.1	1358
FCT	0.5	7.1	8.0	3.1	2.0	1.9	3.6	2806
Kaduna	4.2	9.0	4.5	2.8	2.8	2.3	3.1	2503
Kano	6.1	10.9	1.7	0.5	0.2	0.4	1.4	1820
Lagos	0.3	12.6	10.7	6.8	0.7	0.3	1.3	2311
Nasarawa	0.1	0.0	0.1	0.0	0.0	0.0	0.0	1497
Oyo	0.5	16.9	17.7	14.8	3.5	0.3	0.4	1354
Rivers	0.4	9.3	15.4	4.8	0.7	6.0	0.8	1497
Taraba	0.0	0.0	0.0	0.0	0.0	0.1	0.0	597
Vulnerable Group								
Brothel-based	0.0	0.0	0.3	0.0	0.0	0.2	0.0	4090
Non-brothel-based	0.1	0.1	0.0	0.0	0.0	0.0	0.1	3959
MSM	0.0	0.1	0.0	0.0	0.0	0.0	0.0	3611
PWID	8.9	48.1	45.7	22.5	13.2	6.9	10.0	3150
Armed Forces	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2639
Police	0.0	0.0	0.1	0.0	0.0	0.0	0.0	2688
Transport Workers	0.0	0.1	0.0	0.0	0.0	0.0	0.0	2694
Total	**1.3**	**6.7**	**6.3**	**3.1**	**1.8**	**1.0**	**1.4**	**22831**

Appendix 5.1: Percent distribution of all respondents positive for HIV/AIDS by Selected demographic Characteristics and State, Nigeria IBBSS, 2014

Characteristics	Brothel Based Female who sell sex (BBFWSS)	Non-Brothel Based Female who sell sex (NBBFWSS)	Men who have Sex with Men (MSM)	Males and Females of the Armed Forces	Transport Workers	Males and Females of the Injecting Drug Users (PWID)	Males and Females of the Police	Overall Percent
Age group								
15-19	11.2	6.4	12.4	0.0	0.0	3.1	0.0	9.2
20-24	13.8	7.5	21.1	0.3	0.4	2.3	0.0	10.8
25 and above	21.9	9.9	32.3	1.8	1.8	3.9	2.5	9.0
State								
Abia	10.1	4.0	-	-	-	-	-	7.2
Anambra	15.7	4.8	-	4.3	0.7	-	1.0	5.3
Benue	36.5	14.2	-	1.3	4.3	-	1.4	11.6
Cross-River	13.5	9.2	11.3	0.7	3.3	5.8	3.8	6.9
Edo	7.3	6.5	-	0.7	1.1	-	1.7	3.4
Enugu	15.0	7.1	16.8	-	-	2.2	-	10.5
FCT	16.8	7.8	30.1	1.9	0.0	4.7	4.8	11.2
Kaduna	27.8	7.0	15.5	1.7	2.1	1.8	2.8	8.4
Kano	29.5	19.0	14.9	0.0	0.4	8.9	0.0	9.0
Lagos	7.5	8.4	41.3	1.2	1.0	2.5	-	11.5
Nassarawa	27.7	6.7	0.0	1.4	1.7	-	3.4	8.2
Oyo	8.0	6.4	14.2	-	-	1.9	-	8.3
Rivers	7.7	11.7	40.7	-	-	0.9	-	14.0
Taraba	47.2	12.4	0.0	-	-	-	-	30.5
Overall	19.4	8.6	22.9	1.6	1.6	3.4	2.5	9.5
Total	**3657**	**3138**	**3104**	**2476**	**2464**	**3003**	**2565**	**20,407**

Appendix 5.2: Percent distribution of all respondents positive for HIV/AIDS by some selected demographic characteristics, Nigeria IBBSS, 2014

Characteristics	Brothel Based Female who sell sex (BBFWSS)	Non-Brothel Based Female who sell sex (NBBFWSS)	Men who have Sex with Men (MSM)	Males and Females of the Armed Forces	Transport Workers	Males and Females of the Injecting Drug Users (PWID)	Males and Females of the Police	Overall Percent
Gender								
Male	-	-	22.9	1.6	1.6	2.6	2.0	7.2
Female	19.4	8.6	-	0.8	-	13.9	3.9	13.1
Marital Status								
Currently married, living with spouse	22.6	4.1	20.6	1.6	1.8	3.5	1.9	2.7
Currently married, living with other sex partner	35.3	0.0	33.3	0.0	0.0	0.0	0.0	5.7
Currently married, not living with spouse or other sex partner	25.0	4.3	23.8	1.5	1.7	2.8	3.6	4.9
Not married, living with sexual partner	33.7	10.7	24.2	3.3	2.2	5.7	1.2	16.8
Not married, Not living with other sexual partner	17.7	8.6	22.9	1.4	1.2	3.3	4.6	12.1
Highest Level of Education								
Never attended school	36.2	23.1	18.2	0.0	4.2	3.7	0.0	24.9
Primary Education	26.5	14.1	16.4	1.5	1.0	3.8	2.7	11.3
Secondary Education	16.3	8.1	20.5	1.7	1.7	3.5	2.8	9.0
Tertiary education	12.3	6.1	30.5	1.3	2.5	2.8	2.0	8.4
Religion								
No religion	17.6	10.3	36.4	0.0	20.0	12.5	0.0	15.6
Christianity	18.6	8.2	25.5	1.8	2.0	3.3	2.8	10.2
Islam	32.5	12.4	17.2	1.0	1.1	3.5	0.8	6.9
Traditional	10.0	20.0	30.0	0.0	0.0	0.0	0.0	11.5

Appendix 6.1: Percentage distribution of vulnerable groups who knew close relative infected by HIV/AIDS, by Selected Characteristics; Nigeria, IBBSS, 2014

Characteristics	Vulnerable groups						
	BBFWSS	NBBFWSS	MSM	PWID	Armed Forces	Transport Workers	Police
	Close relative or friend with HIV/AID n=1726	Close relative or friend with HIV/AID n=1346	Close relative or friend with HIV/AID n=1639	Close relative or friend with HIV/AID n=1496	Close relative or friend with HIV/AID n=1367	Close relative or friend with HIV/AID n=975	Close relative or friend with HIV/AID n=1057
Age in years							
15-19	38.8	47.3	38.8	40.7	33.3	35.3	100.0
20-24	48.6	43.2	46.7	45.7	49.6	40.7	61.5
25+	55.5	48.6	60.6	54.1	45.1	47.1	54.0
Sex							
Male	-	-	51.6	50.7	45.2	46.3	52.9
Female	53.4	53.4	-	63.1	48.8	-	58.0
Education							
No formal education	56.2	60.0	-	72.7	-	45.8	-
Primary education	55.8	49.4	48.1	43.6	48.6	41.3	55.3
Secondary Education	52.2	44.2	47.5	52.1	45.0	45.4	57.0
Tertiary education	52.5	49.5	59.0	54.0	46.3	61.1	50.2
Marital Status							
Currently married living	68.0	63.2	64.9	55.1	46.6	48.7	55.1
Currently married, living with other sexual partner	83.3	-	40.0	84.6	45.8	25.0	84.6
Currently married, not living with other sexual partner	69.2	50.0	53.8	75.0	40.8	20.0	75.0
Not married living with sexual partner	71.0	69.2	41.3	60.0	41.7	33.3	60.0
Not married, Not living with sexual partner	50.0	42.1	51.6	48.7	45.4	45.1	48.7
State							
Abia	30.0	28.1	-	-	-	-	-
Anambra	35.3	34.6	-	-	30.6	33.3	41.0
Benue	77.0	36.6	-	-	46.7	60.6	60.7
Cross-River	25.8	12.2	29.8	20.0	38.7	64.9	60.0
Edo	35.7	42.1			30.9	40.8	51.1
Enugu	33.3	30.8	52.3	23.0	-	-	-

FCT	68.4	26.4	61.0	72.7	44.1	34.1	56.5
Kaduna	71.7	71.8	46.2	49.0	46.2	56.7	56.8
Kano	34.3	31.8	39.0	63.2	57.2	29.3	50.3
Lagos	17.3	78.6	45.5	52.5	64.5	33.3	44.2
Nasarawa	45.0	51.5	-	-	49.0	50.6	55.4
Oyo	45.8	35.3	36.4	53.5	-	-	-
Rivers	54.8	74.2	68.9	44.3	-	-	-
Taraba	69.7	67.4	-	-	-	-	-
Total	**53.4**	**46.4**	**51.6**	**51.6**	**45.5**	**46.3**	**54.1**

Appendix 6.2: Percentage distribution of vulnerable groups who knew anyone died of HIV/AIDS, by Selected Characteristics; Nigeria, IBBSS, 2014

Characteristics	Vulnerable Groups						
	BBFWSS	NBBFWSS	MSM	PWID	Armed Forces	Transport Workers	Police
	Know anyone died of AIDS n=4050	Know anyone died of AIDS n=3871	Know anyone died of AIDS n=3598	Know anyone died of AIDS n=3106	Know anyone died of AIDS n=2620	Know anyone died of AIDS n=2649	Know anyone died of AIDS n=2660
State							
Abia	22.8	29.0	-	-	-	-	-
Anambra	18.7	15.0	-	-	42.0	25.4	21.7
Benue	93.5	49.8	-	-	51.0	60.2	41.6
Cross-River	21.4	23.6	19.4	21.7	41.7	9.5	30.2
Edo	21.8	19.7			37.6	15.6	13.1
Enugu	20.4	19.1	43.0	53.6	-	-	-
FCT	32.2	18.6	65.9	50.6	36.8	26.0	38.8
Kaduna	48.3	47.3	48.9	72.6	48.6	38.9	43.2
Kano	43.0	53.8	49.6	64.8	70.3	50.0	58.7
Lagos	11.3	3.0	26.8	28.3	35.1	22.1	16.5
Nasarawa	54.0	30.0	-	-	63.9	52.5	47.1
Oyo	13.8	4.2	15.5	18.2	-	-	-
Rivers	20.9	18.5	31.1	19.0	-	-	-
Taraba	63.9	66.2	-	-	-	-	-
Total	**35.0**	**28.5**	**37.8**	**44.0**	**46.9**	**33.4**	**34.5**

Appendix 6.3: Percentage distribution of vulnerable groups who knew all the UNAIDS indicators for HIV prevention by State; Nigeria, IBBSS, 2014

	Brothel based sex workers	**Non-Brothel based sex workers**	**MSM**	**Armed Forces**	**Transport workers**	**PWID**	**Police**
Abia	42.8	42.4	-	-	-	-	-
Anambra	38.0	48.0	-	66.0	47.7	-	71.2
Benue	76.0	74.6	-	76.4	48.2	-	61.2
Cross-River	57.3	69.1	72.8	84.3	74.9	41.2	35.5
Edo	37.9	51.5	-	63.7	27.8	-	35.6
Enugu	32.8	38.6	78.6	-	-	57.1	-
FCT	48.3	53.2	78.2	53.7	30.4	57.7	50.3
Kaduna	45.8	51.3	50.9	66.7	39.8	58.1	35.6
Kano	49.5	47.1	39.2	63.6	20.0	38.9	35.5
Lagos	49.7	75.3	71.4	65.7	19.3	40.2	40.3
Nassarawa	42.0	32.7	-	69.6	45.2	-	63.5
Oyo	33.0	25.3	41.6	-	-	19.0	-
Rivers	30.8	27.9	63.9	-	-	49.7	-
Taraba	35.7	34.3	-	-	-	-	-
Total	44.4	47.4	64.9	67.8	39.2	48.4	53.1
Overall Total	**51.7**	**51.7**	**51.7**	**51.7**	**51.7**	**51.7**	**51.7**

*n<30

Appendix 6.4: Percentage distribution of brothel based female sex workers who knew the UNAIDS indicators for HIV prevention by State; Nigeria, IBBSS, 2014

Characteristics	FEMALE WHO SELL SEX					
	BBFWSS			NBBFWSS		
	Abstinence from sex	Being faithful to partner	Correct use of condom	Abstinence from sex	Being faithful to partner	Correct use of condom
Sample size (n)	**4058**			**3873**		
State						
Abia	61.2	61.2	86.6	55.0	59.8	76.8
Anambra	58.3	57.7	95.7	58.7	75.0	98.0
Benue	55.0	91.3	98.3	83.3	91.6	99.7
Cross-River	74.3	90.1	97.6	79.5	96.9	96.3
Edo	72.1	74.2	98.7	80.3	81.9	98.7
Enugu	68.2	71.2	89.8	73.6	78.9	95.9
FCT	77.5	84.6	94.5	72.8	75.6	90.4
Kaduna	51.2	75.3	97.0	59.8	76.7	99.0
Kano	84.2	88.7	100.0	78.5	87.4	98.5
Lagos	65.3	73.9	95.5	94.3	99.0	99.3
Nasarawa	68.0	80.8	92.6	87.0	89.4	86.6
Oyo	72.1	72.1	92.6	70.8	73.5	90.3
Rivers	82.1	79.4	95.9	90.6	84.6	98.3
Taraba	60.5	70.6	88.6	69.6	74.7	96.6
Total	**67.8**	**76.5**	**94.6**	**75.2**	**81.4**	**94.6**

Appendix 6.5: Percentage distribution of MSM and PWIDs who knew the UNAIDS indicators for HIV prevention by State; Nigeria, IBBSS 2014

Characteristics	MSM			Male and Female PWID		
	Abstinence	Being faithful to partner	Correct use of condom	Abstinence	Being faithful to partner	Correct use of condom
Sample size (n)	**3596**			**3106**		
State						
Abia	-	-	-	-	-	-
Anambra	-	-	-	-	-	-
Benue	-	-	-	-	-	-
Cross-River	84.9	95.1	99.2	99.2	97.5	98.3
Edo	-					
Enugu	96.9	95.2	97.6	92.7	92.7	97.3
FCT	96.5	99.1	99.8	93.4	94.3	96.7
Kaduna	91.8	91.8	94.8	89.1	93.6	96.4
Kano	77.6	82.4	77.6	87.3	77.5	93.7
Lagos	76.9	92.2	94.8		93.6	94.1
Nasarawa	-	-				
Oyo	74.9	81.8	95.8	74.4	77.3	93.2
Rivers	66.5	91.6	97.2	88.5	93.1	97.4
Taraba						
Total	**84.7**	**92.4**	**96.4**	**88.6**	**90.8**	**96.0**

