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HIV/STI INTEGRATED BIOLOGICAL AND BEHAVIOURAL SURVEILLANCE SURVEY (IBBSS) 2021

NATIONAL AGENCY FOR THE CONTROL OF AIDS NACA

University of Manitoba



Federal Ministry of Health

Integrated Biological & Behavioural Surveillance Survey (IBBSS) among Key Populations in Nigeria

REPORT

DECEMBER 2020

FOREWORD

The results of the Nigeria AIDS Indicator and Impact survey (NAIIS) conducted in 2018 showed declining HIV prevalence in the general population. Nonetheless, HIV continues to be a major disease of public health importance to the nation and to the international community, with key population groups having increased risk of infection.

Given Nigeria's mixed HIV epidemic, the need for sustained efforts in addressing not only general population needs, but also those of key population groups, cannot be overstated. To better understand the dynamics and behavioural indices, given the high HIV prevalence amongst key population groups, Integrated Behavioural and Biological Surveillance Surveys (IBBSS) have been instituted since 2007 to periodically provide evidence on specific sub-population level estimates of the HIV disease burden, related risk factors and insights on access and coverage of prevention, treatment and care services.

The Federal Ministry of Health, in collaboration with the National Agency for the Control of AIDS (NASCP) and key stakeholders, successfully conducted the 2020 IBBSS study in 12 states, with the specific goal of obtaining serological and behavioural information on key population, with a view to improving HIV prevention, treatment and care programmes for these groups at state and national levels. For the first time, Transgender Populations and Men who have Sex with Men, operating through virtual platforms, were studied in 2020 IBBSS.

The 2020 IBBSS report is hereby presented to all stakeholders involved in the HIV and AIDS response, especially those engaged in providing services to key populations. The results of the 2020 IBBSS presented here have further established the burden of the epidemic among key populations, their significance as major drivers of the epidemic, as well as the connection between them and the general population.

The information from this report, other surveys and research previously conducted, provide robust evidence to guide the government and other key stakeholders in designing and implementing appropriate strategies and interventions towards the control of the HIV epidemic in Nigeria.



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PREFACE

The Government of Nigeria along with partners have developed several interventions and strategies towards control and mitigation of the impact of the HIV epidemic in Nigeria. An important strategy is the continuous monitoring, surveillance and surveys of the HIV epidemic. The results from the surveys have served as important basis for public health planning, implementation and evaluation of targeted interventions in the fight against HIV and AIDS in Nigeria.

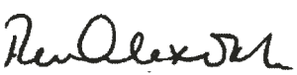
Evidence informed decision-making is fundamental to a successful response to the HIV/AIDS epidemic. In recognition of this, the Federal Ministry of Health conducted the first, second and third Integrated Biological and Behavioural Surveillance Surveys (IBBSS) in 2007, 2010 and 2014 respectively. The 2020 Survey is fourth in the series. Results of these surveys have provided useful scientific evidence on the burden of HIV infection and how it affects key populations within the country. Over the years, findings from these Surveys continue to point to the importance of key population as drivers of the epidemic. The findings also show the sexual behavioural linkages that exist between key population groups and the general population. The outcomes also demonstrate the high prevalence of HIV infection among members of these populations and their behavioural characteristics.

Targeting an overall sample size of 18,324, the 2020 IBBSS used current information technology to efficiently implement the survey between August to December 2020. Real time data collection was done using SurveyCTO which allows you to collect and upload high-quality data using mobile phones, android tablets, or computers.

The findings from this report are comprehensive, covering 22 globally recognized indicators including program monitoring and evaluation indicators. The indicators presented in this report include but are not limited to risk behaviours and HIV-related knowledge and practices. Information on the HIV prevalence estimates has also been reported by State, geographical location of the key population typology, service utilization amongst the different typologies and the progress towards the 95-95-95 cascade, a critical measure of the country's drive towards zero new infections by 2030. 2020 IBBSS also reports on venue/spot typology behavioural indicators.

The best possible efforts have been made in analysing, interpreting and writing this report. However, we recognize that there is always room for further improvement. We therefore welcome all suggestions to assist in improving future surveys.

I hope that the information provided in this report will strengthen the understanding of the HIV epidemic for all stakeholders, including program managers, funders, the research community and community-based organizations, and also facilitate tailoring of intervention strategies to halt and reverse the trend of the HIV/AIDS epidemic among key populations in Nigeria.



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The Federal Ministry of Health acknowledges the efforts of all those who contributed to the successful conduct of the 2020 Integrated Behavioural and Biological Surveillance Survey (IBBSS).

We particularly acknowledge the financial support provided by the Global Fund to Fight AIDS, TB and Malaria (GFATM) through the National Agency for the Control of AIDS (NACA). Our appreciation also goes to the Director General and his team for working side by side with NASCP throughout the process.

We are grateful to all members of the Survey Management Committee for steering the process of planning, coordination, implementation and monitoring as well as their advice in decision making on operational and technical areas. We also acknowledge and appreciate the support from various partners/institutions through their membership in the national survey technical committees, as well as the contributions and support from the National KP secretariat.

We extend our profound gratitude to the Institute of Global Public Health, University of Manitoba (UoM) for their technical support during the exercise. Special appreciation also goes for the partnership and synergy with the participating study states through their various State AIDs and STIs Control Program (SASCPs) and their State Agencies for the Control of AIDS (SACAs).

It is our hope that this report will be a good reference document that will be used by all partners working with KPs to guide policy and programme planning towards improved implementation of the HIV/AIDS programme in line with Nigeria's National Strategic Framework.



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EXECUTIVE SUMMARY

The Government of Nigeria, through funding support from the Global Fund to fight AIDs, Tuberculosis and Malaria grant, contracted the Institute for Global Public Health (formerly known as the Centre for Global Public Health), University of Manitoba (IGPH, UoM) to conduct the Integrated Behavioral and Biological surveillance survey in selected states. The last sentinel survey of this sort happened in 2014, and following the commitment of the government, through the Federal Ministry of Health and the National Agency for the Control of AIDs (FMoH/NACA) and the support received from Global funds and other partners, it was expedient that the 2020 IBBSS be conducted so that Nigeria, amongst other reasons, will have a complete epidemic surveillance update on her HIV national response effort. This also became fortuitous following the successful implementation of the NAIIS study in 2018 which was conducted among the general population. The NAIIS study showed the HIV prevalence of 1.4% (15-64yr) within the general population. The 2020 IBBSS was conducted in 12 states and measured the epidemic among four Key Population groups (Female Sex Workers, Men Who have Sex with Men, Transgender persons, and Persons Who Inject Drugs). The transgender population was studied for the first time in the 2020 IBBSS. This report presents insights and findings from the 2020 IBBSS research across these KP groups.

The main goal of the study was to obtain serological and critical behavioural information on key population including Female sex workers (FSW) both brothel and non-brothel based FSW, Men who have sex with men (MSM), Trans-genders (TG) and People Who Inject Drugs (PWID) with a view to delivering evidence-driven HIV prevention and care programmes at state and national level.

The 2020 IBBSS selected 2 states each across Nigeria's six geo-political zones. These includes Kaduna, Kano (North-west), Gombe, Taraba (North-east), Benue, Nasarawa (North-central), Lagos, Oyo (South-west), Abia, Anambra (South-east), and Akwa-Ibom, Rivers (South-south). A total of 143 Local Government Areas (LGAs) were covered across the 12 states. The MSM participants in the study were selected from both physical and virtual locations.

The study adopted a multi-stage cluster sampling approach, with the 2018 programmatic mapping and size estimation data providing the framework for the development of the study sample frame.

The frame was refined following a validation of these hotspots and targets per typology allocated using probability-proportionate to size method. The hotspot served as the Primary Sampling Units (PSU).

Field implementation was conducted using 4 field teams per state (one field team per KP typology), comprising of a state study representative, a state IT support officer, a state admin/finance officer, 1 supervisor per typology, 3 interviewers per typology, 2 counselors per typology, 1 laboratorian per typology and 1 community/social mobilizers per KP typology. The University of Manitoba also had a study compliance and conformance officer in each of the states, whom working with the respective state survey management committee and the national team, provided needed guidance and technical oversight during the implementation of the survey. The study was implemented in strict compliance with the COVID- 19 guidelines as enunciated by the World Health Organization (WHO) and Nigeria's Centre for Disease Control (NCDC).

A total of 17,975 Key Population persons were interviewed for the behavioral component and their blood samples were also drawn across the 4 identified KP groups for biological testing (Laboratory procedures were performed in line with approved national algorithm and SOPs by trained and competent medical laboratory scientist). Twenty-two (22) globally recognized indicators were tracked and reported in addition to other country -level priority indicators. These indicators include Monitoring indicators (Programme and Determinant indicators) and Evaluation indicators (Behavioral outcome and Impact indicators) See fig 7.

Over 60% of respondents have at least secondary education, specifically 66%, 62%, 65% and 61% for FSW, MSM, TG and PWID, respectively. The proportion of respondents with tertiary education was highest amongst MSM at 33% and lowest among FSW at 10%.

Majority of the MSM and TG typology respondents (92%) were unmarried at the time of the survey. 19% of PWID and 3% of FSW were currently married, while within the MSM and TG groups, about 6% reported being currently married. A higher proportion of FSW respondents were either divorced, separated, or widowed when compared to the other typologies. The proportion of KP employed (full time or part time) was highest among PWID (54%) compared to other KP typology at 39%, 47% and 47% for FSW, MSM and TG respectively.

The 2020 IBBSS shows that condom use is high with clients and casual sexual partner but low with regular sexual partners. Correct and consistent use of condom varied across all KP groups by partner type. Over 40% of PWID inject drugs 2-6 times weekly, with the most common drug injected being Pentazocine. Violence on KP remain high with forced unprotected sex (without condom) highest against TG at approximately 55%, 36% for MSM, 37% and 33% respectively for PWID and FSW. The HIV prevalence was highest among Trans-persons (29%). Prevalence amongst FSW was 15.5% while the MSM group had a prevalence of about 25%. Over a 6-year interval, there was a significant rise in the HIV prevalence within the PWID group from 3.4% in 2014 to about 11% in 2020.The 90-90-90 cascade spectrum shows that 26.7%, 38%, 19% and 12% of FSW, MSM, TG and PWID are diagnosed and know their status respectively. Furthermore, amongst those diagnosed and know their status about 89%, 90%, 84% and 68% of the respective KP are on ART while 86%,78%,75% and 75% of those on ART have achieved viral suppression.

Summarily, the result of the 2020 IBBSS reinforces the need for the country to redouble effort in primary prevention emphasizing increased HIV testing coverage, intensify differentiated service delivery for Key Population, rejuvenate prevention and treatment programs for PWID, re-evaluate and strengthen messaging strategies on condom practice to improve correct and consistent condom use at all sex act irrespective of partner type among KP, revise strategies for implementing venue-based programming and ultimately use the rich evidence generated to guide programme and policy interventions at national and sub-national level. Furthermore, the findings also strengthen the case for a holistic KP size estimation exercise within the country.

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ACRONYMS & ABBREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome
ART	Anti-Retroviral Therapy
BBFSW	Brothel Based Female Sex Worker
DMT	Data Management Team
DMU	Data Management Unit
DBS	Dried Blood Spots
FMoH	Federal Ministry of Health
FSW	Female Sex Workers
GFATM	Global Fund for AIDS, Tuberculosis and Malaria
GSN	Geo-Social Networking
HIV	Human Immunodeficiency Virus
KP	Key Population
ODK	Open Data kit
OSS	One Stop Shop
PWID	People Who Inject Drugs
QA	Quality Assurance
IBBSS	Integrated Behavioral and Biological Surveillance Survey
MSM	Men having Sex with Men
NACA	National Agency for the Control of AIDS
NAIIS	Nigeria AIDS Indicator and Impact Survey
NASCP	National AIDs and STD Control Programme
NBBFSW	Non-Brothel Based Female Sex Worker
NGO	Non-Governmental Organization
PMTCT	Prevention of Mother-To-Child Transmission
SMC	Survey Management Committee
NTC	National Technical Committee
SACA	State Agency for the Control of AIDS
SAPC	State AIDs Programme Coordinator

SIC	State IBBSS Committee
SDP	Service Delivery Point
SGS	Second Generation Surveillance
STI	Sexual Transmitted Infection
TG	Transgenders
TW	Transport Worker
UoM-IGPH	University of Manitoba- Institute for Global Public Health
UN	United Nations
UNAIDS	Joint United Nations Program on HIV/AIDS
WACPHD	West African Centre for Public Health and Development

INSTITUTES & ORGANIZATIONS

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1.0 BACKGROUND

1.1 HIV Epidemic in Nigeria

Nigeria is the most populous country in Africa, which according to the world population review in 2019 has an estimated population of over 200 million people. Nigeria has a fast-growing HIV epidemic; UNAIDS estimated that around two-thirds of the new infection in West and Central Africa in 2017 occurred in Nigeria. This occurrence has placed the country as the second largest HIV epidemic in the world. [1] It is suggested by United Nations program on HIV/AIDS (UNAIDS) that 50% of all new infection worldwide occur in people from key population sub-group.

The most recent HIV data was collected by Nigeria HIV/AIDS Indicator and Impact Survey (NAIIS) in 2018. NAIIS was a national household-based survey that assessed the prevalence of Human Immunodeficiency Virus (HIV) and related health indicators. HIV prevalence, defined as the percentage of PLHIV in the population of Nigeria, among adults age 15-64 years was 1.4% (1.9% among females and 0.9% among males). HIV prevalence among children age 0-14 years was 0.2%. HIV prevalence was highest among females age 35-39 years at 3.3% and the highest prevalence among males age 50-54 years at 2.3%. The HIV prevalence gender disparity between females and males was greatest among younger adults, with females age 20-24 years having 4 times the prevalence of males in the same age group. Extrapolating from NAIIS estimates, approximately 1.9 million people age 0-64 years are living with HIV in Nigeria.[2]

1.2 The Epidemiology of HIV Among Key Population in Nigeria

Nigeria has a mixed epidemic, meaning that while HIV prevalence among the general population is high, certain groups still carry a far greater HIV burden compared to the rest of the population. In Nigeria, various key population (KP) including Female Sex workers (FSW), Men who have Sex with Men (MSM) and People who Inject Drugs (PWID) make up only 3.4% of the population, yet account for around 32% of new HIV infections. [3] In 2016, it was estimated that 14.4% of FSW were living with HIV in Nigeria.[4] In another survey conducted in 2010 it was estimated that 24.3%

[1] NACA (2017) 'National Strategic Framework on HIV and AIDS: 2017 -2021'

[2] NAISS (2019) National Summary Sheet. NACA 2019.

[3] NACA (2017) 'National Strategic Framework on HIV and AIDS: 2017 -2021' [pdf]

of FSW were living with HIV .[4] HIV prevalence among sex workers is still eight times higher than the general population. [5] There are a number of factors that make sex workers more vulnerable to HIV. In 2010, HIV prevalence was higher among female sex workers at 24.3% compared to male sex workers (MSW) at 17.2%.[6] Similarly, brothel-based Female sex workers (BBFSW) face greater HIV risk in Nigeria with a prevalence of 27.4%.[7]

Men who have Sex with Men are the only group in Nigeria where HIV prevalence has not been on a decline. In 2014, prevalence in this group stood at 23%, significantly more than the next highest prevalence group, sex workers, at 14.4%.[8] Nevertheless, recent years have seen an improvement in HIV prevention among MSM. In 2010, only 18% of MSM were reached with HIV prevention programming, while recent reports show 82% of MSM used a condom at last sex with male partner and 97% had tested for HIV in the last 12 months. [9] HIV prevalence among people who inject drugs (sometimes referred to as PWID) in Nigeria was 3.4% in 2014. [10] Women who inject drugs are particularly affected with a prevalence of 13.9% compared to 2.6% among men. [11] Female sex workers who inject drugs face the highest HIV prevalence at around 43%. It is thought that 9% of new HIV infections in Nigeria every year are among people who inject drugs[12]. Figure 1.1 shows the trends of HIV infection among various key population.

[4] Nigeria Federal Ministry of Health (2010) 'HIV Integrated Biological and Behavioral Surveillance Survey (IBBSS)'[pdf]

[5] NACA (2015) 'Nigeria GARPR 2015'[pdf]

[6] For 2010. HIV Integrated Biological and Behavioural Surveillance Survey (IBBSS).

[7] FMoH 2014. HIV Integrated Biological and Behavioural Surveillance Survey (IBBSS).

[8] FMoH 2014. HIV Integrated Biological and Behavioural Surveillance Survey (IBBSS).

[9] Nigeria Federal Ministry of Health (2010) 'HIV Integrated Biological and Behavioral Surveillance Survey (IBBSS)'[pdf]

[10] UNAIDS 'AIDSinfo' [Accessed October 2018]

[11] AVERT (2018) 'HIV and AIDS in Nigeria' [pdf]

[12] NACA (2015) 'Nigeria GARPR 2015'[pdf]

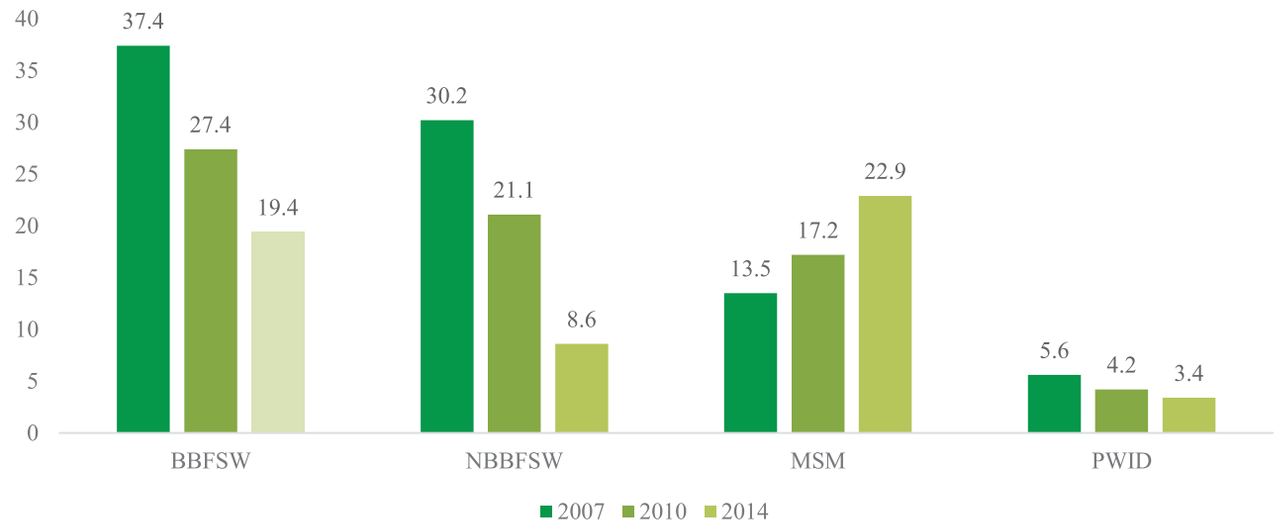


Fig 1: Trends of HIV prevalence among Key Population

1.3 Second Generation HIV Surveillance in Nigeria

In Nigeria, the setting up of a surveillance system to determine the magnitude of HIV and AIDS burden as well as to monitor the trends was the earliest National response to the epidemic which has received increased government and donor emphasis on effective interventions for the prevention and care to mitigate the impact of HIV and AIDS and other sexually transmitted infection among the sub-population. Hence, it is imperative to monitor the progress on the effectiveness of intervention programs among the key population. The Federal Ministry of Health (FMoH) has recognized the need for continuous monitoring of HIV among the sub-population with higher risk behaviors. Hence, the FMoH commissioned the Integrated Biological and Behavioral Surveillance Survey (IBBSS) in 2007.[13] The introduction of biological component into this survey was first of its kind in Nigeria, as the 2002 and 2005 behavioral surveillance surveys were conducted on a smaller number of groups and did not include the biological component; the 2007 and 2010 survey included biological testing. A follow-up survey was conducted in 2010[14] and the most recent round of IBBSS was conducted in 2014.[15]

[13] FMoH 2007. HIV/STI Integrated Biological and Behavioural Surveillance Survey (IBBSS).

[14] FMoH 2010. HIV Integrated Biological and Behavioural Surveillance Survey (IBBSS).

[15] FMoH 2014. HIV Integrated Biological and Behavioural Surveillance Survey (IBBSS).

The 2007 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 BSS (Behavioral Surveillance Survey) among same key population in 2002 and 2005. The 2010 IBBSS exercise provided not only an opportunity to compare behavioral information gathered during the exercise with previous surveys, but also to compare biological information with the 2007 exercise. The 2014 IBBSS surveyed 22,831 members of selected key and vulnerable population for HIV. The key and vulnerable population groups sampled included Female Sex Workers (FSW), Men who have Sex with Men (MSM), People Who Inject Drugs (PWID), Transport Workers (TW), members of the Nigerian Armed Forces and members of the Nigerian Police. The study was conducted in eight states and the Federal Capital Territory. The study examined knowledge, attitudes and behaviors, as well as HIV and syphilis prevalence. Sample sizes were sufficient to allow reliable state-level estimates for most variables of interest.

The first IBBSS in 2007 focused on determining the prevalence of HIV infection and syphilis to serve as a baseline for future levels among high risk/vulnerable population groups [FSW (both brothel- and non-brothel-based), men who have sex with men (MSM), injecting drug users (IDU), members of the armed forces, police, and transport workers (TW)]. Knowledge and behaviour data on STI and HIV/AIDS were also generated from the survey. [16] 2010 IBBSS (the second round) generated biological data that provided continued insight in HIV sero-prevalence among high risk/vulnerable population groups [FSW (both brothel-based and non-brothel-based), MSM, injecting drug users (IDU), members of the Armed Forces, Police, and transport workers (TW)] and excluded syphilis. New inclusions then were assessment of risk behaviors and provision of support services for the high-risk groups. [17] A third IBBSS was conducted in 2014 which had similar objectives as the 2010 round, however their high-risk group surveyed were referred to as Key Affected Population (KAP) namely Female Who Sell Sex (FWSS); MSM, PWID, Transport Workers, members of the Armed Forces and the Police. [18] The 2020 IBBSS would be making an improvement on past objectives as it would seek to answer questions on indices like viral load, PMTCT, ART and overlapping risk behaviors. Its outcome would be essential in placing the

[16] FMoH 2007. HIV/STI Integrated Biological and Behavioural Surveillance Survey (IBBSS).

[17] For 2010. HIV Integrated Biological and Behavioural Surveillance Survey (IBBSS).

[18] For 2014. HIV Integrated Biological and Behavioural Surveillance Survey (IBBSS).

country on a global scale in KP trend analysis and in tracking efforts by the country towards achieving the 90-90-90 cascade. The 2020 IBBSS expanded the recruitment and reach base for MSM key population in the survey by including virtual sites users and also studied the Transgender community.

1.4 Fourth Round of IBBSS – Justification and Rationale

Monitoring the HIV epidemic and assessing the impact of HIV prevention interventions is an intrinsically complex and multi-faceted process. This is because of the dynamics of the epidemic, the nature of interventions necessary to reduce its spread, and the inherent limitations of measuring the impact of multiple, mutually reinforcing interventions. To design effective programs, it is important to track how behaviors that expose people to the risk of infection affect the level of the epidemic.

HIV sentinel surveillance, the traditional cornerstone of a country's HIV monitoring efforts, becomes less useful as an epidemic matures. This is because the chronic nature of HIV infection results in a situation in which HIV prevalence changes very slowly in response to behavioral changes in population. While sentinel surveillance can provide information about the distribution of the virus in the population, this information, however, is of limited use in providing explanations of what actually drives the epidemic or in informing the type of interventions that must be put in place as well as assessing the effectiveness of such interventions. HIV surveillance data alone cannot indicate whether prevention interventions are having their desired effect of changing behaviors. Repeated surveys, on the other hand, can capture trends in behavioral change (for example, reduced number of sexual partners and increased condom use among non-regular partners) that lead to reduced HIV infection. The changing trends may be related to the effects of any number of interventions put in place to reduce high-risk behaviors, or they may be a function of naturally occurring responses to the epidemic. Whichever may be the case, the type of information produced by behavioral surveillance surveys can help guide intervention programs by giving program planners a clearer picture of current risk behaviors in various segments of the population. At the same time, these data may be used to give an indication of how well the combined effects of a package of interventions are working.

The WHO provides guidance that suggests the IBBSS is conducted every 1-3 years among key population [19], the Government of Nigeria conducted her last IBBSS six years ago (2014). This timeline gap has been due to funding constraints for the country. Following funding from the Global Fund, the fourth round of IBBSS was conducted in 2020 with increased geographical coverage for all KP groups and increased behavioral and biomarker indices surveyed.

The Integrated Biological and Behavioral Surveillance Survey (IBBSS) was introduced into the list of surveys being conducted by the FMoH in 2007 in collaboration with partners on health sector response to HIV/AIDS when it was observed that data generated from other surveys could not provide adequate explanation about factors driving the epidemics among Key Population. This was further supported by UNAIDS study which revealed that about 30% of the HIV prevalence in general population were due to contributions from the high-risk sub-population groups.

The country recently conducted the NAIIS, a household-based survey, which provided behavioral and biological information among general population but still left a gap for recent outcomes of these indices among the KP which the 2020 IBBSS has bridged.

The 2020 Nigeria IBBSS was designed to build on the lessons learned from all the previous IBBSS, the 2012 NARHS Plus, the ANC Surveillance, and The Nigeria AIDS Indicator Impact Survey. The 2020 IBBSS facilitated measurement of behavioral risk factors and HIV status among selected key population in Nigeria based on previous national studies. It complements the knowledge gained so that viable education, prevention, and treatment programs can be designed and implemented. This provides valuable information for stakeholders in the description and understanding of HIV dynamics and the effects of interventions. The outcome of this survey provides opportunities for appropriate follow-up for clinical and social support services (counselling and testing, STI services, and “prevention with positives” support) including referrals.

[19] UNAIDS/WHO Working Group on Global HIV/AIDS and STI surveillance. Guidelines for second generation HIV surveillance: the next decade. Geneva: Joint United Nations Programme on HIV/AIDS (UNAIDS)/WHO Working Group on Global HIV/AIDS and STI surveillance; 2000 (http://www.who.int/hiv/pub/surveillance/pub3/en/index html, accessed 4 August 2016)

2.0 GOAL AND OBJECTIVES

The following are the goal and objectives of this survey:

2.1 IBBSS Goal

The main goal of this study is to obtain serological and behavioural information on key population including Female Sex workers (FSW) both brothel and non-brothel based FSW, Men who have Sex with Men (MSM), Trans-genders (TG) and People who inject drugs (PWID) with a view to improving HIV prevention and care programmes at state and national level.

2.2 Objectives

2.2.1 Primary Objectives

- Assess knowledge, attitudes and behavior or practices (such as condom use, STI, HIV & AIDS and HIV testing) of key population (MSM, FSW, PWID and TG)
- Assess the current risk behaviours among MSM, FSW, PWID and TG
- Determine the sero-prevalence of HIV infection among MSM, FSW, PWID and TG
- Determine the viral load suppression (point prevalence) among MSM, FSW, PWID and TG.

2.2.2 Secondary Objectives

A. Behavioral

- Assess key target population-level trends in risk behaviours over time among MSM, FSW, PWID and TG.
- Determine the percentage of HIV positive persons who know their status among MSM, FSW, PWID and TG.
- Determine the percentage of HIV positive persons who know their status that are receiving ART among MSM, FSW, PWID and TG.

B. Biological

- Determine trends of HIV sero-prevalence among these key populations over time.
- Determine the 90-90-90 cascade among MSM, FSW, PWID and TG.

C. Design and implement a surveillance system that:

- Obtains data in a standardized format to permit comparisons with previous rounds of behavioural surveillance studies among key population carried out in Nigeria and other countries
- Provides information to guide future programme planning
- Establishes a sustainable, cost-effective surveillance platform for future monitoring of behavioural and biological indicators across key and vulnerable population over time.

2.3 Ethical Review & Protocol Approval

The process of protocol development was widely engaging as it involved inputs from critical stakeholders in the national HIV response. The Government of Nigeria, through the Federal Ministry of Health and the National Agency for the Control of AIDS, the KP community across the 4 identified and participating typologies, bilateral Donors/Funders and the UN system participated actively during the protocol development process. The global technical team of the Institute for Global Public Health, University of Manitoba (IGPH, UoM), comprising experts from both the overseas team and Nigeria country office coordinated the process of protocol development. The protocol development was enriched and guided with provisions from UNAIDs Bluebook (guide and supplemental) which tracks and measures current global indicators of HIV response. Key performance indicators from previous IBBSS rounds were retained to track trends over time as emphasized during engagements with national stakeholders, including government. The finalized protocol was presented by the technical committee chaired by the Director of Public Health and unanimously approved to guide the implementation of 2020 IBBSS.

The study was approved by the National Health Research & Ethic Committee (NHREC) in Nigeria and the University of Manitoba Ethical Review Board (ERB) in Canada.

A survey field manual was developed in line with the provisions of the protocol to guide detailed implementation at sub-national level. The manual defined roles and responsibilities of all IBBSS field teams and established a micro-level workflow pattern that informed field implementation. The manual provided for quality operational standards to guide implementation across the 12 participating IBBSS states (see attachment).

3.0 METHODOLOGY

3.1 Study States

The states for this study are:

South East:	Abia, Anambra	North Central:	Benue, Nasarawa
South South:	Akwa Ibom, Rivers	North East:	Taraba, Gombe
South West:	Lagos, Oyo	North West:	Kaduna, Kano

The states were selected based on the following:

- HIV Prevalence from NAIIS 2018
- Burden of HIV in general population
- Trend analysis across previous IBBSS survey
- Geo-political zone representation for regional based analysis (selection of 2-states from each geo-political zones)
- States with recent key population size estimate (KPSE 2018, Capture recapture 2018)

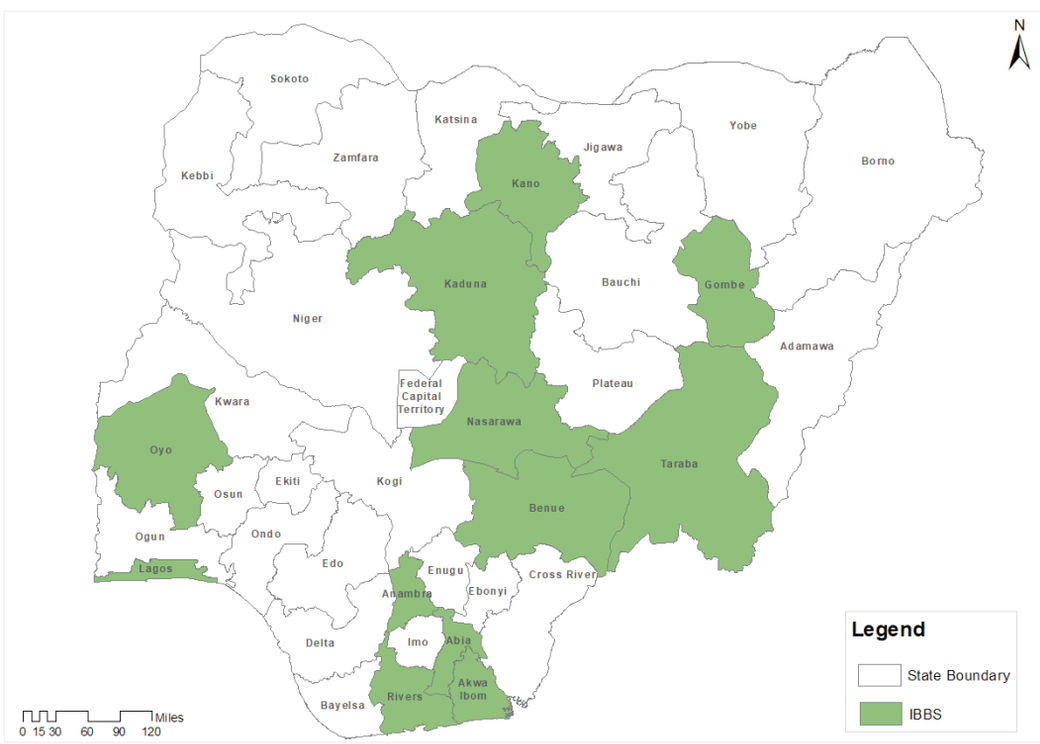


Fig 2. Map showing the 2020 IBBSS States

3.2 Study Population Definition

The study population comprises of 4 key population in Nigeria. These include Female sex workers (FSW) subtyped into Brothel based FSW (BBFSW) and Non-brothel based FSW (NBBFSW), People Who Inject Drugs (PWID), Men who have sex with Men (MSM) and Transgender population (TG). Working definitions for all key population were based on WHO and UNAIDS guidance.

3.2.1 Female Sex Workers

Female sex workers are defined as *"any woman (female sex at birth) 15 years and above, who received money or gifts in exchange for sexual services, either regularly or occasionally in the 12 months preceding this activity"*

Brothel based FSW will be FSW who work in and through brothels while non-brothel based FSW will be the ones who do not work in brothels but congregate at bars, streets, hotels, massage parlors and other defined spot typologies.

3.2.2 Men Who have Sex with Men (MSM)

MSM who will participate in the study are defined as *"any male aged 15 years and above who has had anal sex with another man in the past 12 months"*

3.2.3 People Who Inject Drugs (PWID)

PWID for this study will be defined as *"any person 15 years and above who has injected drugs recreationally at least once in the past 12 months".*

3.2.4 Transgender (TG)

"Any person 15 years or above, who identifies him/herself as a transsexual and undertakes sexual activity with a man." TG who sells sex for money or material benefits, were included in the study.

The following subjects within each key population group were excluded from the study if:

- *The person is not willing to provide informed consent*
- *The person is too sick or mentally impaired to participate*
- *The person is unable to comprehend the questions and provide an answer*

3.2.5 Partner Types

- Regular Partner (Spouse, Live-in partner, Boyfriends) (TG male answer for female partner vice versa)
- Casual Partners (Anyone with whom you have sex with, without exchange of money or gifts)
- Clients (Buying or Selling Sex)

3.3 Sampling design

3.3.1 Developing sample frame

The study developed a sampling frame for each key population groups before the implementation. This involved identifying the key spots (both geographical and virtual for MSM) where key population members congregate. The key approach adopted was to develop sampling frame following a validation of all physical hotspot as well as mapping and profiling of virtual sites of MSM.

The mapping studies conducted previously presented the list of hotspots (for FSW, MSM and PWID) within smaller geographic areas called LGA formed the basis of validation. Since hotspots and venues where key population groups of FSW, MSM and PWID congregate were readily available in all the study states, a rapid validation of such hotspots was carried out prior to the IBBSS. While validating, all new spots that have emerged over time were also identified and profiled to form the sampling frame of complete list of hotspots. Since Transgender populations were not mapped previously, a rapid mapping was carried out to list all the hotspots using key informants from TG, MSM and FSW community, as well as community-based organizations.

Considering that a sizeable MSM population use virtual platforms to seek partners, led by the key population members, all virtual spots (internet sites, web pages, WhatsApp and Facebook pages and geo-spatial networks where MSM interact with each other and find sexual partners) were identified. All such applications were listed and profiled to estimate the size of MSM in virtual sites.

3.4 Sample Size

Sample sizes for each key population were calculated based on assumptions in which baseline prevalence and expected change in prevalence were varied to get a minimum sample size.

Behavioral data from previous surveillance was used to determine baseline prevalence rates to inform the sample size calculations.

For FSW, MSM and TG, both consistent condom use and condom use at last sex were chosen as the key behavioral risk factors and sample sizes for all three groups based on these two variables were calculated. Based on the last surveillance round, a fair proportion of respondents used condom consistently with all partners ranging from 48.5% among MSM to 68% among brothel based FSW with an average of 59%. Moreover, the use of condom at last sex ranged between 83% for MSM to 92% among non-brothel based FSW. For TG no behavioral data was available, therefore MSM data was used as a proxy for TG behavioral indicators.

For PWID, proportion of injectors who reported always using sterile injecting equipment in the last month prior to the survey was chosen as the key behavioral risk factor, which ranged from 71% to 86% in various states. The following formula is used to determine the sample size for target groups:

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

D = design effect

P1 = estimated prevalence at baseline (varied for different groups).

P2 = expected prevalence in future (detect a change of 15%)

P = (P1 + P2)/2

$\Delta 2$ = (P2 – P1)2

$Z(1-\alpha)$ = 95% level of significance

$Z(1-\beta)$ = Power of the study set at 80%

The following table provides the crude and final sample sizes for all key population for an expected change of 15% from the baseline. In addition, to account for the intra-group correlation or clustering effects inherent in all peer recruitment strategies, we incorporated a design effect of 2 for both MSM and TG, while for PWID and FSW a higher design effect of 3 was used.

Table 1: Samples Sizes for various Key Population

Key Pops	Behavioral risk factor	Estimated prevalence (%)	Design effect	Crude Sample	Sample adjusted by 10%
MSM	consistent condom use	48.5%	2	338	372
TG	Consistent condom use	48.5%	2	338	372
FSW	consistent condom use	68%	3	378	415
	condom use at last sex	92%	3	273	301
PWID	Always used sterile injecting equipment	71% to 86%	2.5	152 to 335	310 to 368

Thus, the sample size required in each state was 372 MSM, 372TG, 415 FSW and 368 PWID. A higher design effect was used for FSW to accommodate for the variability in brothel and non-brothel based FSW while for PWID the higher design effect was used to accommodate for variations seen between different spots. However, the proposed sample size for each KP typology would pick-up minimum detectable change (+/- HIV Prevalence) at the state, regional and national level for a given level of power (80%) and statistical significance (95%).