Appendix 6.6: Percentage distribution of Police respondents, Armed Forces respondents and Transport Workers respondents who knew the UNAIDS indicators for HIV Prevention by age and State; Nigeria, IBBSS, 2014

Characteristics	Armed Forces			Transport Workers			Police		
	Abstinence	Being faithful to partner	Correct use of condom	Abstinence	Being faithful to partner	Correct use of condom	Abstinence	Being faithful to partner	Correct use of condom
Sample size (n)	**2621**			**2651**			**2662**		
State									
Abia	-	-	-	-	-	-	-	-	-
Anambra	88.7	94.3	93.3	93.7	89.3	84.9	90.2	95.3	91.6
Benue	92.0	98.7	97.3	75.2	87.8	89.1	87.9	92.9	88.2
Cross-River	97.3	98.0	98.0	97.3	96.9	98.0	97.0	98.3	91.9
Edo	91.3	95.6	92.6	86.4	86.3	89.1	86.1	87.8	88.1
Enugu	-	-	-	-	-	-	-	-	-
FCT	55.7	88.7	83.5	83.3	85.4	84.7	83.1	85.1	83.7
Kaduna	82.2	93.3	91.3	91.5	92.5	83.6	83.0	79.3	74.5
Kano	96.2	95.3	91.1	73.0	72.8	59.9	88.4	82.4	82.7
Lagos	97.5	93.0	94.0	56.7	70.1	67.1		81.8	77.9
Nasarawa	74.9	94.3	93.3	97.0	91.5	89.5	89.5	89.5	90.5
Oyo	-	-	-	-	-	-	-	-	-
Rivers	-	-	-	-	-	-	-	-	-
Taraba	-	-	-	-	-	-	-	-	-
Total	**86.0**	**94.6**	**92.8**	**83.9**	**85.8**	**82.8**	**85.2**	**88.0**	**85.5**

Appendix 6.7: Percentage distribution of vulnerable groups who knew a healthy looking person can have HIV by State; Nigeria, IBBSS, 2014

Characteristics	Vulnerable groups						
	BBFWSS	NBBFWSS	MSM	PWID	Armed Forces	Transport Workers	Police
Sample size (n)	**4051**	**3867**	**3598**	**3107**	**2620**	**2651**	**2656**
State							
Abia	93.3	92.3	-	-	-	-	-
Anambra	92.6	93.3	-	-	94.0	91.7	99.3
Benue	90.0	98.0	-	-	97.7	95.9	97.3
Cross-River	91.7	92.5	97.4	82.7	97.7	94.9	99.0
Edo	90.2	93.0			94.9	81.6	81.0
Enugu	87.2	86.6	96.9	79.5			
FCT	95.6	96.9	96.9	92.5	96.2	89.9	94.9
Kaduna	96.0	96.6	88.2	94.2	94.0	89.8	90.8
Kano	96.9	76.2	95.2	90.8	95.8	89.1	93.2
Lagos	86.8	97.3	97.2	91.3	95.3	90.9	89.6
Nasarawa	81.6	84.9			99.3	89.2	94.2
Oyo	88.3	92.0	91.6	93.8	_	_	_
Rivers	87.2	90.5	97.4	84.4	_	_	_
Taraba	87.0	82.8	_	_	_	_	_
Total	**90.3**	**91.1**	**95.1**	**89.3**	**96.1**	**90.3**	**93.3**

Appendix 6.8: Percent distribution of female sex workers who had misconceptions about the methods of transmission of HIV by State; Nigeria IBBSS, 2014

Characteristics	BBFWSS			NBBFWSS		
	HIV through Mosquito bites	Sharing meal with HIV infected person	Sharing toilets used by HIV infected person	HIV through Mosquito bites	Sharing meal with HIV infected person	Sharing toilets used by HIV infected person
Sample size (n)	**4045**			**3866**		
State						
Abia	11.2	6.7	9.3	8.5	5.1	1.5
Anambra	38.0	7.0	18.1	18.4	15.7	14.3
Benue	5.7	4.3	2.0	5.0	9.0	5.1
Cross-River	23.7	11.9	23.7	13.0	6.8	23.0
Edo	20.8	22.2	19.2	12.0	17.4	11.1
Enugu	26.6	26.6	19.7	15.7	26.6	16.6
FCT	17.1	9.9	8.9	8.9	11.4	5.5
Kaduna	12.0	24.4	20.9	10.5	17.9	17.9
Kano	19.5	27.3	16.0	13.4	13.5	18.5
Lagos	18.2	8.0	20.6	8.7	7.7	14.3
Nasarawa	21.8	12.5	22.5	20.4	30.6	18.4
Oyo	24.8	21.8	22.8	34.7	27.1	33.7
Rivers	35.5	34.3	34.2	42.7	45.3	37.9
Taraba	22.1	19.1	16.4	16.9	23.6	10.8
Total	**21.2**	**17.0**	**18.1**	**16.4**	**18.7**	**16.1**

Appendix 6.9: Percent distribution of MSM and PWID' who had misconceptions about the transmission of HIV by State; Nigeria IBBSS, 2014

Characteristics	MSM			Male and Female PWID		
	HIV through Mosquito bites	Sharing meal with HIV infected person	Sharing toilets used by HIV infected person	HIV through Mosquito bites	Sharing meal with HIV infected person	Sharing toilets used by HIV infected person
Sample size (n)	**3596**			**3106**		
State						
Abia	-	-	-	-	-	-
Anambra	-	-	-	-	-	-
Benue						
Cross-River	13.3	7.3	6.9	19.5	38.5	19.9
Edo	-	-	-	-	-	-
Enugu	3.3	10.5	8.4	11.1	6.2	14.8
FCT	7.2	9.0	5.7	17.5	25.0	18.0
Kaduna	19.1	23.5	22.7	23.0	13.5	14.5
Kano	35.2	22.4	27.4	25.0	39.8	26.8
Lagos	8.5	10.6	10.4	26.1	25.0	32.5
Nasarawa	-	-	-	-	-	-
Oyo	29.8	27.1	31.5	52.3	49.7	49.7
Rivers	21.7	12.4	15.7	16.9	23.8	19.8
Taraba	-	-	-	-	-	-
Total	**15.9**	**15.2**	**14.4**	**22.8**	**25.5**	**23.0**

Appendix 6.10: Percent distribution of male occupational groups' who had no misconceptions about the transmission of HIV by State; Nigeria IBBSS, 2014

Characteristics	Armed Forces			Transport Workers			Police		
	HIV through Mosquito bites	Sharing meal with HIV infected person	Sharing toilets used by HIV infected person	HIV through Mosquito bites	Sharing meal with HIV infected person	Sharing toilets used by HIV infected person	HIV through Mosquito bites	Sharing meal with HIV infected person	Sharing toilets used by HIV infected person
Sample size	**2618**			**2645**			**2652**		
State									
Abia	-	-	-	-	-	-	-	-	-
Anambra	9.3	8.0	8.3	18.1	15.0	21.7	6.8	6.8	11.2
Benue	8.0	7.0	11.1	19.1	13.6	17.4	7.1	17.4	6.8
Cross-River	6.0	3.7	4.0	10.5	10.2	12.2	7.1	6.1	7.4
Edo	8.4	15.8	11.4	30.6	30.4	21.4	9.5	19.3	9.2
Enugu	-	-	-	-	-	-	-	-	-
FCT	8.9	10.0	9.6	20.5	23.3	16.4	12.9	13.2	11.5
Kaduna	10.1	6.7	6.4	10.6	28.7	10.6	15.0	9.2	9.9
Kano	5.5	13.6	6.4	25.2	27.2	24.8	15.3	40.3	18.2
Lagos	8.4	13.0	9.4	32.9	33.6	39.6	20.9	11.4	21.8
Nasarawa	8.7	13.7	6.4	15.3	28.2	23.6	10.2	8.8	8.2
Oyo	-	-	-	-	-	-	-	-	-
Rivers	-	-	-	-	-	-	-	-	-
Taraba	-	-	-	-	-	-	-	-	-
Total	**8.2**	**10.1**	**8.1**	**20.0**	**23.3**	**20.9**	**11.6**	**14.7**	**11.6**

Appendix 6.11: Percentage distribution of female sex workers who think HIV can be transmitted by injection with used needle or through blood transfusion or through mother to unborn child by State; IBBSS, 2014

Characteristics	**BBFWSS**			**NBBFWSS**		
	Injection with used needles	**Transfusion with unscreened blood**	**Infected pregnant woman to unborn child**	**Injection with used needles**	**Transfusion with unscreened blood**	**Infected pregnant woman to unborn child**
Sample size (n)	**4053**			**3869**		
State						
Abia	97.0	95.9	53.7	97.4	98.2	53.1
Anambra	99.3	97.3	52.2	100.0	92.3	55.3
Benue	98.0	98.7	85.0	95.3	94.9	43.6
Cross-River	95.7	96.8	50.6	98.1	96.3	45.6
Edo	97.3	96.3	54.2	96.7	98.0	59.7
Enugu	92.7	93.0	49.6	95.4	94.6	47.1
FCT	96.6	97.9	41.6	96.9	97.6	64.7
Kaduna	97.7	95.6	66.8	98.3	97.3	63.3
Kano	98.0	95.5	37.3	96.2	96.9	35.9
Lagos	99.7	97.9	60.8	99.0	98.7	61.7
Nasarawa	86.5	90.5	61.8	91.9	94.7	67.1
Oyo	94.0	96.3	53.9	95.5	96.2	55.1
Rivers	84.5	92.3	34.5	88.1	92.2	33.8
Taraba	97.0	98.3	58.5	96.3	97.6	50.7
Total	**95.3**	**95.9**	**54.4**	**96.0**	**96.1**	**53.1**

Appendix 6.12: Percentage distribution of MSM and PWID who think HIV can be transmitted by injection with used needle or through blood transfusion or through mother to unborn child by State; Nigeria, IBBSS 2014

Characteristics	MSM			MFPWID		
	Injection with used needles	Transfusion with unscreened blood	Infected pregnant woman to unborn child	Injection with used needles	Transfusion with unscreened blood	Infected pregnant woman to unborn child
Sample size (n)	**3599**			**3107**		
State						
Abia	-	-	-		-	-
Anambra	-	-	-		-	-
Benue	-	-	-		-	-
Cross-River	98.2	96.0	44.2	99.6	95.1	38.9
Edo	-	-	-		-	-
Enugu	97.1	99.3	76.7	95.1	96.8	71.1
FCT	98.7	98.7	74.5	93.4	96.0	70.1
Kaduna	96.8	93.6	51.5	98.4	96.6	49.4
Kano	93.6	96.0	62.4	93.3	89.8	65.8
Lagos	97.6	98.6	59.1	96.6	97.2	58.0
Nasarawa	-	-	-		-	-
Oyo	97.1	98.0	72.7	97.4	96.4	60.4
Rivers	98.0	96.0	65.4	90.3	95.6	22.9
Taraba		-	-		-	-
Total	**97.6**	**97.1**	**63.6**	**95.2**	**95.7**	**55.9**

Appendix 6.13: Percentage distribution of uniformed forces and transport workers who think HIV can be transmitted by injection with used needle or through blood transfusion or through mother to unborn child by Selected Characteristics Nigeria; IBBSS, 2014

Characteristics	Armed Forces			Transport Workers			Police		
	Injection with used needles	Transfusion with unscreened blood	Infected pregnant woman to unborn child	Injection with used needles	Transfusion with unscreened blood	Infected pregnant woman to unborn child	Injection with used needles	Transfusion with unscreened blood	Infected pregnant woman to unborn child
Sample size	**2619**			**2648**			**2660**		
State									
Abia		-	-		-	-		-	-
Anambra	98.0	97.3	60.3	97.0	98.7	47.7	99.3	99.3	70.6
Benue	98.0	97.3	59.3	99.0	98.3	35.0	95.6	97.3	61.7
Cross-River	99.3	99.7	86.0	95.9	95.6	50.3	99.0	97.3	65.9
Edo	95.6	97.3	56.0	93.9	90.1	44.6	84.4	88.1	49.3
Enugu		-	-		-	-		-	-
FCT	94.8	97.6	69.4	94.1	96.2	51.4	98.0	95.2	66.3
Kaduna	98.7	97.7	44.6	95.6	96.9	33.3	95.2	96.3	47.6
Kano	97.0	97.5	38.6	93.2	98.3	43.5	98.3	96.9	65.8
Lagos	99.3	99.3	61.7	93.9	95.3	47.3	91.9	95.6	45.6
Nasarawa	98.0	98.3	61.7	86.7	95.9	51.5	99.3	98.3	64.3
Oyo		-	-		-	-		-	-
Rivers		-	-		-	-		-	-
Taraba		-	-		-	-		-	-
Total	**97.7**	**98.0**	**60.2**	**94.4**	**96.1**	**45.0**	**95.7**	**96.0**	**59.7**

Appendix 6.14: Percentage distribution of respondents that felt they were at risks of infection with HIV by Selected Characteristics; Nigeria, IBBSS 2014

Characteristics	BBFWSS	NBBFWSS	MSM	M & F PWID	Armed Forces	Transport Workers	Police
Sample size (n)	**4054**	**3856**	**3587**	**3105**	**2610**	**2640**	**2654**
State							
Abia	36.9	34.6	-	-	-	-	-
Anambra	26.3	19.7	-	-	16.7	27.4	17.6
Benue	31.0	35.8	-	-	19.0	45.7	20.0
Cross-River	15.4	17.4	30.0	4.4	20.1	53.2	12.2
Edo	53.2	51.0	-	-	15.6	16.5	11.2
Enugu	35.9	33.5	40.6	40.4	-	-	-
FCT	24.9	34.6	29.4	25.0	12.4	12.3	13.6
Kaduna	52.7	51.0	17.1	12.5	23.6	7.8	17.3
Kano	10.6	39.0	34.4	38.0	15.4	5.8	39.2
Lagos	7.6	30.7	27.6	8.4	24.0	7.1	17.4
Nasarawa	43.3	61.0	-	-	10.7	54.4	22.7
Oyo	40.6	42.7	24.7	24.8	-	-	-
Rivers	43.6	45.8	22.4	27.7	-	-	-
Taraba	35.8	23.6	-	-	-	-	-
Total	**32.9**	**37.8**	**27.6**	**22.9**	**17.5**	**25.6**	**19.0**

Appendix 6.15: Percent distribution of female sex workers reasons for feeling at risk of HIV by age and State, Nigeria, IBBSS 2014

Characteristics	BBFWSS						NBBFWSS					
	Often change sex partner	Don't always use condoms	Use injected narcotics	Not circumcised	Share clippers	Other s	Often change sex partner	Don't always use condoms	Use injected narcotics	Not circumcised	Share clippers	Others
Sample size (n)	**13522**						**1482**					
State												
Abia	90.5	10.9	-	-	1.0	-	90.6	20.7	-	-	2.2	2.2
Anambra	96.2	20.3	-	-	1.3	1.3	74.1	29.3	-	-	5.2	3.4
Benue	54.5	33.3	1.2	1.2	17.4	35.6	44.3	59.6	-	-	.9	14.0
Cross-River	69.2	13.5	2.7	-	2.7	21.6	82.1	18.5	3.7	-	7.4	18.5
Edo	92.0	4.3	-	0.6	2.5	18.6	90.2	10.5	0.7	0.7	4.6	17.0
Enugu	70.0	29.0	-	-	4.0	8.0	59.8	34.9	1.2	2.3	1.2	2.3
FCT	73.4	21.9	-	1.4	2.7	13.7	95.0	13.0	1.0	2.0	-	1.0
Kaduna	87.2	25.6	-	-	1.3	6.4	83.4	43.0	-	-	2.7	3.4
Kano	76.7	6.9	-	-	-	13.8	94.9	17.9	1.3	-	-	1.3
Lagos	58.3	-	8.3	8.3	4.2	32.0	78.0	22.0	-	-	-	6.6
Nasarawa	79.0	12.7	0.8		.8	7.6	85.7	37.7	2.3	0.6	0.6	1.7
Oyo	53.1	36.5	1.6	0.8	15.1	20.6	48.3	42.4	4.3	3.4	14.5	29.7
Rivers	88.0	42.7	9.9	7.6	10.7	6.1	91.5	48.1	13.4	7.1	4.7	1.6
Taraba	87.6	10.8	3.6	.9	14.4	6.3	67.1	25.3	6.3	1.3	13.9	1.3
Total	**79.3**	**21.3**	**1.8**	**1.3**	**6.1**	**12.0**	**79.3**	**32.0**	**2.5**	**1.4**	**3.8**	**7.4**

Appendix 6.16: Percent distribution of MSM and PWIDs reasons for feeling at risk of HIV by State, Nigeria, IBBSS 2014

Characteristics	MSM						Male and Female PWID					
	Often change sex partner	Don't always use condoms	Use injected narcotics	Not circumcised	Share clippers	Other	Often change sex partner	Don't always use condoms	Use injected narcotics	Not circumcised	Share clippers	Other
Sample size (n)	**987**						**761**					
State												
Abia	-	-	-	-	-	-	-	-	-	-	-	-
Anambra	-	-	-	-	-	-	-	-	-	-	-	-
Benue												
Cross-River	43.8	69.5	.7	3.9	51.6	2.6	47.4	57.9	5.3	-	10.5	-
Edo	-	-	-	-		-	-	-	-	-	-	5.3
Enugu	59.2	16.7	1.1	1.1	48.3	15.6	35.6	25.0	32.7	2.5	55.3	5.7
FCT	59.0	70.7	1.1	1.6	21.2	4.9	33.7	64.5	12.2	1.7	68.6	3.1
Kaduna	54.1	34.1	-	-	23.5	10.6	23.8	45.2	25.8	1.6	8.1	11.3
Kano	64.3	61.0	5.0	2.5	15.0	-	26.3	30.8	66.7	4.3	27.4	10.3
Lagos	25.9	43.6	0.9	0.9	29.1	11.1	24.4	36.4	42.2	-	11.4	25.0
Nasarawa	-	-	-	-	-	-	-	-	-	-	-	-
Oyo	17.0	50.0	2.7	1.8	35.7	36.0	57.0	50.6	15.2	2.5	45.6	2.5
Rivers	59.5	66.7	.9	.9	63.1	4.5	37.0	71.3	52.8	.9	37.0	2.8
Taraba	-	-	-	-	-	-	-	-	-	-	-	-
Total	**47.8**	**51.0**	**1.2**	**1.6**	**38.2**	**11.0**	**34.8**	**47.2**	**33.6**	**2.1**	**42.9**	**6.7**

Appendix 6.17: Percent distribution of Police respondents', Armed Forces respondents' and Transport workers respondents' reasons for feeling at risk of HIV by State, Nigeria, IBBSS 2014

Characteristics	Armed Forces						Transport Workers						Police					
	Often change sex partner	Don't always use condoms	Use injected narcotics	Not circumcised	Share clippers	Other	Often change sex partner	Don't always use condoms	Use injected narcotics	Not circumcised	Share clippers	Other	Often change sex partner	Don't always use condoms	Use injected narcotics	Not circumcised	Share clippers	Other
Sample size (n)	**457**						**683**						**531**					
State																		
Abia																		
Anambra	41.7	36.2	4.3	-	34.0	19.1	23.5	32.9	-	-	71.8	24.7	14.0	50.0	-	-	34.0	14.0
Benue	37.0	33.3	1.9	-	47.3	13.0	18.4	41.9	-	-	77.2	7.4	21.4	42.9	3.6	12.5	75.0	5.4
Cross-River	32.1	42.9	3.6	3.6	62.5	21.4	83.2	51.0	3.9	1.3	62.6	8.3	13.9	64.7	-	-	29.4	23.5
Edo	32.6	31.8	4.5	4.5	43.2	14.0	26.0	32.7	2.1	2.1	79.2	8.2	28.6	13.9	2.9		60.0	2.9
Enugu	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FCT	25.6	30.2	4.7		30.2	23.3	8.3	8.3	11.1	2.8	47.2	2.8	19.6	21.6	2.0	2.0	13.7	33.3
Kaduna	16.4	21.9	8.2	1.4	34.2	31.5	31.8	50.0	4.5		45.5	9.1	17.5	29.6	10.5	1.8	21.1	22.8
Kano	14.7	2.9		-	27.3	55.9	17.6		5.9	5.9	17.6	35.3	80.9	41.6	14.2	-	4.4	5.3
Lagos	22.2	25.0		1.4	41.7	39.7	50.0	25.0	5.0		50.0	20.0	7.9	12.7		-	42.9	27.0
Nasarawa	25.8	9.7	3.2	3.2	45.2	25.8	13.6	17.3	8.0	4.3	51.2	3.1	29.4	20.6	1.5	-	73.5	1.5
Oyo	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rivers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Taraba	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	**27.4**	**27.3**	**3.5**	**1.5**	**41.2**	**27.1**	**34.0**	**33.3**	**4.0**	**1.8**	**62.3**	**9.7**	**32.4**	**32.8**	**5.1**	**1.7**	**36.2**	**13.9**

Appendix 7.1: Percent distribution of respondents who ever had sex among the vulnerable groups by Selected Characteristics; Nigeria, IBBSS, 2014

Characteristics	Brothel Based Female Sex Workers (BBFSW)	Non-Brothel Based Female Sex Workers (NBBFSW)	Men who have Sex with Men (MSM)	Males and Females of the Armed Forces	Transport Workers	Males and Females of people who Inject Drug (PWID)	Males and Females of the Police	All Groups	Total
Ever had Sex	100.0	100.0	99.5	97.2	94.1	98.2	98.4	98.5	22831
Age group									
15-19	100.0	100.0	98.8	89.5	55.2	95.9	100.0	97.2	1555
20-24	100.0	100.0	99.6	87.5	74.6	96.8	88.6	97.3	5732
25 and above	100.0	100.0	99.8	98.9	97.3	98.9	98.6	99.0	15544
Gender									
Male	0.0	0.0	99.5	97.4	94.1	98.2	98.5	97.6	13614
Female	100.0	100.0	0.0	95.3	0.0	98.2	98.4	99.7	9217
Marital Status									
Currently married, living with spouse	100.0	100.0	100.0	99.8	100.0	100.0	100.0	100.0	5964.0
Currently married, living with other sexual partner	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	167.0
Currently married, not living with other sexual partner	100.0	100.0	100.0	99.6	100.0	100.0	100.0	100.0	815.0
Not married but living with sexual partner	100.0	100.0	100.0	100.0	100.0	99.2	100.0	99.4	1379
Not married, not living with sexual partner	100.0	100.0	99.4	89.6	90.4	96.8	88.4	97.6	14506
Religion									
No Religion	100.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0	130
Christianity	100.0	100.0	99.9	97.7	97.9	98.5	99.2	99.3	17408
Islam	100.0	100.0	98.3	95.2	89.6	96.6	95.4	95.5	5229
Traditional	100.0	100.0	100.0	100.0	100.0	100.0	66.7	98.4	64

Level of Education									
No Formal Education	100.0	100.0	100.0	100.0	92.5	100.0	99.4	98.7	469
Primary	100.0	100.0	99.6	97.1	95.3	97.2	98.9	98.1	3059
Secondary	100.0	100.0	99.4	96.9	93.1	97.8	97.6	98.5	14269
Tertiary	100.0	100.0	99.2	96.8	96.0	99.3	98.4	98.5	5034
State									
Abia	100.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	545
Anambra	100.0	100.0	0.0	97.7	99.3	0.0	99.7	99.3	1501
Benue	100.0	100.0	0.0	95.7	97.0	0.0	97.3	98.0	1498
Cross-River	100.0	100.0	100.0	97.3	95.7	100.0	99.3	98.9	2047
Edo	100.0	100.0	0.0	98.3	97.7	0.0	98.7	99.0	1497
Enugu	100.0	100.0	99.8	0.0	0.0	98.1	0.0	99.4	1358
FCT	100.0	100.0	99.5	95.7	92.3	96.4	99.0	97.8	2806
Kaduna	100.0	100.0	99.6	97.3	95.7	98.2	97.3	98.4	2503
Kano	100.0	100.0	88.8	93.3	79.0	96.1	95.3	93.6	1820
Lagos	100.0	100.0	100.0	97.4	95.2	98.5	99.6	98.8	2311
Nasarawa	100.0	100.0	0.0	98.7	95.7	0.0	99.7	98.8	1497
Oyo	100.0	100.0	100.0	0.0	0.0	99.7	0.0	99.9	1354
Rivers	100.0	100.0	100.0	0.0	0.0	99.5	0.0	99.9	1497
Taraba	100.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	597

Appendix 7.2: Percent distribution of respondents who ever heard of condom among the vulnerable groups by Selected Characteristics; Nigeria, IBBSS, 2014

	Brothel Based Female Sex Workers (BBFSW)	Non-Brothel Based Female Sex Workers (NBBFSW)	Men who have Sex with Men (MSM)	Males and Females of the Armed Forces	Transport Workers	Males and Females of the people who Inject Drug (PWID)	Males and Females of the Police	All Groups	Total
Ever heard of condom	**99.9**	**99.8**	**99.7**	**99.3**	**97.4**	**99.4**	**98.9**	**99.3**	**22479**
Age group									
15-19	99.5	99.7	99.5	100.0	100.0	100.0	100.0	99.6	1511
20-24	100.0	99.9	99.9	99.7	98.1	99.2	97.4	99.7	5575
25 and above	99.9	99.8	99.6	99.2	97.3	99.4	99.0	99.2	15393
Gender									
Male	0.0	0.0	99.7	99.2	97.4	99.5	98.8	99.0	13290

Female	99.9	99.8	0.0	100.0	0.0	97.7	99.4	99.8	9189
Marital Status									
Currently married, living with spouse	100.0	100.0	100.0	99.0	96.8	98.4	98.7	98.3	5964
Currently married, living with other sexual partner	100.0	100.0	100.0	97.3	100.0	100.0	100.0	99.4	167
Currently married, not living with other sexual partner	100.0	100.0	100.0	99.3	92.2	100.0	99.6	99.0	815
Not married but living with sexual partner	100.0	100.0	98.8	100.0	97.9	100.0	100.0	99.6	1371
Not married, not living with sexual partner	99.9	99.8	99.7	99.9	99.3	99.7	99.0	99.8	14162
Religion									
No Religion	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	130
Christianity	99.9	99.9	99.9	99.5	99.2	99.6	99.3	99.7	17293
Islam	99.6	99.8	99.2	98.9	95.1	99.0	97.5	98.1	4993
Traditional	100.0	100.0	100.0	100.0	100.0	88.9	100.0	98.4	63
Level of Education									
No Formal Education	100.0	100.0	91.7	100.0	98.6	100.0	-	99.6	463
Primary	99.8	99.8	98.4	98.6	94.6	99.1	97.4	98.0	3002
Secondary	99.9	99.8	99.8	99.3	98.6	99.4	98.8	99.5	14058
Tertiary	100.0	100.0	99.9	99.3	99.3	99.7	99.4	99.6	4956
State									
Abia	100.0	99.6	-	-	-	-	-	99.8	545
Anambra	100.0	100.0	-	100.0	99.7	-	99.3	99.8	1491
Benue	100.0	100.0	-	99.7	98.6	-	99.3	99.5	1468
Cross-River	99.6	100.0	100	100.0	99.0	100.0	100.0	99.8	2025
Edo	100.0	100.0	-	99.7	99.7	-	97.3	99.3	1482
Enugu	100.0	100.0	99.8	-	-	99.5	-	99.8	1350
FCT	100.0	100.0	99.4	98.6	94.6	98.3	99.7	98.7	2743
Kaduna	100.0	100.0	99.2	99.3	97.2	100.0	98.3	99.2	2464
Kano	99.7	100.0	100.0	96.4	91.6	99.6	98.9	98.1	1703
Lagos	100.0	100.0	100.0	99.7	98.9	99.2	100.0	99.7	2284
Nassarawa	100.0	99.7	-	99.7	96.2	-	97.7	98.6	1479
Oyo	99.7	100.0	99.8	-	-	99.7	-	99.8	1353
Rivers	100.0	98.7	99.8	-	-	100.0	-	99.7	1495
Taraba	99.7	100.0	-	-	-	-	-	99.8	597