Table 2: Minimum Detectable Size of Samples

KP Type	Sample size	HIV prevalence (baseline)	Minimum Detectable Size (+/- HIV prevalence in %)		
			State	Pooled (region)	National
MSM	372	22.9	5.6	4.0	1.6
TG	372	22.9	5.6	4.0	1.6
FSW	415	14.0*	3.9	2.8	1.1
PWID	368	3.4	1.9	1.4	0.6

**Average HIV prevalence of brothel and non-brothel based FSW*

**Baseline prevalence for MSM was used as a proxy for TG since there is no national baseline data for TG*

3.4.1 Sampling Methodology

The study was designed to select representative sample of participants and followed a multi stage probability sampling approach. In the first stage of sampling, a fixed number of hotspots, which is the Primary Sampling Units (PSUs) were randomly selected after stratifying the listed spots by typology, LGA and the number of KP per spot (spot density/volume). The number of spots per KP type was decided using the required sample size and an average number of samples per spot, which then arrived at 104, 92 and 93 PSUs respectively for FSW, PWID and TG. In case of MSM the sample size of 372 was distributed in proportion to the estimate of physical and virtual spots as estimated at the validation and virtual mapping and then the number of PSUs were decided in each state. The sample size per selected spot was fixed in proportion to the estimated size of KPs in the selected spot.

In the second stage, the required number of participants were recruited randomly from each selected PSU. This systematic approach was used in spots where the total number of KP (N) is clearly defined and is large enough for determining sizeable sampling interval. In places where this is unknown, the simple random approach was used. The social mobilizer facilitated the identification of all the KP members in the spot, while the study team supervisor recruited them randomly from the selected spots. Upon selection of the participant by the supervisor, the mobilizer approached the selected subject, introduced the study and linked the participants to the supervisor who then assigned the code and led the participants to the interviewer. The interviewer obtained consent from the participant before beginning interview. In case an eligible participant refused to participate, the next available community member was recruited. All the recruitments happened at the spots and interviews were conducted at a designated place near the PSU. In case of MSM in virtual sites, recruitment was done online, while the interview conducted again at a designated physical venue.

3.5 Study Procedures

3.5.1 State Readiness and Laboratory Assessment Visits

In collaboration with GoN (NASCP & NACA), the Institute for Global Public Health, University of Manitoba conducted a state readiness assessment exercise to measure readiness of the 12 participating IBBSS states towards survey implementation. Critical stakeholders in the states were met with and their buy-in received for a successful project implementation. Amongst others, the

Commissioners of Health, representatives of the various KP groups, State AIDs program Coordinators in the various SMoH (SAPC) and SACA program managers were visited during the assessment exercise. The visits also enabled the research implementer to assess proposed laboratory facilities that were expected to help with serological sample management. A total of 14 facilities were assessed, out of which the underlisted were carefully selected as state satellite/sample repository sites.

Table 3: Selected State Laboratory

S/n	Name of Lab Facility	Coverage State(s)	Zone
1	Federal Medical Centre, Umuahia	Abia	South-East
2	Anambra State University Teaching Hospital, Awka	Anambra	South- East
3	University of Uyo Teaching Hospital, Uyo	Akwa-Ibom	South-South
4	Rivers State University Teaching Hospital Lab	Rivers	South-South
5	Lagos State University Teaching Hospital Lab	Lagos	South-West
6	Adeoyo University Teaching Hospital Lab	Oyo	South-West
7	Federal Medical Centre Gombe	Gombe	North-East
8	Federal Medical Centre, Wukari	Taraba	North-East
9	Bala Dikko Teaching Hospital	Kaduna	North-West
10	Aminu Kano University Teaching Hospital	Kano	North-West
11	Federal Medical Centre, Markudi	Benue	North-Central
12	DASS Specialist Hospital Lafia	Nasarawa	North-Central

3.5.2 Trainings (Capacity Building)

The research implementer (UoM IGPH) conducted trainings at different levels prior to the commencement of field activities. These trainings includes:

- Orientation Training for Technical/Compliance Officers and Admin/finance support officers
- Virtual/ Physical Training for 12 Super-Master Trainers
- Central Level Training for State team leads and supervisors
- State level Training for field teams.

The overarching objective of the trainings was to build and strengthen the capacity of different cadres of personnel to effectively implement the IBBSS in line with set objectives. The trainings

happened at the height of the global COVID-19 challenge, hence strict adherence was made to ensure compliance with universal safety precautions as espoused by the W.H.O and Nigeria's National Centre for Disease Control (NCDC). In terms of specific training outcomes, the following were the results of the various training sessions:

- 24 state Technical and Compliance officers and Finance Officers were trained and given orientation on the IBBSS process. The goal of this training was to enhance the capacity of selected Technical/Compliance Officers, Finance and Administrative Officers in providing technical compliance support and management of finance at state level for respective state 2020 IBBSS teams to ensure a quality driven process in the selected states.
- 12 super-master trainers were trained by the global and local technical team of UoM IGPH through physical and virtual portals. These super master trainers were used in order to conform with COVID 19 safety protocols.

The selection of super master trainees for the 2020 IBBSS was based on technical areas of competence in the conduct of master trainings for IBBSS surveys and other national surveys in Nigeria. Training goal for the super master training was to enhance the capacity of Super Master Trainees in training State master trainers for the 2020 IBBSS implementation at the Central and State levels in order to ensure a quality driven survey process in selected states.

The training was facilitated by UoM IGPH global and Nigerian team, the virtual sessions were conducted by the global team from Canada and India while physical facilitation was done by the Nigeria team. Training modules includes:

- Second Generation Surveillance for HIV/AIDS: IBBSS approach– basic concepts
- Overview of 2020 IBBSS Protocol
- Operational Workflows -field work plan
- Ethical issues in research (Research Ethics and Confidentiality)
- Community Mobilization & Linkage to Care
- Survey Reporting and Documentation

- 2020 IBBSS Biological Component - Laboratory Procedure, Blood Collection, Conducting Rapid tests, Collecting Dried Blood Spots (DBS), Referrals and getting results back, Storage and Transportation of Samples, Storage of Laboratory Commodity
- HIV Counselling & Testing
- Data Management and Data processes
- Multi-stage Sampling Procedures
- Size Estimation and Mapping of Hotspots/ Validation of spots

State master trainers for the 2020 IBBSS implementation were trained centrally by the Super Master trainers in compliance to the COVID 19 pandemic protocol and they conducted step down training at the state level.

- 72 Master trainers were trained during the Central level training held in two proximate halls in Abuja. The central level training also had virtual technical sessions facilitation from UoM oversea team.
- State level training conducted across 12 states with adherence to COVID- 19 guideline. A total of 516 field team participants were trained across the 12 IBBSS participating states.

All state activities were preceded by stakeholder engagement meetings which held to engender community inclusiveness and ownership.

3.5.3 Coordination

Coordination meetings and activities were held at national and state levels as follows:

- National/State Level Key population community engagement (Physical and Virtual)
- IBBSS Technical committee meetings (Physical and Virtual)
- Survey Management Committee virtual meeting chaired by the Honorable Minister of Health
- SAPC and SACA PM virtual orientation meeting
- Stakeholders' engagement at state level - (Physical and Virtual)
- State level stakeholders/community and security personnel engagement

4.0 DATA COLLECTION AND FIELD WORK

4.1 Field Teams

The Survey Management Committee (led by the Honorable Minister of Health or his representative) had overall supervisory functions for the 2020 IBBSS. States IBBSS Committee which comprised of KP members, State CSO/CBO, SACA and led by SAPC coordinated the selection of field workers. This committee also had oversight responsibilities at state level for the entire survey. Technical assistance at state level was provided by UoM and other partners working with KP communities.

The State field team comprised (a) FSW typology team, (b) MSM typology team, (c) PWID typology team and (d) Transgender typology team. A total of 48 field teams were used across the 12 participating states. Each KP typology team had 1-Supervisor, 3-interviewers, 2-Counselors, 1-Laboratorian, and 1-Social Mobilizer. The state field teams were further supported by 1-Information Technology (IT) officer, a laboratorian stationed at the state laboratory and a central IBBSS Linkage to Care personnel. The state IBBSS committee and field team activities were coordinated from the SAPC office or SACA office where the SAPC did not have space to accommodate the team.

4.2 Data collection Tools

The behavioral data for the key population by typology was collected using a structured questionnaire adopted from previous structured questionnaire (IBBSS 2014) and improved upon using the Global Bio-behavioral Survey Guideline “Bluebook” (2017). A personal interview structure was used to ensure and guarantee the confidentiality of the information provided by the key population respondent; the interviewers were trained on the use of the tools for private interviews using the tablet. The software (SurveyCTO) allowed offline and online data entry as well as storage of collected data. The supervisors conducted random checks of entries before the data is uploaded to SurveyCTO aggregate server.

4.3 Interviews and HIV Testing process

Sample selection was done by the interviewers through facilitation by the KP typology social mobilizer using a multistage cluster sampling approach. The social mobilizer facilitated random recruitment of KP members from the selected spots. Venues used for conducting interviews varied

depending on the population being surveyed. Identified eligible participants took part in a face-to-face interview and interviewed at a suitable secured place except in circumstances where the spot is not conducive for the interview resulting in the respondent being transported to the central field office or to a nearby conducive venue.

Once the person is set to take up the behavioral interview, a study code is applied. The same code is used for the biological as well as the behavioral data. Consent is taken for behavioral and biological (HIV testing) components of the survey. Once consent is obtained, administration of the questionnaire is undertaken. Upon completion of the interview, consenting participant is requested to provide blood samples for HIV antibody testing. Pre-test counseling, a post-test counselling and debriefing session were held with each participant to allow the counselor to respond to any questions that the participants may have. All participants were provided their HIV test results and linked to HIV prevention services and/or HIV treatment care and support services (as required). At the end of each interview and collection of blood samples, data is uploaded real time to the central data base and the biological samples are stored and transported to the state laboratory for further processing and storage.

4.3.1 HIV Testing Algorithm

HIV testing at the field level was performed strictly based on the National HIV testing algorithm as shown in the flow chart below:

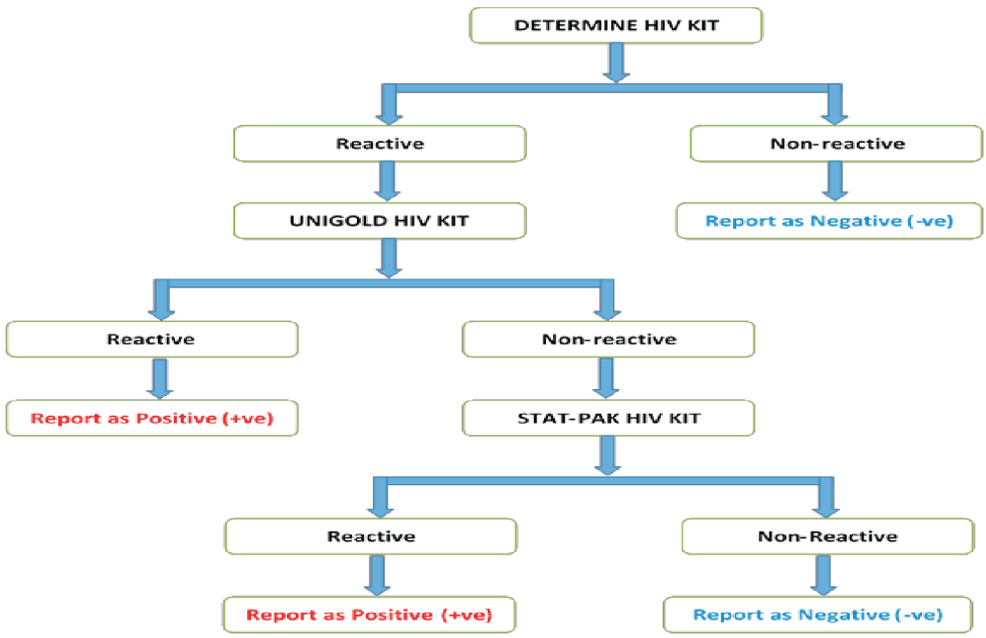


Fig 3: HIV Testing Algorithm

4.3.2 Field workflow pattern

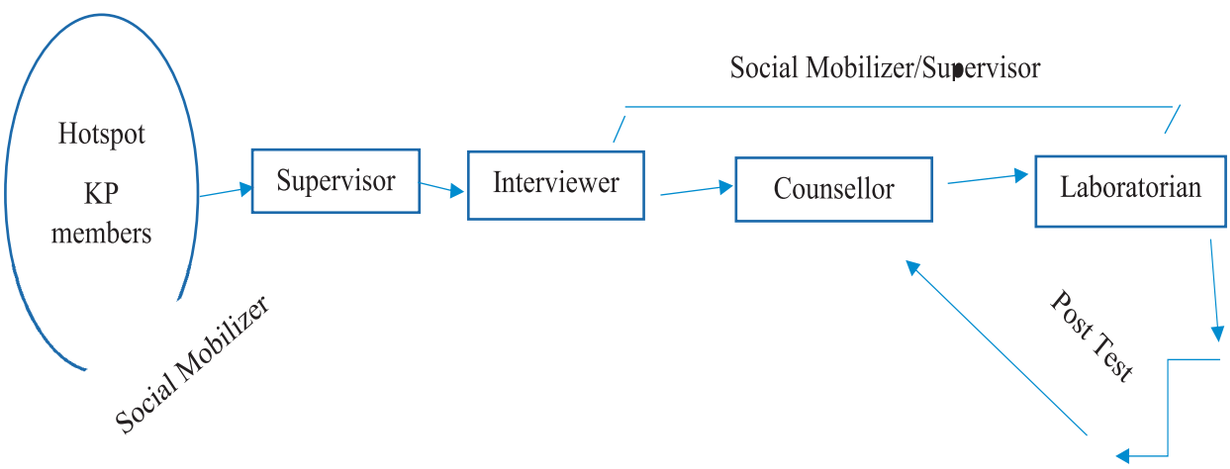


Fig 4: Field workflow pattern

4.4 Compensations and Linkage to Care

All participants who completed the survey were reimbursed for their time and any travel cost related to the survey to the tune of 1500 Naira. Participants were also given free condoms and lubricants. A Linkage to Care SOP was developed with tools (Linkage to Care Tracking Log;

Linkage to Care and Return of Results Log, etc.) and these were used to link all study respondent to the One Stop Shop (OSS) and health facility of preference from the field.

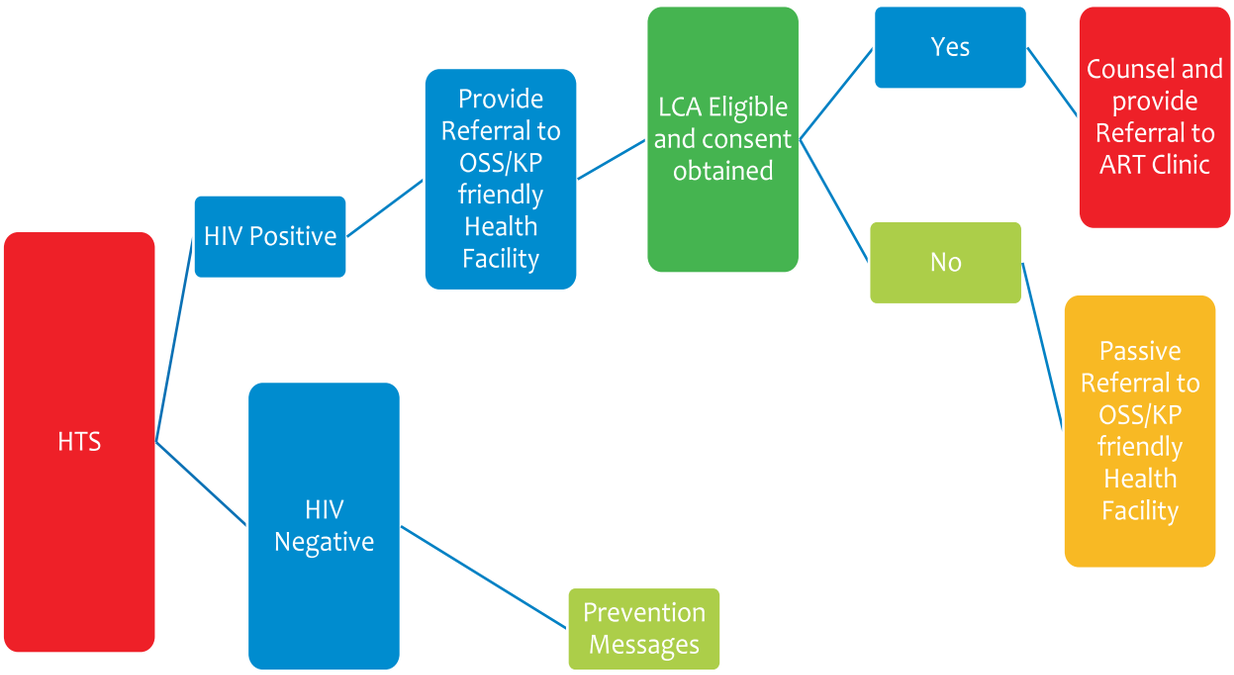


Fig 5: Linkage to Care Organogram

4.5 Data Management

A Data Management Unit (DMU) established at the national level coordinated all data operations such as data collection, integration, backup, analysis, security with privacy and confidentiality. Measures were put in place to minimize data error and ensure that analysable elements are used to report results of the survey. At the initial stages, the Government team and UoM team met severally to review instruments for data collection. The tools used in previous studies were reviewed and revised to reflect current indicators tracked and also aligned to meet with global standards. The tools were finalized and configured in electronic formats with relevant checks and skip patterns to reduce human entry errors. Data was uploaded daily on the survey CTO server and data management unit held bi-weekly data review meetings to discuss data issues while following data collection activities on a daily basis.

Data cleaning process included cleaning of duplicate identifiers and ensuring that all biological data had corresponding behavioral data. Further merging of behavioral and biological datasets was done to ensure quality data set for analysis.

5.0 QUALITY ASSURANCE MEASURES

To assure quality in the IBBSS study components, measures were put in place and utilized to ensure optimal quality outcome. These included the use of SOPs, Job aids and forms, including Occurrences/Incidence management form and refusal rate forms. Proficiency Testing and Competency Assessment were carried out for all lab team personnel, while standard communication management and Quality Control measures including equipment management systems were deployed across all operation stages.

5.1 Behavioural Surveillance -Monitoring

A monitoring plan and check list were developed and used to ensure that the study teams adhered to all provisions designed to protect the rights of voluntary participants during the study. The monitoring team comprised of National (NACA, NASCP) and State IBBSS committee (SACA, SASCP and KP representatives), Technical committee members and UoM country team.

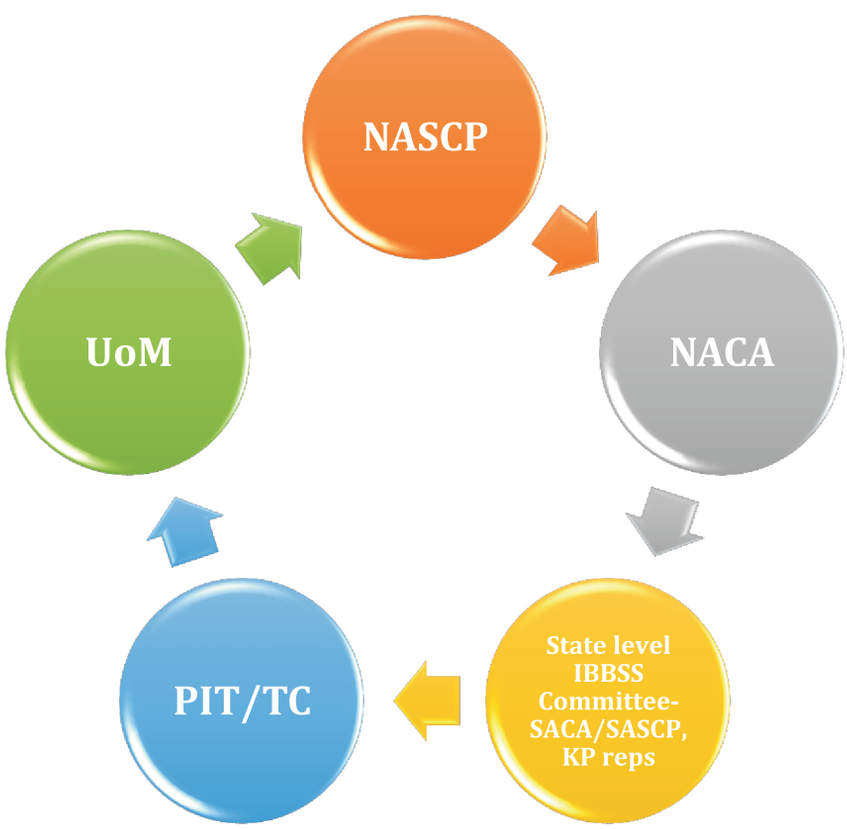


Fig 6: IBBSS Monitoring cycle

Monitoring covered four critical study phases – (1) Trainings (Central & State), (2) Planning of IBBSS field work, (3) Recruitment of field teams and (4) actual field data collection activities.

Multiple level of field monitoring was done and the first level in the states served as an internal monitoring system. This was conducted by the State IBBSS committee. The UoM state representative and the team supervisors provided supportive monitoring to the data collectors and other field staff, providing regular guidance to the data collection process. They also conducted random checks in the field and observed data collection process by the field teams. All State field teams had an internal monitoring plan at the start of the study and shared this with the National monitoring team before the start of field activities. At least 20% of data entries were verified by team supervisors/UoM State representative.

External monitoring system comprised of the National Survey Committee, NACA, NASCP, PIT/TC and UoM country team. The monitoring teams ensured that all ethical regulations of the project that guarantee voluntary participation and confidential data management were observed and followed. Data collection commenced following validation of hotspots by typology in the respective states by the field team and adequate preparation for field activities. Members of the monitoring teams were oriented on the monitoring tools and they used the tools including the reporting forms to monitor field activities.

5.2 Biological Surveillance

5.2.1 Laboratory Quality Measures

The biological aspects of the 2020 IBBSS were anchored on accurate laboratory data collection procedures. Based on this background, the following steps were observed towards ensuring quality biological data collection.

Firstly, recruitment of Laboratorians for data collection was based strictly on merit in terms of basic trainings, certifications, experiences and licensure by appropriate professional council-Medical Laboratory Science Council of Nigeria, MLSCN.

Secondly, three levels of trainings took place before the commencement of data collection namely; super master training, Master/Central level training and State level trainings for field data collections. In these stages, certified trainers were engaged and participants were hosted in a conducive environment free of distraction for maximum impact.

Pre- and post-test examinations were administered to assess the impact of the training which was observed to be above 99% in all trainings. Hands-on practical exercises were carried out during all trainings. Proficiency testing and competency assessments were carried out before final selection of Laboratorians for field data collections.

Thirdly, at intervals during field data collection, known samples were issued out to all laboratorians to assess their competence and ensure accuracy in data collection. The national Laboratory team were always on ground to mitigate any challenge that might erupt from the field during data collection in the states.

Fourthly, Standard Dried Tube Specimens (DTS PANELS) were prepared in collaboration with other development partners; US-CDC, IHVN, National External Quality Assurance Laboratory (NEQAL) Saye Zaria, Federal Ministry of Health (FMoH), NCDC and MLSCN. These panels were used for hands-on practical exercises, Proficiency Testing and Competency Assessments throughout the trainings and in the field during data collection to monitor efficiency and accuracy.

Fifthly, All Rapid Test Kit batches were tested on arrival using Dried Tube Specimen and also by state laboratorians when they arrived at state facilities to ensure that they are working appropriately in line with their expiry date and Lot numbers in conformance with national algorithm.

Finally, all state laboratorians in the state laboratories were mandated to retest all HIV Positive and 5% of all HIV Negative samples from the field. This is aimed at ensuring accuracy of HIV RTK results from the field being sent real time to survey CTO by field Laboratorians. We observed 99.9% concordance in this process.

5.2.2 Biohazard and Waste Materials Handling

All field waste received were logged in adherence to the study protocol and hazardous materials generated and all other waste generated during the course of the survey were pooled and incinerated at the laboratory facilities Waste Disposal Unit (WDU) in the state. A disposal plan and directory were used to log wastes that were incinerated.

5.2.3 Storage of Specimen

All biological specimen collected during the survey are the property of GON and were transported for storage for a period of five years at the National Reference Laboratory in Abuja. The unique identification code on the stored specimens is to ensure return of actionable result to the

participants from future studies that will be done using these stored specimens and their permission had been sought to keep leftover blood sample for future research tests.

5.2.4 External Quality Assurance

5% of negative and all positive and indeterminate samples will be transported to Canada for a DBS evaluation as well as to conduct Phylogenetic analyses. A Materials Transport Agreement is being worked with the Government of Nigeria to facilitate this component of quality assurance.

5.3 Data Quality Assurance

Quality assurance measures were put in place to ensure that the integrity of data was not compromised. Across all stages, measures were in-built into the system to ensure that data used for analyses and inference were of optimal quality through real time data visualization, sorting and daily review with field team. These underlisted processes were followed:

a) Database Development - Paper questionnaires leveraging on prototypes from previous IBBSS studies and inputs from technical stakeholders were reviewed and requirement for electronic configuration and analyzed data functions were designed on cloud using SurveyCTO software apps. Android Tablets were configured, migrating questionnaires electronically from database to all the tablets which were used for data collection during field activities across all states. Survey CTO apps enabled storage of data coming from the field via cloud in real time

b) Data Collection Tools - Data collection was conducted on tablets using the SurveyCTO electronic data collection platform. SurveyCTO has four (4) functional features that made it ideal during the IBBSS process:

- Server Console for cloud data storage
- SurveyCTO Collect for android online/offline Data collection
- SurveyCTO Data Explorer- a data monitoring and visualization tool that enabled prompt review and encryption in real time measures
- SurveyCTO Desktop which provided a range of data export formats and options. It also allowed for convenient access to allied resources that facilitated seamless data management.

5.3.1 Internet Connectivity

Internet connectivity was paramount as data collected via android tablets during field assignments were synchronized to the server on cloud. Data was also transported to the physical server at the study control center (somewhat of a situation room) immediately after collection to avoid data

loss. This process was done by selecting 3 Nigeria Networks providers after a geographic mapping of state and local government areas covered to determine the best network per location.

5.3.2 Data Centre

Standard Physical Server was deployed for physical data storage and back-up for future use anytime the need would arise. This formed the data center, where live data preview was done daily to monitor progress and patterns of data collection from participating states.

5.3.3 Geo-Location

Spytrac was installed on all tablets in the field to track the location of all interviewers and supervisors in real time, this is also part of our quality check that ensured data was collected at designated selected hotspots.

5.3.4 Data Entry

Entry was done using SurveyCTO Collect with pre-programmed consistency checks. Data was entered daily by interviewers for both the behavioral and biological components of the study.

5.3.5 Data Visualization

The database had a data visualization component which was used to track the daily data entry and trend in real time. Summary of submitted data was enabled using visual elements like charts, graphs, and maps. This process provided an accessible window to see and understand trends, outliers, and patterns in real time environments.

To limit errors to the barest minimum, human checks were also done by designated field officers. All field supervisors per team were trained to look at all data entries in their individual team tablets daily and state IT Officers were deployed to support each team with any technical glitches in the state.

5.3.6 Data Collection

Each data collection team across the IBBSS States consist of 3 interviewers, 1 supervisor, 2 counsellors and 1 laboratorian for all typologies. The use of community members as either social mobilizers, interviewers or supervisors across all typologies was initiated to ensure, to a large extent, that participants are of KP community. The following steps defined the data collection procedure:

- Sampling and recruitment of Participants
- Introduction and explanation of the study
- Obtaining consent for the behavioral component from participants
- Conducting interview for behavioral data using appropriate identifiers
- Obtaining consent for the biological component from the participants
- Conducting the biological component (pre-test counseling, taking blood sample; conducting HIV test and collecting dried blood spots (DBS) sample)
- Recording the HIV test result using appropriate corresponding identifiers
- Disclosure of HIV test result to participant
- Providing participant with post-test counselling
- Referring participants for follow up HIV services
- Preparing the dried blood spot (DBS) for transportation

5.3.7 Data Cleaning

Following data entry on the data collection platform, STATA was used for data cleaning. Data cleaning process include:

- Duplicated I. Ds were flagged real time
- Ensuring that those tested during biological sampling have corresponding behavioral data (i.e., total number of respondents tested must not be greater than total number of interview)
- Data identification (generation of identifiers to ease the linkage of both biological and behavioural data)
- Data visualization through the data collection platform
- Daily data sorting and merging with state teams

5.4. Ethical Considerations

Effective measures were taken to avoid risk, protect individuals' rights, and ensure safety of all study participants and field team members. Informed Consent was obtained from participants for the behavioral and biological components of the study before proceeding with the interviews and biological specimen collection.

6.0 RESULT

6.1 Indicators Tracked

The 2020 IBBSS aimed to respond to the global program monitoring and evaluation indicators as recommended by the UNAIDs/WHO (reference - Blue book), while also responding to country specific indicator requirements for policy and program decisions. A total of 22 standardized indicators in line with the IBBSS study objectives were tracked. The illustrative indicator framework comprising of (a) Monitoring and (b) Evaluation elements reveal indicators tracked (See Fig 7). The Monitoring indicators are sub-divided into (a) Program indicators and (b) Determinant indicators. Evaluation indicators are further sub-grouped into (a) Behavioural outcome indicators and (b) Impact indicators. A total of 12 monitoring indicators data elements and 10 evaluation indicators data elements were tracked. Trend analysis was done looking at previous results compared to current IBBSS findings.

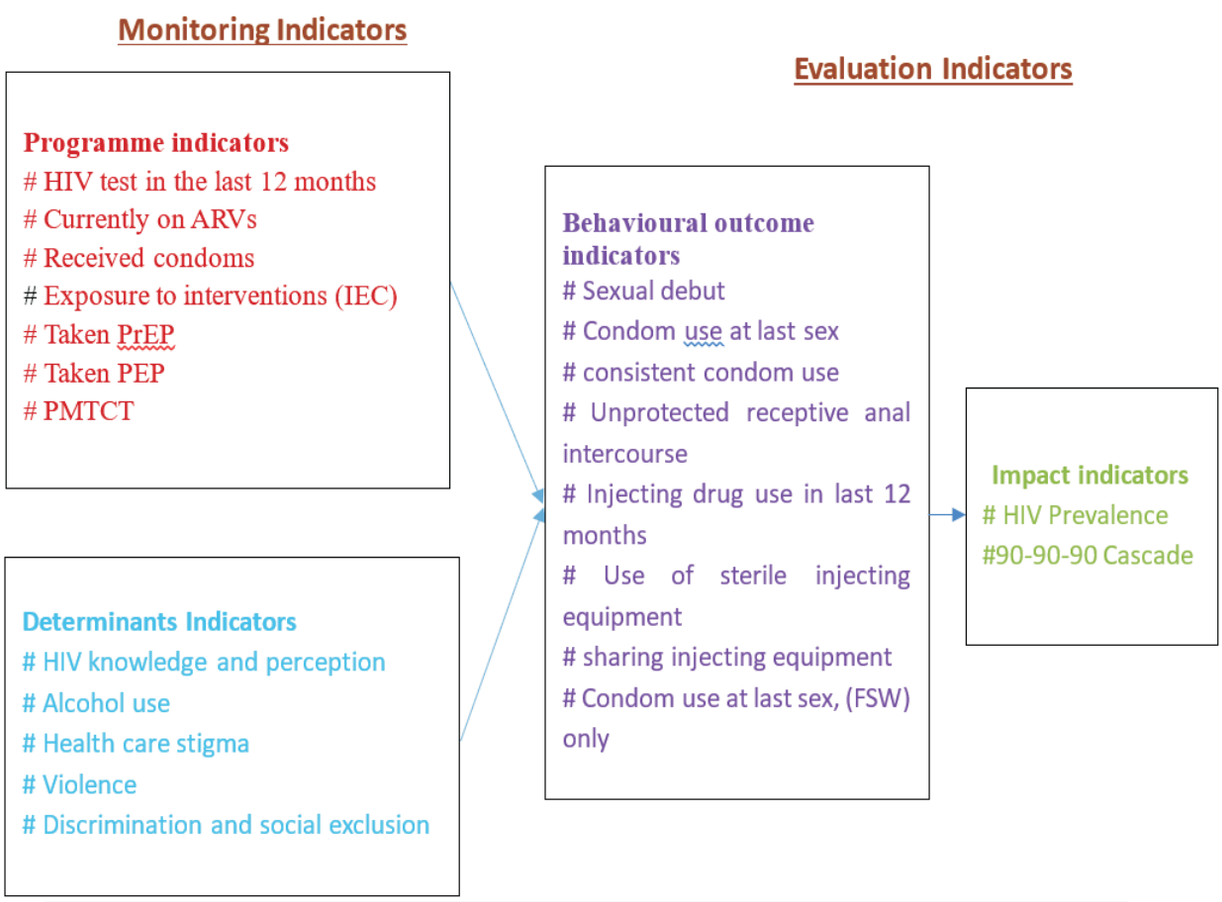


Fig 7: Monitoring and Evaluation Indicators

6.2 Survey Sample Size Achieved

2020 IBBSS was carried out in 12 states of Nigeria with two state representation from each geopolitical zone, the estimated sample size was 18,324 but information was collected from a total of 17,975 individuals thus 349 (<2%) either refused or were not available to be interviewed or did not complete the process for any significant statistical analysis.

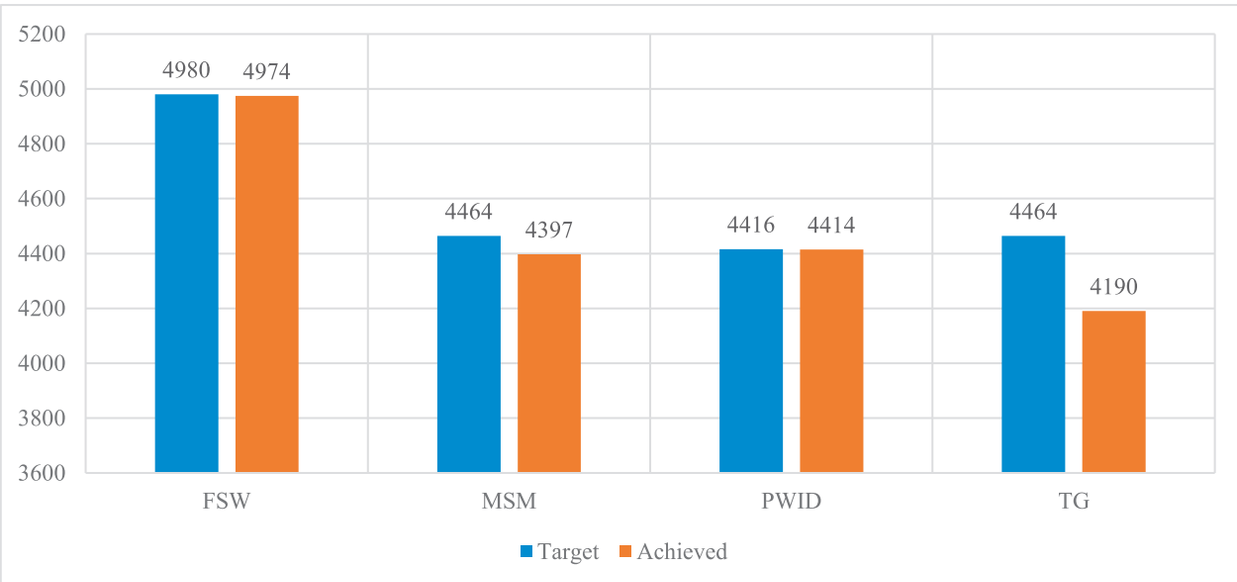


Fig 8: Sample size achieved by typology

Table 4: Sample Sizes Achieved by States Disaggregated by KP Typology.

State	FSW	MSM	PWID	TG	Total
Abia	413	369	368	369	1519
Akwa Ibom	411	370	368	369	1518
Anambra	415	372	368	372	1527
Benue	415	372	368	372	1527
Gombe	415	368	368	363	1514
Kaduna	415	372	368	372	1527
Kano	415	372	368	372	1527
Lagos	415	372	368	372	1527
Nasarawa	415	372	368	372	1527
Oyo	415	372	368	372	1527
Rivers	415	372	368	229	1384
Taraba	415	314	366	256	1351
Total	**4974**	**4397**	**4414**	**4190**	**17975**

6.3 Socio-Demographics

Table 5: Percentage Distribution of all Respondents by Socio-Demographic Characteristics by Typology, IBBSS Nigeria, 2020.