Appendix 7.3: Percent distribution of respondents who ever used condom among the vulnerable groups by Selected Characteristics; Nigeria, IBBSS, 2014

	Brothel Based Female Sex Workers (BBFSW)	Non-Brothel Based Female Sex Workers (NBBFSW)	Men who have Sex with Men (MSM)	Males and Females of the Armed Forces	Transport Workers	Males and Females of people who Inject Drug (PWID)	Males and Females of the Police	All Groups	Total
Ever Used condom	**99.7**	**98.9**	**92.7**	**88.4**	**70.3**	**89.0**	**75.5**	**89.6**	**22328**
Age group									
15-19	100.0	97.7	85.9	88.2	53.1	93.9	100.0	90.7	1505
20-24	99.4	99.0	93.3	92.5	78.0	91.0	92.1	95.1	5560
25 and above	99.8	99.1	96.2	87.8	69.8	87.9	75.2	87.5	15623
Gender									
Male	0.0	0.0	92.7	89.0	70.3	89.6	77.0	84.8	13158
Female	99.7	98.9	0.0	83.1	0.0	81.3	71.0	96.4	9170
Marital Status									
Currently married, living with spouse	100.0	96.2	95.0	85.7	64.2	83.8	72.4	75.9	5682
Currently married, living with other sexual partner	100.0	100.0	100.0	88.9	44.4	69.6	73.8	80.7	166
Currently married, not living with other sexual partner	100.0	100.0	86.4	86.1	44.1	85.1	78.9	82.3	807
Not married but living with sexual partner	99.7	98.3	89.1	96.9	89.2	90.9	83.5	94.6	1366
Not married, not living with sexual partner	99.7	99.1	92.9	94.2	85.1	90.9	85.6	95.3	14127
Religion									
No Religion	97.4	98.1	100.0	100.0	80.0	94.1	100.0	96.9	130
Christianity	99.8	99.0	95.1	91.4	86.0	92.6	78.1	93.4	17237
Islam	99.2	98.8	86.7	82.1	50.0	79.4	63.4	76.1	4899
Traditional	100.0	100.0	100.0	100.0	80.0	75.0	100.0	93.5	62
Level of Education									
No Formal Education	99.6	97.4	72.7	55.6	45.2	62.5	0.0	86.6	461
Primary	99.6	99.8	78.5	68.6	56.8	78.6	46.0	79.8	2347
Secondary	99.7	98.9	92.3	89.7	77.8	90.7	74.6	91.3	12773

Tertiary	100.0	98.8	97.5	88.2	79.0	92.3	81.2	90.9	4487
State									
Abia	99.6	99.6	-	-	-	-	-	99.6	544
Anambra	100.0	99.7	-	87.7	89.6	-	89.2	93.3	1488
Benue	100.0	98.7	-	91.6	83.6	-	73.7	89.7	1461
Cross-River	100.0	99.4	94.8	91.1	84.8	97.3	73.0	91.0	2021
Edo	100.0	99.3	-	89.5	79.8	-	70.0	87.9	1472
Enugu	98.9	97.6	93.6	-	-	86.6	-	93.5	1347
FCT	100.0	99.7	95.7	90.5	69.7	88.6	83.2	90.5	2708
Kaduna	100.0	99.3	80.4	88.3	51.4	93.5	74.4	84.7	2445
Kano	100.0	99.3	84.7	71.8	20.7	75.1	48.4	72.2	1670
Lagos	98.3	100.0	95.8	90.5	78.9	85.2	82.5	90.4	2277
Nasarawa	100.0	97.0	-	90.5	60.4	-	83.2	86.6	1459
Oyo	99.7	99.0	95.8	-	-	91.2	-	96.3	1350
Rivers	100.0	97.6	94.8	-	-	93.0	-	96.0	1490
Taraba	99.7	99.0	-	-	-	-	-	99.3	596

Appendix 7.4: Percent distribution of respondents' who used condom last sex act by type of sex partner and state among the Vulnerable groups Nigeria; IBBSS, 2014

Characteristics	Brothel Based Female Sex Workers (BBFSW)	Non-Brothel Based Female Sex Workers (NBBFSW)	Men who have Sex with Men (MSM)	Males and Females of the Armed Forces	Transport Workers	Males and Females of people who Inject Drug (PWID)	Males and Females of the Police
Regular Partner/Spouse							
Age group							
15-19	16.7	48.7	69.8	33.3	20.0	11.1	-
20-24	26.9	63.2	60.8	21.2	8.6	19.6	25.0
25 and above	35.8	33.5	27.0	9.4	6.8	18.6	7.4
State							
Abia	0.0	8.6	-	-	-	-	-
Anambra	16.7	20.0	-	7.7	4.9	-	9.9
Benue	22.9	24.1	-	11.2	12.9	-	9.9
Cross-River	10.0	0.0	46.2	8.4	11.0	18.6	4.5
Edo	6.9	16.0	-	9.1	7.7	-	6.1
Enugu	18.2	38.5	33.3	-	-	4.3	-

FCT	23.6	54.5	16.4	13.1	9.8	9.2	10.9
Kaduna	19.0	38.9	39.2	8.2	4.4	27.7	7.4
Kano	11.1	66.7	47.8	6.4	0.0	9.3	3.5
Lagos	21.4	28.6	46.7	12.4	9.3	32.1	9.1
Nasarawa	36.4	33.3	-	10.8	4.8	-	5.9
Oyo	19.2	11.4	60.7	-	-	31.1	-
Rivers	23.1	0.0	40.0	-	-	0.0	-
Taraba	61.2	80.5	-	-	-	-	-
Total	**33.1**	**46.2**	**41.2**	**9.8**	**6.9**	**18.6**	**7.5**
Boyfriend/ Girl friend							
15-19	35.8	57.6	63.1	54.5	29.4	66.3	100.0
20-24	41.0	57.3	70.6	65.2	59.0	64.3	50.0
25 and above	37.0	52.1	71.0	70.2	59.0	63.0	54.5
State							
Abia	30.5	53.4	-	-	-	-	-
Anambra	23.5	51.9	-	74.0	65.7	-	48.5
Benue	61.8	60.2	-	70.0	56.1	-	67.0
Cross-River	36.6	32.6	72.1	70.4	75.5	55.7	53.6
Edo	28.6	45.3	-	61.7	52.4	-	38.6
Enugu	30.6	47.2	93.3	-	-	71.4	-
FCT	42.6	42.5	64.4	66.0	67.8	61.4	51.7
Kaduna	40.1	54.7	54.5	59.7	53.3	62.3	59.2
Kano	42.3	60.5	46.7	74.3	33.3	55.4	57.8
Lagos	17.1	50.4	74.3	55.1	44.7	66.0	50.9
Nasarawa	35.7	75.5	-	84.3	46.4	-	59.2
Oyo	28.9	38.7	75.5	-	-	71.4	-
Rivers	24.4	18.5	58.6	-	-	0.0	-
Taraba	78.8	82.9	-	-	-	-	-
Total	38.0	54.9	69.3	69.0	58.5	63.6	54.4

Appendix 7.4contd: Percent distribution of respondents' who used condom last sex act by type of sex partner and state among the Vulnerable groups Nigeria; IBBSS, 2014

Commercial Partner	Brothel Based Female Sex Workers (BBFSW)	Non-Brothel Based Female Sex Workers (NBBFSW)	Men who have Sex with Men (MSM)	Males and Females of the Armed Forces	Transport Workers	Males and Females of people who Inject Drug (PWID)	Males and Females of the Police
Age group							
15-19	97.5	96.5	82.4	100.0	100.0	92.1	0.0
20-24	98.9	97.6	88.3	90.9	97.0	91.6	60.0
25 and above	98.6	97.6	85.9	90.6	87.1	85.2	80.6
State							
Abia	99.2	99.3	-	-	-	-	-
Anambra	99.3	99.0	-	100.0	90.2	-	100.0
Benue	99.3	99.3	-	97.1	97.0	-	88.9
Cross-River	98.8	100.0	100.0	73.3	89.7	85.2	73.3
Edo	97.6	99.3	-	80.0	95.5	-	61.5
Enugu	97.0	98.8	100.0	-	-	82.9	-
FCT	100.0	97.6	95.8	93.8	82.1	90.8	94.4
Kaduna	99.3	98.3	69.7	76.5	69.2	95.6	100.0
Kano	99.7	98.9	93.8	100.0	50.0	63.9	80.0
Lagos	97.9	99.7	96.4	88.9	88.6	58.6	66.7
Nassarawa	97.6	88.5	-	100.0	81.1	-	75.0
Oyo	99.7	97.2	85.1	-	-	91.9	-
Rivers	95.9	92.8	70.9	-	-	95.6	-
Taraba	99.3	97.6	-	-	-	-	-
Total	**98.6**	**97.5**	**86.4**	**90.7**	**88.5**	**87.7**	**79.6**
Casual Partner							
Age group							
15-19	94.1	81.0	73.3	0.0	50.0	75.9	-
20-24	86.5	83.1	77.3	82.2	64.3	79.7	66.7
25 and above	90.5	85.5	80.3	81.0	74.5	75.4	71.2
State							
Abia	78.6	82.1	-	-	-	-	-
Anambra	90.9	71.0	-	88.0	81.5	-	83.3

Benue	75.0	88.2	-	82.5	81.3	-	77.8
Cross-River	90.6	83.3	89.0	85.7	76.9	71.3	80.0
Edo	86.4	70.0	-	79.5	72.1	-	85.7
Enugu	81.0	89.5	93.5	-	-	80.0	-
FCT	90.0	91.1	90.2	78.8	37.5	86.3	64.0
Kaduna	92.3	97.1	73.3	78.6	66.7	79.0	68.8
Kano	0.0	66.7	90.0	80.8	100.0	78.6	50.0
Lagos	81.8	85.7	74.1	79.3	63.2	72.4	65.4
Nasarawa	98.0	57.3	-	80.0	66.7	-	45.5
Oyo	72.7	75.9	80.6	-	-	63.9	-
Rivers	67.9	70.6	66.3	-	-	33.3	-
Taraba	98.0	100.0	-	-	-	-	-
Total	**89.6**	**84.1**	**77.5**	**81.2**	**72.8**	**76.9**	**71.2**

Appendix 7.5: Percent distribution of respondents' ability to convince partner to use condom every time they had sex by type of sex partner and selected characteristics among the Vulnerable groups Nigeria; IBBSS, 2014

Characteristics	Brothel Based Female Sex Workers (BBFSW)	Non-Brothel Based Female Sex Workers (NBBFSW)	Men who have Sex with Men (MSM)	Males and Females of the Armed Forces	Transport Workers	Males and Females of people who Inject Drug (PWID)	Males and Females of the Police
Regular Partner/Spouse							
Age group							
15-19	41.2	72.5	86.0	0.0	20.0	42.9	-
20-24	56.1	71.3	85.3	72.9	35.7	58.3	58.3
25 and above	53.7	49.2	67.0	61.5	51.4	60.7	61.8
State							
Abia	5.9	11.4	-	-	-	-	-
Anambra	16.7	50.0	-	45.6	54.3	-	71.6
Benue	37.1	31.0	-	50.8	44.7	-	59.0
Cross-River	50.0	0.0	76.9	57.9	60.3	64.7	41.3
Edo	27.6	48.0	-	63.5	68.1	-	58.3
Enugu	36.4	38.5	53.3	-	-	45.6	-
FCT	38.2	81.8	50.8	48.4	70.5	58.1	75.6
Kaduna	81.0	83.3	74.4	81.1	58.0	61.4	73.8
Kano	38.9	70.0	87.0	66.0	27.2	53.3	63.2
Lagos	61.5	57.1	91.7	82.7	62.0	85.7	40.7
Nasarawa	50.0	42.9	-	77.3	16.4	-	84.2
Oyo	26.9	13.6	82.1	-	-	64.9	-
Rivers	76.9	50.0	87.5	-	-	0.0	-
Taraba	78.3	93.3	-	-	-	-	-
Total	**53.8**	**59.7**	**74.3**	**61.8**	**50.7**	**60.3**	**61.7**
Boyfriend/ Girl friend							
15-19	65.8	62.8	80.5	100.0	60.0	88.0	-
20-24	67.6	73.4	85.1	88.1	72.4	84.1	68.4
25 and above	64.3	70.4	88.6	93.1	77.7	84.6	83.8
State							

Abia	45.9	59.2	-	-	-	-	-
Anambra	46.3	71.4	-	94.3	86.0	-	87.3
Benue	70.4	71.6	-	89.8	73.0	-	86.7
Cross-River	65.0	60.4	89.5	95.5	85.0	87.7	87.7
Edo	53.2	57.6	-	92.6	88.0	-	68.4
Enugu	64.2	65.7	86.9	-	-	77.7	-
FCT	57.0	71.3	93.2	86.1	79.7	90.9	88.5
Kaduna	83.1	92.5	82.9	95.8	75.9	86.9	87.7
Kano	79.8	75.4	84.6	82.0	80.0	90.0	81.0
Lagos	91.7	73.8	82.6	88.5	75.8	76.0	63.8
Nasarawa	62.7	73.5	-	94.9	51.6	-	94.6
Oyo	51.7	47.2	71.1	-	-	74.8	-
Rivers	51.9	40.2	92.5	-	-	75.0	-
Taraba	86.1	92.2	-	-	-	-	-
Total	**65.3**	**70.9**	**85.4**	**92.1**	**76.7**	**84.6**	**83.4**

Appendix 7.5 contd.: Percent distribution of respondents' ability to convince partner to use condom every time they had sex by type of sex partner and selected characteristics among the Vulnerable groups Nigeria; IBBSS, 2014

Commercial Partner	Brothel Based Female Sex Workers (BBFSW)	Non-Brothel Based Female Sex Workers (NBBFSW)	Men who have Sex with Men (MSM)	Males and Females of the Armed Forces	Transport Workers	Males and Females of the Injecting Drug Users (IDU)	Males and Females of the Police
Age group							
15-19	-	-	87.0	100.0	100.0	94.4	-
20-24	-	-	85.3	100.0	97.0	93.4	100.0
25 and above	-	-	91.9	97.1	91.4	91.9	87.7
State							
Abia			-	-	-	-	-
Anambra			-	100.0	98.0	-	100.0
Benue			-	97.1	97.1	-	88.9
Cross-River			90.5	100.0	82.8	89.6	80.0
Edo			-	90.0	97.0	-	69.2
Enugu			98.6	-	-	81.6	-
FCT			87.0	100.0	96.4	90.7	100.0
Kaduna			81.8	94.1	84.6	97.8	100.0