	FSW N=4,974	MSM N=4,397	TG N=4,190	PWID N=4,414
Educational status				
None	6.7	0.6	0.6	4.2
Quranic	1.8	0.8	0.7	1.2
Primary	15.4	2.8	2.9	11.4
Secondary	66.0	62.9	65.4	60.8
Tertiary	10.1	32.9	30.3	22.4
Marital status				
Currently married.	3.2	6.4	5.8	18.9
Unmarried	65.4	91.8	92.2	72.1
Divorced	9.9	0.6	0.9	2.5
Separated	15.2	1.1	0.9	5.0
Widowed	6.3	0.1	0.2	1.4
Occupation				
Employed	38.6	47.4	47.4	54.3
Unemployed	57.0	29.2	28.2	33.8
Student	3.4	21.4	21.6	9.1
Retired	0.1	0.1	2.0	0.4
Others	0.2	0.3	0.2	0.2
No response	0.6	1.6	0.6	2.2

Over 3/4th of respondents had at least secondary education, specifically 76%, 96%, 95% and 83% for FSW, MSM, TG and PWID, respectively. The proportion of respondents with tertiary education was highest amongst MSM at 33% and lowest among FSW at 10%. About 7%, 1%, 1% and 4% of FSW, MSM, TG and PWID respectively were reported to have no form of education.

Majority of the respondent were unmarried at the time of the survey especially the MSM and TG typology at about 92%. Of the four groups, PWID had the highest currently married population at about 19% while for the MSM and TG typologies were at about 6%, and the FSW typology were the least currently married at 3%. Also, a higher proportion of FSW respondents were either divorced, separated, or widowed when compared to the other typologies.

The proportion of PWID who were employed was highest (54%) compared to other KP typology at 39%, 47% and 47% for FSW, MSM and TG, respectively. Most of FSW were unemployed (57%) compared with other typologies at 29%, 28% and 34% for MSM, TG and PWID, respectively.

6.3.1 Age of Respondents

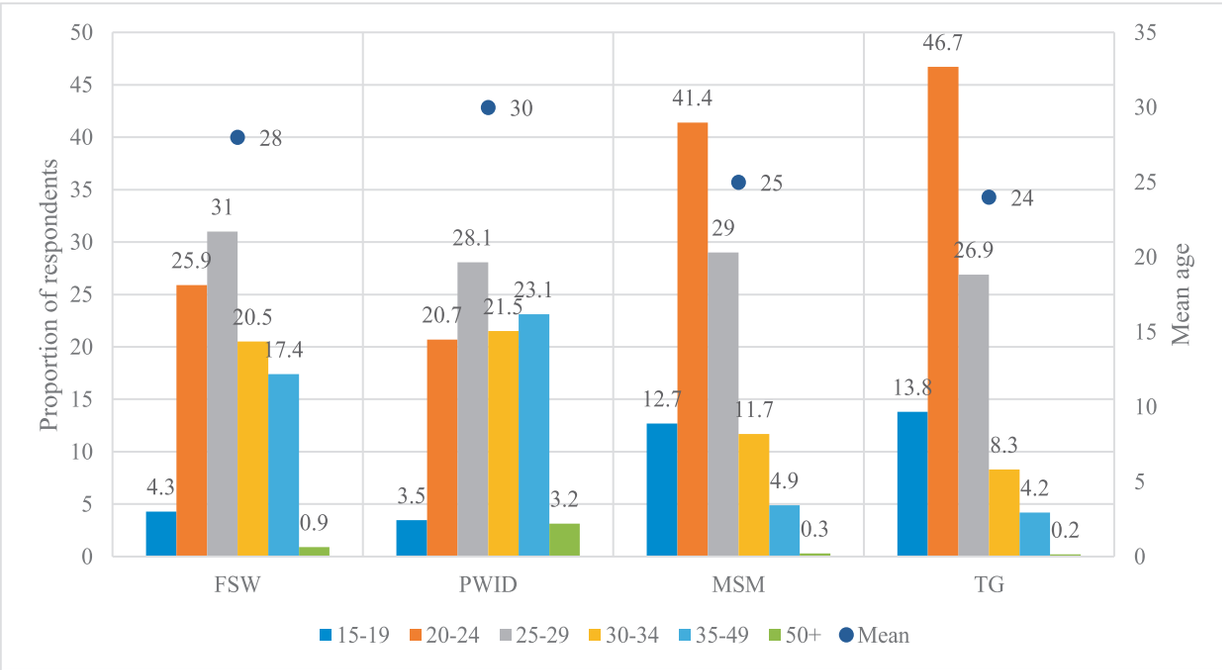


Fig 9: Age of Survey Respondents

The mean age of respondents was between 24-30 years across all typologies, with TG group having the youngest population while the PWID group had most of the older population. A significant proportion (61%) of TG were adolescent and young person between15-24 years while 24% of the PWID group are adolescent and young persons. Also, FSW and MSM had 30% and 54% of adolescent and young person respectively.

6.4 SOCIAL HABITS

6.4.1 Use of Alcohol

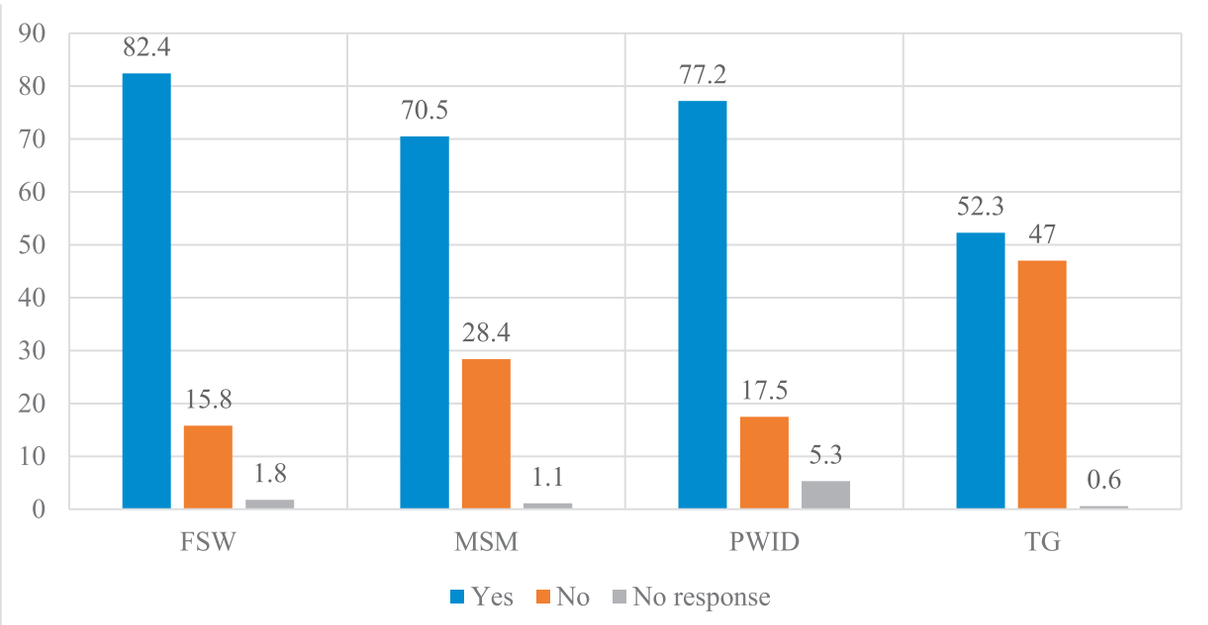


Fig 10: Percentage of KP using Alcohol by Typology

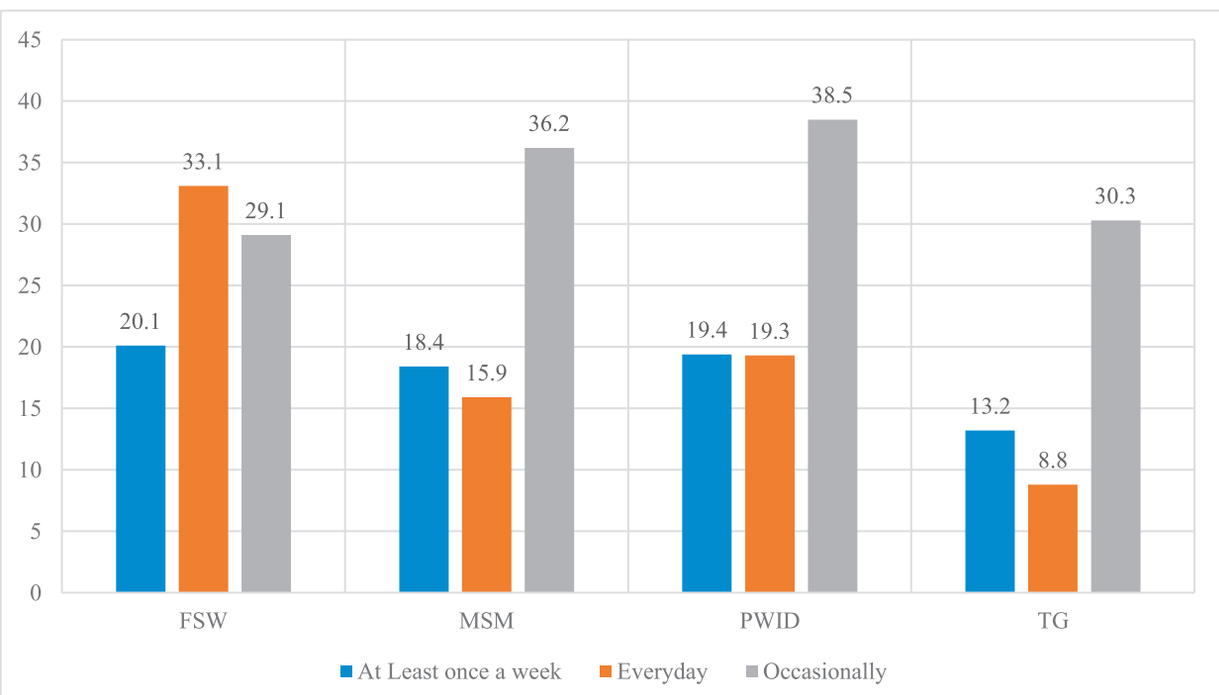


Fig 11: Frequency of Alcohol Use in the last one month prior to the survey by KP Typology

Every day use of alcohol, a determinant of risky sexual behavior was highest amongst FSW compared to all other typologies.

6.4.2 Use of Alcohol by Spot Typology

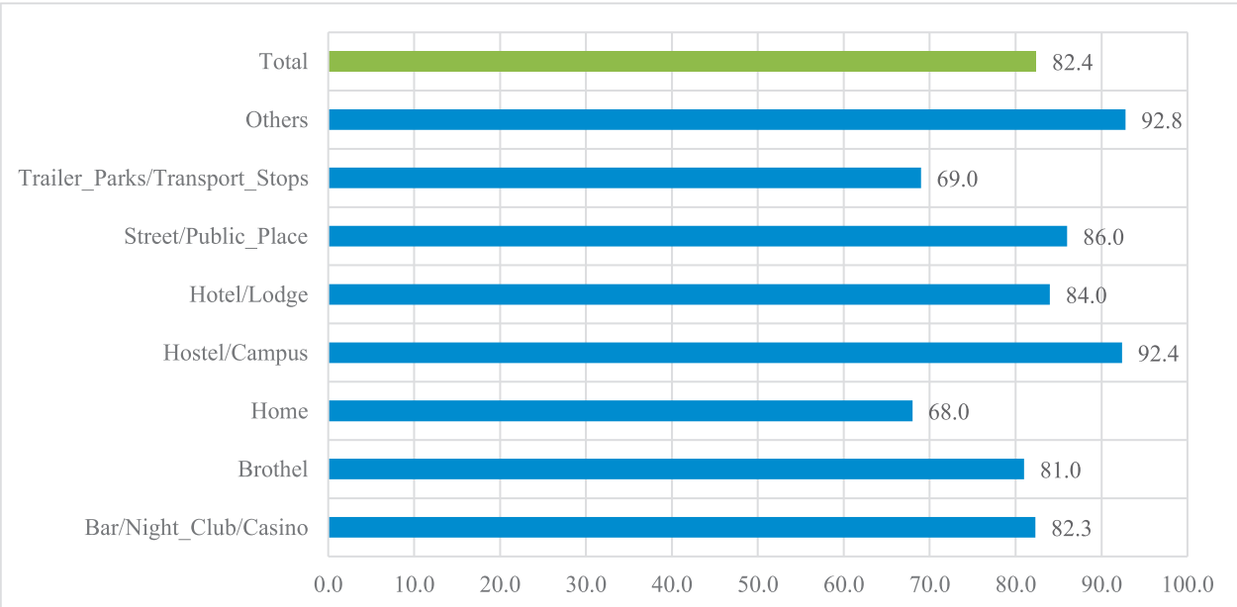


Fig 12a: Percentage FSW Drinking Alcohol in the last one month prior to Survey by Spot Typology

About 92% FSW in the study operating from hostels and campuses drank alcohol often in the last one month prior to the survey.

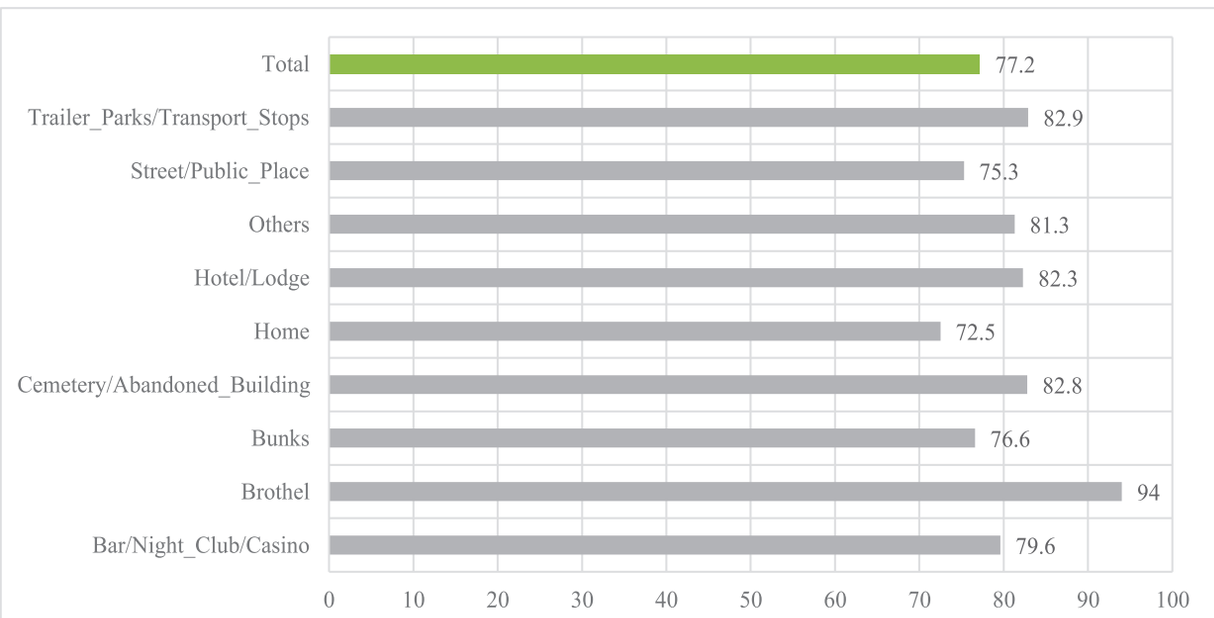


Fig 12b: Percentage PWID Drinking Alcohol in the last one month prior to Survey by Spot Typology

The graph shows that 77% of PWID drank alcohol in the last one month prior to the survey. 94% of those operating from/in brothels, 83% in Trailer parks/transport stops and Cemetery/Abandon buildings. While 73% home based PWID drank alcohol in the last one month prior to the survey.

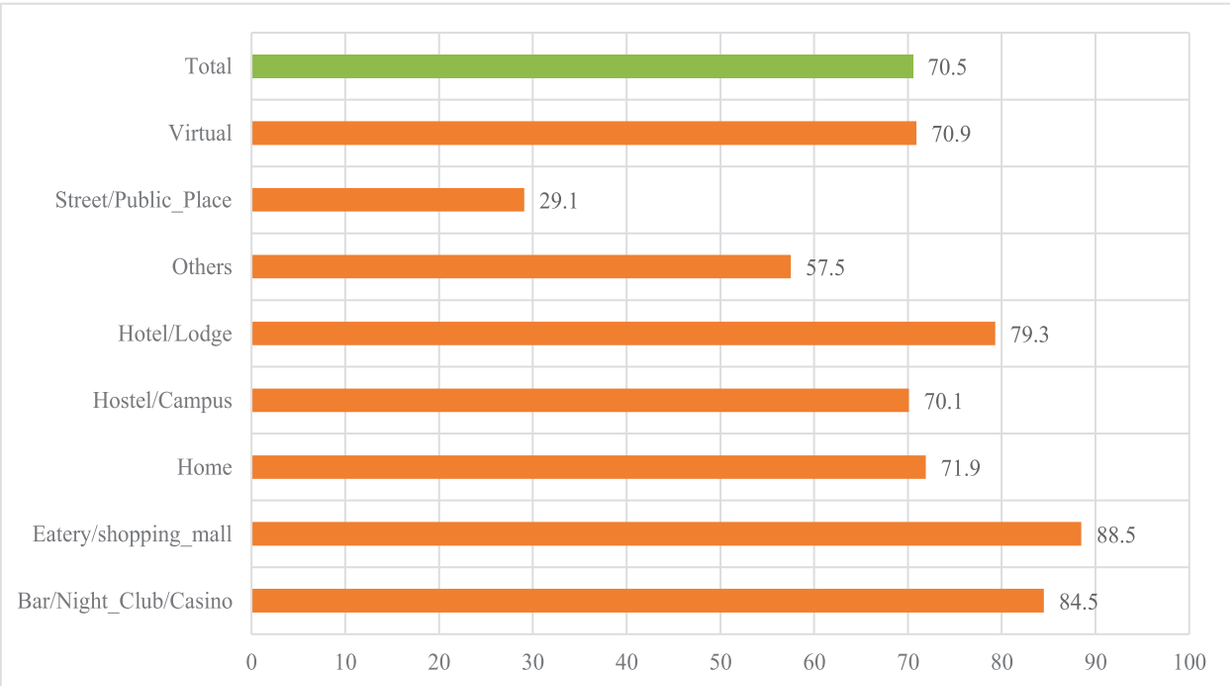


Fig 12c: Percentage MSM Drinking Alcohol in the last one month prior to Survey by Spot Typology

71% MSM participants in the study drank alcohol in the last one month prior to the survey.

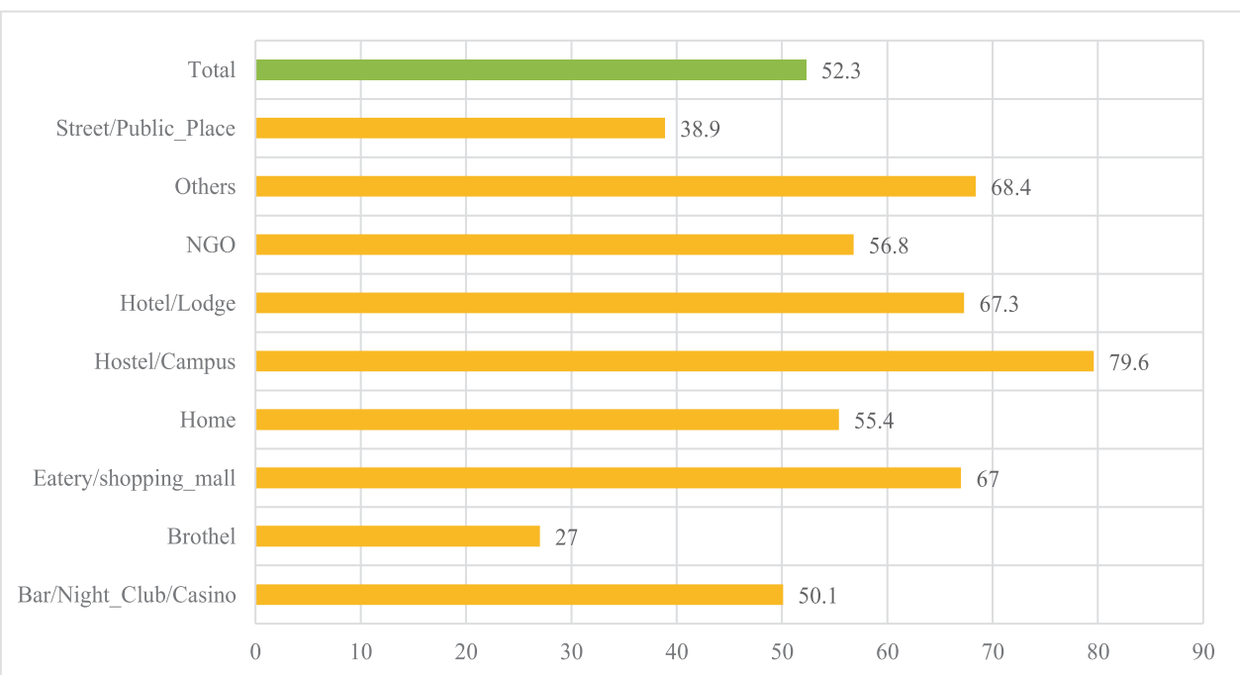
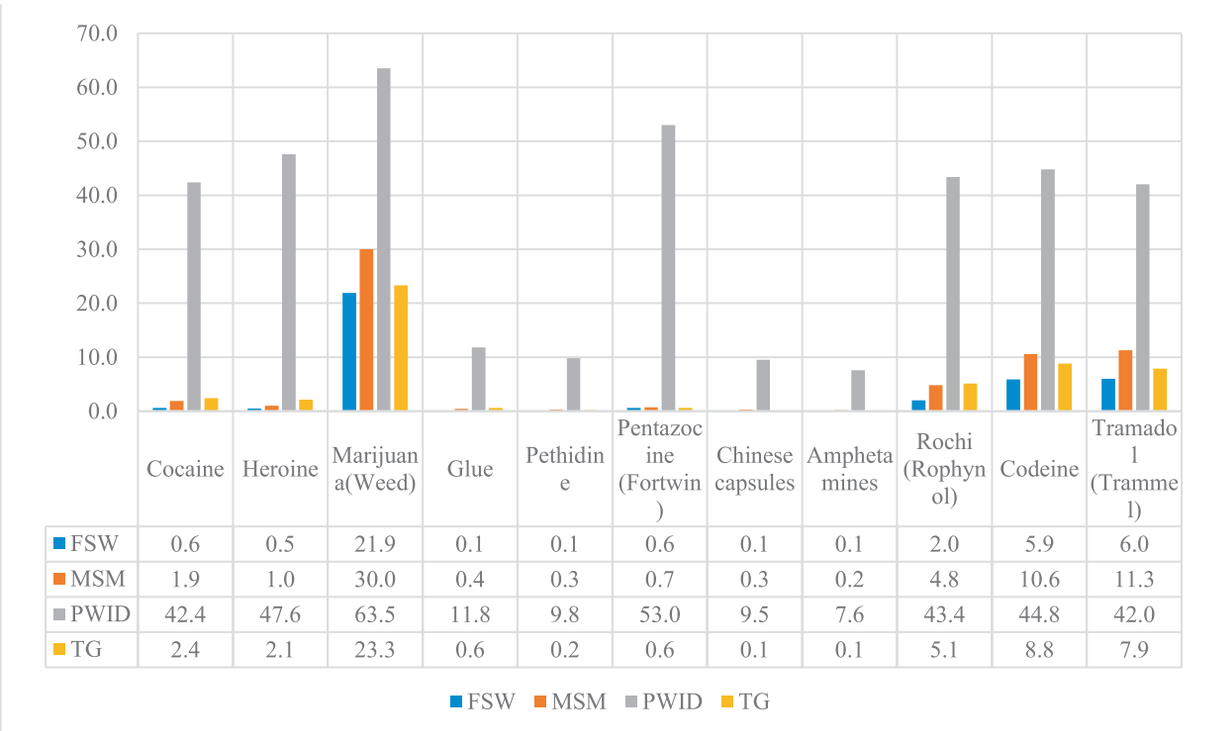


Fig 12d: Percentage TG Drinking Alcohol in the last one month prior to Survey by Spot Typology

52.3 % of TG participant used alcohol in the last one month, while 80% who operates from hostel/campus used alcohol in the same period.

6.4.3 Drugs and Substance Use

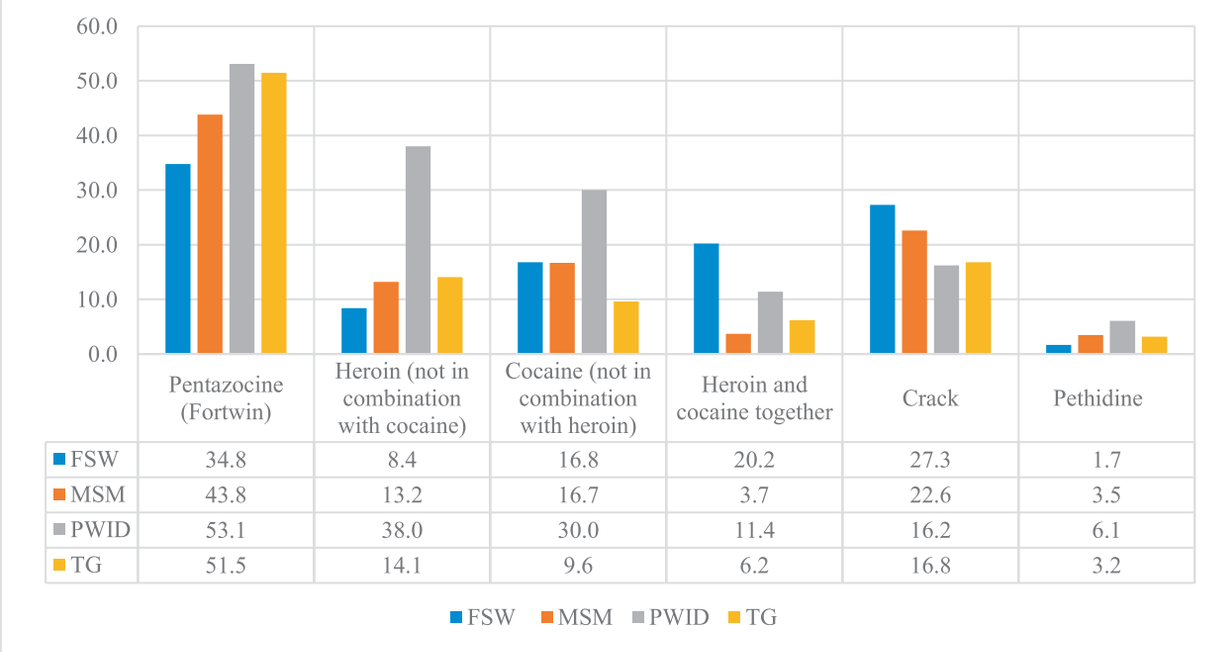
6.4.3.1 Ever tried drugs



	Cocaine	Heroine	Marijuana(Weed)	Glue	Pethidine	Pentazocine (Fortwin)	Chinese capsules	Amphetamines	Rochi (Rophynol)	Codeine	Tramadol (Trammel)
FSW	0.6	0.5	21.9	0.1	0.1	0.6	0.1	0.1	2.0	5.9	6.0
MSM	1.9	1.0	30.0	0.4	0.3	0.7	0.3	0.2	4.8	10.6	11.3
PWID	42.4	47.6	63.5	11.8	9.8	53.0	9.5	7.6	43.4	44.8	42.0
TG	2.4	2.1	23.3	0.6	0.2	0.6	0.1	0.1	5.1	8.8	7.9

Fig 13: Types of Drugs Ever tried by Typology

6.4.3.2 Drugs Injected in the Last one month



	Pentazocine (Fortwin)	Heroin (not in combination with cocaine)	Cocaine (not in combination with heroin)	Heroin and cocaine together	Crack	Pethidine
FSW	34.8	8.4	16.8	20.2	27.3	1.7
MSM	43.8	13.2	16.7	3.7	22.6	3.5
PWID	53.1	38.0	30.0	11.4	16.2	6.1
TG	51.5	14.1	9.6	6.2	16.8	3.2

Fig 14: Type of Drugs Injected by typology in the last one month prior to the survey

6.5 HIV & AIDS- KNOWLEDGE, ATTITUDES AND PERCEPTION

6.5.1 Knowledge and Attitude about HIV Transmission

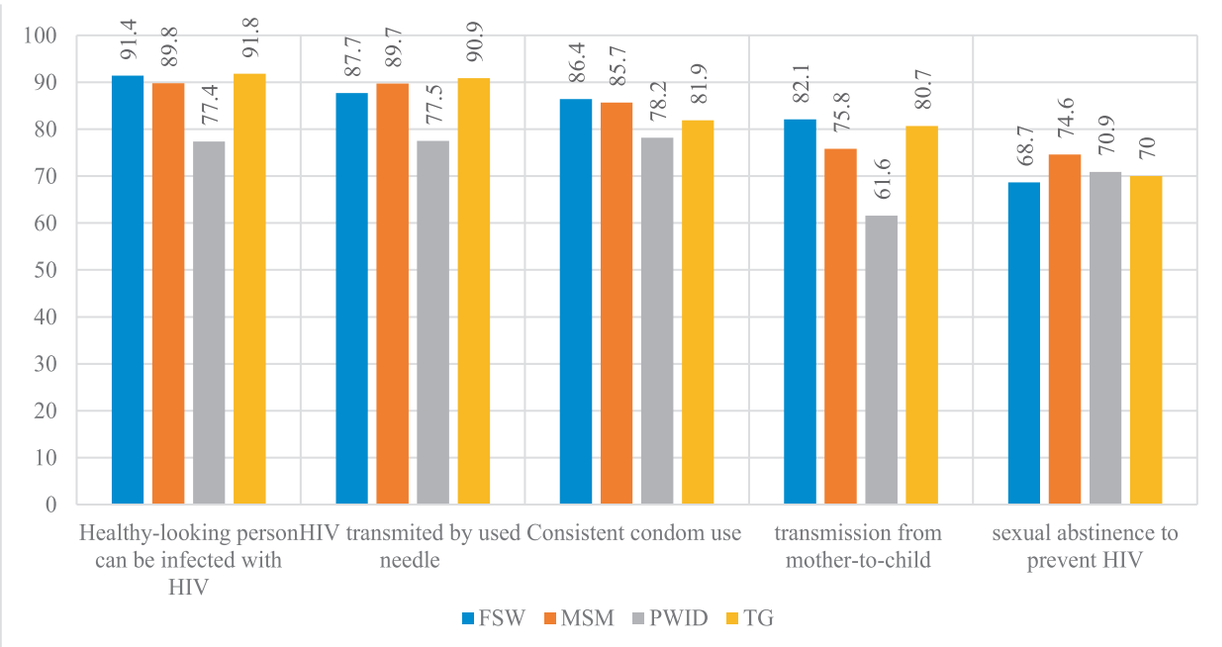


Fig 15: Knowledge and Attitude on HIV Transmission by KP Typology

Knowledge about HIV transmission remains high across all the KP typologies studied.

6.5.2: HIV Risk Perception

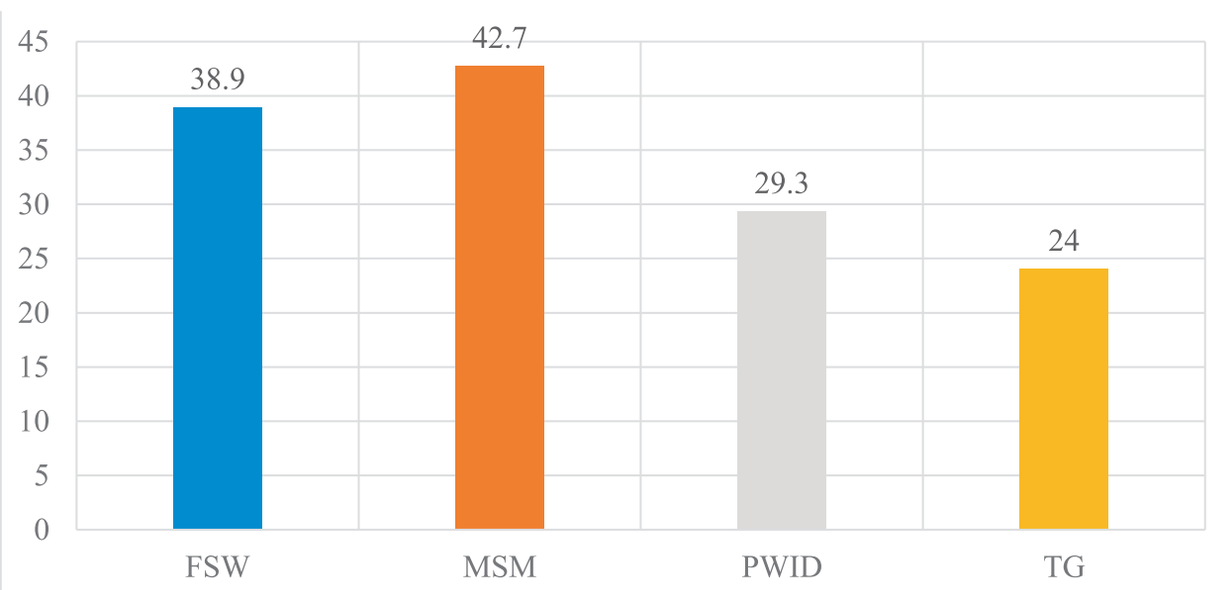


Fig 16: Percentage Distribution of Risk Perception for HIV by Typology

Risk perception of contracting HIV was highest amongst MSM (43%) while it was 39% among FSW, 29% among PWID and the lowest of 24% amongst Transgender persons.

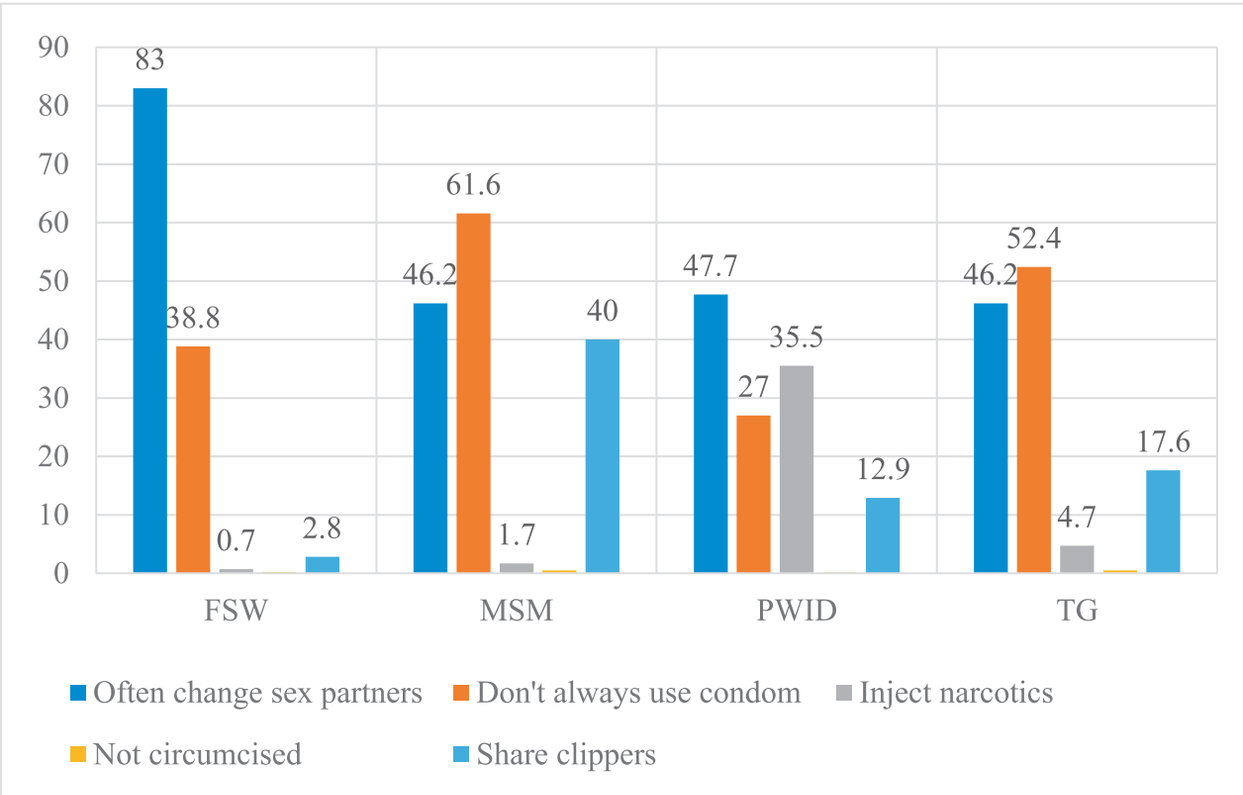


Fig 17: Reasons for Feeling at Risk of HIV by Typology

A number of factors were implicated for risk perception across the different KP typology. Frequent change of sexual partners and inconsistent use of condom topped the reasons mentioned. Among the FSW, PWID, MSM and TG, 83%, 48%, 46% and 46% implicated the frequent change of partners respectively while 39%, 27%, 62% and 52% mentioned inconsistent condom use, respectively.