Kano			93.8	100.0	75.0	88.5	100.0
Lagos			90.9	100.0	100.0	100.0	92.3
Nasarawa			-	100.0	75.7	-	87.5
Oyo			88.0	-	-	96.5	-
Rivers			77.2	-	-	94.3	-
Taraba			-	-	-	-	-
Total			87.6	98.0	92.3	92.6	88.3
Casual Partner							
Age group							
15-19	88.2	86.0	83.3	-	100.0	100.0	-
20-24	95.8	89.3	86.8	97.7	83.3	85.5	100.0
25 and above	94.6	89.6	95.3	96.7	90.8	80.0	82.4
State							
Abia	100.0	82.1	-	-	-	-	-
Anambra	100.0	80.6	-	100.0	85.2	-	100.0
Benue	75.0	98.0	-	97.4	92.3	-	77.8
Cross-River	81.3	100.0	94.1	100.0	84.6	-	86.5
Edo	90.9	80.0	-	94.4	98.1	-	60.0
Enugu	81.0	89.5	-	-	-	74.2	-
FCT	100.0	97.8	-	93.8	87.5	100.0	87.0
Kaduna	97.4	100.0	-	85.7	60.0	87.5	86.7
Kano	0.0	66.7	100.0	100.0	100.0	100.0	50.0
Lagos	100.0	85.7	83.3	100.0	91.7	90.9	65.0
Nasarawa	100.0	71.1	-	100.0	77.8	-	87.5
Oyo	90.9	75.9	75.0	-	-	84.6	-
Rivers	89.3	76.5	84.9	-	-	100.0	-
Taraba	100.0	100.0	-	-	-	-	-
Total	**94.6**	**89.2**	**88.4**	**96.9**	**89.8**	**83.5**	**82.7**

Appendix 8.1: Percentage distribution of Female Sex Workers, MSM and PWID who had ever heard of sexually transmitted diseases (STI) by selected characteristics; Nigeria, IBBSS, 2014

	BBFWSS		NBBFWSS		MSM		PWID	
Age in years	**Ever heard of disease transmitted through sex**	**N**	**Ever heard of disease transmitted through sex**	**N**	**Ever heard of disease transmitted through sex**	**N**	**Ever heard of disease transmitted through sex**	**N**
State								
Abia	94.7	266	97.4	273	-	-	-	-
Anambra	94.0	299	99.3	301	-	-	-	-
Benue	100.0	300	100.0	296	-	-	-	-
Cross-River	79.6	255	85.5	165	88.6	501	98.7	226
Edo	94.3	298	96.3	298	-	-	-	-
Enugu	90.8	273	92.5	241	93.2	453	91.6	371
FCT	85.6	298	88.0	292	92.6	634	84.5	669
Kaduna	98.3	298	99.0	296	93.0	503	98.4	504
Kano	91.8	293	98.9	263	93.6	125	97.2	282
Lagos	71.3	293	99.3	300	98.1	423	85.5	380
Nasarawa	93.7	300	83.1	296	-	-	-	-
Oyo	96.7	299	89.3	291	95.6	451	94.5	307
Rivers	95.3	296	90.8	293	98.6	502	99.0	386
Taraba	88.0	300	93.9	294	-	-	-	-
Total	**91.1**	**4068**	**94.1**	**3899**	**94.1**	**3592**	**92.6**	**3125**

Appendix 8.2: Percentage distribution of male occupational groups who had ever heard of sexually transmitted diseases (STI) by age and State: Nigeria, IBBSS, 2014

	Army		Transport Workers		Police	
	Ever heard of disease transmitted through sex	**Total**	**Ever heard of disease transmitted through sex**	**Total**	**Ever heard of disease transmitted through sex**	**Total**
State						
Abia	-	-	-	-	-	-
Anambra	97.0	300	99.7	300	97.3	295
Benue	95.9	293	92.2	296	89.9	298
Cross-River	96.7	299	78.0	296	97.0	297
Edo	96.0	298	94.6	298	92.6	296
Enugu	-	-	-	-	-	-
FCT	84.4	295	71.5	298	90.4	302
Kaduna	95.7	299	58.2	299	85.9	298
Kano	90.4	239	96.7	299	93.5	291
Lagos	99.0	299	96.3	298	98.3	298
Nasarawa	93.6	298	64.4	295	91.6	299
Oyo	-	-	-	-	-	-
Rivers	-	-	-	-	-	-
Taraba	-	-	-	-	-	-
Total	**94.4**	**2621**	**83.5**	**2679**	**92.9**	**2674**

Appendix 8.3: Percentage distribution of male occupational groups who had ever heard of sexually transmitted diseases (STIs) by age and State: Nigeria, IBBSS, 2014

	Army		Transport Workers		Police	
	Ever heard of disease transmitted through sex	Total	Ever heard of disease transmitted through sex	Total	Ever heard of disease transmitted through sex	Total
State						
Abia	-	-	-	-	-	-
Anambra	97.0	300	99.7	300	97.3	295
Benue	95.9	293	92.2	296	89.9	298
Cross-River	96.7	299	78.0	296	97.0	297
Edo	96.0	298	94.6	298	92.6	296
Enugu	-	-	-	-	-	-
FCT	84.4	295	71.5	298	90.4	302
Kaduna	95.7	299	58.2	299	85.9	298
Kano	90.4	239	96.7	299	93.5	291
Lagos	99.0	299	96.3	298	98.3	298
Nasarawa	93.6	298	64.4	295	91.6	299
Oyo	-	-	-	-	-	-
Rivers	-	-	-	-	-	-
Taraba	-	-	-	-	-	-
Total	**94.4**	**2621**	**83.5**	**2679**	**92.9**	**2674**

Appendix 8.4: Percent distribution of Female Sex Workers, MSM and PWID who had experienced Genital Discharge among those who had heard of STI by Selected Characteristics; Nigeria, IBBSS, 2014

	BBW		NBBW		MSM		IDU	
Age in years	**Had unusual genital Discharge**	**N**	**Had unusual genital Discharge**	**N**	**Had unusual genital Discharge**	**N**	**Had unusual genital Discharge**	**N**
State								
Abia	16.0	269	20.8	273	-	-	-	-
Anambra	10.0	300	37.5	301	-	-	-	-
Benue	27.5	298	19.7	296	-	-	-	-
Cross-River	7.1	253	8.0	165	5.4	349	7.5	226
Edo	18.5	298	23.1	298	-	-	-	-
Enugu	29.7	273	37.0	241	19.2	422	10.4	340
FCT	19.8	298	15.6	292	12.1	587	6.7	565
Kaduna	38.8	298	35.9	296	14.5	468	3.4	496
Kano	10.6	293	7.6	263	9.8	117	14.1	274
Lagos	18.4	293	14.0	300	10.8	426	6.0	386
Nasarawa	44.1	300	18.8	296	-	-	-	-
Oyo	15.5	299	15.5	291	13.1	431	17.5	309
Rivers	18.5	296	18.3	293	13.7	495	4.4	389
Taraba	12.3	300	17.7	294	-	-	-	-
Total	**20.7**	**4068**	**21.0**	**3892**	**12.5**	**3601**	**8.0**	**3133**

Appendix 8.5: Percent distribution of Female Sex Workers, MSM and PWID who had experienced Genital Discharge among those who had heard of STI by Selected Characteristics; Nigeria, IBBSS, 2014

	BBW		NBBW		MSM		IDU	
	Had unusual genital Discharge	N	Had unusual genital Discharge	N	Had unusual genital Discharge	N	Had unusual genital Discharge	N
State								
Abia	16.0	269	20.8	273	-	-	-	-
Anambra	10.0	300	37.5	301	-	-	-	-
Benue	27.5	298	19.7	296	-	-	-	-
Cross-River	7.1	253	8.0	165	5.4	349	7.5	226
Edo	18.5	298	23.1	298	-	-	-	-
Enugu	29.7	273	37.0	241	19.2	422	10.4	340
FCT	19.8	298	15.6	292	12.1	587	6.7	565
Kaduna	38.8	298	35.9	296	14.5	468	3.4	496
Kano	10.6	293	7.6	263	9.8	117	14.1	274
Lagos	18.4	293	14.0	300	10.8	426	6.0	386
Nasarawa	44.1	300	18.8	296	-	-	-	-
Oyo	15.5	299	15.5	291	13.1	431	17.5	309
Rivers	18.5	296	18.3	293	13.7	495	4.4	389
Taraba	12.3	300	17.7	294	-	-	-	-
Total	**20.7**	**4068**	**21.0**	**3892**	**12.5**	**3601**	**8.0**	**3133**

Appendix 8.6: Percent distribution of male occupational groups who had experienced Genital discharge among those who had heard of STI by Selected Characteristics; Nigeria, IBBSS, 2014

	Army		Transport		Police	
	Had unusual genital Discharge	N	Had unusual genital Discharge	N	Had unusual genital Discharge	N
State						
Abia	-	-	-	-	-	-
Anambra	1.0	291	6.3	300	4.1	296
Benue	11.5	281	6.4	295	9.1	298
Cross-River	3.7	289	1.3	297	18.2	297
Edo	4.3	286	12.8	297	1.7	298
Enugu	-	-	-	-	-	-
FCT	7.2	249	6.0	299	12.0	301
Kaduna	2.3	286	5.4	299	6.4	298
Kano	2.5	216	6.0	299	1.7	293
Lagos	3.0	300	3.7	300	10.1	298
Nasarawa	3.3	279	10.6	273	6.4	299
Oyo	-	-	-	-	-	-
Rivers	-	-	-	-	-	-
Taraba	-	-	-	-	-	-
Total	**4.3**	**2624**	**6.7**	**2659**	**7.7**	**2678**

Appendix 8.7: Percent distribution of BBSW, NBBSW, MSM and IDUs who had experienced Genital Ulcer/Sore among those who had heard of STI by Selected Characteristics; Nigeria, IBBSS, 2014

Demographic Characteristics	BBSW		NBBSW		MSM		PWID	
Age in years	**Had a genital ulcer/sore**	**Total**	**Had a genital ulcer/sore**	**Total**	**Had a genital ulcer/sore**	**Total**	**Had a genital ulcer/sore**	**Total**
15-19	4.0	202	9.4	342	4.5	755	3.6	169
20-24	6.7	996	6.4	1514	4.5	1654	3.4	816
25+	7.4	2860	6.7	2027	4.9	1193	7.7	2149
Sex								
Male	-	-	-	-	4.6	3602	5.6	2917
Female	7.1	4058	6.8	3883	-	-	17.5	217
Education								
No formal education	8.9	259	17.8	73	0.0	12	9.4	32
Primary education	8.0	830	7.3	412	5.6	250	8.1	445
Secondary Education	6.7	2717	6.4	2638	4.6	2347	5.6	2060
Tertiary education	6.0	252	7.0	760	4.5	993	7.5	597
Marital Status								
Currently married, spouse	6.8	59	4.0	75	5.0	159	8.0	685
living with other sexual partner	15.8	19	0.0	7	27.3	11	13.0	23
Currently married, not living with spouse/other sexual partner	7.4	68	3.4	29	0.0	22	9.5	74
Not married living with sexual partner	7.8	357	6.7	360	8.3	242	9.7	165
Not married, Not living with sexual partner	6.9	3555	6.9	3412	4.3	3168	5.4	2187
State								
Abia	1.1	269	1.1	273	-	-	-	-
Anambra	3.3	300	12.6	301	-	-	-	-
Benue	26.8	298	16.1	296	-	-	-	-
Cross-River	4.0	253	2.5	165	0.4	504	4.4	226
Edo	6.0	298	6.7	298	-	-	-	-
Enugu	6.6	273	9.1	241	5.1	454	14.2	367
FCT	1.0	298	4.5	292	6.4	637	7.6	669
Kaduna	18.4	298	19.3	296	4.2	504	1.8	504
Kano	0.7	283	1.5	263	3.2	124	6.7	284
Lagos	0.0	293	4.7	300	7.3	426	4.1	386
Nasarawa	16.1	300	5.8	296	-	-	-	-
Oyo	4.0	299	1.7	291	9.3	451	13.6	309
Rivers	7.4	296	6.2	293	0.6	502	0.3	389

Taraba	2.0	300	0.7	294	-	-	-	-
Total	**7.2**	**4058**	**6.8**	**3883**	**4.6**	**3602**	**6.4**	**3134**

Appendix 8.8: Percent distribution of male occupational groups who had experienced Genital Ulcer/Sore among those who had heard of STI by Selected Characteristics; Nigeria, IBBSS, 2014

	Army		Transport		Police	
Age in years	**Had a genital ulcer/sore**	**N**	**Had a genital ulcer/sore**	**N**	**Had a genital ulcer/sore**	**N**
State						
Abia	-	-	-	-	-	-
Anambra	0.7	299	2.3	300	0.7	296
Benue	1.4	296	3.7	285	8.5	294
Cross-River	1.0	300	0.3	296	3.0	297
Edo	1.7	299	0.3	295	0.0	298
Enugu	-	-	-	-	-	-
FCT	0.7	293	1.0	297	4.3	300
Kaduna	1.3	300	1.0	299	2.0	298
Kano	1.7	239	2.0	299	1.0	293
Lagos	1.3	300	1.3	300	0.7	298
Nasarawa	1.7	299	4.0	273	0.3	2299
Oyo	-	-	-	-	-	-
Rivers	-	-	-	-	-	-
Taraba	-	-	-	-	-	-
Total	**1.1**	**2625**	**1.8**	**2659**	**2.3**	**2673**

Appendix 8.9: Percent distribution of male occupational groups who had experienced Genital Ulcer/Sore among those who had heard of STI by Selected Characteristics; Nigeria, IBBSS, 2014

	Army		Transport		Police	
	Had a genital ulcer/sore	N	Had a genital ulcer/sore	N	Had a genital ulcer/sore	N
State						
Abia	-	-	-	-	-	-
Anambra	0.7	299	2.3	300	0.7	296
Benue	1.4	296	3.7	285	8.5	294
Cross-River	1.0	300	0.3	296	3.0	297
Edo	1.7	299	0.3	295	0.0	298
Enugu	-	-	-	-	-	-
FCT	0.7	293	1.0	297	4.3	300
Kaduna	1.3	300	1.0	299	2.0	298
Kano	1.7	239	2.0	299	1.0	293
Lagos	1.3	300	1.3	300	0.7	298
Nasarawa	1.7	299	4.0	273	0.3	2299
Oyo	-	-	-	-	-	-
Rivers	-	-	-	-	-	-
Taraba	-	-	-	-	-	-
Total	**1.1**	**2625**	**1.8**	**2659**	**2.3**	**2673**

Appendix 8.10: Percentage Distribution of Brothel based sex workers' sources of treatment for STIs during last 12months among those who had the symptoms according to selected characteristics, Nigeria, IBBSS 2014.

Characteristics	Brothel based							
	Public hospital clinic	Private hospital clinic	NGO	Pharmacy or chemist	Traditional healer	Friend	Others	Total
State								
Abia	11.4	31.4	0.0	31.4	22.9	0.0	2.9	35
Anambra	9.1	15.2	0.0	39.4	33.3	0.0	3.0	33
Benue	9.6	20.2	0.0	59.6	10.6	0.0	0.0	94
Cross-River	26.7	20.0	0.0	40.0	0.0	6.7	6.7	15
Edo	17.2	22.4	0.0	51.7	6.9	0.0	1.7	58
Enugu	21.6	39.2	0.0	23.0	16.2	0.0	0.0	74
FCT	29.5	22.7	0.0	38.6	4.5	0.0	4.5	44
Kaduna	37.2	27.4	0.0	28.3	3.5	0.0	3.5	113
Kano	13.6	50.0	0.0	27.3	4.5	0.0	4.5	22
Lagos	-	-	-	-	-	-	-	-
Nasarawa	22.3	33.9	3.3	32.2	4.1	3.3	0.8	121
Oyo	16.2	43.2	0.0	29.7	5.4	5.4	0.0	37
Rivers	17.9	46.2	0.0	25.6	7.7	0.0	2.6	39
Taraba	47.2	22.2	2.8	22.2	5.6	0.0	0.0	36
Total	**22.3**	**29.8**	**0.7**	**35.5**	**8.9**	**1.0**	**1.8**	**721**

Appendix 8.11: Percentage Distribution of Non-Brothel based sex workers' sources of treatment STIs during last 12months among those who had the symptoms according to selected characteristics, Nigeria, IBBSS 2014

Characteristics	Non Brothel based							
	Public hospital clinic	Private hospital clinic	NGO	Pharmacy or chemist	Traditional healer	Friend	Others	Total
State								
Abia	2.0	20.0	0.0	52.0	26.0	0.0	0.0	50
Anambra	8.7	28.2	0.0	24.3	38.8	0.0	0.0	103
Benue	4.8	40.3	0.0	33.9	11.3	6.5	3.2	62
Cross-River	35.7	7.1	0.0	42.9	7.1	0.0	7.1	14
Edo	26.9	35.8	0.0	31.3	4.5	0.0	1.5	67
Enugu	17.9	39.3	0.0	27.4	15.5	0.0	0.0	84
FCT	27.9	11.6	0.0	60.5	0.0	0.0	0.0	43
Kaduna	31.0	33.0	0.0	27.0	8.0	0.0	1.0	100
Kano	55.6	27.8	0.0	16.7	0.0	0.0	0.0	18
Lagos	16.2	32.4	2.7	45.9	0.0	2.7	0.0	37
Nasarawa	17.0	25.5	0.0	36.2	17.0	2.1	1.0	47
Oyo	10.0	35.0	0.0	37.5	12.5	2.5	2.5	40
Rivers	22.0	34.1	0.0	34.1	7.3	2.4	0.0	41
Taraba	43.8	31.2	0.0	16.7	6.3	0.0	0.0	48
Total	**20.2**	**30.8**	**0.1**	**33.0**	**13.8**	**1.1**	**1.1**	**754**
Overall*	**23.2**	**25.9**	**2.4**	**31.7**	**12.6**	**1.3**	**2.6**	

*irrespective of target group

Appendix 8.12: Percentage Distribution of Male having sex with men's sources of treatment STIs during last 12months among those who had the symptoms according to selected characteristics, Nigeria, IBBSS 2014

Characteristics	MSM							
	Public hospital clinic	Private hospital clinic	NGO	Pharmacy or chemist	Traditional healer	Friend	Others	Total
State								
Abia	-	-	-	-	-	-	-	-
Anambra	-	-	-	-	-	-	-	-
Benue	-	-	-	-	-	-	-	-
Cross-River	13.3	13.3	13.3	53.3	6.7	0.00.0	0.0	15
Edo	-	-	-	-	-	-	-	-
Enugu	45.6	29.1	1.0	10.7	7.8	2.9	2.9	103
FCT	29.3	12.0	35.9	16.3	3.3	0.0	3.3	92
Kaduna	6.4	8.5	25.5	31.9	12.8	6.4	8.5	47
Kano	22.2	44.4	22.2	11.1	0.0	0.0	0.0	9
Lagos	39.5	16.3	2.3	20.9	7.0	2.3	11.6	43
Nasarawa	-	-	-	-	-	-	-	-
Oyo	15.2	29.3	0.0	23.9	18.5	7.6	5.4	92
Rivers	14.3	18.6	0.0	60.0	4.3	2.9	0.0	70
Taraba	-	-	-	-	-	-	-	-
Total	**25.9**	**20.8**	**10.8**	**26.1**	**8.7**	**3.4**	**4.2**	**471**

Appendix 8.13: Percentage Distribution of Injecting Drug Users' sources of treatment for STIs during last 12months among those who had the symptoms according to selected characteristics, Nigeria, IBBSS 2014

Characteristics	PWID							
Age in years	Public hospital clinic	Private hospital clinic	NGO	Pharmacy or chemist	Traditional healer	Friend	Others	Total
State								
Abia	-	-	-	-	-	-	-	-
Anambra	-	-	-	-	-	-	-	-
Benue	-	-	-	-	-	-	-	-
Cross-River	58.3	0.0	0.0	41.7	0.0	0.0	0.0	12
Edo	-	-	-	-	-	-	-	-
Enugu	0.0	4.5	0.0	52.2	41.8	1.5	0.0	67
FCT	27.4	27.4	4.1	21.9	17.8	0.0	1.4	73
Kaduna	23.1	7.7	0.0	30.8	30.8	0.0	7.7	13
Kano	44.4	8.3	0.0	30.6	11.1	0.0	5.6	36
Lagos	21.1	42.1	0.0	15.8	10.5	0.0	10.5	19
Nasarawa	-	-	-	-	-	-	-	-
Oyo	26.3	15.8	0.0	14.0	43.9	0.0	0.0	57
Rivers	21.4	50.0	0.0	28.6	0.0	0.0	0.0	14
Taraba	-	-	-	-	-	-	-	-
Total	**23.4**	**17.5**	**1.0**	**29.6**	**26.1**	**0.3**	**2.1**	**291**

Appendix 8.14: Percentage Distribution of Army' sources of treatment for STIs during last 12months among those who had the symptoms according to selected characteristics, Nigeria, IBBSS 2014

Characteristics	Army							
	Public hospital clinic	Private hospital clinic	NGO	Pharmacy or chemist	Traditional healer	Friend	Others	Total
State								
Abia	-	-	-	-	-	-	-	-
Anambra	50.0	0.0	0.0	25.0	25.0	0.0	0.0	4
Benue	9.1	9.1	0.0	27.3	18.2	0.0	36.4	11
Cross-River	45.5	18.2	0.0	27.3	9.1	0.0	0.0	11
Edo	38.5	7.7	0.0	46.2	7.7	0.0	0.0	13
Enugu	-	-	-	-	-	-	-	-
FCT	46.2	30.8	0.0	0.0	0.0	0.0	23.1	13
Kaduna	60.0	0.0	0.0	20.0	0.0	0.0	20.0	5
Kano	71.4	14.3	0.0	14.3	0.0	0.0	0.0	7
Lagos	80.0	0.0	0.0	20.0	0.0	0.0	0.0	5
Nasarawa	44.4	11.1	0.0	0.0	0.0	0.0	44.4	9
Oyo	-	-	-	-	-	-	-	-
Rivers	-	-	-	-	-	-	-	-
Taraba	-	-	-	-	-	-	-	-
Total	**44.9**	**12.8**	**0.0**	**20.5**	**6.4**	**0.0**	**15.4**	**78**

Appendix 8.15: Percentage Distribution of Police workers' sources of treatment for STIs during last 12months among those who had the symptoms according to selected characteristics, Nigeria, IBBSS 2014

Characteristics	Police							
	Public hospital clinic	Private hospital clinic	NGO	Pharmacy or chemist	Traditional healer	Friend	Others	Total
State								
Abia	-	-	-	-	-	-	-	-
Anambra	21.4	28.6	0.0	28.6	0.0	0.0	21.4	14
Benue	38.7	32.3	0.0	25.8	0.0	0.0	3.2	31
Cross-River	15.7	35.3	0.0	47.1	0.0	2.0	0.0	51
Edo	0.0	33.3	33.3	0.0	0.0	0.0	33.3	3
Enugu	-	-	-	-	-	-	-	-
FCT	32.4	26.5	0.0	23.5	0.0	0.0	17.6	34
Kaduna	21.4	64.3	0.0	0.0	0.0	0.0	14.3	14
Kano								
Lagos	25.0	32.1	0.0	28.6	14.3	0.0	0.0	28
Nasarawa	53.3	26.7	0.0	6.7	0.0	6.7	6.7	15
Oyo	-	-	-	-	-	-	-	-
Rivers	-	-	-	-	-	-	-	-
Taraba	-	-	-	-	-	-	-	-
Total	**27.4**	**33.7**	**0.5**	**27.9**	**2.1**	**1.1**	**7.4**	**190**

Appendix 8.16: Percentage Distribution of Transport workers' sources of treatment STIs during last 12months among those who had the symptoms according to selected characteristics, Nigeria, IBBSS 2014

Characteristics	Transport Workers						
	Public hospital clinic	Private hospital clinic	NGO	Pharmacy or chemist	Traditional healer	Friend	Total
State							
Abia	-	-	-	-	-	-	-
Anambra	4.0	16.0	0.0	32.0	48.0	0.0	25
Benue	31.3	25.0	0.0	25.0	12.5	0.0	16
Cross-River	0.0	0.0	0.0	100.0	0.0	0.0	4
Edo	8.8	11.8	0.0	50.0	29.4	0.0	34
Enugu	-	-	-	-	-	-	-
FCT	27.3	45.5	0.0	27.3	0.0	0.0	11
Kaduna	22.2	5.6	0.0	44.4	22.2	5.6	18
Kano	26.3	5.3	0.0	31.6	36.8	0.0	19
Lagos	20.0	20.0	0.0	20.0	40.0	0.0	10
Nasarawa	36.4	18.2	0.0	0.0	45.5	0.0	11
Oyo	-	-	-	-	-	-	-
Rivers	-	-	-	-	-	-	-
Taraba	-	-	-	-	-	-	-
Total	18.2	15.5	0.0	35.1	29.7	0.7	148

Appendix 9.2: Percentage distribution of female sex workers attitudes towards people living with HIV/AIDS by selected Characteristics; IBBSS, 2014

Characteristics	Attitudes to PLWHA									
	Brothel based					Non-Brothel –based				
	Buy food from AID vendor	Eat with AIDS person	Work with colleague That has AIDs	Should HIV people be quarantine	Total	Buy food from AID vendor	Eat with AIDS person	Work with AID colleague	Should HIV people be quarantined	Total
Age in years										
15-19	53.5	57.5	67.3	31.2	202	59.2	64.6	78.6	16.9	338
20-24	52.3	64.8	76.1	20.8	999	56.2	68.1	82.4	14.8	1511
25-49	59.6	70.6	82.5	16.3	2862	59.3	68.8	82.0	15.2	2027
State										
Abia	47.2	57.1	75.3	8.2	269	45.4	47.6	77.9	4.8	276
Anambra	39.3	39.1	70.0	10.7	300	51.5	69.9	86.6	8.4	302
Benue	94.0	87.0	98.3	4.3	300	85.9	81.5	94.0	3.0	299
Cross River	58.3	54.7	73.1	39.8	255	62.1	62.7	74.5	27.3	165
Edo	49.8	71.3	76.1	15.5	298	54.8	71.1	70.9	11.7	301
Enugu	57.1	67.2	77.7	12.0	274	44.4	58.6	76.9	11.8	251
FCT	59.8	83.4	91.4	8.6	298	48.1	77.8	90.7	18.1	301
Kaduna	66.9	82..6	93.0	8.4	299	70.9	84.1	98.6	6.8	298
Kano	75.1	75.8	78.5	9.6	299	65.3	61.3	58.7	31.3	276
Lagos	38.6	79.7	84.8	32.1	296	28.3	59.0	81.0	8.0	300
Nasarawa	53.7	61.1	82.8	21.7	300	84.5	80.5	92.3	11.3	300
Oyo	35.2	54.4	69.4	21.8	300	33.4	42.5	65.2	18.5	292
Rivers	46.4	59.7	61.6	50.8	302	47.5	59.8	78.1	51.4	301
Taraba	82.3	83.9	88.3	13.1	300	90.2	89.2	93.6	8.4	297
Total	**57.5**	**68.5**	**80.2**	**18.2**	**4090**	**58.1**	**68.1**	**81.9**	**15.2**	**3959**

Appendix 9.3: Percentage distribution of MSM attitudes towards people living with HIV/AIDS by Selected Characteristics Nigeria, IBBSS, 2014