6.5.3: Sources of Information about HIV, AIDS, STIs and Condom

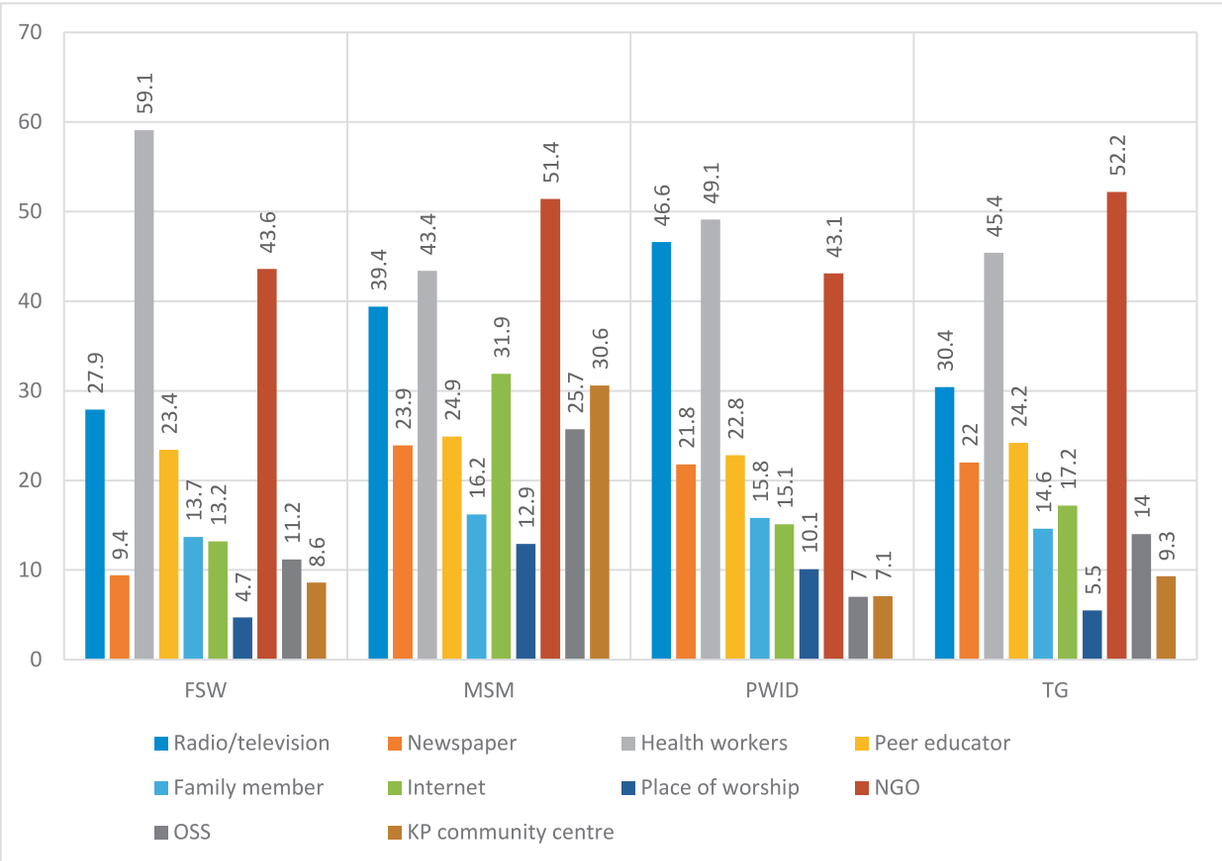


Fig 18: Percentage Distribution of Source of Information or Education about HIV, AIDS, STIs or Condom Use in the past 12 months by KP Typology

Fig 18 shows that approximately 28%, 39%,47% and 30% of FSW, MSM, PWID and TG have received information/education via radio/television sources while 59%,43%,49% and 45% have received information/education through health workers, respectively. There is a gap in the role of places of worship in disseminating information/education on HIV, AIDs, STI and condoms across all KP typology. Peer Educators role in disseminating information about HIV was low across all KP typologies.

6.5.4 Awareness of HIV Status Prior to the Survey

6.5.4.1 Percentage Unaware of their Status but Tested Positive during the Survey

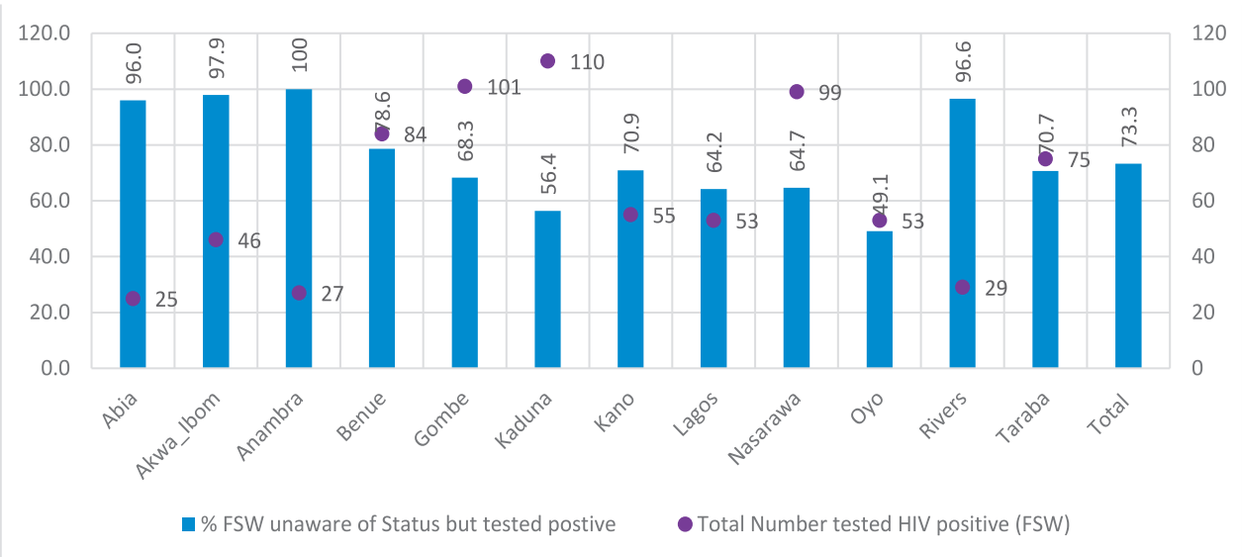


Fig 19a: Percentage Unaware of their Status among FSW Tested Positive during the Survey

All (27) FSW who tested positive during the survey in Anambra state were unaware of their status while in Oyo state 49% of all (53) FSW who tested positive were unaware of their status prior to the survey.

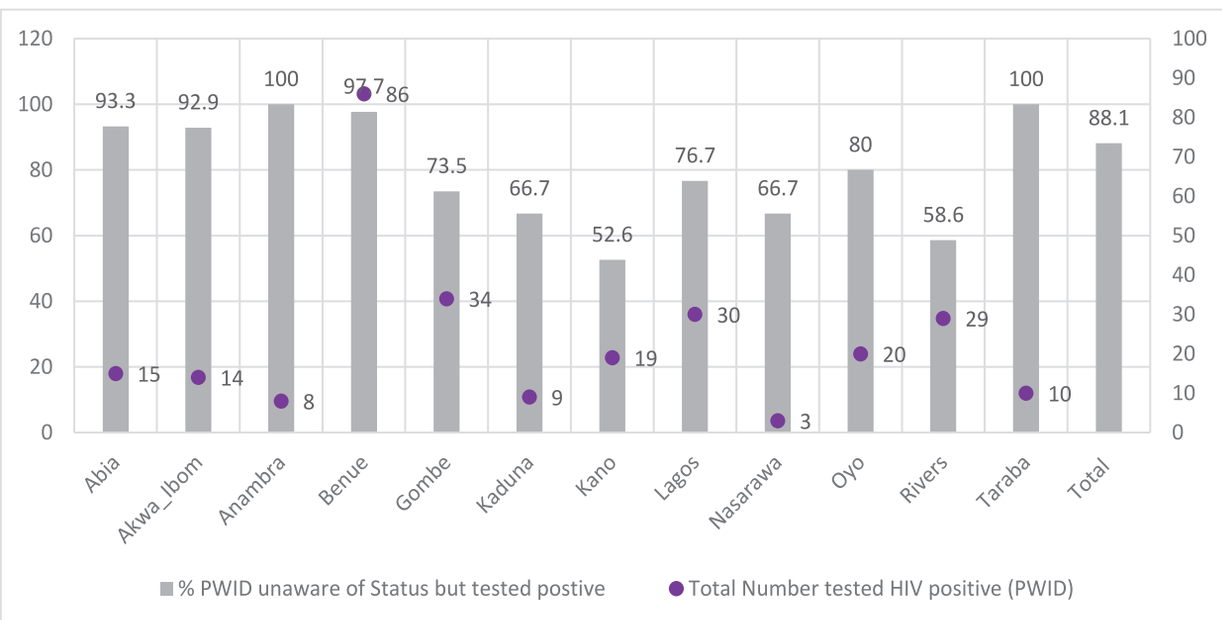


Fig 19b: Percentage Unaware of their HIV Status among PWID Tested Positive during the Survey

All PWID who tested positive during the survey in Anambra (8) and Taraba (10) states respectively were unaware of their status while in Kano state 52.6% of all (19) FSW who tested positive were unaware of their status prior to the survey.

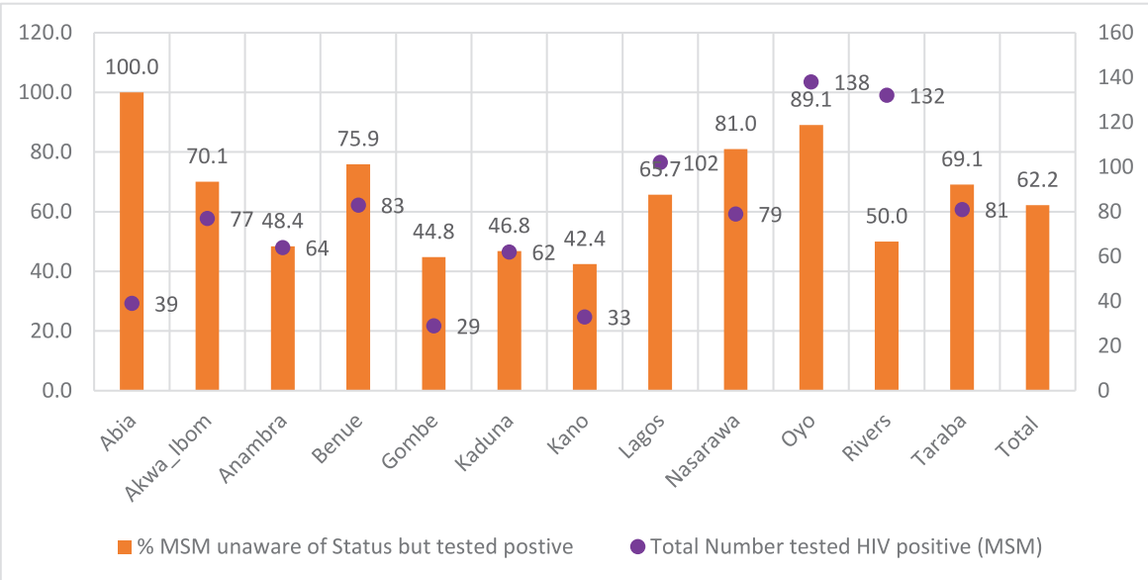


Fig 19c: Percentage Unaware of their HIV Status among MSM Tested Positive during the Survey

All (39) MSM who tested positive during the survey in Abia state were unaware of their status while in Kano state 42% of all (33) MSM who tested positive were unaware of their status prior to the survey.

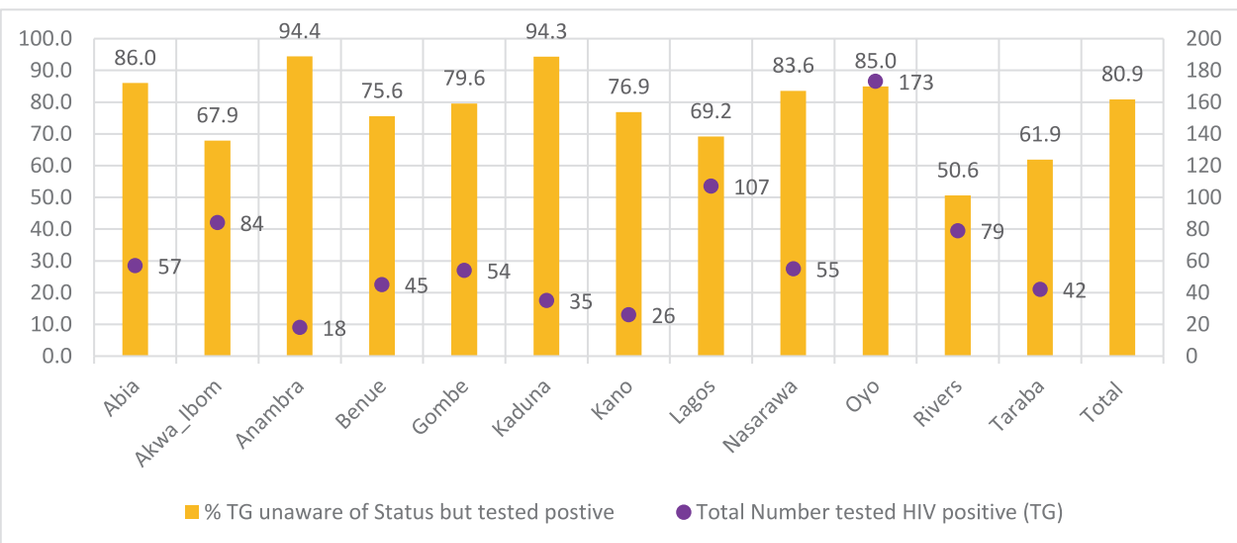


Fig 19d: Percentage Unaware of their HIV Status among TG Tested Positive during the Survey

Over 94% of TG who tested positive during the survey in Anambra (18) and Kaduna (35) states were unaware of their status while in Rivers state 51% of all (79) FSW who tested positive were unaware of their status prior to the survey.

6.5.4.2 Positivity rate among those reporting Negative/Indeterminate Test Status prior to the Survey.

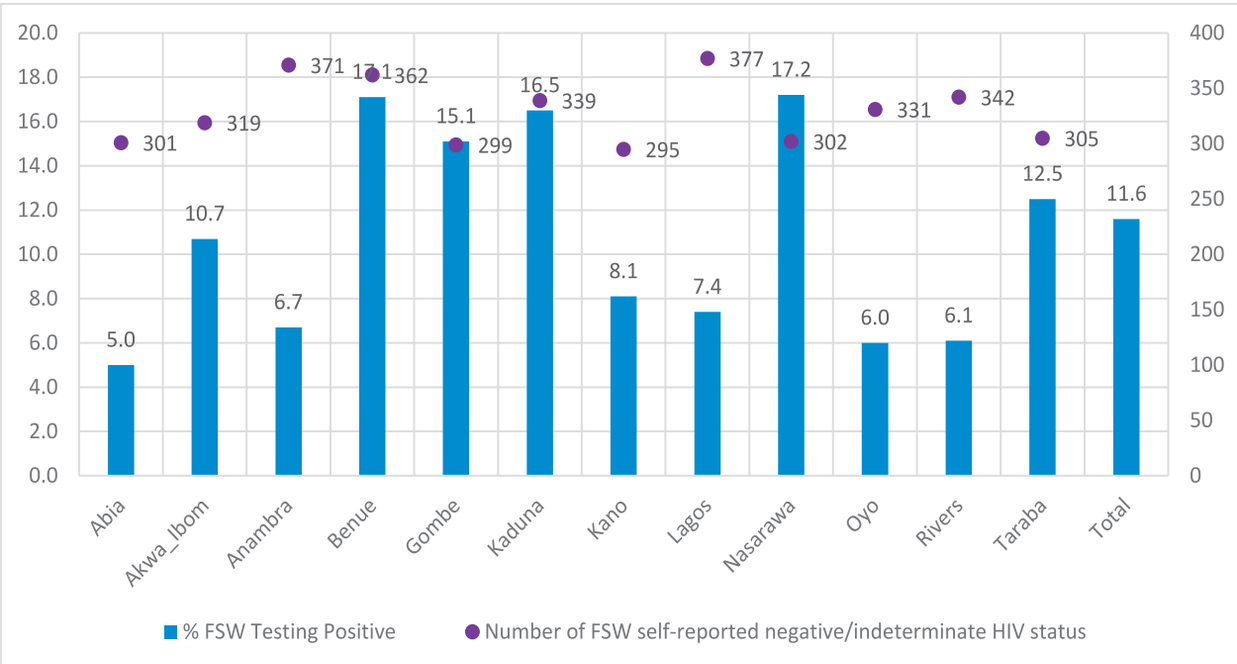


Fig 20a: FSW Positivity rate among those reporting Negative/Indeterminate Test Status prior to the Survey.

17% of FSW who self-reported that they had negative or indeterminate results in Benue and Nasarawa tested positive during the survey.

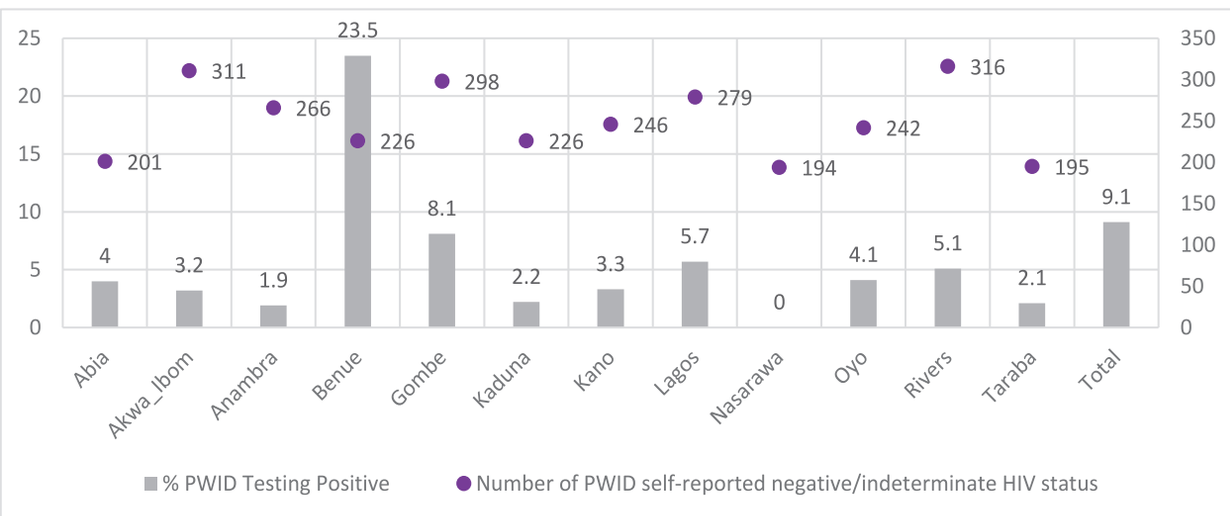


Fig 20b: PWID Positivity Rate among those Reporting Negative/Indeterminate Test Status prior to the Survey

24% of PWID who self-reported that they had negative or indeterminate results in Benue tested positive during the survey.

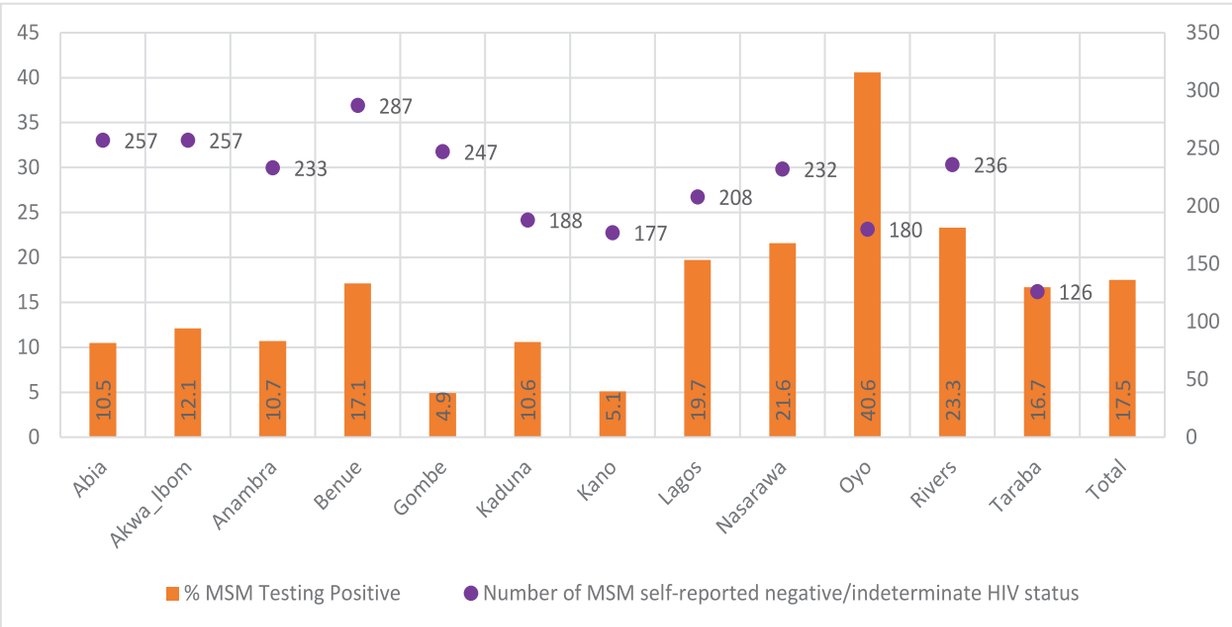


Fig 20c: MSM Positivity Rate among those Reporting Negative/Indeterminate Test Status prior to the Survey

41% of MSM who self-reported that they had negative or indeterminate results in Oyo tested positive during the survey.

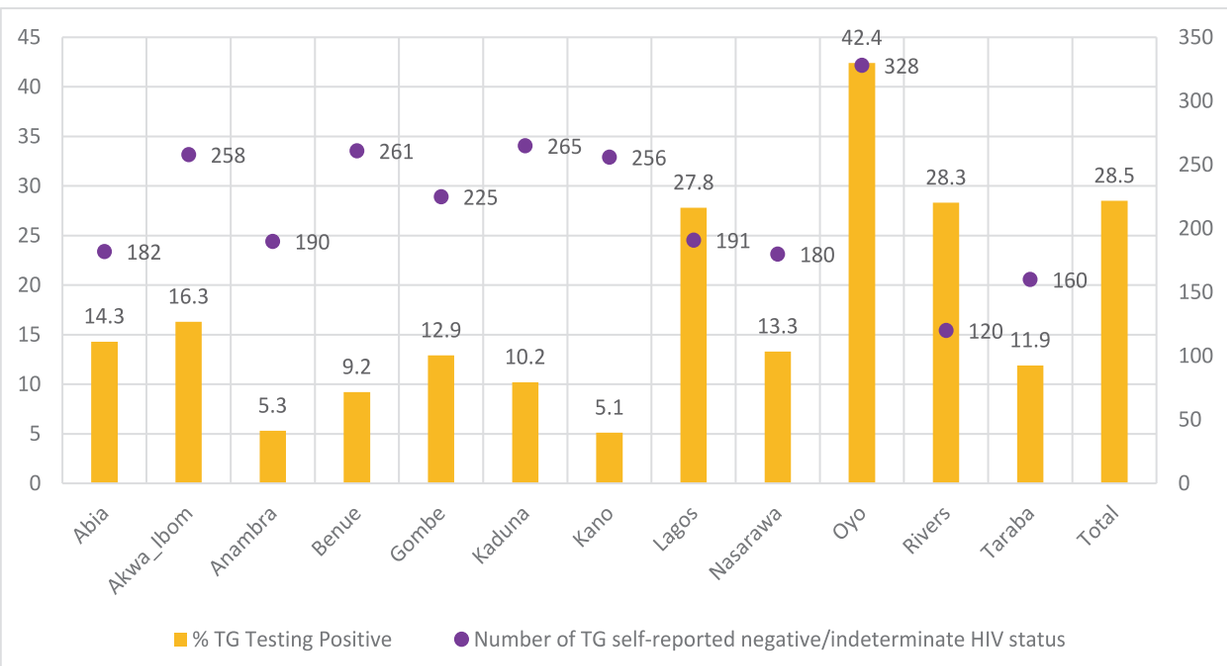


Fig 20d: TG Positivity Rate among those Reporting Negative/Indeterminate Test Status prior to the Survey.

42.4% of TG who self-reported that they had negative or indeterminate results in Oyo tested positive during the survey.

6.5.5 Exposure to HIV Interventions

6.5.5.1 IEC messages

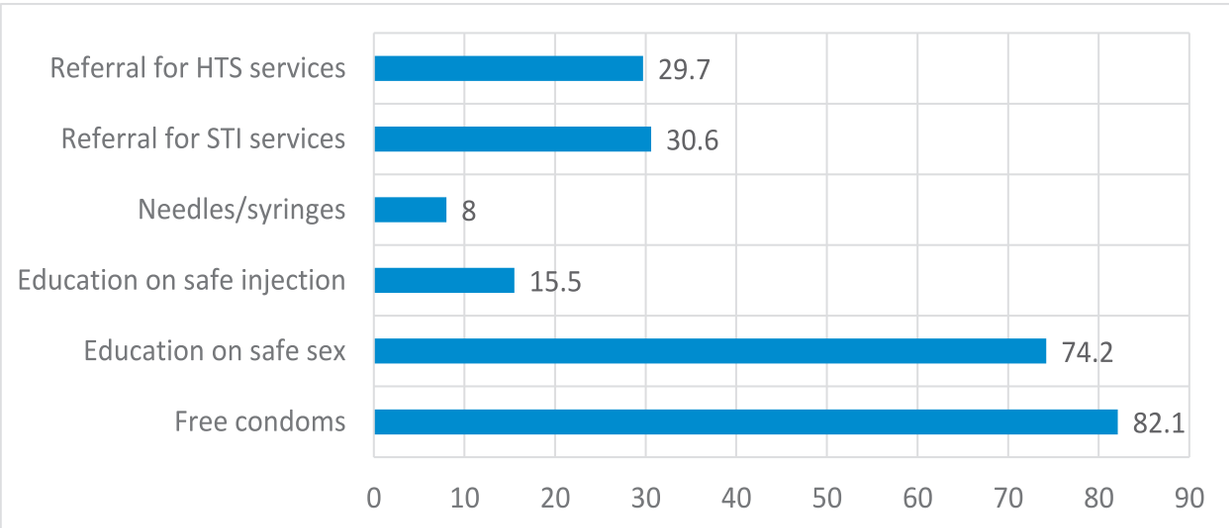


Fig 21a: Percentage of FSW Exposed to Information, Education and Communication Messages 12 months prior to the survey.

The graph above shows that 82% of FSW respondent were exposed to free condoms, 74% were exposed to education on safe sex, 31% referral for STI services and 30% referral for HTS services.

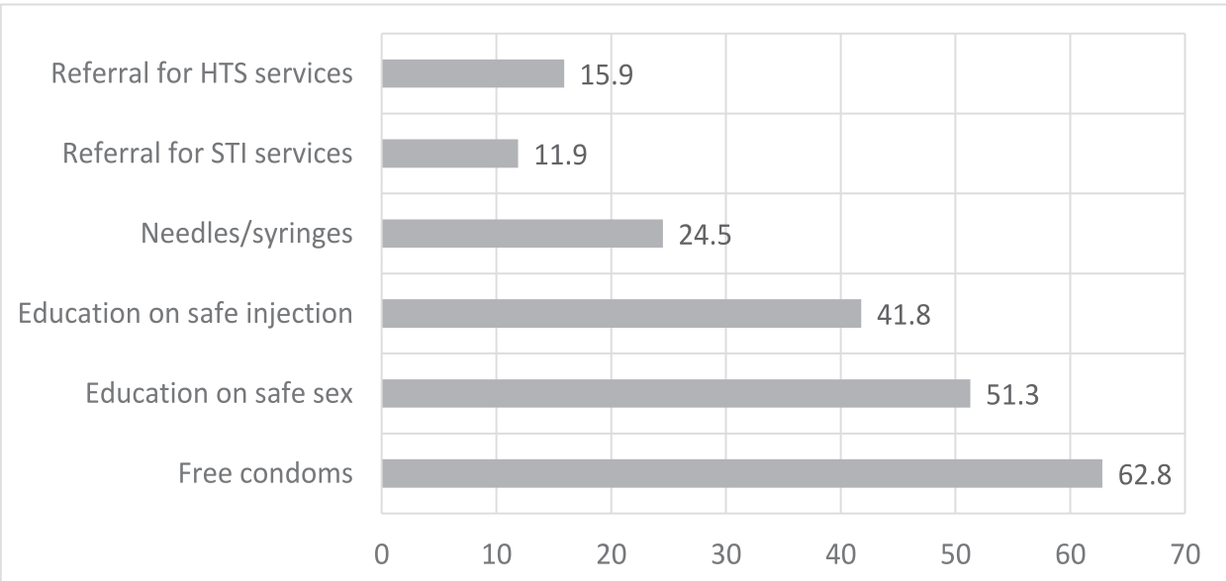


Fig 21b: Percentage of PWID Exposed to Information, Education and Communication Messages in the last 12 months prior to the survey

The graph above shows that 63% of PWID respondent were exposed to free condoms, 51% were exposed to education on safe sex, 12% referral for STI services and 16% referral for HTS services.

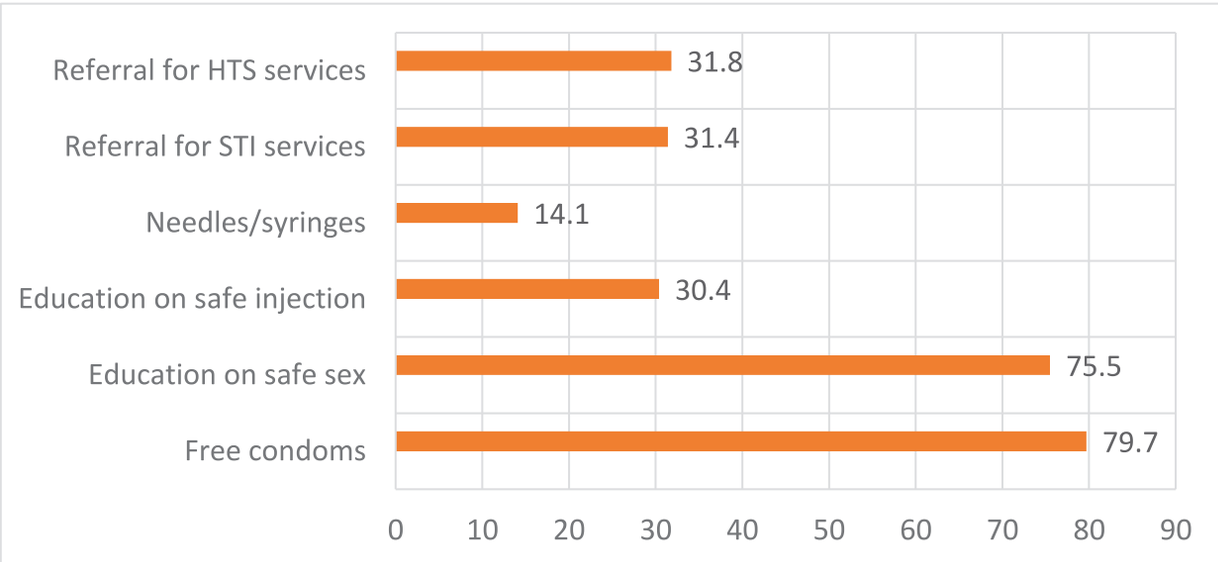


Fig 21c: Percentage of MSM Exposed to Information, Education and Communication Messages in the last 12 months prior to the survey

The graph above shows that approximately 80% of MSM respondent were exposed to free condoms, 76% were exposed to education on safe sex, 31% referral for STI services and 32% referral for HTS services.

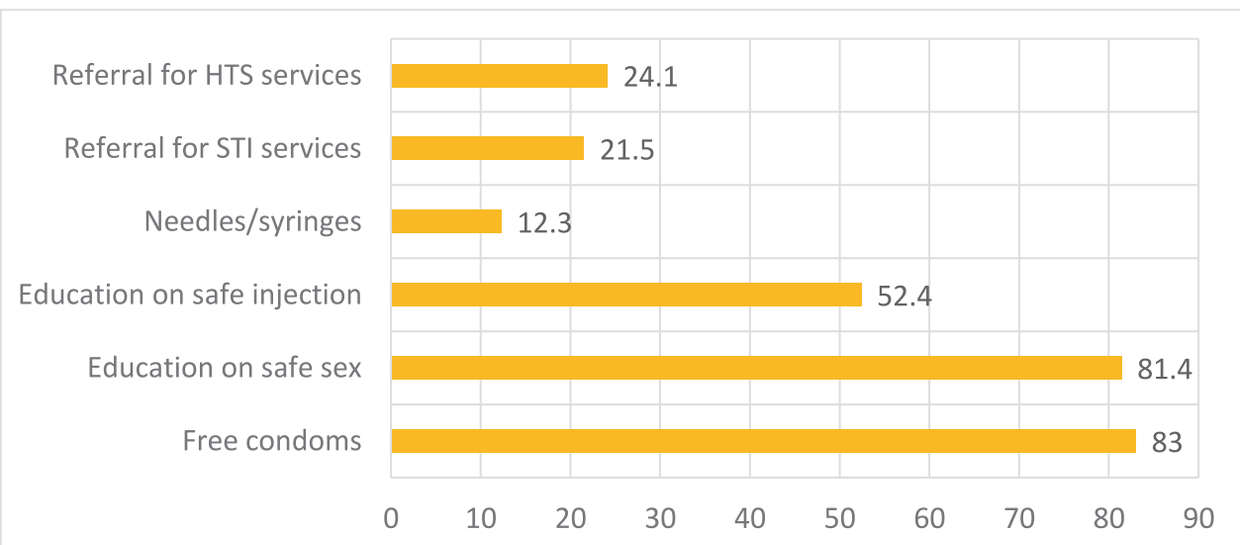


Fig 21d: Percentage of TG Exposed to Information, Education and Communication Messages in the last 12 months prior to the survey

The graph above shows that 83% of TG respondent were exposed to free condoms, 81% were exposed to education on safe sex, 22% referral for STI services and 24% referral for HTS services. *Across all KP typologies studied, exposure to HTS and STI services remained very low.*

6.6 SEXUAL BEHAVIOUR AND CONDOM USE

6.6.1: Sexual Debut

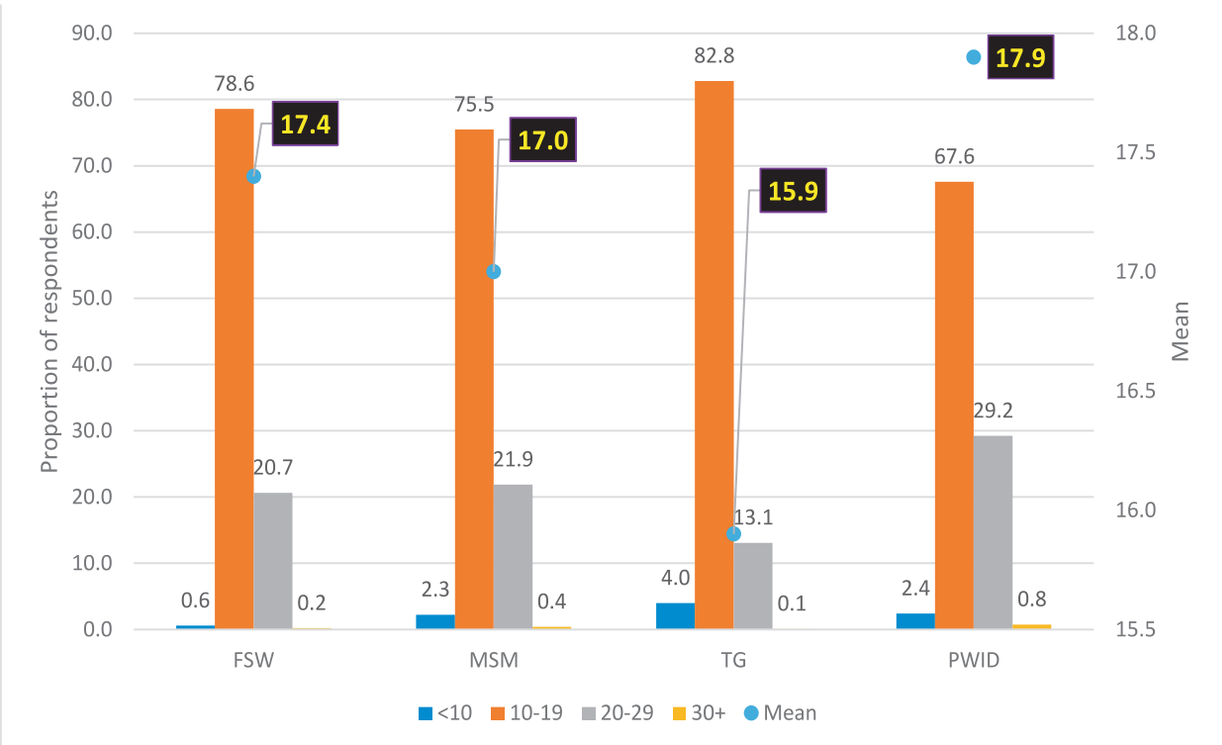


Fig 22: Sexual Debut by KP Typology

The mean age of sexual debut ranged from 16-18 years across all typology with the lowest being among the TG group at 16 years while PWID has the highest mean age of sexual debut at 18years. TG typology debut earlier sexually compared to other KP typologies with 67% having their sexual debut before the age of 18, while 53% of PWID had their sexual debut after 18 years.