Characteristics	MSM							
	Care for PLWHA	Should HIV student allow schooling	Should HIV Teacher allow to teach	Buy food from AID vendor	Eat with AIDS person	Work with colleague That has AIDs	Should HIV people be quarantined	Total
Age in years								
15-19	90.7	86.3	84.7	58.4	68.7	83.9	14.8	754
20-24	93.2	89.6	88.9	65.7	75.8	89.6	13.8	1654
25-49	94.6	93.4	92.9	73.7	82.7	93.8	9.3	1192
State								
Abia	-	-	-	-	-	-	-	-
Anambra	-	-	-	-	-	-	-	-
Benue	-	-	-	-	-	-	-	-
Cross River	96.4	98.0	96.0	76.4	78.6	91.5	2.4	504
Edo	-	-	-	-		-	-	-
Enugu	94.7	97.8	97.4	89.9	88.5	96.1	17.3	456
FCT	99.2	99.4	98.7	79.3	86.1	97.8	3.0	636
Kaduna	90.2	87.6	86.1	68.1	64.3	83.9	15.0	501
Kano	84.0	76.0	76.8	46.4	67.2	76.0	55.2	125
Lagos	95.5	89.4	90.1	56.7	80.1	94.1	6.2	424
Nasarawa	-	-	-	-	-	-	-	-
Oyo	79.2	72.9	71.2	39.3	58.7	72.6	24.2	451
Rivers	96.6	85.9	85.5	57.2	79.7	93.4	12.2	503
Taraba	-	-	-	-	-	-	-	-
Total	**93.2**	**90.2**	**89.3**	**66.8**	**76.6**	**89.8**	**12.5**	**3600**

Appendix 9.4: Percentage distribution of IDU attitudes towards people living with HIV/AIDS by Selected Characteristics; Nigeria, IBBSS, 2014

Characteristics	PWID							
	Care for PLWHA	Should HIV student allow schooling	Should HIV Teacher allow to teach	Buy food from AID vendor	Eat with AIDS person	Work with colleague That has AIDs	Should HIV people be quarantined	Total
Age in years								
15-19	80.4	71.4	70.2	33.3	51.2	72.0	31.5	168
20-24	84.3	81.8	76.7	49.6	56.5	78.1	30.6	811
25-49	80.5	74.3	72.8	49.3	58.8	75.8	35.6	2124
State								
Abia	-	-	-	-	-	-	-	-
Anambra	-	-	-	-	-	-	-	-
Benue	-	-	-	-	-	-	-	-
Cross River	82.3	72.1	71.2	42.5	39.4	67.3	31.7	226
Edo	-	-	-	-	-	-	-	-
Enugu	85.4	81.9	83.8	45.8	52.8	86.8	27.8	370
FCT	92.0	94.6	93.7	55.6	74.7	91.5	23.8	666
Kaduna	98.2	86.9	84.3	48.4	72.6	90.3	10.2	503
Kano	88.0	66.5	65.8	53.2	63.4	67.3	56.3	283
Lagos	66.7	56.3	55.5	49.6	48.3	61.9	46.8	357
Nasarawa	-	-	--	--	-	-	-	-
Oyo	30.3	29.6	28.3	13.0	19.5	33.4	65.3	308
Rivers	86.6	88.9	75.8	66.2	60.0	80.5	37.2	390
Taraba	-	-	-	-	-	-	-	-
Total	**81.5**	**76.1**	**73.7**	**48.5**	**57.8**	**76.2**	**34.1**	**3103**

Appendix 9.5: Percentage distribution of the Army according to their attitudes towards people living with HIV/AIDS by Selected Characteristics; Nigeria, IBBSS, 2014

Characteristics	ARMED FORCES							
	Care for PLWHA	Should HIV student allow schooling	Should HIV Teacher allow to teach	Buy food from AID vendor	Eat with AIDS person	Work with colleague That has AIDs	Should HIV people be quarantined	Total
Age in years								
15-19	100.0	100.0	88.9	33.3	77.8	94.4	5.6	18
20-24	93.6	88.3	89.3	47.7	74.6	92.5	10.7	376
25-49	95.1	94.5	94.2	60.5	82.2	97.4	7.4	2231
State								
Abia	-	-	-	-	-	-	-	-
Anambra	93.3	93.3	93.0	50.8	78.9	95.7	8.3	300
Benue	98.3	94.3	93.3	56.1	82.7	95.9	9.2	300
Cross River	98.0	95.7	95.7	74.2	80.7	97.3	6.0	300
Edo	93.6	92.9	92.6	44.1	80.9	94.6	8.7	300
Enugu	-	-	--	-	-	-	-	-
FCT	97.9	91.0	92.1	54.3	84.7	95.9	10.7	292
Kaduna	96.6	90.3	90.9	56.4	85.5	97.7	5.7	298
Kano	94.5	94.9	96.7	70.2	83.2	99.1	8.1	236
Lagos	88.7	96.7	94.2	51.3	73.3	97.0	9.7	300
Nasarawa	93.6	94.0	92.6	71.6	80.9	97.3	4.7	299
Oyo	-	-	-	-	-	-	-	-
Rivers	-	-	-	-	-	-	-	-
Taraba	-	-	-	-	-	-	-	-
Total	**95.0**	**93.7**	**93.5**	**58.5**	**81.1**	**96.7**	**7.9**	**2625**

Appendix 9.6: Percentage distribution of Police respondents' attitudes towards people living with HIV/AIDS by Selected Characteristics; Nigeria, IBBSS 2014

Characteristics	POLICE							
	Care for PLWHA	Should HIV student allow schooling	Should HIV Teacher allow to teach	Buy food from AID vendor	Eat with AIDS person	Work with colleague That has AIDs	Should HIV people be quarantined	Total
Age in years								
15-19	100.0	100.0	100.0	0.0	100.0	100.0	0.0	1
20-24	95.3	95.3	93.0	53.5	76.7	97.7	16.3	43
25-49	94.0	88.2	88.3	52.4	70.4	93.3	13.6	2619
50+								
State								
Abia	-	-	-	-	-	-	-	-
Anambra	93.6	95.9	95.6	46.6	66.1	96.3	6.4	296
Benue	95.0	93.0	94.6	65.9	78.8	97.0	4.7	298
Cross River	98.3	98.8	98.3	59.7	77.0	99.0	2.7	295
Edo	78.0	78.3	75.9	25.4	51.2	84.7	14.6	298
Enugu	-	-	-	-	-	-	-	-
FCT	94.6	76.6	78.3	46.6	75.3	94.6	13.2	294
Kaduna	93.9	85.7	85.0	62.6	79.2	93.9	13.6	294
Kano	95.9	85.3	86.7	62.3	70.7	91.8	41.3	295
Lagos	97.3	88.6	86.6	36.9	55.6	86.2	18.5	298
Nasarawa	99.0	92.9	93.6	65.5	80.5	96.9	7.5	295
Oyo	-	-	-	-	-	-	-	-
Rivers	-	-	-	-	-	-	-	-
Taraba	-	-	-	-	-	-	-	-
Sex								
Male	94.2	88.5	88.6	53.7	70.8	93.0	15.1	1993
Female	93.1	88.3	87.8	48.6	69.7	94.6	8.6	670
Total	94.0	88.4	88.3	52.4	70.5	93.4	13.6	2663

Appendix 9.7: Percentage distribution of Transport Workers attitudes towards people living with HIV/AIDS by Selected Characteristics; IBBSS, Nigeria, 2014.

Characteristics	TRANSPORT WORKERS							
	Care for PLWHA	Should HIV student allow schooling	Should HIV Teacher allow to teach	Buy food from AID vendor	Eat with AIDS person	Work with colleague That has AIDs	Should HIV people be quarantined	Total
Age in years								
15-19	71.2	63.5	61.5	30.8	48.2	67.3	21.2	52
20-24	89.2	79.2	73.2	42.5	46.5	74.7	27.3	268
25-49	90.9	78.1	77.4	43.4	54.3	78.4	24.0	2328
State								
Abia	-	-	-	-	-	-	-	
Anambra	78.3	73.7	70.0	26.0	48.2	65.7	41.7	299
Benue	93.2	86.3	85.3	49.7	67.0	89.8	12.7	294
Cross River	96.6	93.9	93.2	52.9	56.3	95.9	7.8	294
Edo	80.8	64.2	65.5	42.7	51.7	71.7	38.7	294
Enugu	-	-	-	-	-	-	-	-
FCT	93.4	71.2	73.3	29.5	52.8	83.3	22.6	288
Kaduna	94.2	87.0	82.5	33.4	43.5	81.6	15.7	292
Kano	93.9	73.5	71.4	54.4	58.5	71.4	33.3	294
Lagos	92.3	70.7	67.0	35.4	37.4	59.5	21.6	298
Nasarawa	90.9	81.1	81.4	63.7	65.2	81.8	23.8	295
Oyo	-	-	-	-	-	-	-	-
Rivers	-	-	-	-	-	-	-	-
Taraba	-	-	-	-	-	-	-	-
Total	**90.4**	**77.9**	**76.6**	**43.1**	**53.4**	**77.8**	**24.3**	**2648**

Appendix 10.1 Percentage distribution of Female Who Sell Sex who had HIV test and found out the result by selected characteristics, Nigeria, IBBSS 2014

Characteristics	Brothel based				Non brothel based			
	Ever had an HIV test	Voluntary undergo HIV test	Found out HIV test result	Know a facility to have on HIV test	Ever had an HIV test	Voluntary undergo HIV test	Found out HIV test result	Know a facility to have on HIV test
State								
Abia	91.8	87.4	95.5	53.2	94.5	83.9	100.0	57.7
Anambra	81.7	91.0	99.2	56.9	76.3	86.0	98.7	61.0
Benue	97.0	82.1	99.7	90.9	84.8	88.9	99.2	96.0
Cross river	85.4	90.1	98.1	38.7	68.9	95.5	99.1	45.0
Edo	85.2	94.9	98.8	56.6	71.9	92.1	99.1	64.1
Enugu	88.6	92.1	97.9	48.2	87.0	85.1	97.6	53.9
FCT	95.9	97.9	98.2	51.4	81.7	94.9	99.2	49.7
Kaduna	94.3	90.4	97.5	61.5	74.2	81.7	97.3	70.2
Kano	92.1	93.7	98.1	52.7	73.4	84.2	99.5	44.4
Lagos	82.2	78.0	99.6	27.9	69.0	83.6	99.5	56.0
Nasarawa	88.8	78.8	99.2	51.5	76.4	85.1	96.8	26.1
Oyo	87.2	91.6	96.6	40.4	59.3	86.0	98.3	45.5
Rivers	74.9	97.7	96.3	23.4	72.9	97.1	98.6	24.7
Taraba	83.3	92.4	95.2	64.9	60.1	97.2	98.9	68.9
Total	**87.9**	**89.8**	**97.9**	**51.5**	**75.0**	**87.6**	**98.7**	**55.3**

Appendix 10.2 Percentage distribution of MSM and PWID who had HIV test an found out the result by State Nigeria, IBBSS 2014

Characteristics	MSM				PWID			
	Ever had of HIV test	Voluntary undergo HIV test	Found out HIV test result	Know a facility to have on HIV test	Ever had of HIV test	Voluntary undergo HIV test	Found out HIV test result	Know a facility to have on HIV test
State								
Abia	-	-	-	-	-	-	-	-
Anambra	-	-	-	-	-	-	-	-
Benue	-	-	-	-	-	-	-	-
Cross river	55.1	93.5	98.9	70.6	62.4	87.9	93.6	68.6
Edo	-	-	-	-	-	-	-	-
Enugu	82.3	74.2	98.1	80.6	39.2	63.9	96.6	51.6
FCT	87.0	70.6	99.5	90.1	66.6	85.3	98.9	68.2
Kaduna	47.5	79.7	96.2	77.0	55.3	77.0	98.6	60.6
Kano	60.0	70.7	93.3	78.4	55.5	87.3	98.1	81.6
Lagos	76.8	83.4	97.8	81.8	55.5	88.4	96.0	74.3
Nasarawa	-	-	-	-	-	-	-	-
Oyo	48.1	82.9	93.5	61.8	65.6	88.9	98.0	68.5
Rivers	53.2	88.3	97.3	59.8	25.9	66.3	94.1	16.4
Taraba	-	-	-	-	-	-	-	-
Total	**64.6**	**79.8**	**97.6**	**75.2**	**53.7**	**82.1**	**97.4**	**60.4**

Appendix 10.3 Percentage distribution of Police respondents, Armed Forces respondents and PWID, Transport Workers who ever had an HIV test, voluntarily underwent HIV test, found out HIV test results and knew a facility for HIV test, IBBSS Nigeria, 2014

	Police				Armed Forces				Transport workers			
Characteristics	**Ever had of HIV test**	**Voluntary undergo HIV test**	**Found out HIV test result**	**Know a facility to have on HIV test**	**Ever had of HIV test**	**Voluntary undergo HIV test**	**Found out HIV test result**	**Know a facility to have on HIV test**	**Ever had of HIV test**	**Voluntary undergo HIV test**	**Found out HIV test result**	**Know a facility to have on HIV test**
State												
Abia	-	-	-	-	-	-	-	-	-	-	-	-
Anambra	93.6	75.8	97.5	84.0	91.7	70.5	99.3	81.6	54.4	75.0	97.0	42.3
Benue	85.2	92.9	97.6	86.2	93.2	80.9	98.9	88.6	78.2	94.3	100.0	81.9
Cross river	88.1	75.6	98.8	92.2	92.3	72.9	97.8	67.0	52.0	95.4	98.0	56.5
Edo	68.7	55.0	94.0	61.4	91.3	80.2	95.6	78.7	37.2	73.4	96.3	70.0
Enugu	-	-	-	-	-	-	-	-	-	-	-	-
FCT	84.9	84.4	95.2	70.4	91.8	76.4	94.4	73.4	54.5	91.8	96.8	54.5
Kaduna	75.9	86.5	99.1	62.2	91.6	80.2	97.4	66.0	44.0	73.4	97.6	33.7
Kano	62.5	82.0	96.2	84.6	87.7	75.2	98.1	57.6	32.7	73.7	96.8	57.8
Lagos	80.2	74.7	96.2	44.6	92.2	65.1	96.0	77.3	47.3	88.5	97.1	29.2
Nasarawa	82.4	89.3	98.8	67.5	94.9	87.3	98.9	98.0	56.6	86.8	94.0	70.2
Oyo	-	-	-	-	-	-	-	-	-	-	-	-
Rivers	-	-	-	-	-	-	-	-	-	-	-	-
Taraba	-	-	-	-	-	-	-	-	-	-	-	-
Total	**80.2**	**79.9**	**97.2**	**72.5**	**92.0**	**76.6**	**97.4**	**76.9**	**50.8**	**85.1**	**97.2**	**55.1**

Appendix 11.1a: Percent distribution of respondents' sources of information or service on HIV/AIDS by vulnerable group and State, Nigeria IBBSS 2014.

	Radio	TV	Newspaper	Poster	Health workers	Peer educator	Colleague	Internet
State								
Abia	93.1	87.0	44.3	63.4	77.9	29.8	31.4	13.4
Anambra	75.4	71.8	29.0	14.9	36.5	14.7	35.6	10.6
Benue	76.7	61.8	39.0	48.2	59.8	47.8	49.2	15.3
Cross River	84.2	85.7	50.9	44.1	48.6	33.8	30.9	15.0
Edo	77.9	81.3	47.2	49.7	62.5	41.8	38.5	16.4
Enugu	79.2	75.5	62.2	48.8	63.0	50.8	48.2	39.7
FCT	67.7	70.4	30.0	31.3	48.5	31.0	23.3	16.5
Kaduna	59.7	58.7	20.8	21.4	38.6	17.1	25.1	8.1
Kano	73.3	49.5	30.8	28.7	43.0	27.8	33.8	15.0
Lagos	67.7	67.3	31.0	24.3	46.0	24.8	25.4	9.0
Nasarawa	74.4	67.8	37.5	31.5	63.3	35.0	38.6	14.7
Oyo	78.9	69.5	26.8	24.4	51.7	35.8	24.5	8.3
Rivers	80.2	80.0	49.0	46.6	40.0	31.2	28.7	26.8
Taraba	38.3	39.7	22.4	35.4	62.8	40.2	15.5	2.7
Total	**73.3**	**69.6**	**36.7**	**34.7**	**50.8**	**32.1**	**31.8**	**15.0**

Appendix 11.1b: Percent distribution of respondents' sources of information or service on HIV/AIDS by vulnerable group and State, Nigeria IBBSS 2014.

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	Place of worship	School	Family member	NGO	Public meeting
State					
Abia	15.6	18.5	22.7	21.3	18.5
Anambra	12.2	8.3	18.6	13.3	12.8
Benue	14.8	17.3	33.5	30.8	12.2
Cross River	18.7	21.6	26.1	28.1	18.7
Edo	18.4	18.1	28.5	27.6	18.2
Enugu	37.2	42.1	38.2	28.5	18.0
FCT	11.1	11.6	13.4	24.8	16.5
Kaduna	11.6	11.3	12.9	17.1	4.7
Kano	13.0	12.2	18.5	25.8	7.7
Lagos	9.8	9.3	10.5	18.8	8.8
Nasarawa	18.7	18.0	25.1	24.4	16.7
Oyo	9.8	11.4	8.8	21.7	6.9
Rivers	21.7	26.0	14.3	16.3	4.3
Taraba	9.4	12.3	23.2	10.3	2.3
Total	**15.5**	**16.5**	**20.1**	**22.8**	**12.2**

LIST OF SURVEY MANAGEMENT COMMITTEE MEMBERS FOR INTEGRATED BIOLOGICAL AND BEHAVIOURAL SURVEILLANCE SURVEY (IBBSS) 2014

1)	Dr.Linus Awute, mni	-	Permanent Secretary FMOH
2)	Dr. Bridget Okoeguale	-	Director Public Health
3)	Dr. Evelyn Ngige	-	National Coordinator HIV/AIDS
4)	Sir. Bright Ekweremadu	-	Managing Director SFH
5)	Dr. Sunday Aboje	-	Director T C & S
6)	Phyllis Jones-Changa	-	Chief of Party- FHI 360
7)	Dr. Kwasi-Torpey	-	Deputy Chief of Party - FHI 360

CONSULTANTS FOR THE SURVEY

1)	Prof. Afolabi Bamgboye	-	Data Analysis
2)	Mr. Taiwo Adekambi	-	Data Management
3)	Dr. Oluyemisi Akinwande	-	Survey Manager
4)	Mr. M. K. Usman	-	Mapping & Listing

TECHNICAL COMMITTEE/CENTRAL SUPERVISORS

1)	Dr. Tony Eloike	-	Independent Researcher
2)	Prof. Lydia Abia Bassey	-	University of Calabar
3)	Mr. Araoye Segilola	-	Director PDA.
4)	Dr. Chukwuma Anyaike	-	CSG Prevention
3)	Dr. Ogboi S. Johnbull	-	Independent Researcher
4)	Mr. Bathlomew Ochonye	-	Heartland Alliance
5)	Mr. Alexandra Onwuchekwa	-	Desk Officer IBBSS/FMOH
6)	Mr. Abatta Emmanuel	-	FMOH (HIV/AIDS)
7)	Dr. Adebobola Bashorun	-	FMOH (HIV/AIDS)
8)	Dr. Samson Adebayo	-	NAFDAC
9)	Dr. Sylvia Adebajo	-	Pop. Council
10)	Dr. George Emeka Eluwa	-	Formerly Pop. Council
11)	Mr. Onoriode Ezire	-	Formerly SFH
12)	Dr. Onifade Bodunde	-	FMOH (HIV/AIDS)
13)	Mrs Morka Mercy C.	-	FMOH (HIV/AIDS)
14)	Dr. Peter Nwokennaya	-	FMOH (HIV/AIDS)
15)	Mr. Gabriel Ikwulono	-	FMOH (HIV/AIDS)
16)	Mrs. Perpetua Amida	-	FMOH (HIV/AIDS)
17)	Mrs. Mayaki Lami	-	FMOH (HIV/AIDS)
18)	Dr. Omede Ogu	-	FMOH (HIV/AIDS)
19)	Fasina Olusegun	-	UCH,Ibadan, Oyo State
20)	Dr. Jenifer Anyanti	-	SFH
21)	Mr. Godspower Omoregie	-	SFH
22)	Mr. Ifeanyi Okekearu	-	SFH
23)	Dr. Wole Fajemisin	-	SFH
24)	Mr. Ali Bukar	-	SFH
25)	Mrs. Oluwayinka Adejumoke	-	SFH
26)	Mr. Emeka Chima	-	SFH
27)	Mr. Samuel Ikani	-	SFH
28)	Mr. Moses Okpara	-	CCM
29)	Olufunso Adebayo	-	FHI 360
30)	Dr. Oluwasanmi Adedokun	-	FHI 360

31) Dr. Olubunmi Negedu-Momoh - FHI 360
32) Oluseyi Balogun - FHI 360
33) Titilope Badru - FHI 360
34) Dr. Ogesanmola Omotayo - FHI 360

LAGOS STATE

1) Dr. Agbolagorite A. Olurotimi- SAPC
2) Jenrola Olarenwaju - SLS

SUPERVISORS

1) Mr. Wale Obembe
2) Mrs. Tola Omotosho
3) Mr. Alozie Humphrey
4) Mr. Samuel Egedovo
5) Mrs. AanuRotimi
6) Miss Adejumobi A.
7) Mr. OlubayodeTaiwo

COUNSELLOR TESTER

1) Martina Motunrayo
2) Oyedeji Oluwakemi Mobolade
3) Yusuf Aishat Folashade
4) Asiyanbi Omotolani Lizzy
5) OgundipeYewande Adijat
6) Jacob Oluwole Abiodun
7) Miller Afolabi Williams
8) IgeMonsuru Mabayomije
9) Ogunbodunrin Olawale
10) Hus. Onyekwere Ebelechuwo
11) Egbedun Charles Olayiwola
12) Ilawole Olubunmi Adetutu
13) Jubril Adamus Mustapha
14) Olusanya Abosede Aderemi

RIVERS STATE

1) Dr. Golden Owhonda - SAPC
2) Mr. Reginald jaja - State Laboratory Scientist

SUPERVISOR

1) Dr. Sibor Leeleebari
2) Dr. Kattey K.
3) Mrs. Ibilaba Briggs
4) Rakiya Abdullahi

COUNSELLOR TESTERS

1) Faith Nwachukwu
2) Chibuzor E. Ndubuisi
3) Innocent Mayor
4) Mrs Isabella Nyeche
5) Lloyd Ebenezer
6) Obi Chinelo Mariam

7) Kelvin
8) Christian Owhonda

OYO STATE

1)	Dr. Olubunmi Ayinde	-	SAPC
2)	Biodun Osuntade	-	State Laboratory Scientist
3)	Obayemi Tosin	-	Supervisor
4)	Funso Akinboye	-	Supervisor
5)	Olusegun Oshatimehin	-	Supervisor
6)	Dr. Eniola Bamgboye	-	Supervisor
7)	Dr. Akintunde O.	-	Counsellor Tester
8)	Majaro Olubayo	-	Counsellor Tester
9)	Adelakun Faramode	-	Counsellor Tester
10)	Akingunsoye Adenugba	-	Counsellor Tester
11)	Oladele Mary	-	Counsellor Tester
12)	Akinbolade Adeyinka	-	Counsellor Tester
13)	Elebiju Oluwatoyin	-	Counsellor Tester
14)	Ojo Kehinde	-	Counsellor Tester
15)	Suara Ogunfolaji Olawumi	-	Coupon Manager IDU
16)	Olarinmoye Abayomi	-	MSM
17)	Adekunle Adedolapo	-	Screener IDU
18)	Jide Lawal	-	Screener MSM

FEDERAL CAPITAL TERRITORY (FCT)

1)	Dr. Yakubu Mohammed	-	SAPC
2)	Gbenga Olabode	-	State Lab. Scientist

SUPERVISORS

1) Mr. Abubakar Abdulmalik
2) Mr. Rabiu Dogondaji
3) Ms. Itunu Fakunle
4) Mr. Francis Eyomo
5) Mr. Gish Daniel
6) Mr. Maigari Felix
7) Mr. Cosy Igbokwe

COUNSELLOR TESTERS

1) Mrs. Aisha Sambo
2) Mrs. IyereIsimenmen
3) Mrs. Bimbo Adebayo
4) Ms. Florence Adomo
5) Ms. Patience Ilupeju
6) Mrs. Comfort Ndaks
7) Miss NkirukaOnuko
8) Mr. AbutuAnthoney
9) Mrs. Aisha Ugbenyo
10) Mrs. DolapoOdusanya
11) Mr. Ebenezer Kafidipe
12) Mr. Osara Michael
13) Mr. EkpenyongUyok

14) Mr. Innocent Okolo

NASARAWA STATE

1) Roseline O. Adoga - SAPC
2) Stephen H. Kyari - SLS

SUPERVISORS

1) Lucky Bada
2) Susan Audu
3) KyautaBada
4) Akolo Joseph
5) Idoko Paul

ABIA STATE

1) Dr. Christy Nwogwugwu - SAPC
2) Mr. JimohRaifu SLS

SUPERVISORS

1) Mr. David
2) Mrs Linda

COUNSELLOR TESTERS

1) Elizabeth Ekeson
2) Onwuchuruba Ebere
3) Nzotta Nnamdi
4) Agwu Vivien

LAGOS STATE

1). Prof. Christian O. Onyebuchi- Former Minister of Health
2). Dr. Khaliru Al-Hassan - Former Minister of State for Health
3). Olukoya Funmi - SFH
4). Mrs. Nwanerih NCR
5). Mr. Segilola Araoye - FMOH (HIV/AIDS)
6). Mr. Jide banjo - FMOH (HIV/AIDS)
7). Mr. Fela Bright - SFH
8). Prof. Kayode Osungbade -
9). Mr. Rowland - SFH
10). Dr. KSO Oyedeji - UNILAG
11). Dr. Niyi Fagbamigbe - UCH
12). Mr. Akinbiyi Olugbenga - FMOH (HIV/AIDS)
13). Mr. Ayo Oginni - Population Council
14) Mr. Solomon Adebayo - Cross River SFH
15). Dr. Gideon Oju - Neuro Psychiatric Hospital
16). Dr. Gozie Ifeadike -
17). Dr. Ibrahim Getso - AKTH
18). Lt. Cdr. B. K. banigo -
19). Mrs. Mercy Morka - FMOH (HIV/AIDS)
20). Mrs. Ima John Dada - FMOH (HIV/AIDS)
21). Prof. Kabir Sabitu - Abu Zaria

22).	Mrs. Perpetual Amida	-	FMOH (HIV/AIDS)
23).	Miss JummaiAgabus	-	FMOH (HIV/AIDS)
24).	Mrs. LamiMayaki	-	FMOH (HIV/AIDS)
25).	Mr. Oloyede Yekini	-	FMOH (HIV/AIDS)
26).	Dr. DaudaGwomson	-	FMOH (HIV/AIDS)
27).	Mr. Jaho Ogene Felix	-	SFH
28).	Barr. Mercy Ibe	-	NURTW
29).	Dr. Vera Ogbechi	-	FMOH
30).	Dr. IjaodolaOlugbenga	-	FMOH (HV/AIDS)
31).	Dr. Omede Ogu	-	FMOH (HIV/AIDS)
32).	Dr. Adebola Lawanson	-	FMOH
33).	Dr. Uba Sabo	-	FMOH (HIV/AIDS)
34).	Dr. Fintrinmam Sambo-Donga-		FMOH (HIV/AIDS)

ANAMBRA STATE

1)	Dr. Anaewe Afam Cyril	-	SAPC
2)	Umeibe Johnnies	-	SLS
3)	Oraelosi Ebere A.	-	Supervisor
4)	Ekemezie Ifeyinwa	-	Supervisor
5)	Edokwe Chigozie	-	Supervisor
6)	Oraegbu Gerald O.	-	Supervisor
7)	Ibechigoziem C.	-	Supervisor

TARABA STATE

1)	Dr. Musa Obadiah	-	SAPC
2)	Mr. Amamra Taunton	-	SLS
3)	Mr. James Hikon	-	CT
4)	Mrs. Elizabeth Joshua	-	CT
5)	Mr. Samuel Tari	-	CT

CROSS RIVER STATE

1)	Sunny Omini	-	SAPC
2)	Mr. Eni Ogban	-	SLS
3)	Dr. Theophilus Osin	-	Supervisor IDU
4)	Dr. Ekpenyong Nnatte	-	Supervisor MSM
5)	Emmanuel Imoh	-	Supervisor
6)	Jumbo Inyang	-	Supervisor
7)	Patience O. Uke	-	Supervisor
8)	Patricia Odey	-	Supervisor
9)	Patricia Aqua	-	Supervisor