6.6.2 Condom use at Last Sex and Consistent Condom Use in the last Six months.

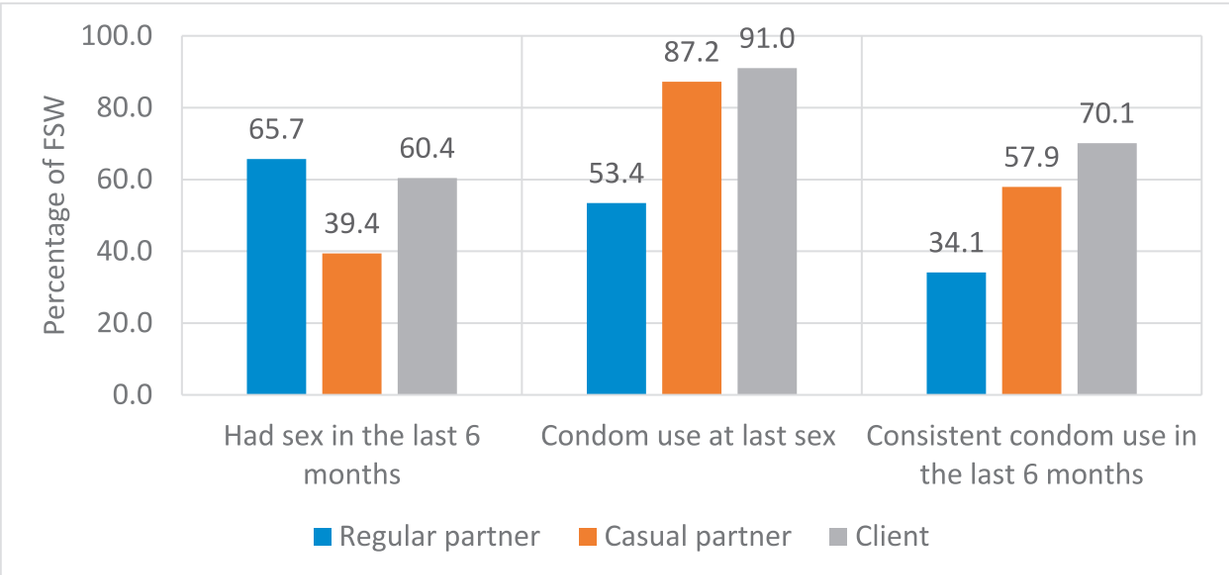


Fig 23a: FSW Condom Use at last Sex and Consistent Condom Use by Partner Type in last 6 months.

Consistent condom use in the last 6 months by FSW remains low with regular (34%) and casual (58%) partners as compared to use with clients (70%). Condom use at last sex by FSW was lowest with their regular partners at 53%.

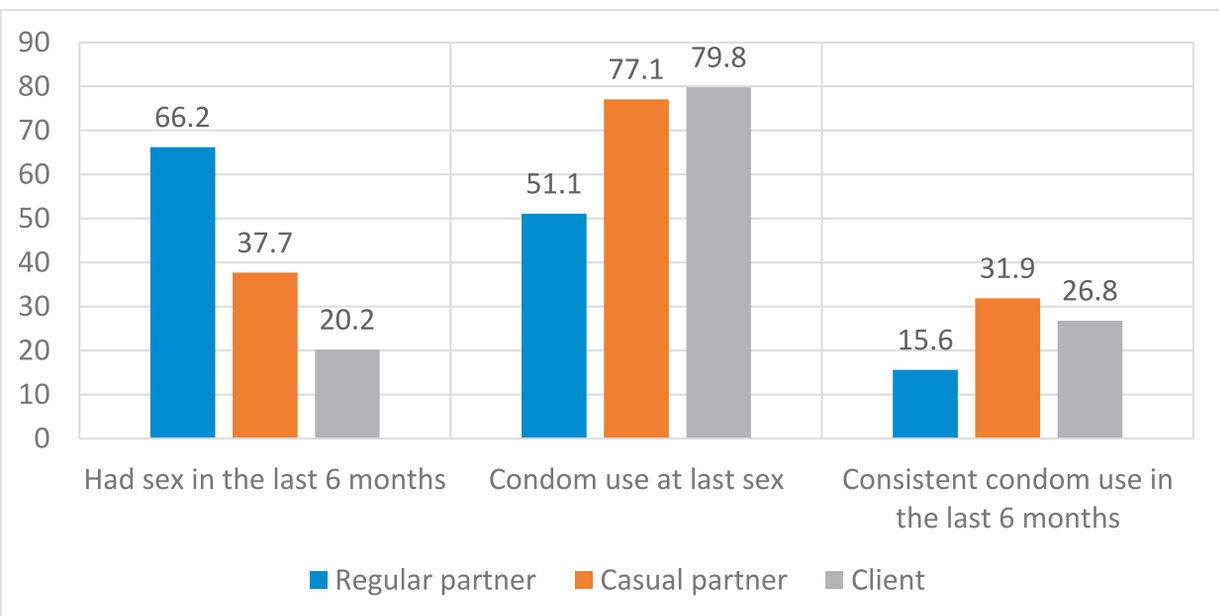


Fig 23b: PWID Condom Use at last Sex and Consistent Condom Use by Partner Type in last 6 months

Consistent condom use in the last 6 months by PWID remains low with all partner types- regular (approx. 16%), casual (32%) and clients (approx. 27%). Condom use at last sex by PWID was lowest with their regular partners at 51%.

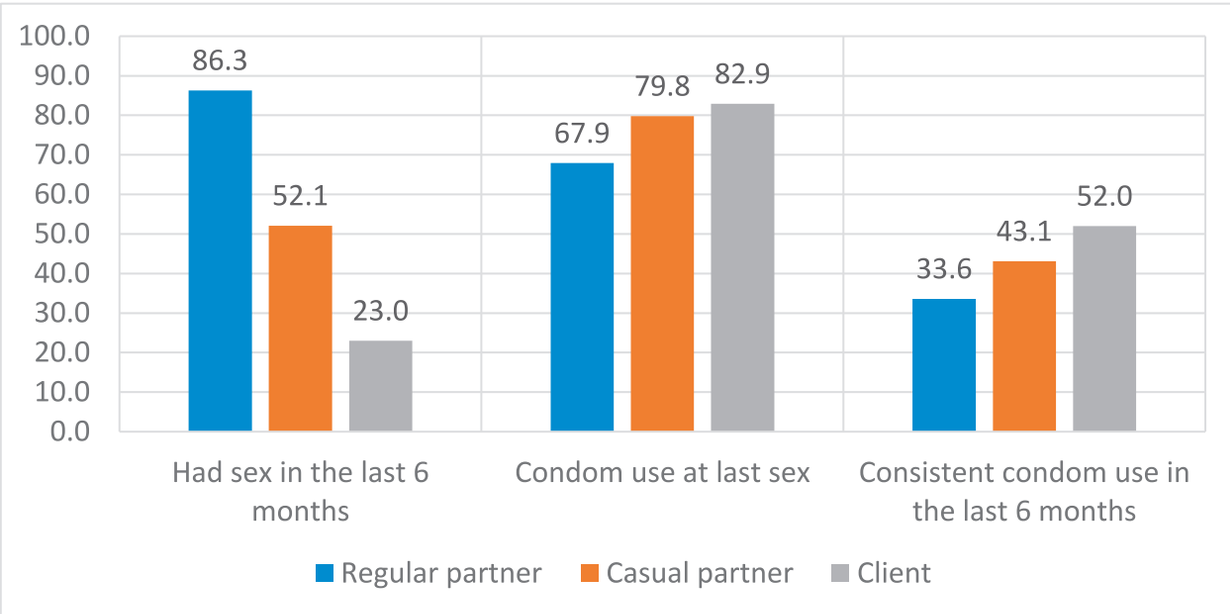


Fig 23c: MSM Condom Use at last Sex and Consistent Condom Use by Partner Type in last 6 months

Fig 23c shows that 86% MSM had sex with regular partners while 52% and 23% had sex with casual and client partners in the last 6-months prior to the survey. Consistent condom use in the last 6-months prior to the survey was lowest with regular partners (approx. 34%). Condom use at last sex by MSM was lowest with their regular partners at 68%.

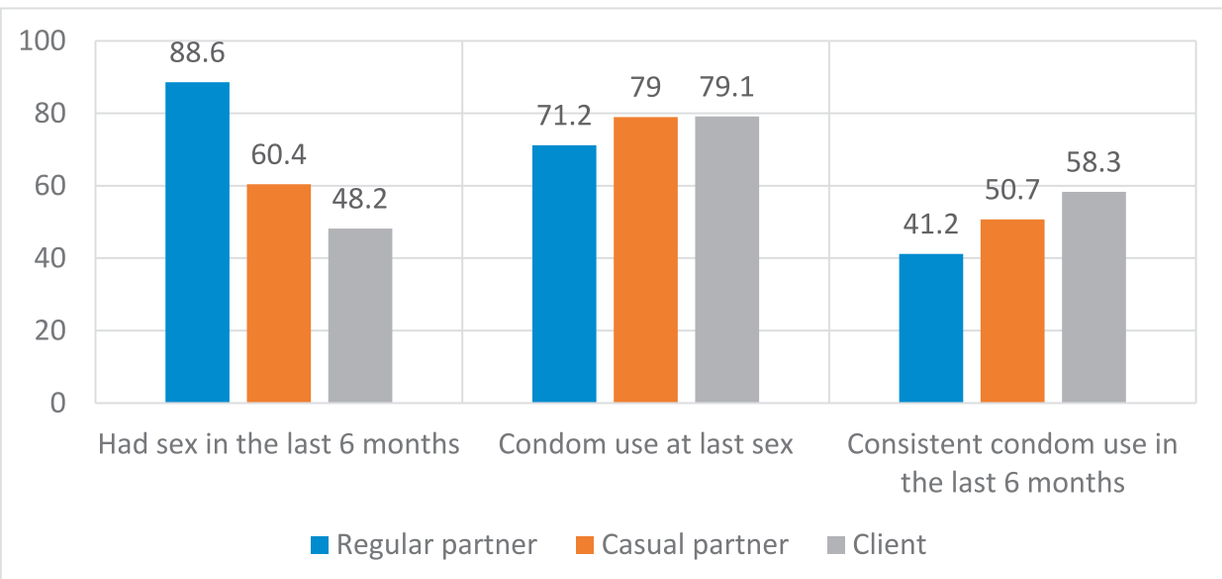


Fig 23d: TG Condom Use at last Sex and Consistent Condom Use by Partner Type in last 6 months

Consistent condom use in the last 6-months prior to the survey was lowest with regular partners (approx. 41%). Condom use at last sex by TG was fairly consistent across all partner types ranging between 71% to 79%.

6.6.3 Unprotected Receptive Anal Intercourse (URAI)

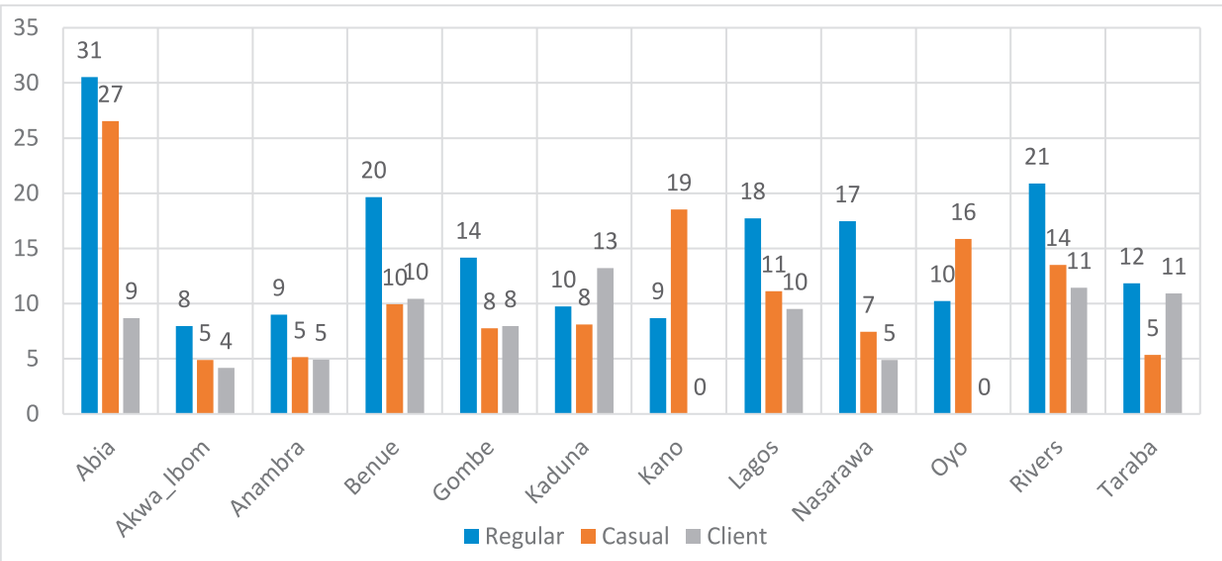


Fig 24a: Unprotected Receptive Anal Intercourse by Partner Typology by State among MSM

Among MSM, 31% in Abia showed the highest proportion of those who had unprotected receptive anal intercourse (URAI) with a regular partner while the lowest was observed in Akwa-Ibom at 8%. With Casual partners Abia (27%) and Kano (19 %) were highest, while with Clients Kaduna (13%) had the highest proportion.

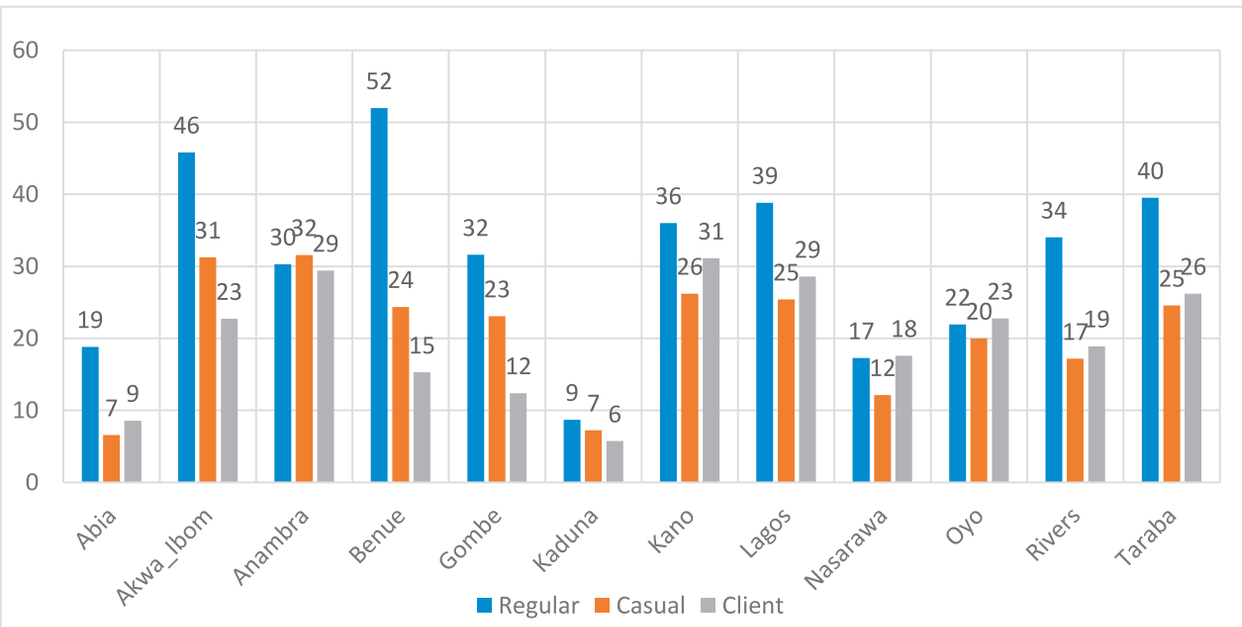


Fig 24b: Unprotected Receptive Anal Intercourse by Partner Typology by State among TG

Among Transgenders, 52% in Benue showed the highest proportion of those who had unprotected receptive anal intercourse (URAI) with a regular partner while the lowest was observed in Kaduna at 9%. With Casual partners, Anambra (32%) and Akwa Ibom (31%) were highest, while with Clients, Kano (31%) had the highest proportion.

6.6.4 Type of Sex with Partners

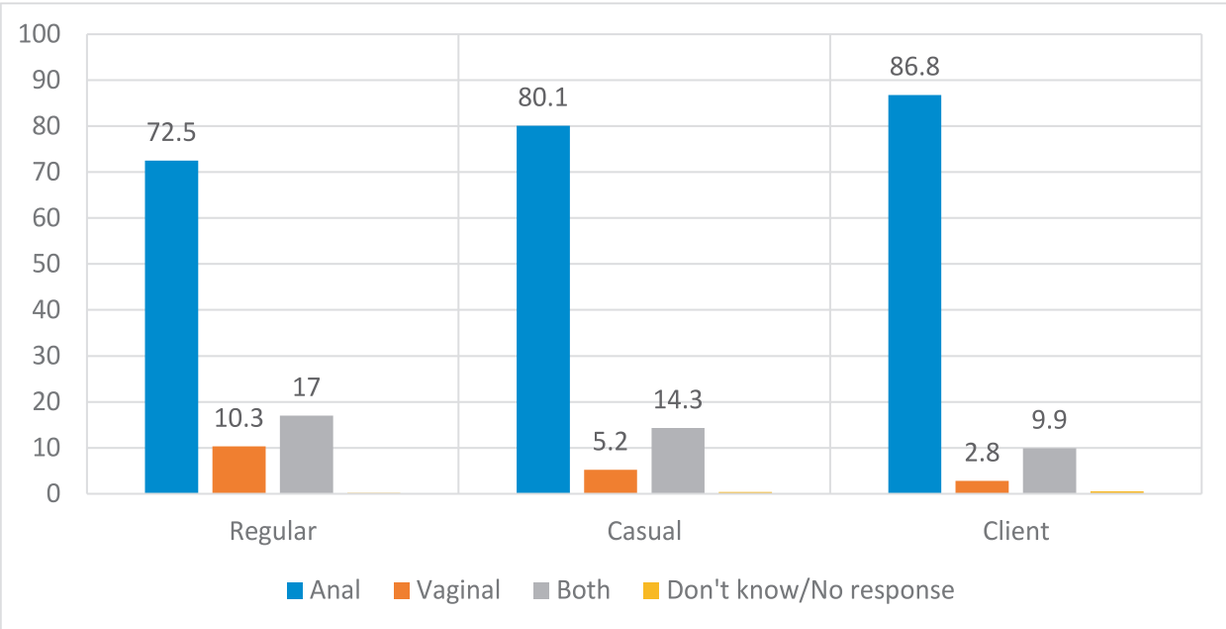


Fig 25a: Percentage of MSM by Type of Sex with Partners

Over 80% MSM have anal sex with casual and client partners while 73% have anal sex with their regular partner. Proportion of MSM who have vaginal sex with regular partners was 10% compared to 5% and 3% for casual and client partners, respectively.

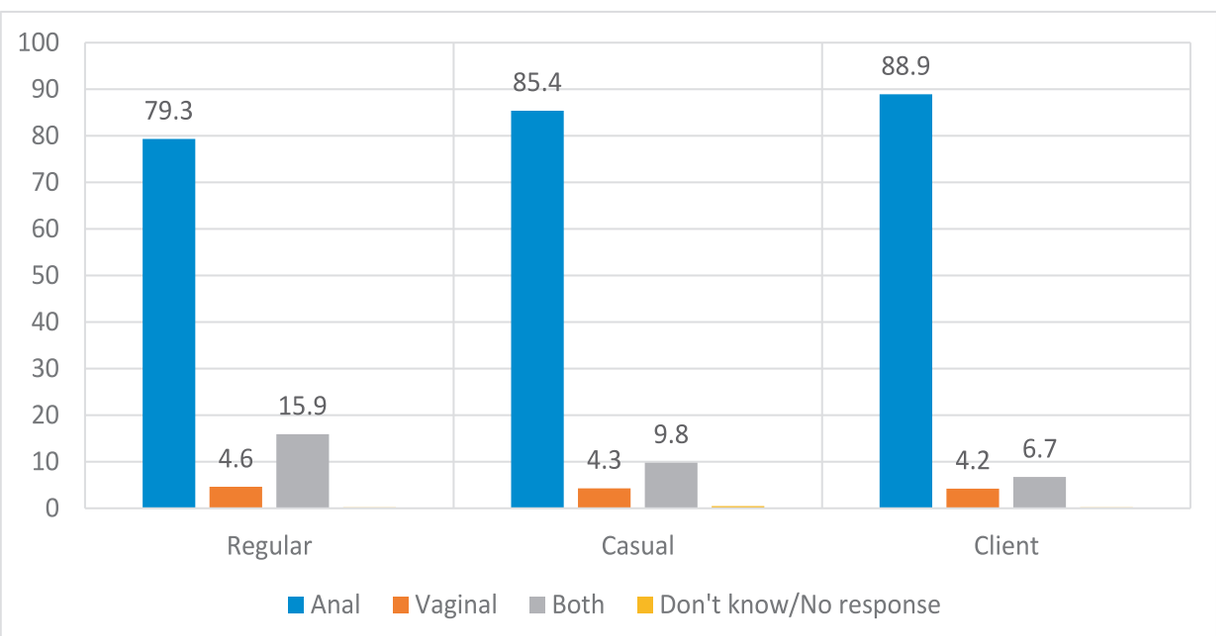


Fig 25b: Percentage of TG by Type of Sex with Partners

79%, 85% and 90% of Transgender persons have had anal sex with regular, casual and client partners, respectively. Approximately 16% of TG have had both types of sex (anal and vaginal) with their regular partners.

6.6.5 Role in Sex Act

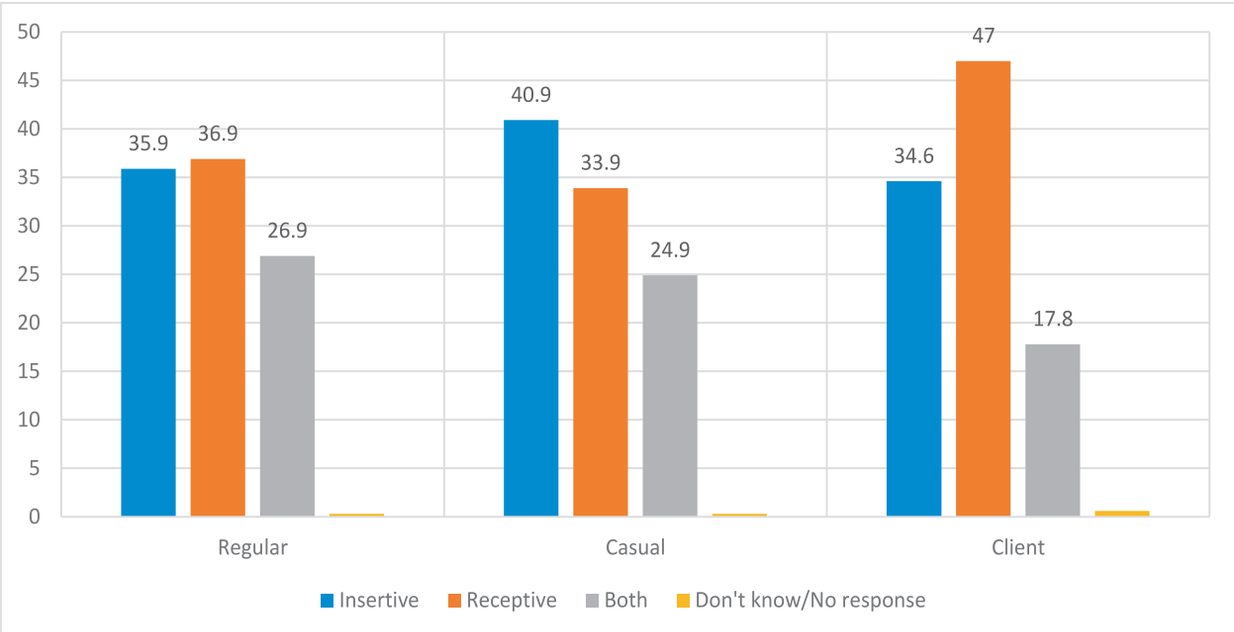


Fig 26a: Percentage of MSM by Role in Sex with Partner

36%, 41% and 35% MSM had insertive sex at last sex with regular, casual and client partners respectively while 37%, 34% and 47% are receptive with regular, casual and client partners, respectively at last sex.

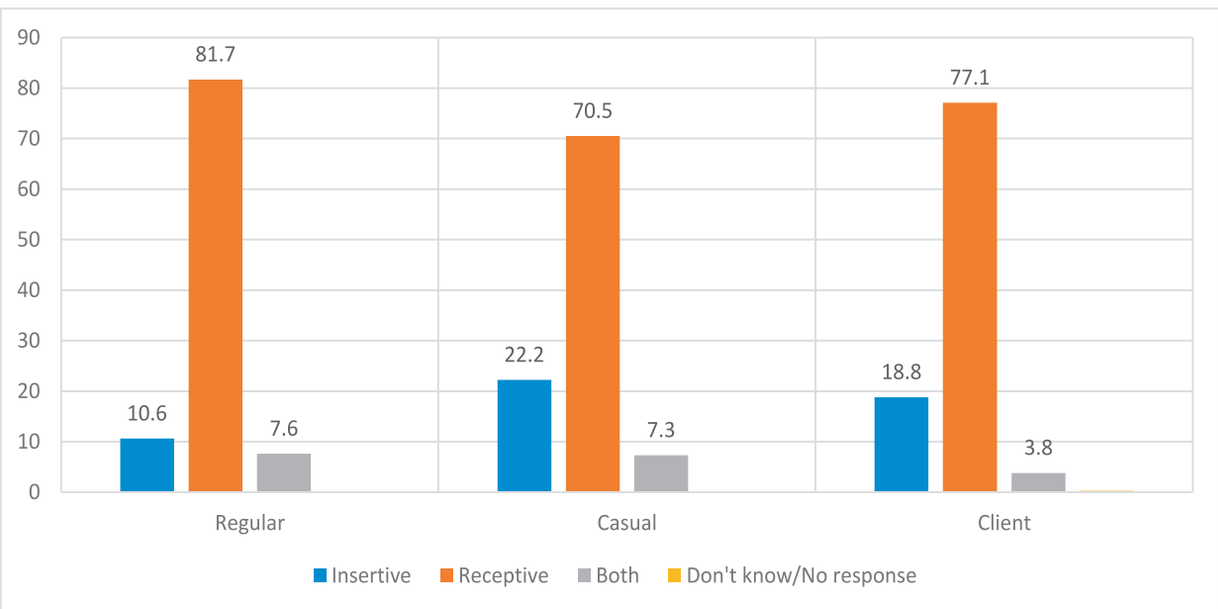


Fig 26b: Percentage of TG by Role in Sex with Partners

Large proportion of TG are having receptive anal sex with their partners. Approximately 22% of TG have performed insertive intercourse with their casual partners. About 19% of TG have had insertive sex roles with client partners respectively.

6.6.6 Use of Lubricant

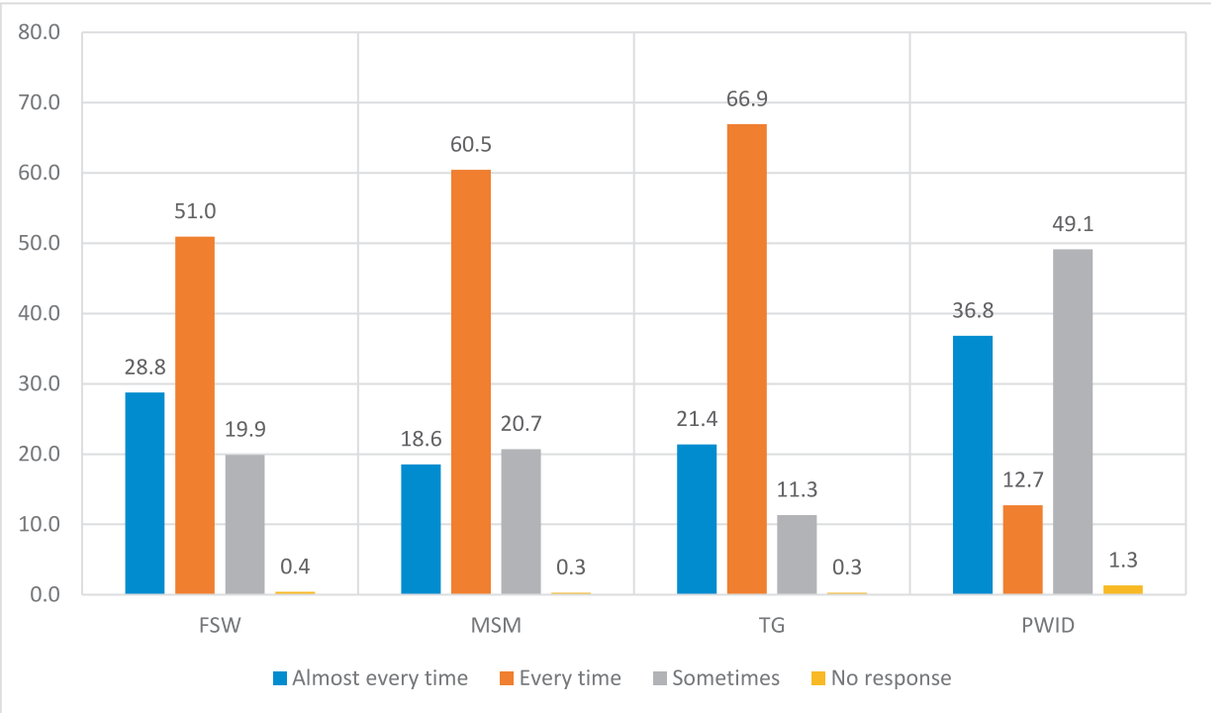


Fig 27: Frequency of Lubricant Use by KP Typology

Highest frequency of lubricant use was reported amongst TG (70%) and MSM (61%) typologies, while lowest lubes use frequency was amongst PWID at 12.7%.

6.7 SEXUALLY TRANSMITTED INFECTIONS

6.7.1 STIs Occurrence by State

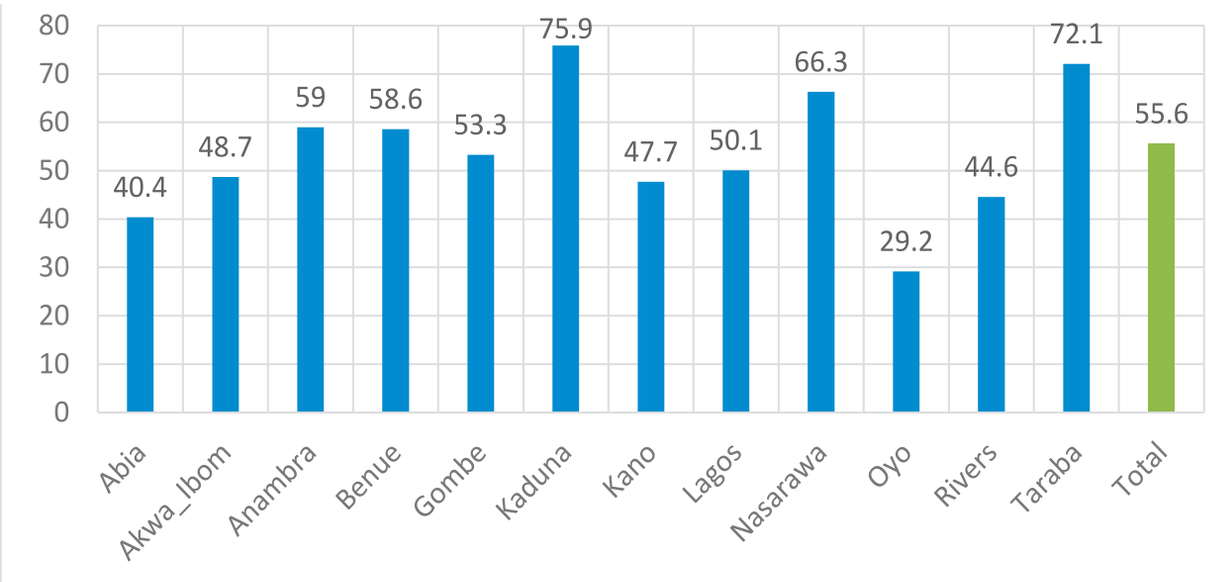


Fig 28a: Percentage of FSW Reported STI Occurrence 12 months prior to the survey by State

Across all states, 56 % of FSW reported STIs with Kaduna and Oyo states having the highest and lowest (76% & 29%) respectively.

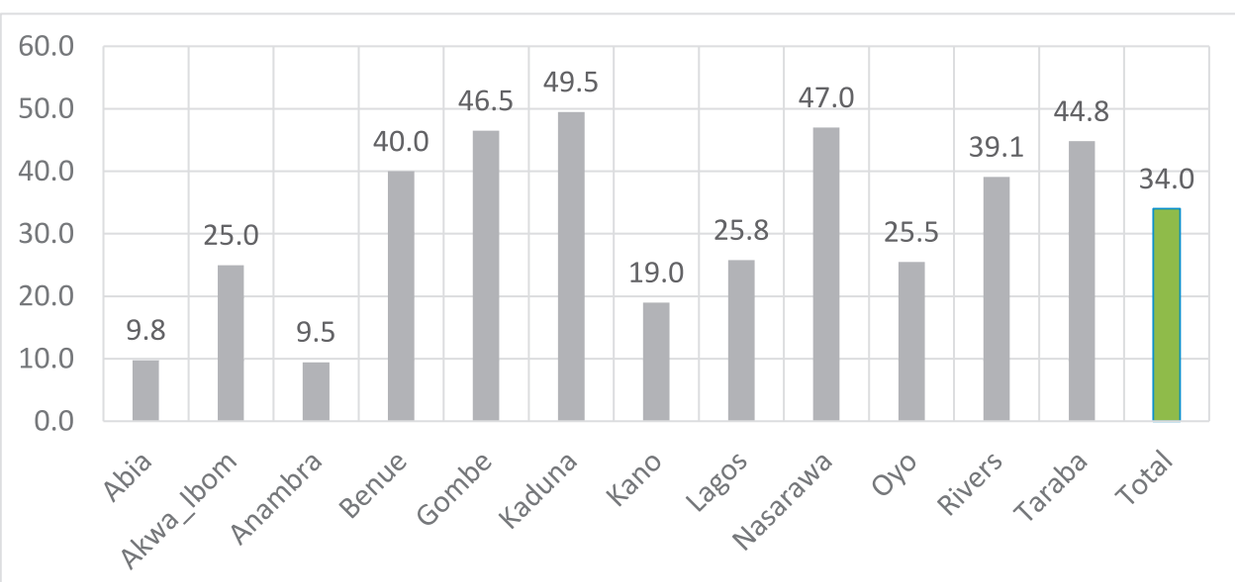


Fig 28b: Percentage of PWID Reported STI Occurrence 12 months prior to the survey by State

Across all states, 34 % of PWID reported STIs with Kaduna and Anambra states having the highest and lowest (50% & 9.5%) respectively.

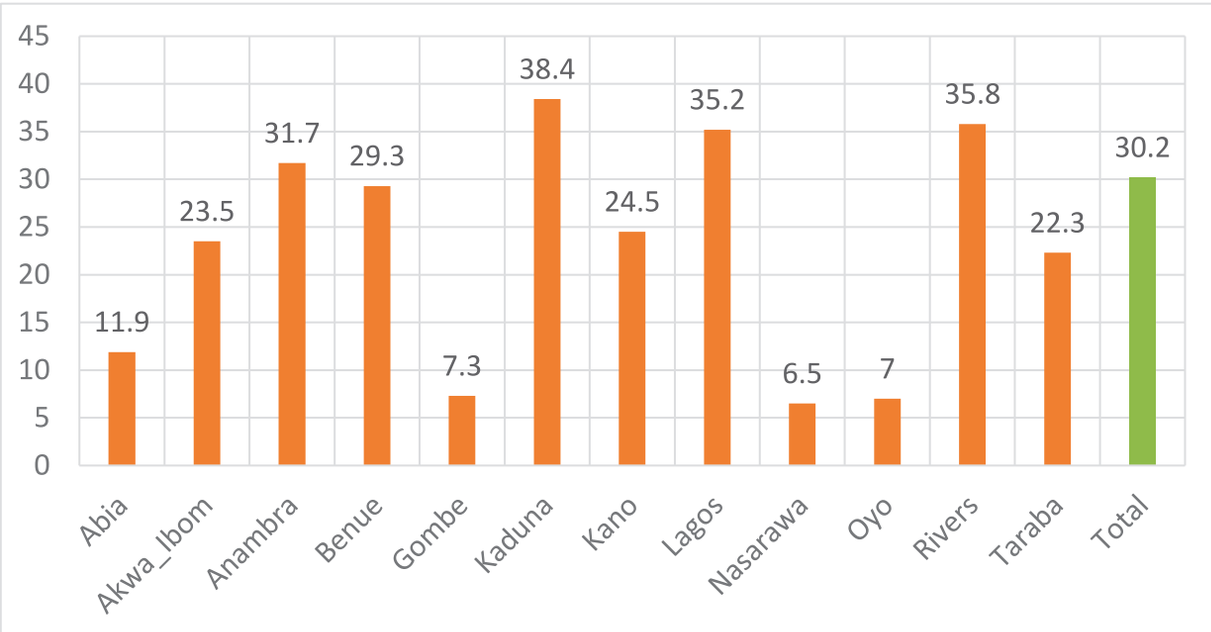


Fig 28c: Percentage of MSM Reported STI Occurrence 12 months prior to the survey by State

Across all states, 30 % of MSM reported STIs with Kaduna and Nasarawa states having the highest and lowest (38% & 6.5%) respectively.

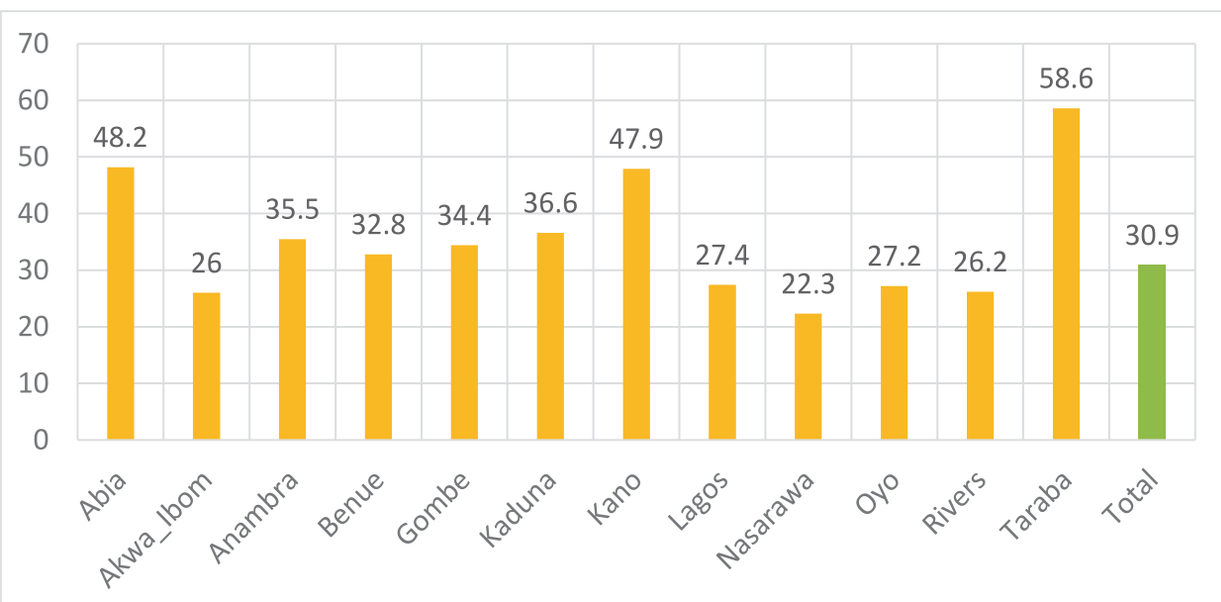


Fig 28d: Percentage of TG Reported STI Occurrence 12 months prior to the survey by State

Across all states, 31 % of TG reported STIs with Taraba and Nasarawa states having the highest and lowest (59% & 22%) respectively.

6.7.2 STIs Occurrence by Spot typology

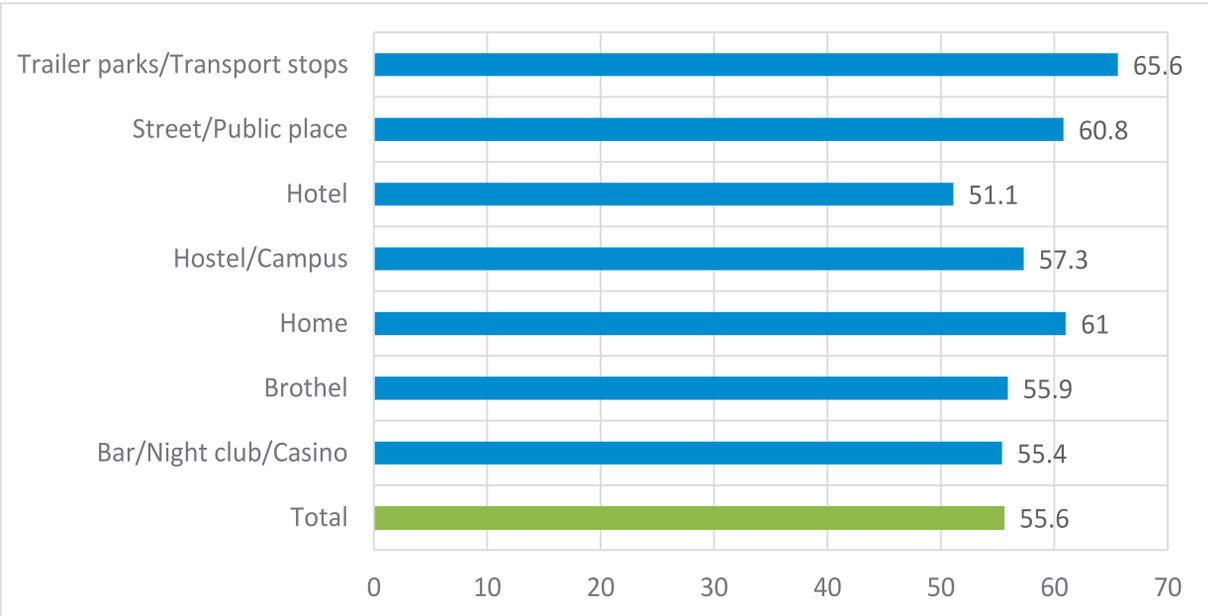


Fig 29a: Percentage FSW Reported STI Occurrence 12 months prior to the survey by Spot Typology.

Fig 29a above shows that 66% of FSW operating in parks and transport stops reported STIs. The lowest proportion of reported STIs for FSW (51%) came from those soliciting in hotels.

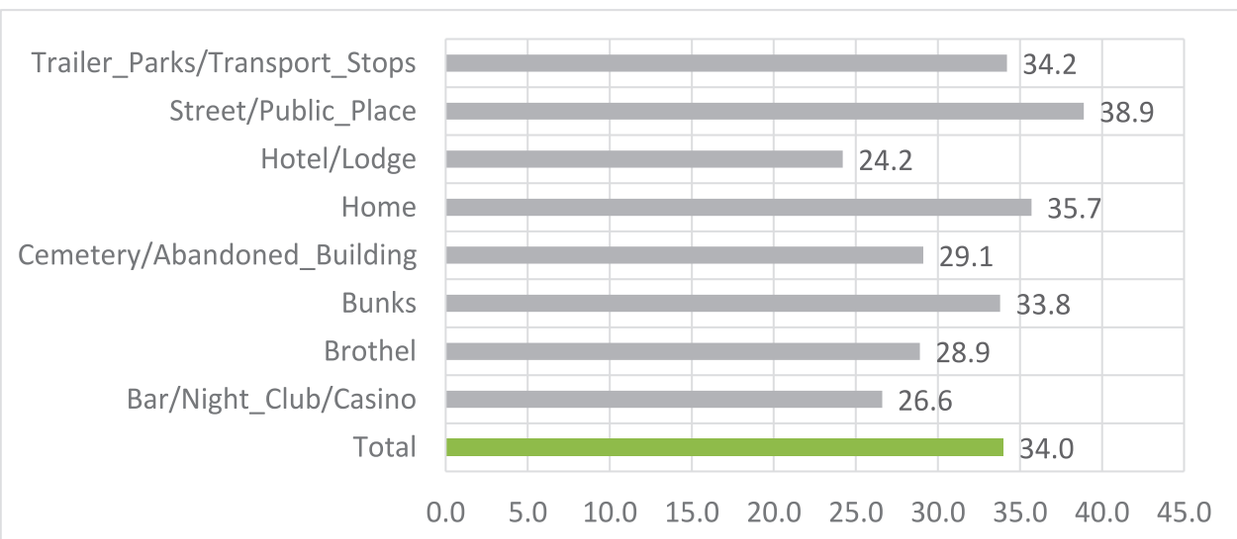


Fig 29b: PWID Reported STI Occurrence in the last 12 months prior to the survey by Spot Typology

Fig 29b shows that 39% of PWID operating in street/public places reported STIs. The lowest proportion of reported STI 27% for PWID came from those operating in bars, nightclubs, and casinos.

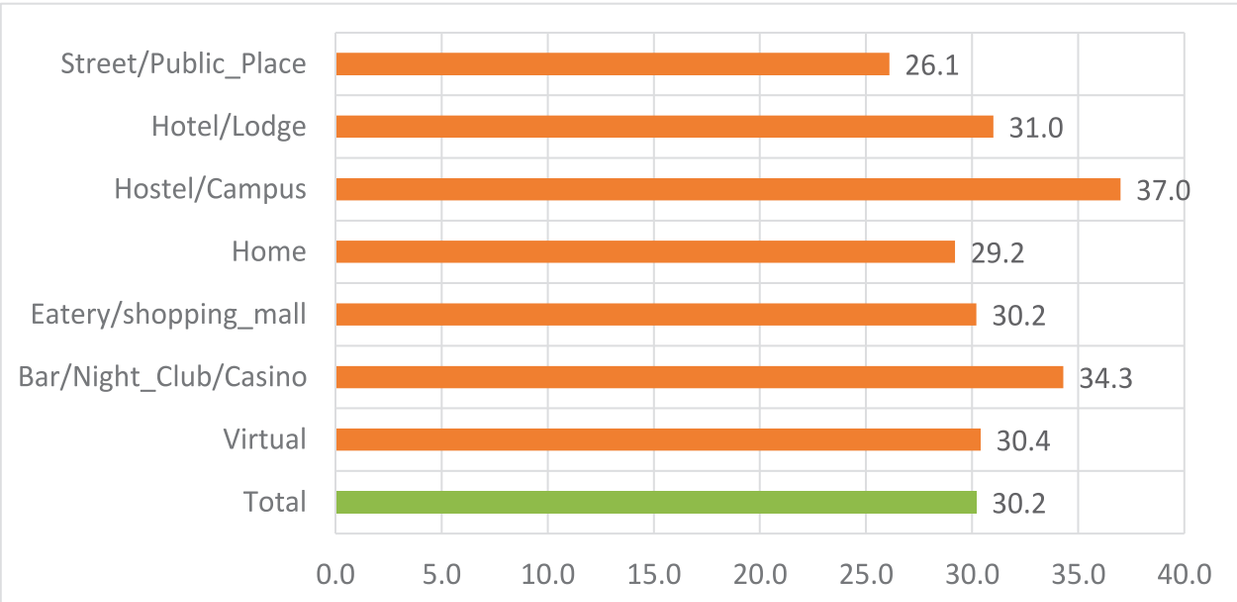


Fig 29c: MSM-Reported STI Occurrence in the last 12 months prior to the survey by Spot Typology

Fig 29c shows that 30% of MSM overall reported STI across all hotspot typology. The lowest proportion of MSM (26%) came from those operating in street/public places while 37% of men who have sex with men in hostels/campuses posted the highest proportion.

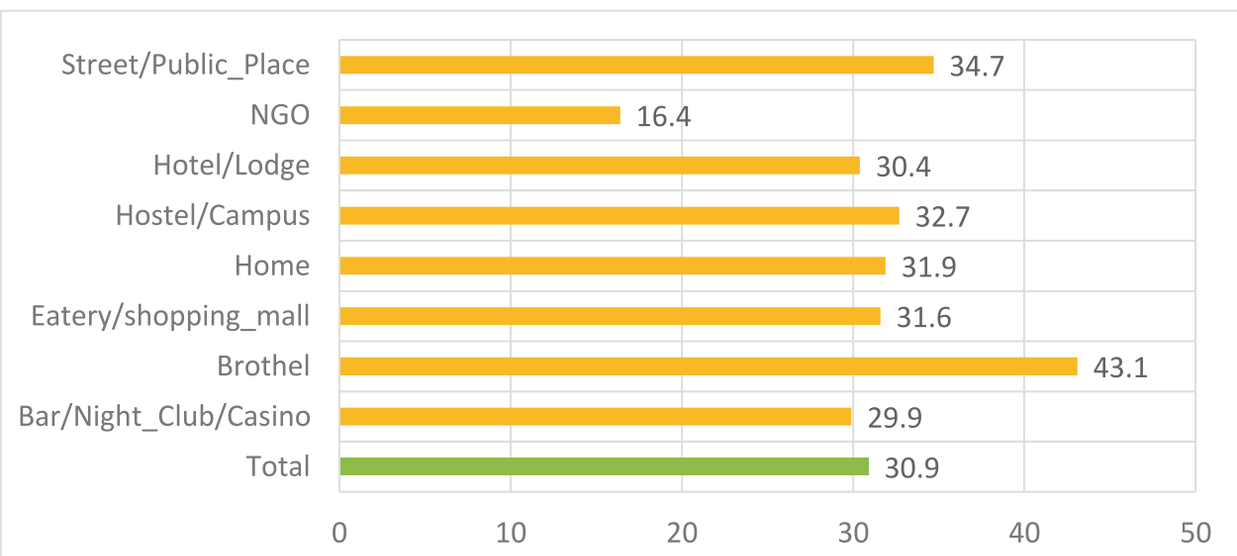


Fig 29d: TG-Reported STI Occurrence in the last 12 months prior to the survey by Spot Typology

Fig 29d shows that 31% of TG overall reported STI across all hotspot typology. The lowest proportion of TG (16%) came from those linked to NGOs and community-based organizations while 43% of Transgenders operating in brothels had the highest proportion.

6.7.3 STIs Symptoms reported in the last 12 months prior to the Survey

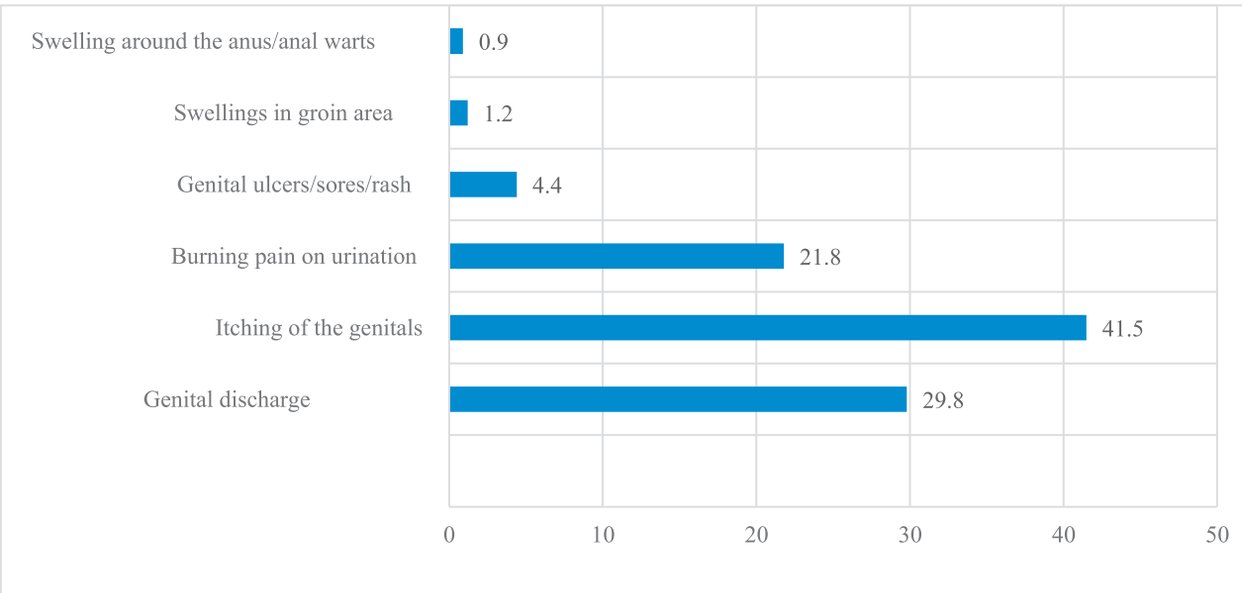


Fig 30a: Percentage FSW Reported STI Symptoms in the last 12 months prior to the Survey

Approximately 42% of FSW reported itching of genitals while approximately 30% and 22% reported respectively genital discharge and burning pain on urination as STI symptoms they experienced in the last 12 months prior to the survey.

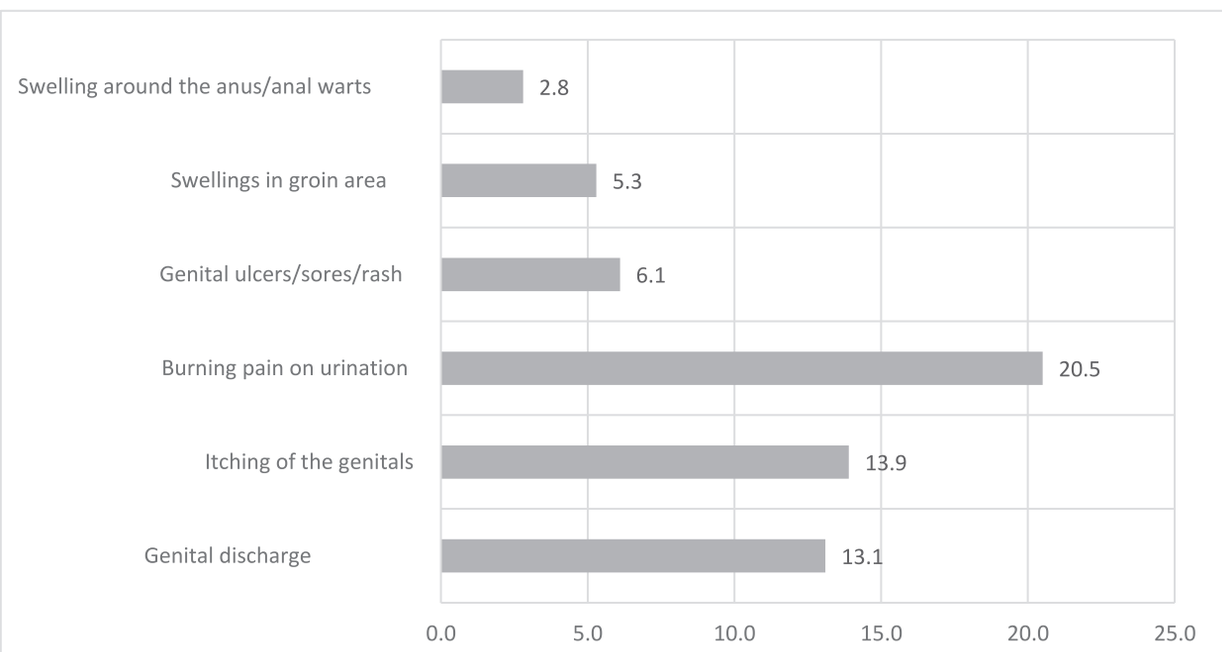


Fig 30b: Percentage PWID Reported STI Symptoms in the last 12 months prior to the Survey

20.5% of PWID reported experiencing burning pain during urinations. Approximately, 14% reported itching of genitals in the last 12 months prior to the survey.

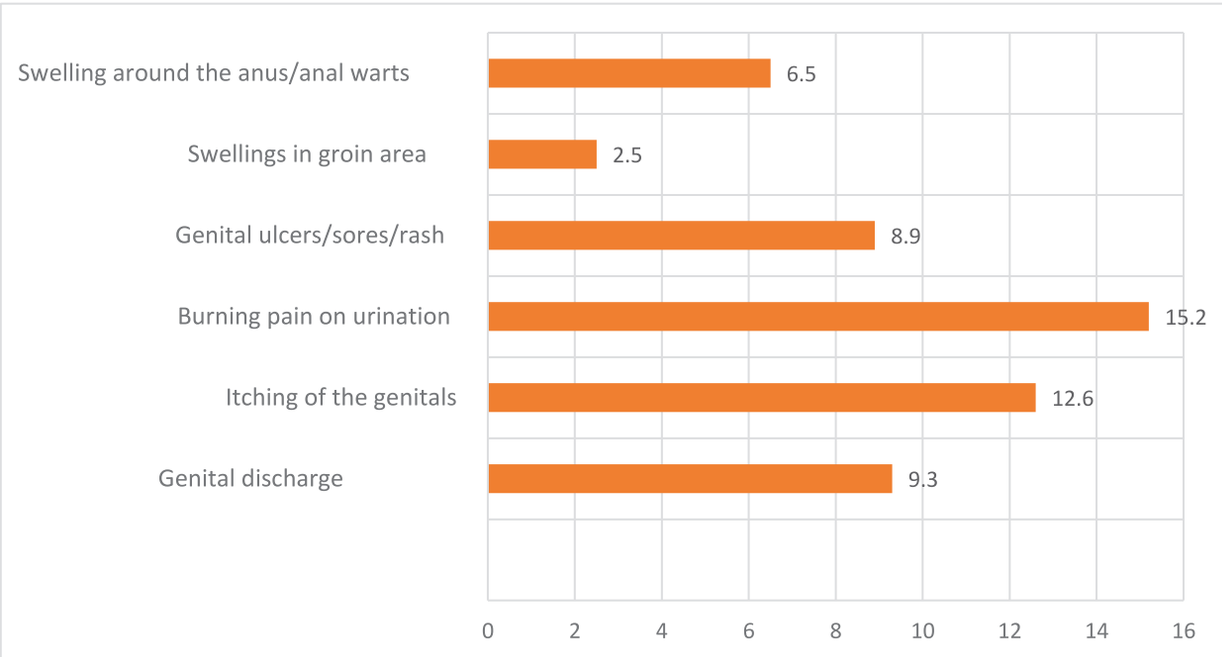


Fig 30c: Percentage MSM Reported STI Symptoms in the last 12 months prior to the Survey

Approximately 15% of MSM reported burning pain during urinations as symptoms of STI experienced. About 7% reported swelling around the anus/anal warts while 13% reported genital itch.

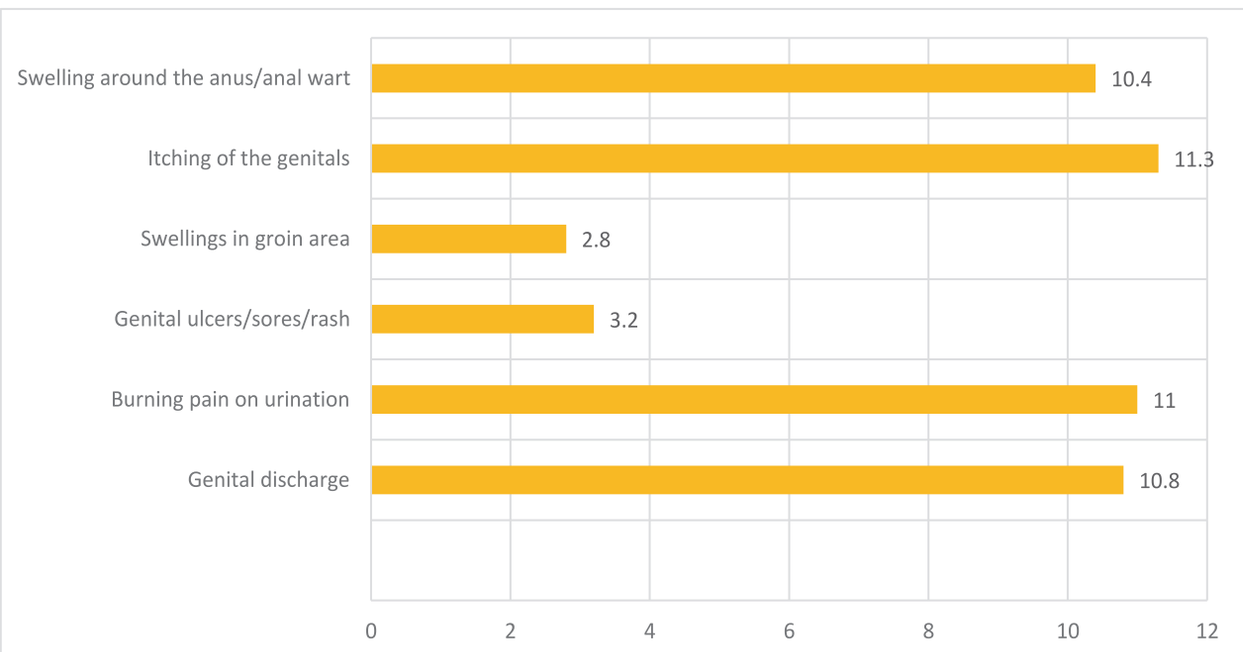


Fig 30d: Percentage TG Reported STI Symptoms in the last 12 months prior to the Survey

11% of TG reported experiencing itching in their genitals. Approximately 10% TG had experienced swelling around the anus or genital warts in the last 12 months prior to the survey.

6.7.4 STI place of Treatment

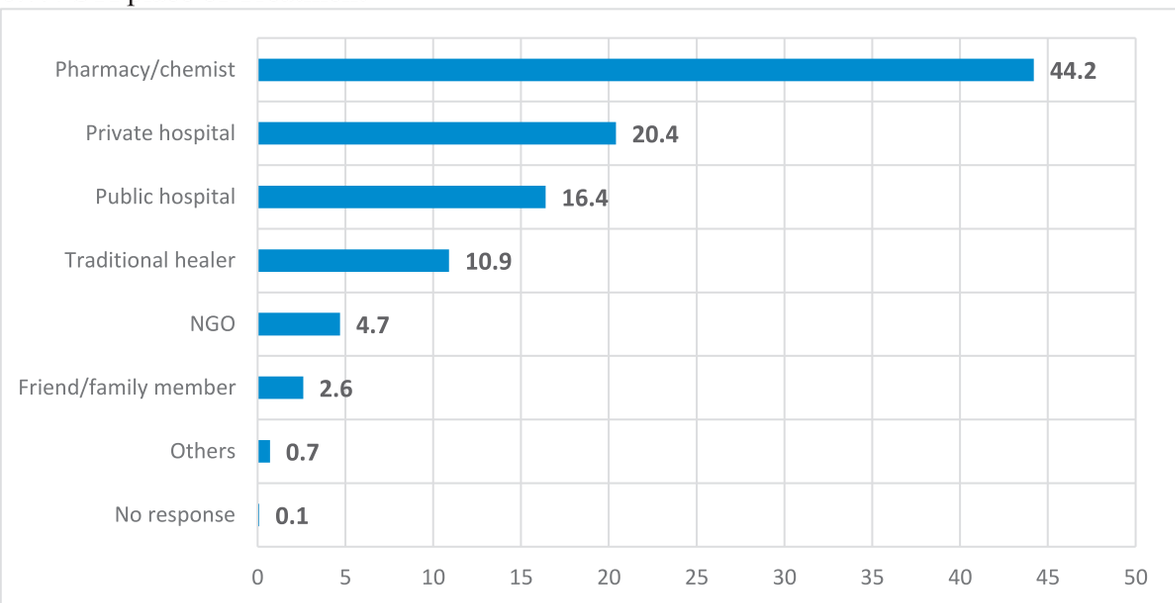


Fig 31a: Percentage distribution of FSW by place of treatment for STI

About 44% of FSW patronize pharmacy/chemist for STI treatment, while 16% seek care from public health facilities. Approximately 11% of FSW patronize traditional healers for STI treatment.

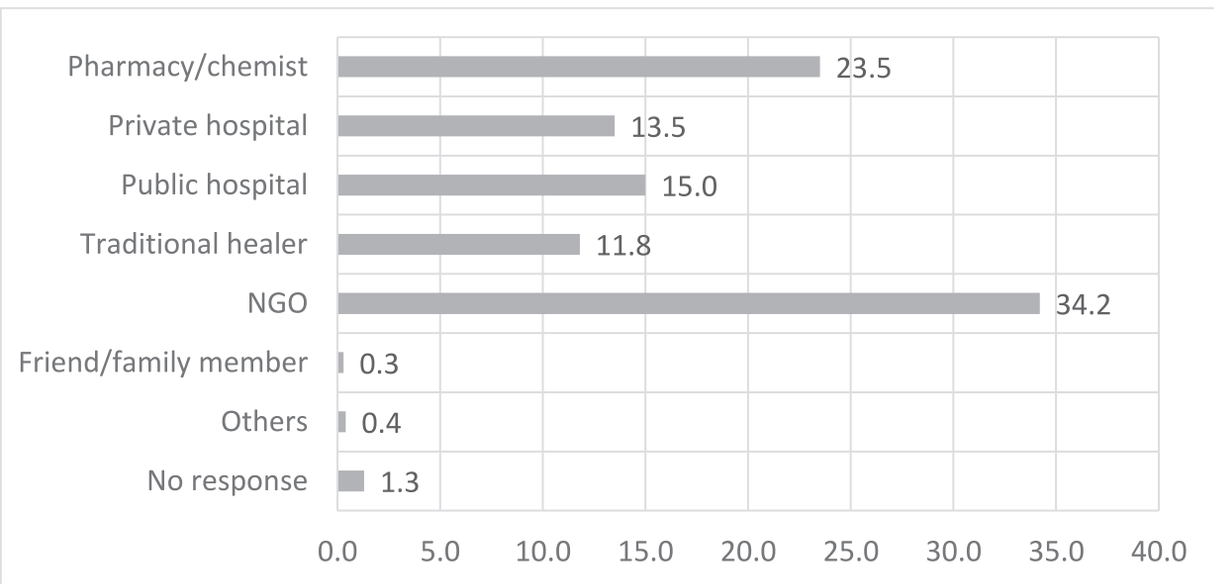


Fig 31b: Percentage Distribution of PWID by Place of Treatment for STI

A greater proportion of PWID (34%) patronize pharmacy/chemist for STI treatment, while 15% seek care from public hospital facilities. Approximately 12% of PWID patronize traditional healers for STI treatment.

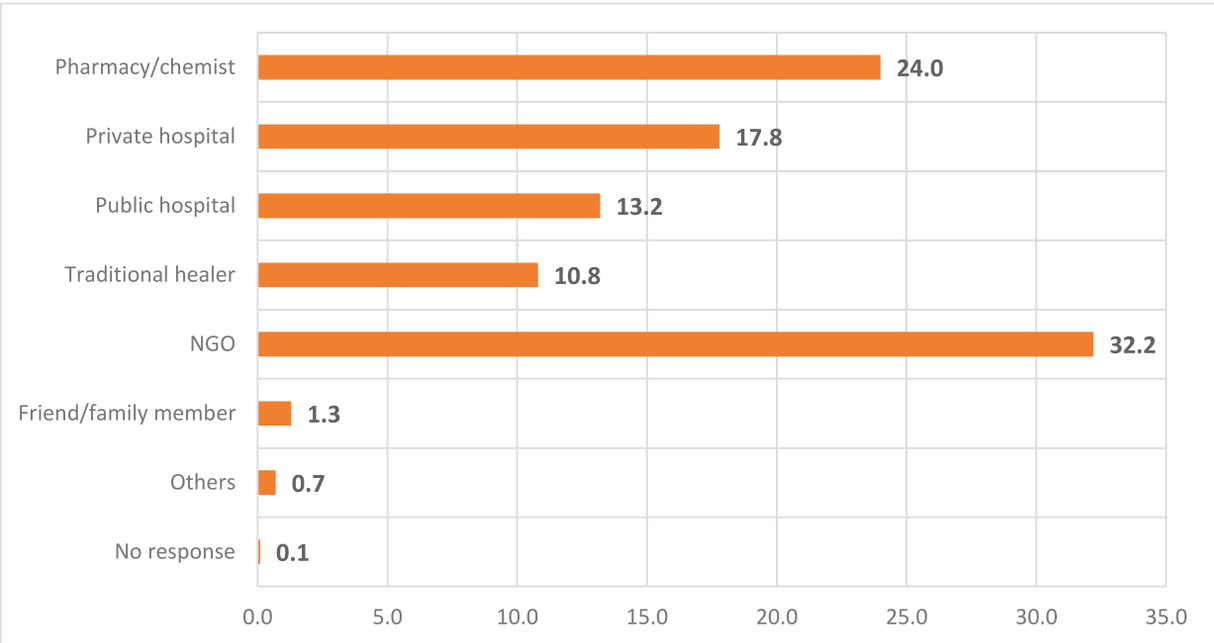


Fig 31c: Percentage Distribution of MSM by Place of Treatment for STI

Greater percentage of MSM (32%) patronize NGO facilities for STIs treatment, while only 13% visit public hospitals for STI care. Approximately 11% of MSM patronize traditional healers for STI treatment.

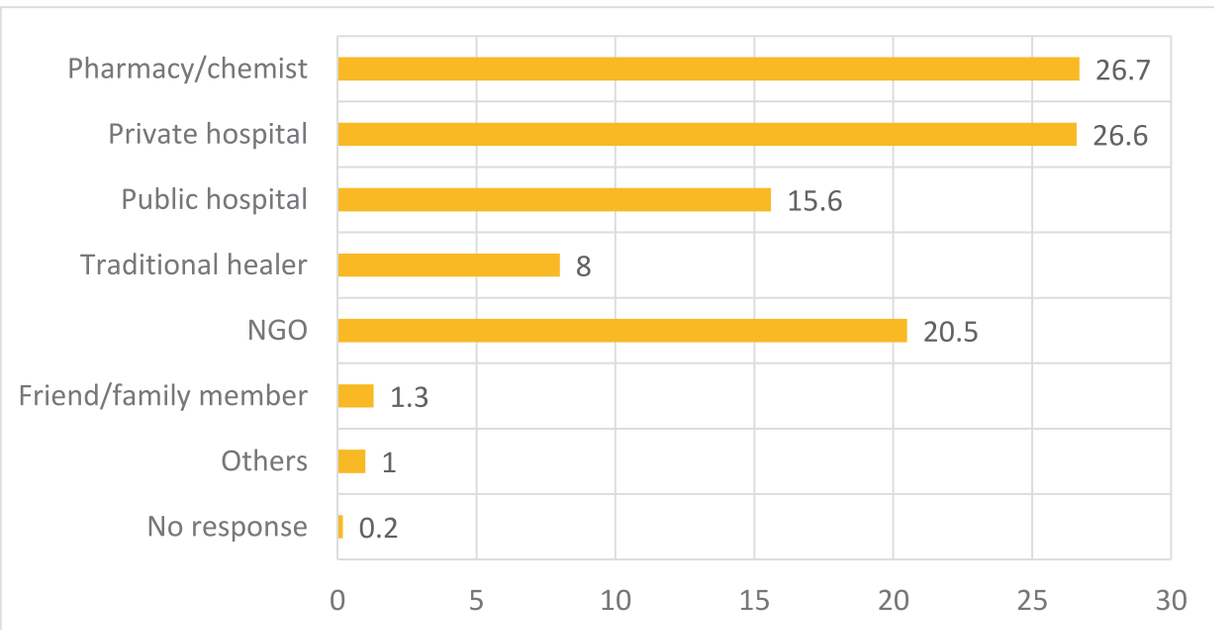


Fig 31d: Percentage Distribution of TG by Place of Treatment for STI

About 27% TG patronize private hospitals and Pharmacy/chemist respectively for STIs treatment, while about 16% visit public hospitals for STI care. Approximately 8% of TG patronize traditional healers for STI treatment

6.8 HIV PREVALENCE

6.8.1 HIV Prevalence by State by Typology

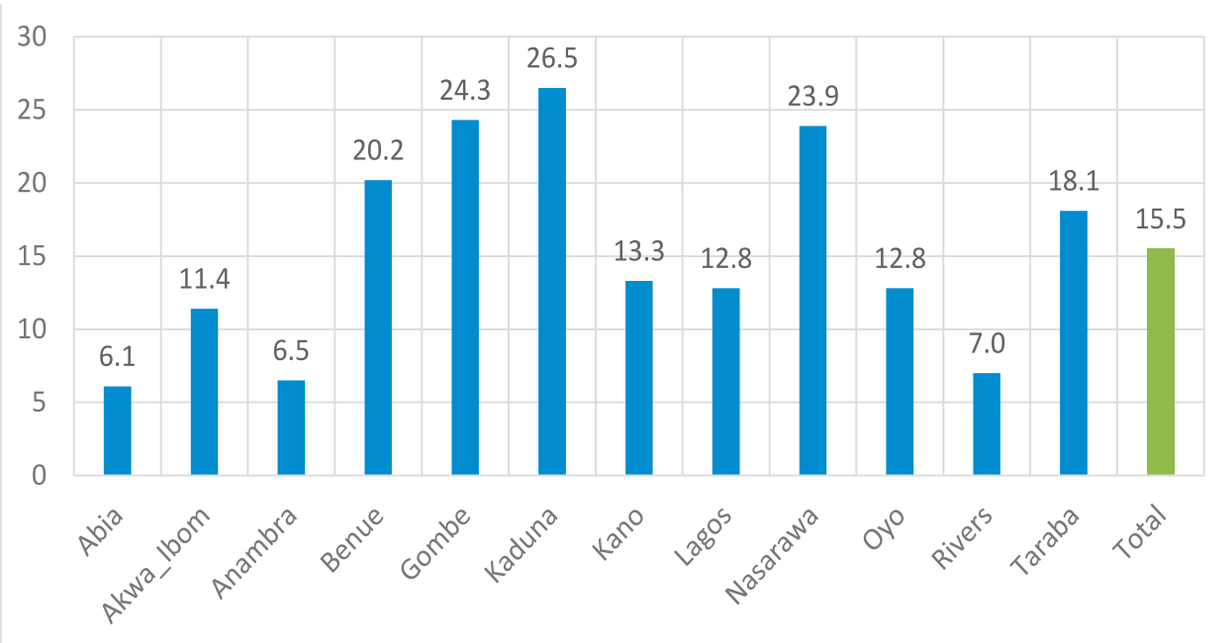


Fig 32a: HIV Prevalence among FSW by State

Across all states, Kaduna has the highest FSW HIV prevalence 26.5% followed by Nasarawa at 23.9% with Abia having the least HIV prevalence at 6.1%. The national FSW HIV prevalence is 15.5%.

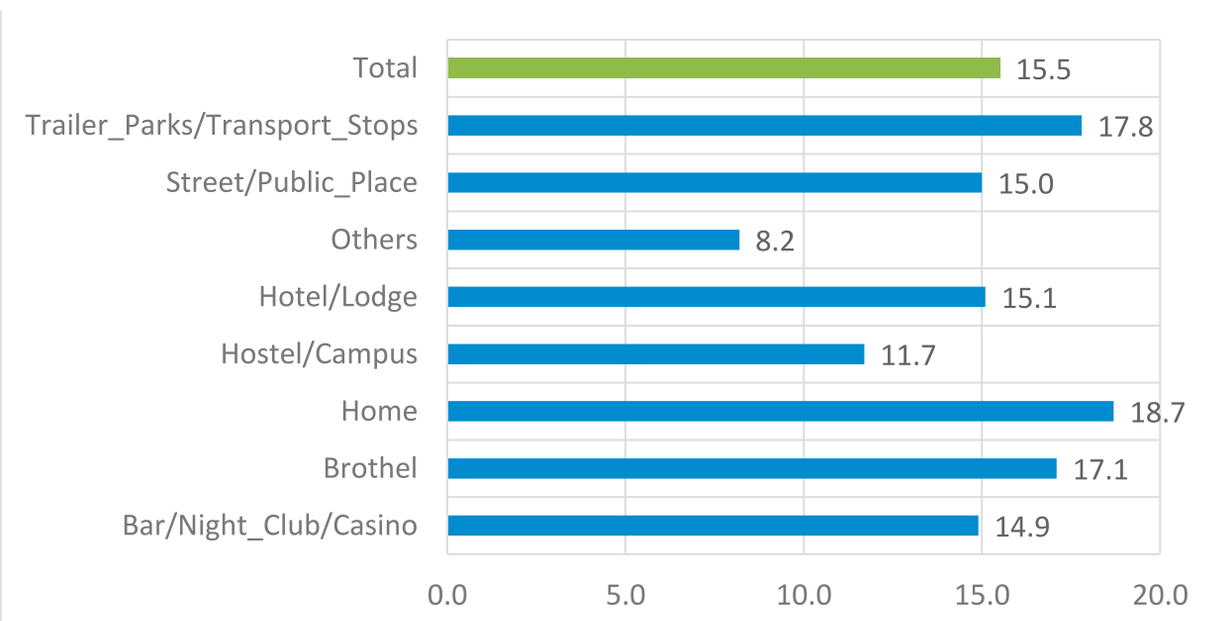


Fig 32b: HIV Prevalence among FSW by Spot Typology

Fig 32b shows the highest HIV prevalence by spot typology among the FSW is home (19%) followed by parks/transport stop and brothels at 18% and 17% respectively.

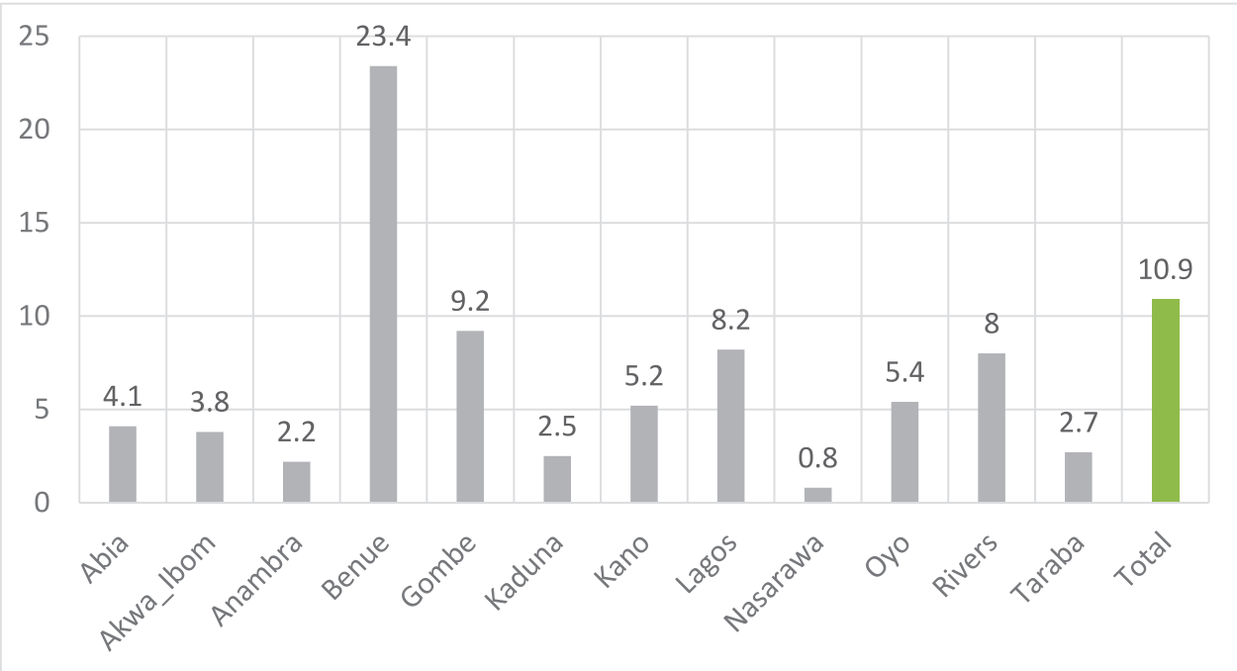


Fig 32c: HIV Prevalence among PWID by State

HIV prevalence is highest amongst PWID in Benue (23.4%) and least in Nasarawa (0.8%). The National HIV prevalence amongst PWID is 10.9%.

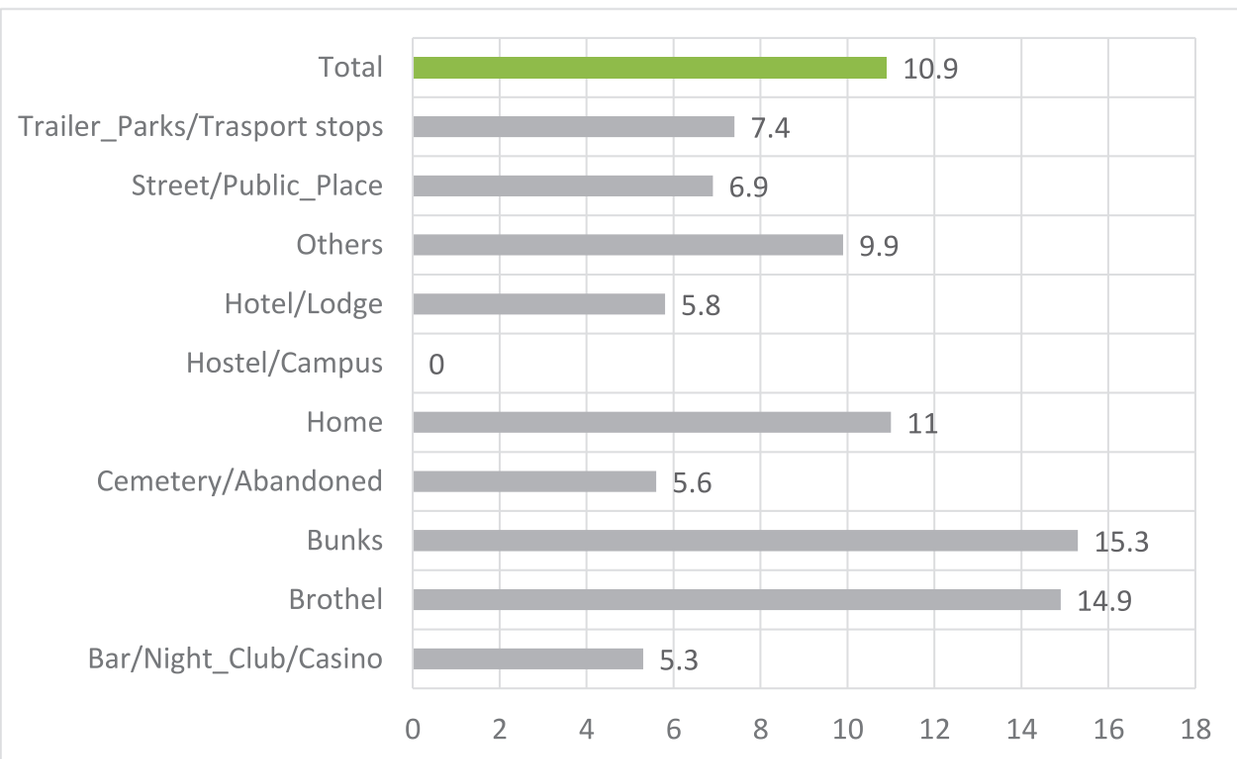


Fig 32d: HIV Prevalence among PWID by Spot Typology

Fig 32d shows the highest HIV prevalence by spot typology within the PWID group is bunks and the brothels (15%), followed by homes at 11%.

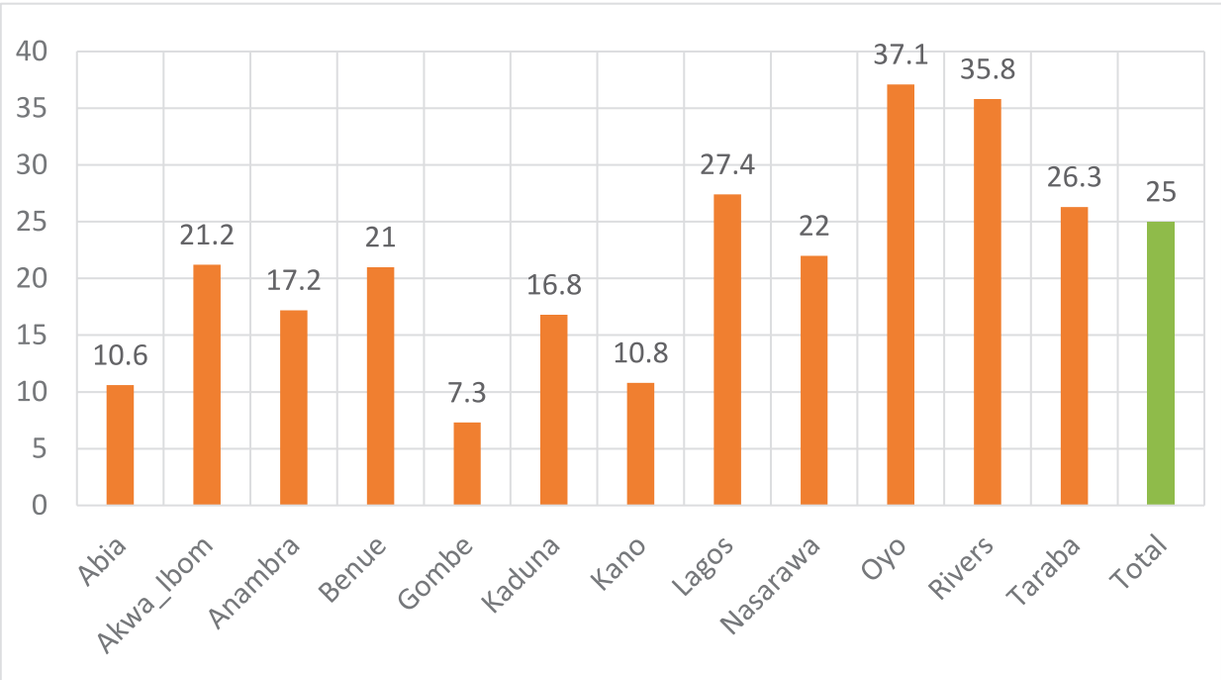


Fig 32e: HIV Prevalence among MSM by State

HIV prevalence among MSM was 25.0% across the states, with the highest prevalence ranging from 37.1% in Oyo and lowest band 7.3% in Gombe state,

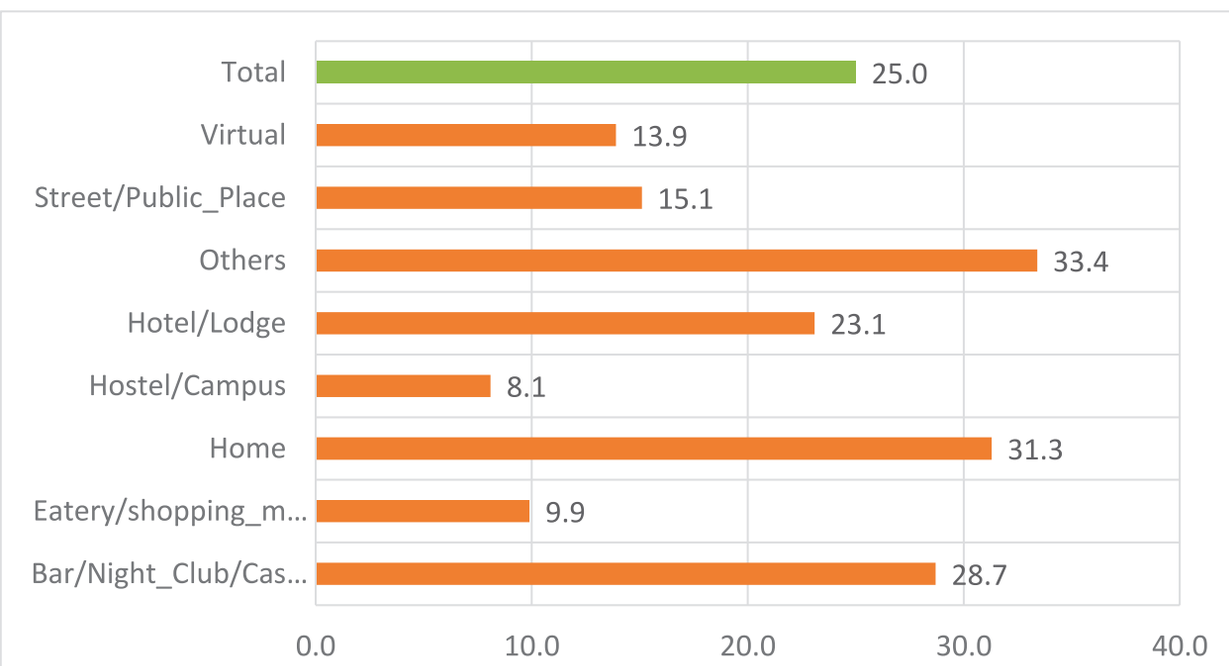


Fig 32f: HIV Prevalence among MSM by Spot Typology

The highest HIV prevalence by spot typology for the MSM group falls under 'others' (33%-Resorts, Spa, Beach, Sport centers, Offices) followed by home and bars/club /casino at 31% and 29% respectively.

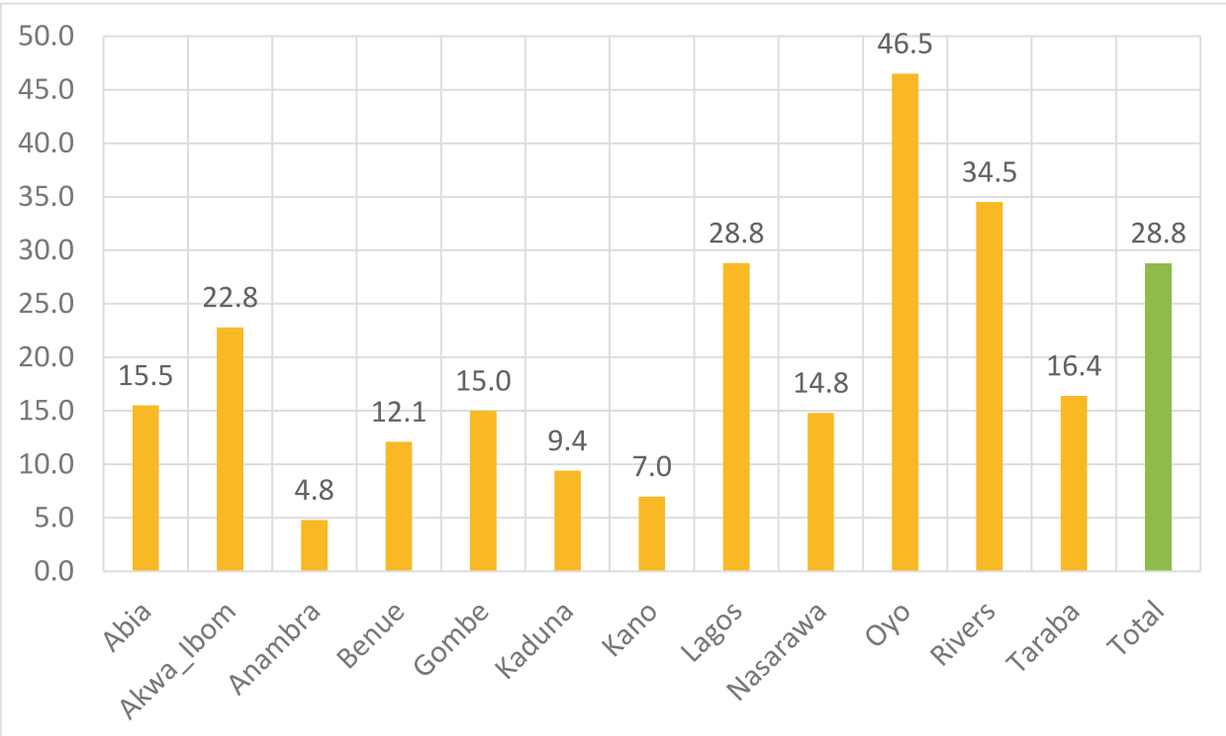


Fig 32g: HIV Prevalence among TG by State

The highest State HIV prevalence was found in Oyo (47%) followed by Rivers and Lagos State at 35% and 29% respectively. The national HIV prevalence amongst TG is estimated at 29%.

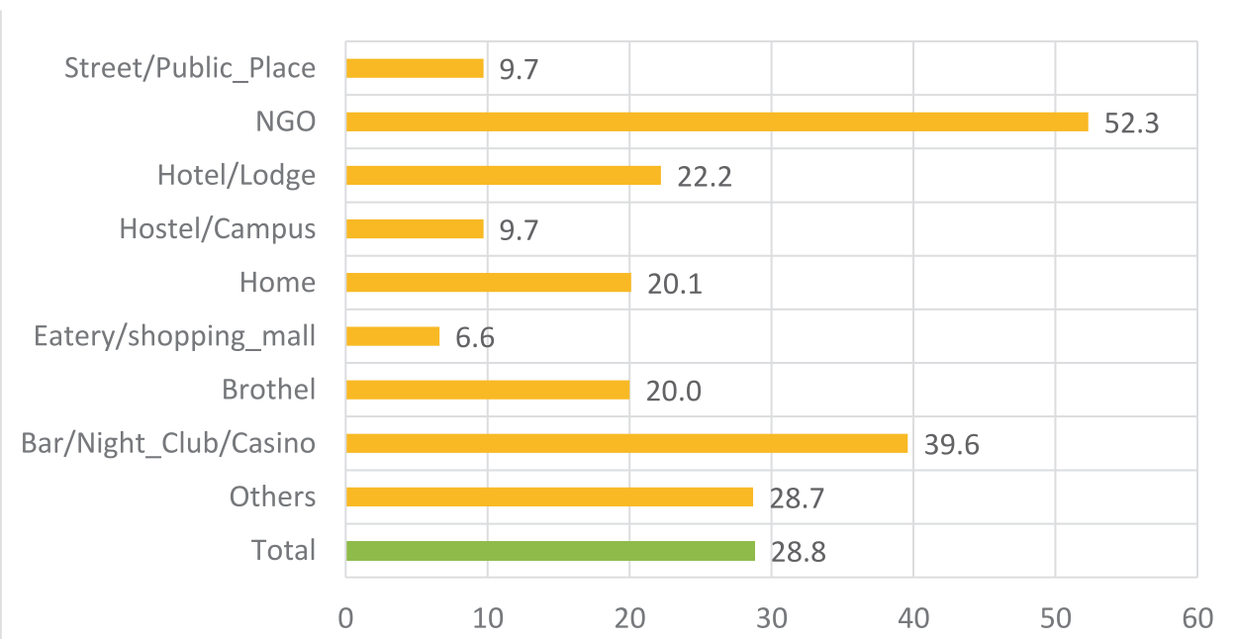


Fig 32h: HIV Prevalence among TG by Spot Typology

Fig 32h shows the highest HIV prevalence among TG by spot typology is the 'NGO' (52% - OSS, CBO, CSO) followed by bars/club/casino and others at 40% and 29% respectively.

6.8.2 HIV Prevalence Trend Analysis

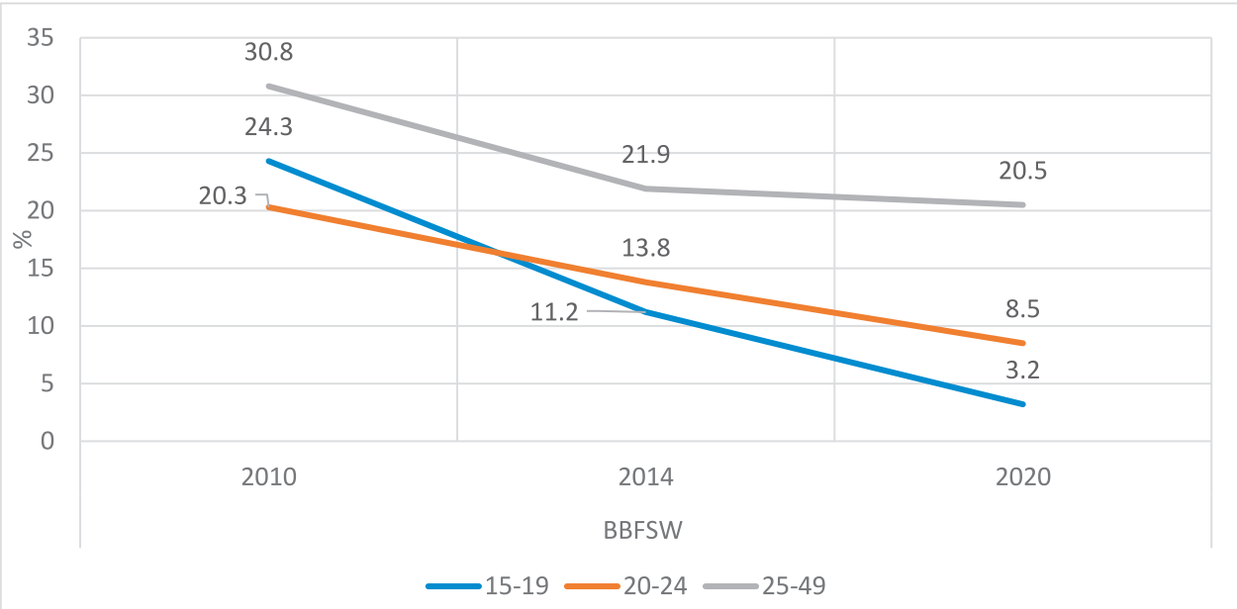


Fig 33a: HIV Prevalence Trends 2010-2020 BBFSW by Age

Across the BBFSW for the 3 age categories studied, there was a general decline in prevalence from 2010 to 2020. 15-19 years BBFSW had prevalence decline from 24.3% (2010) to 3.2% (2020). Among 20-24 years BBFSW, prevalence consistently declined from 20.3% (2010) to 8.5% (2020). BBFSW 25-49 years old also had a significant decline in HIV prevalence from 30.8% (2010) to 20.5% (2020).

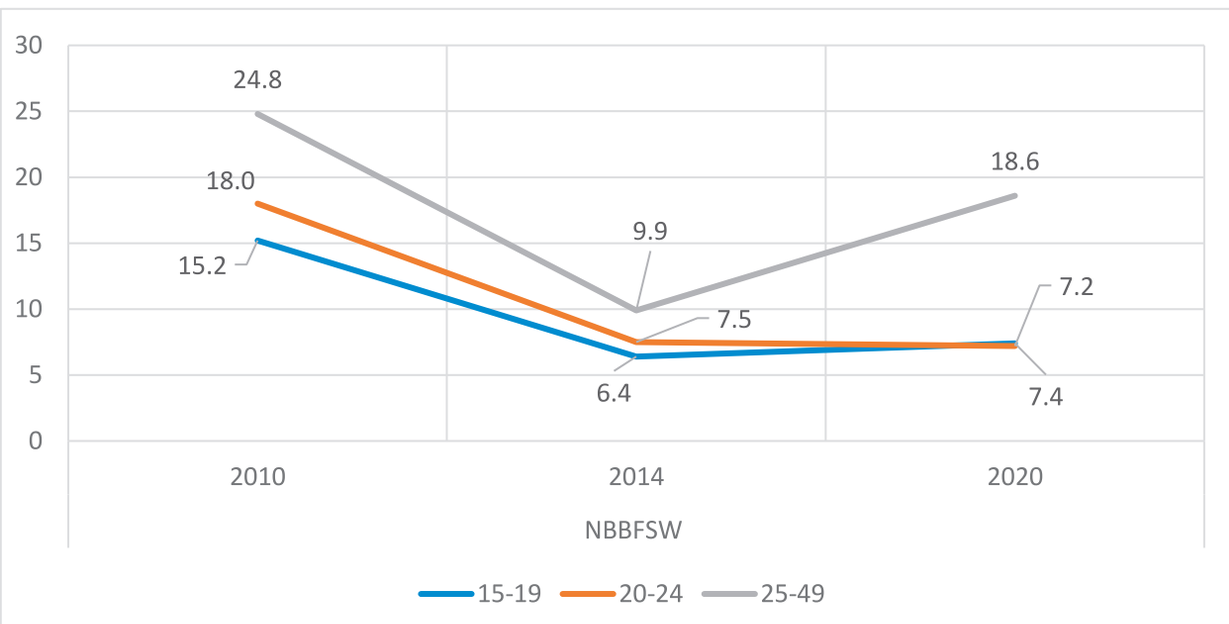


Fig 33b: HIV Prevalence Trends 2010-2020 NBBFSW by Age

Among NBBFSW there has also been a steady decline in prevalence from 2010 to 2020 except for the age group 25-29 years that increased to a high of 18.6% in 2020 from a dip of 9.9% in 2014.

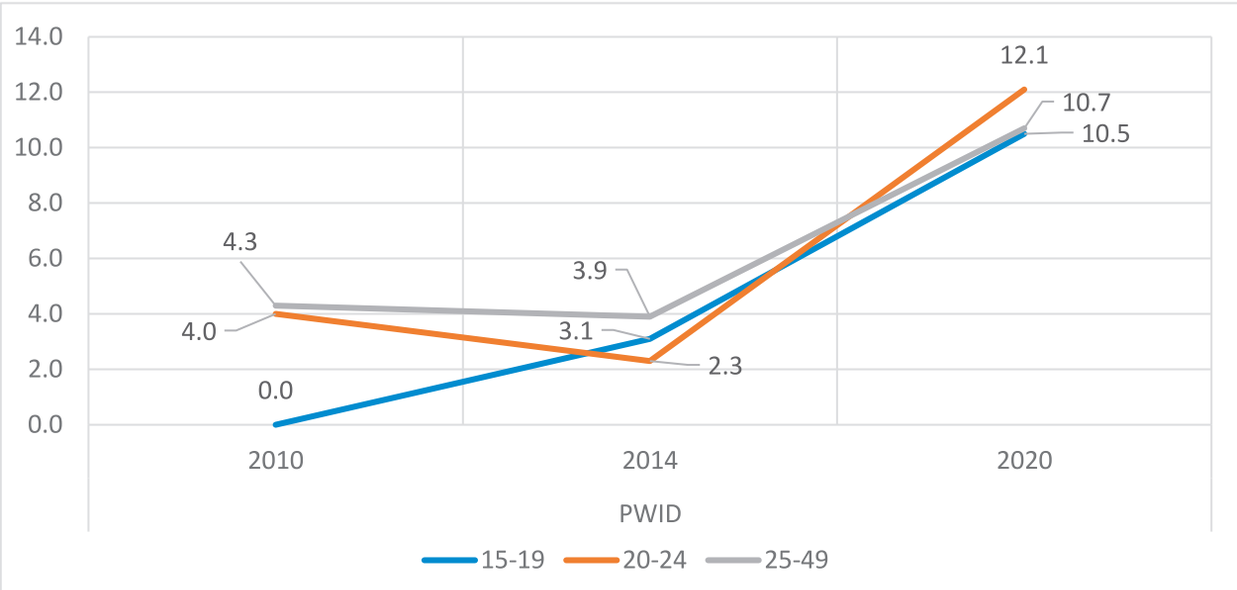


Fig 33c: HIV Prevalence Trends 2010-2020 PWID by Age

Within the PWID typology, across the 3 age groups considered, there was a rise in prevalence over the years with initial dips in 2014. Among 15-19 years, prevalence steadily increased from 0.0% in 2010 to 10.5% in 2020. Among PWID aged 25-29, there was an increase in prevalence from 4.3% - 10.7% after an initial dip to 3.9% in 2014. In 2014, prevalence of 2.3% among PWID 20-24 years was low coming down from 4.0% in 2010 and then rising steeply to 12.1% in 2020.

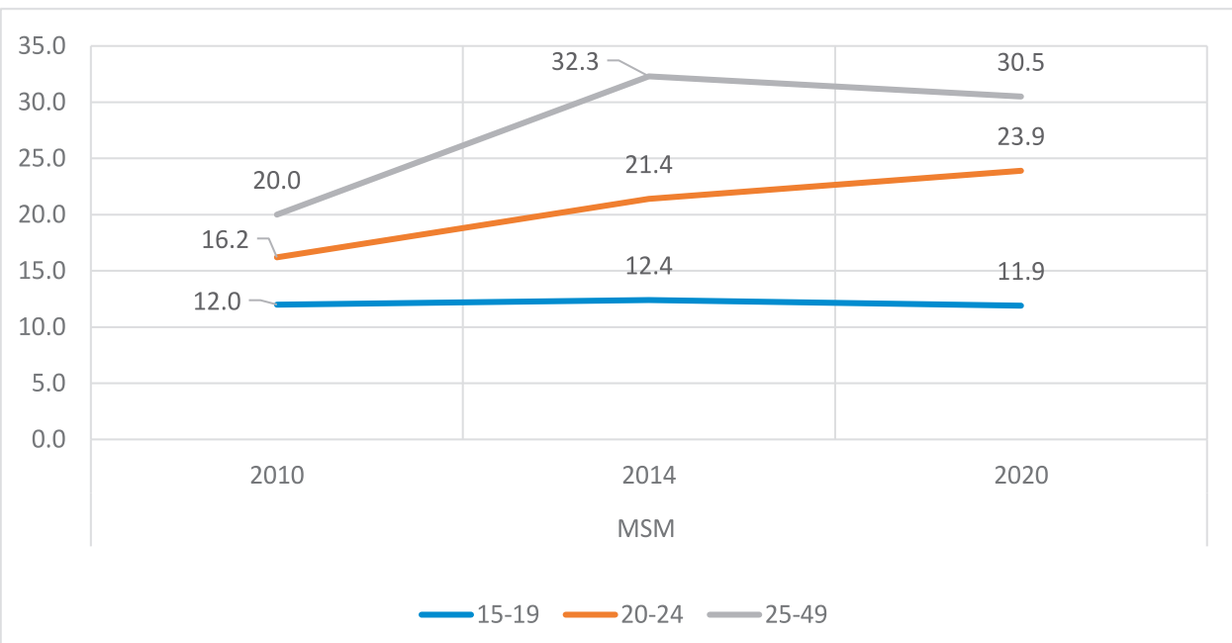


Fig 33d: HIV Prevalence Trends 2010-2020 MSM by Age

Generally, within the MSM KP typology, across the 3 age groups considered, there was steady rise in prevalence from 2010 to 2014. From 2014 to 2020, amongst MSM aged 15-19 and 25-29 years, there is a slight dip in prevalence from 12.4% and 32.3% to 11.9% and 30.5% respectively.

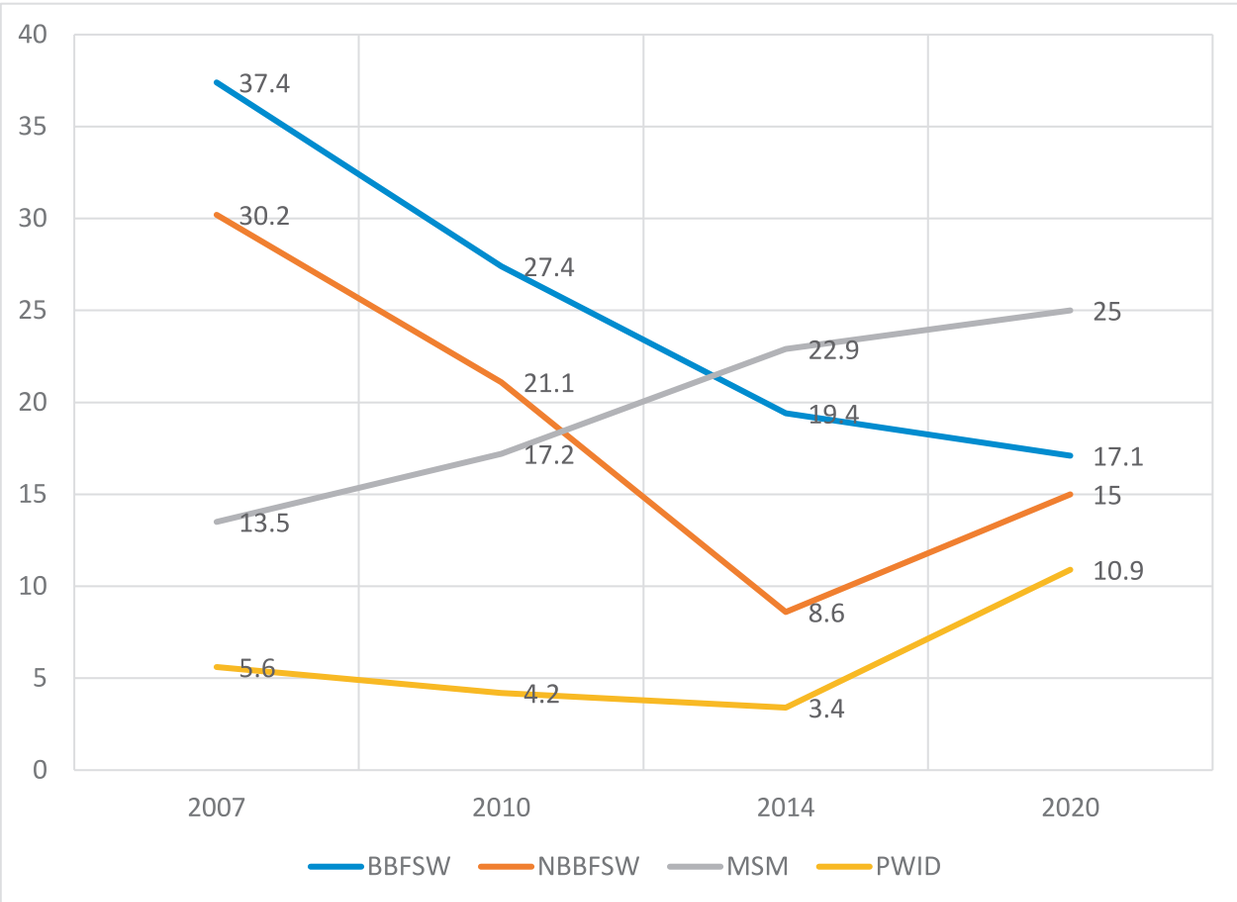


Fig 33e: HIV Prevalence Trend 2007-2020

A comparative analysis of the trend in HIV prevalence between 2007 and 2020 shows that HIV prevalence has declined amongst BBFSW. Within the Non-brothel based FSW, there was a decline from 2007 to 2014, with a sharp increase from the 8.6% in 2014 to the 15% observed in 2020. PWID group had a marginal decline from 2007 till 2014 and then a significant increase (3.4% to 11%) from 2014 to 2020. Prevalence among the MSM group continuously increased (13.5% to 25%) from 2007 to 2020.

6.9 SERVICE ACCESS / UTILIZATION

6.9.1 Knowledge of Health Facility or Place to Receive HTS or Medication for AIDS by State.

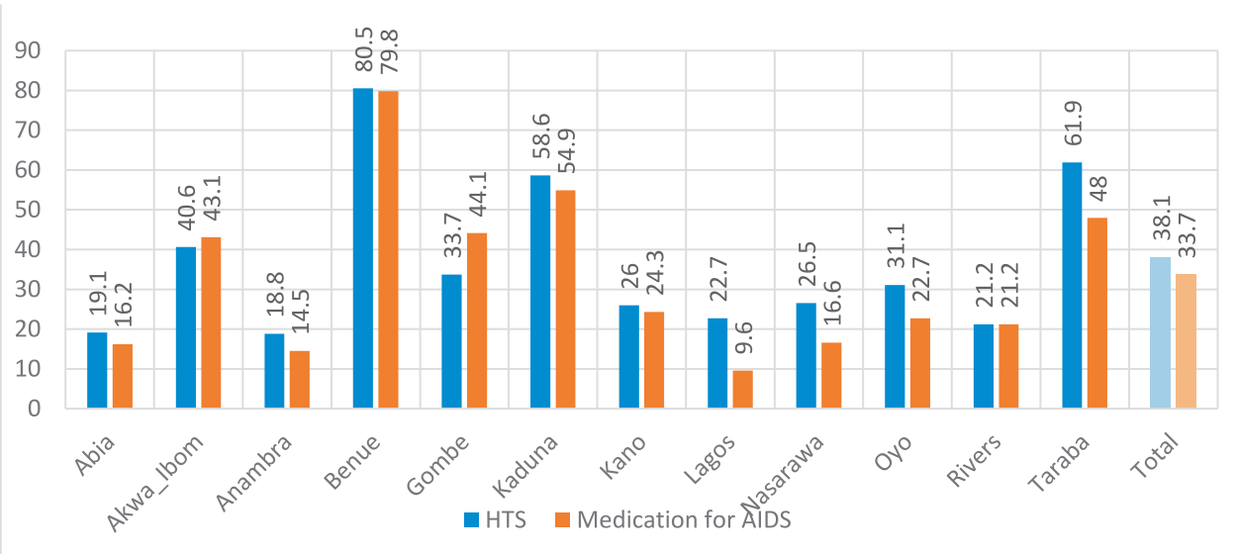


Fig 34a: Percentage Distribution of FSW who Know Health Facility or Place to Receive HTS or Medication for AIDS by State.

Across all the studied states, FSW in Benue 80% and above knew a health facility or place to receive HTS as well as where to get medications for AIDS. Knowledge about HTS service location was lowest amongst FSW in Anambra while Knowledge of facility where medication for AIDS can be accessed was lowest amongst FSW in Lagos states.

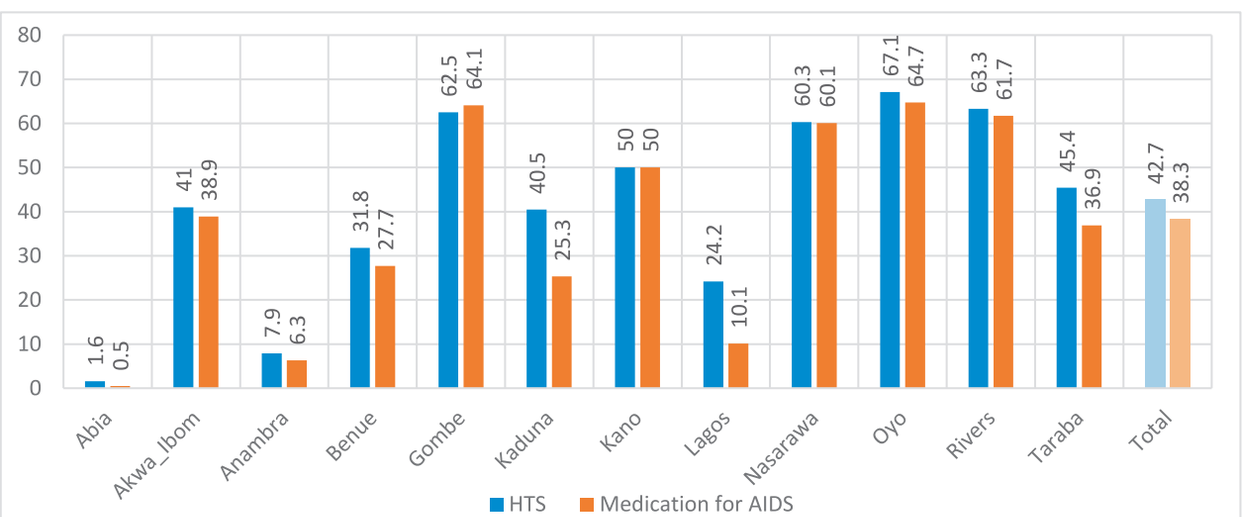


Fig 34b: Percentage Distribution of PWID who Know Health Facility or Place to Receive HTS or Medication for AIDS by State.

Across all the studied states, Oyo state shows the highest number of PWID who know of an HTS facility (67%) as well as where to get medications for AIDS. Knowledge about HTS service location and knowledge of facility where medication for AIDS can be accessed was lowest amongst PWID in Abia state.

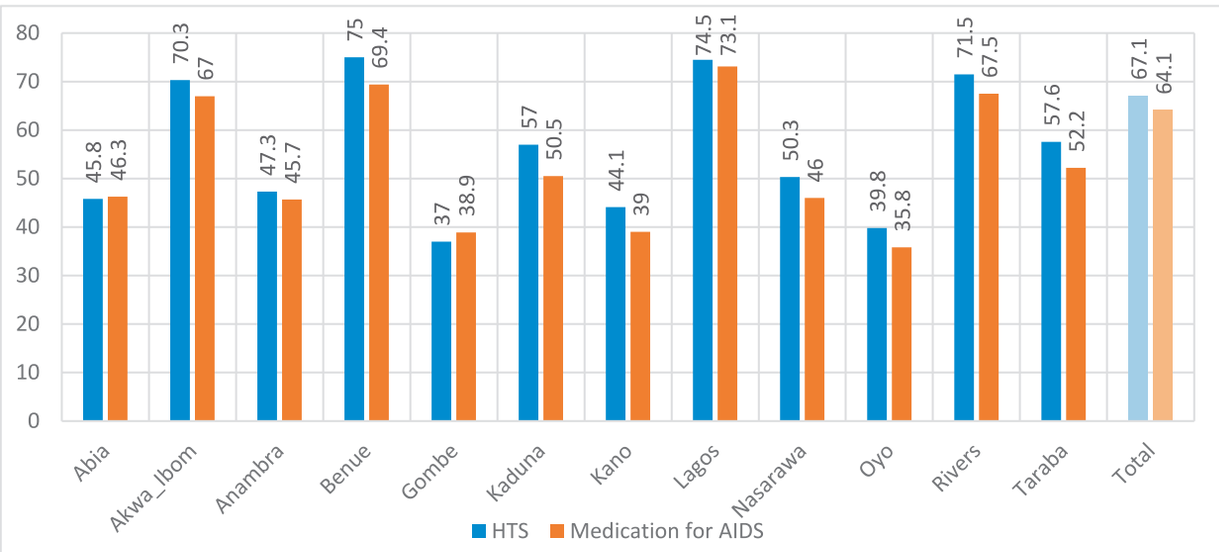


Fig 34c: Percentage Distribution of MSM who Know Health Facility or Place to Receive HTS or Medication for AIDS by State.

MSM across the states studied had a proportion of those who know a health facility or place to receive HTS as well as know where to get medications for AIDS. MSM in Benue, Lagos, Akwa Ibom and Rivers had the highest percentage who know of an HTS facility (over 70%) as well as where to get medications for AIDS (67% and above). Less than 40% of MSM in Gombe and Oyo states know a health facility or place to receive HTS and know where to get medications for AIDS.

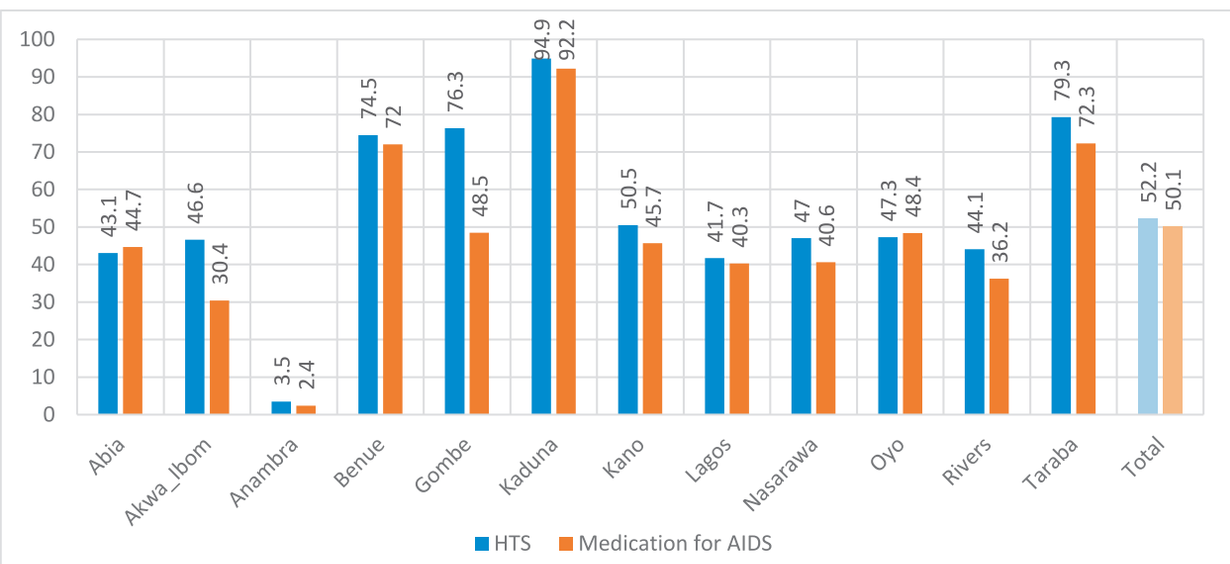


Fig 34d: Percentage Distribution of TG who Know Health Facility or Place to Receive HTS or Medication for AIDS by State.

Kaduna state shows the highest number of TG who know of an HTS facility (95%) and also 92% TG in Kaduna know a place to receive medication for AIDs, while Anambra has the lowest for percentage 3.5% and 2.4% of TG who know a HTS facility or where to get treatment for AIDS respectively.

6.9.2 Exposure to Interventions - Service Access in last 12 months

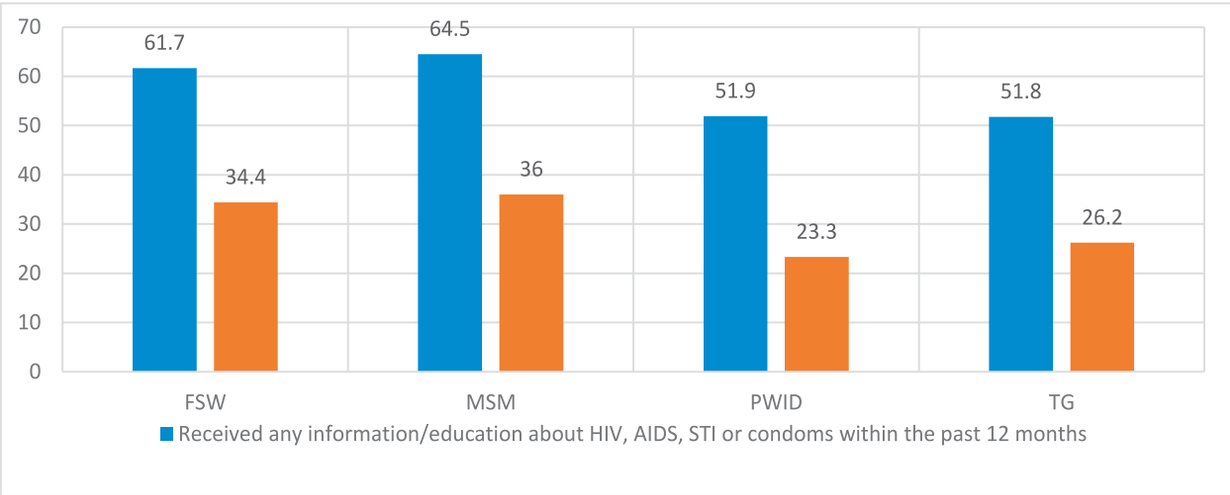


Fig 35: Percentage Distribution of Exposure to Intervention in the past 12 months by KP Typology

Fig 35 show that approximately 62%, 65%,52% and 52% of FSW, MSM, PWID and TG have received information/education on HIV/AIDs, STI or condom in the past 12 months.

Across all the KP typologies, contact by a peer educator or outreach worker to provide HIV/AIDS related services in the last 12 months remains low.

6.9.3 HIV Testing by States

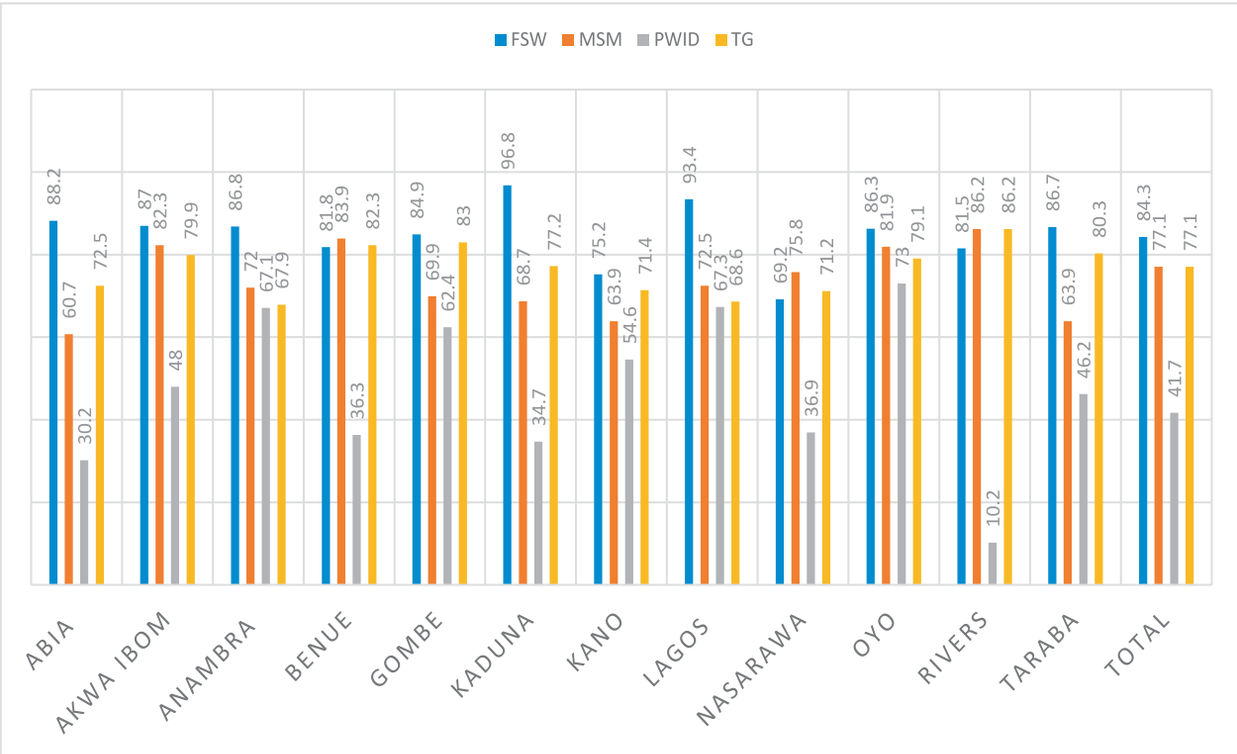


Fig 36: Percentage of KPs tested for HIV in the 12 months prior to the Survey by Typology and by State

Fig 36 above shows HIV testing rates among FSW is twice that of PWID. MSM and TG have similar rate of HIV testing which is slightly less than FSW. Although heterogeneities were seen in HIV testing rates across states, similar trend was noticed overall. The highest testing rate for the FSW typology was seen in Kaduna (97%) while Nasarawa had the lowest at 69%. PWID in all the states had the lowest testing rates compared to the other KP groups. Rivers state with only 10% PWID testing for HIV represents the lowest testing rate across all KP typologies and across all the states studied.

6.9.4 Referral to One Stop Shop (OSS) - Service access in last 12 months

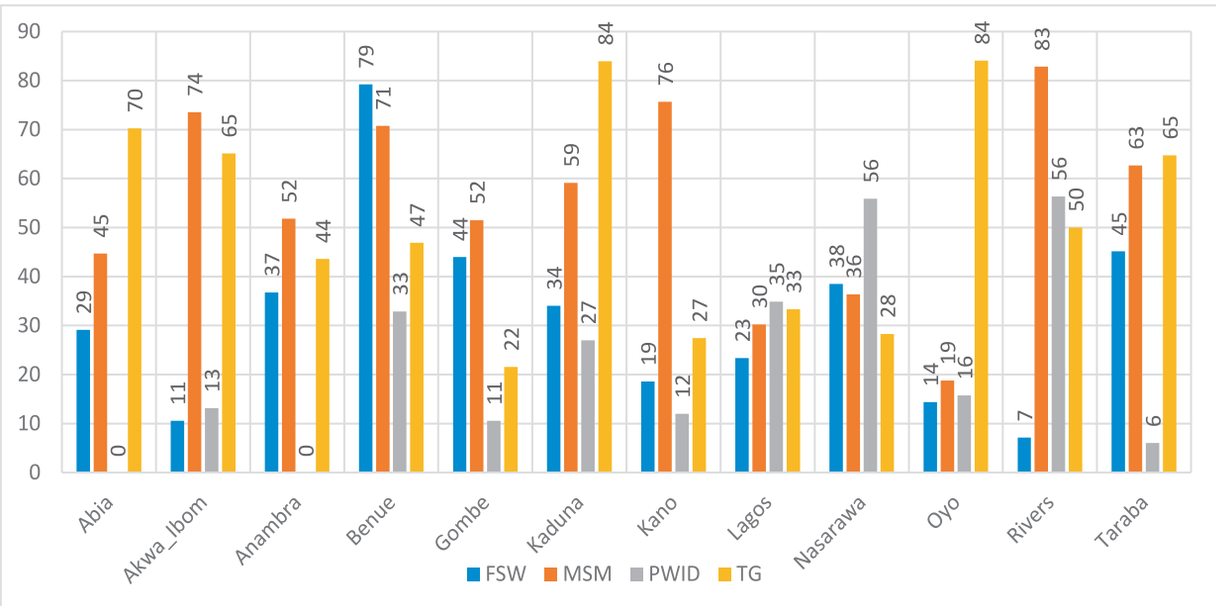


Fig 37: Percentage who Received Referral from Outreach Worker to One Stop Shop (OSS)

Fig 37 show that FSW referrals to OSS services in last 12 months was highest in Benue state (over 70%); for MSM, Rivers (83%), Kano (76%), Akwa Ibom (74%) and Benue (71%) had highest referrals to OSS. Across all the KP typologies and states, there was variation in the referral services to OSS services with TG and MSM having the highest referrals comparatively.

6.9.5 Received condom by KP typology

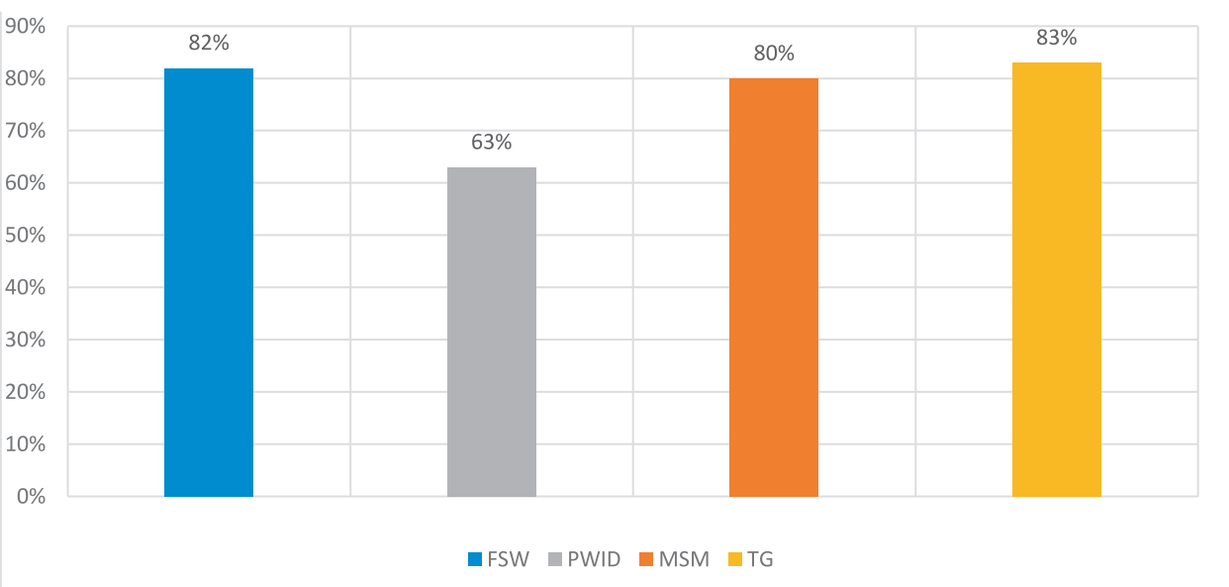


Fig 38: Percentage of KP Received Condom by Typology

Summarily, 82%,63%,80% and 83% of FSW, PWID, MSM and TG reported to have received free condoms in the past 12 months prior to the survey.

6.9.6 Pre-Exposure Prophylaxis (PrEP)

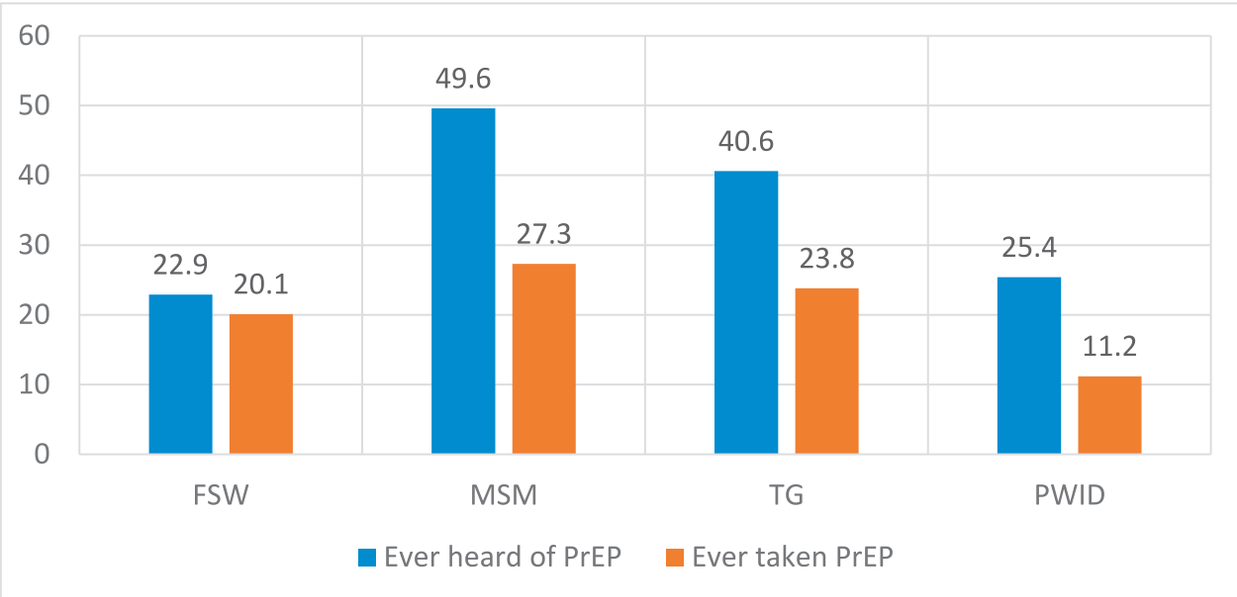


Fig 39: Percentage of KPs Ever Heard and Ever Taken PrEP by KP type

Across all KP groups studied in the 2020 IBBSS, 23%, 50%, 41% and 25% of FSW, MSM, TG and PWID have ever heard of PrEP while 20%, 27%, 24% and 11% respectively have ever taken PrEP

6.9.7 Post Exposure Prophylaxis (PEP)

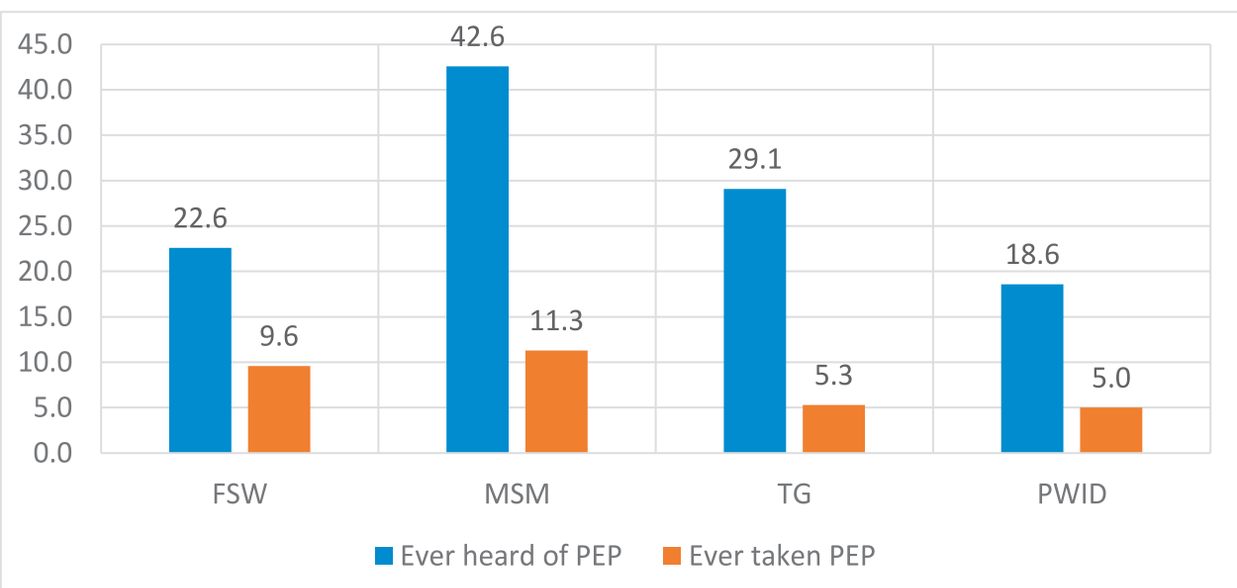


Fig 40: Percentage of KP Ever Heard and Ever Taken PEP by KP type

Across all states, 23%, 43%, 29% and 18% of FSW, MSM, TG and PWID have ever heard of PEP while 10%, 11%, 5% and 5% respectively have ever taken PEP.

PrEP and PEP awareness and intake remains very low across all typologies studied. FSW and PWID were the least aware and had the least intake compared to MSM and TG.

6.9.8 Currently on Anti-Retroviral Therapy by KP Typology

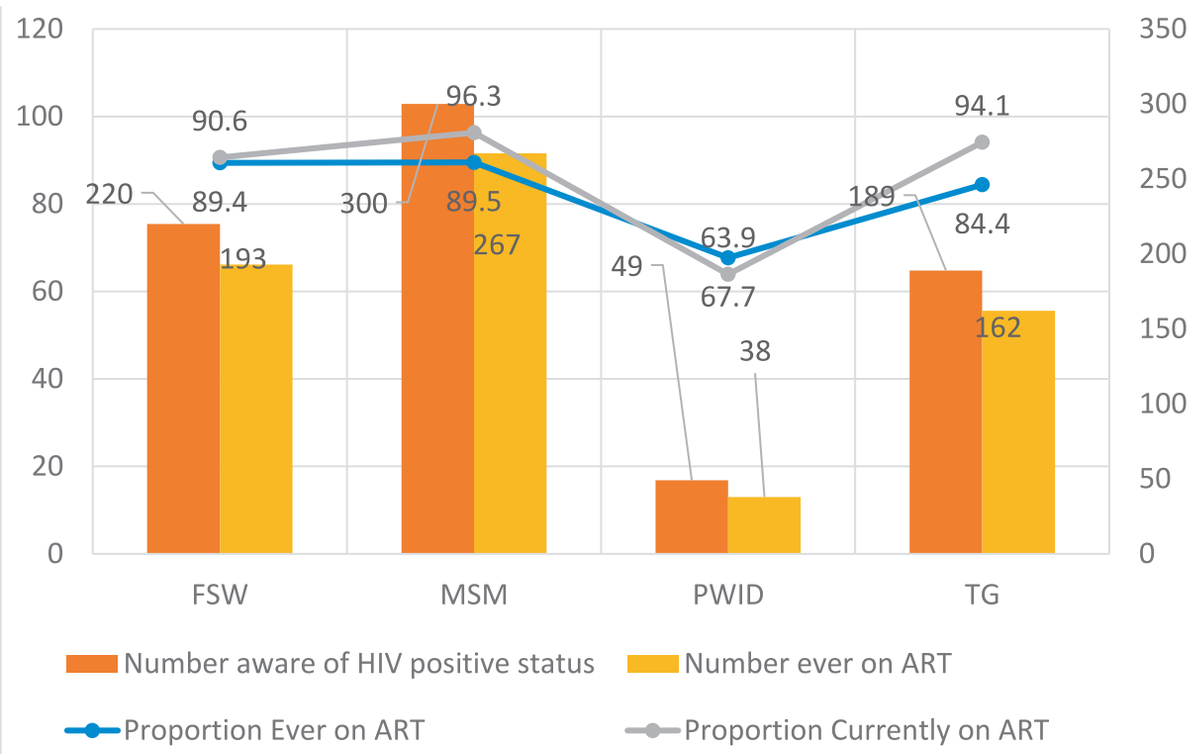


Fig 41: Percentage of HIV positives KPs ever initiated ART and currently on ART by KP Typology.

Across all KP typologies, 220 FSW; 300 MSM; 49 PWID and 189 TG were aware of their HIV positive status prior to the study and among these 91%, 96%, 64% and 94% respectively are currently on ART.

6.10 VIOLENCE

6.10.1 Forced Sex without Condom use

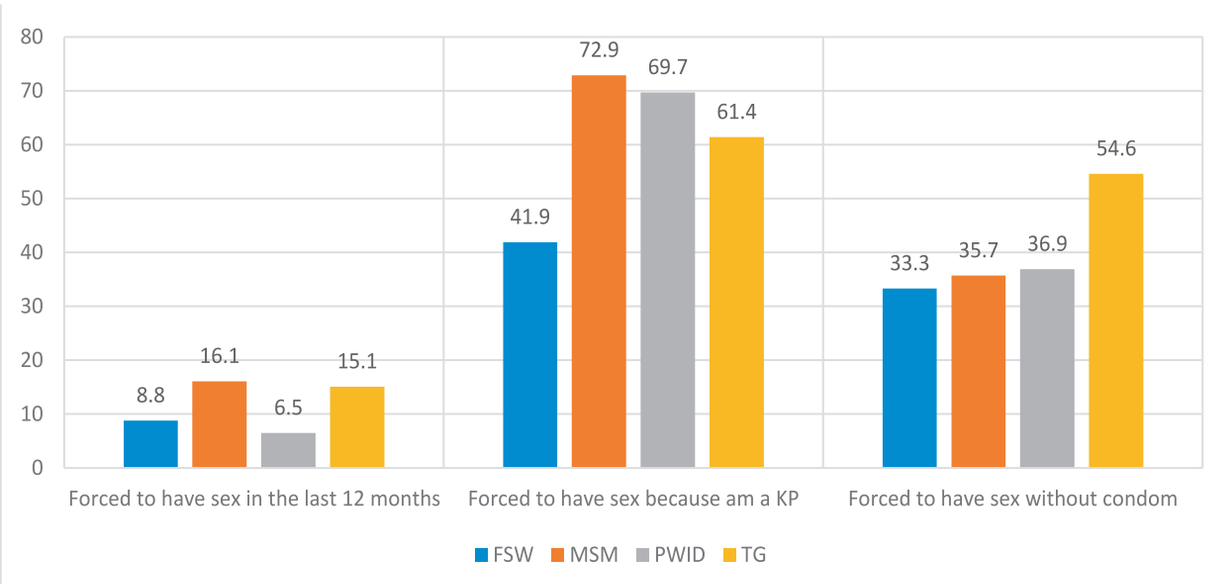


Fig 42: Forced to have Sex by KP Typology

Approximately 9% of FSW were forced to have sex in the last 12 months and 33% of them were forced to have sex without condom. 7% of PWID were forced to have sex in the last 12 months and 37% of them were forced to have sex without condom. 16% of MSM were forced to have sex in the last 12 months and 36% of them were forced to have sex without condom. 15% of Trans-persons were forced to have sex in the last 12 months and 55% of them forced to have sex without condom.

Violence on KP remain high with forced unprotected sex (without condom) highest against TG at approximately 55%, 36% for MSM, 37% and 33% respectively for PWID and FSW.

6.10.2 Harassment

6.10.2.1 Harassment by Typology

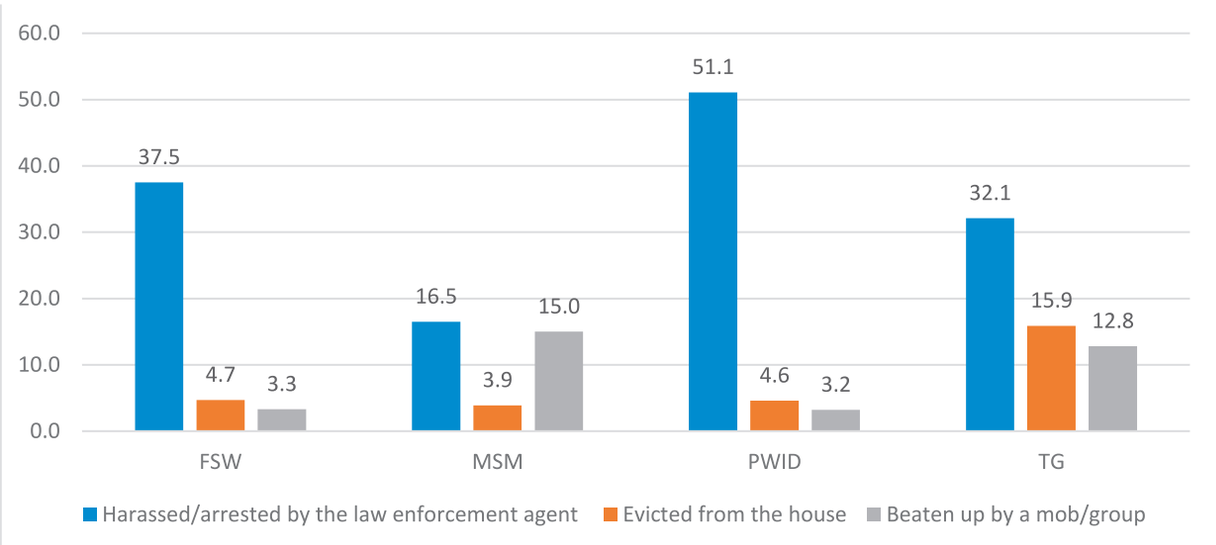


Fig 43: Harassment by KP typology

51% PWID reported to have ever been arrested or threatened to be arrested by a law enforcement agent in the last 6 months prior to the survey. For the FSW, MSM and TG; 38%, 17% and 32% they reported harassment/arrest respectively.

6.10.2.2 Harassment by KP Typology by State

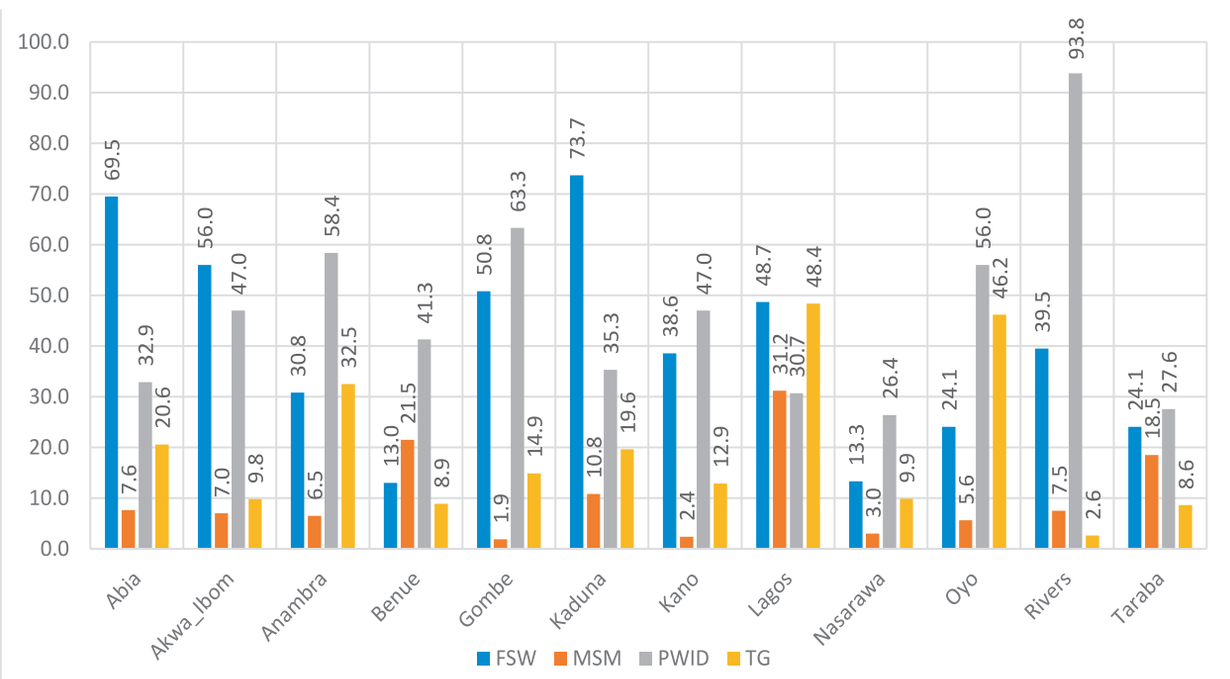


Fig 44: Harassed/Arrested by Law Enforcement Agency by State

Harassment by law enforcement agents for PWID is highest in Rivers and Gombe states, while FSW harassment by law enforcement agents is highest in Kaduna and Abia states.

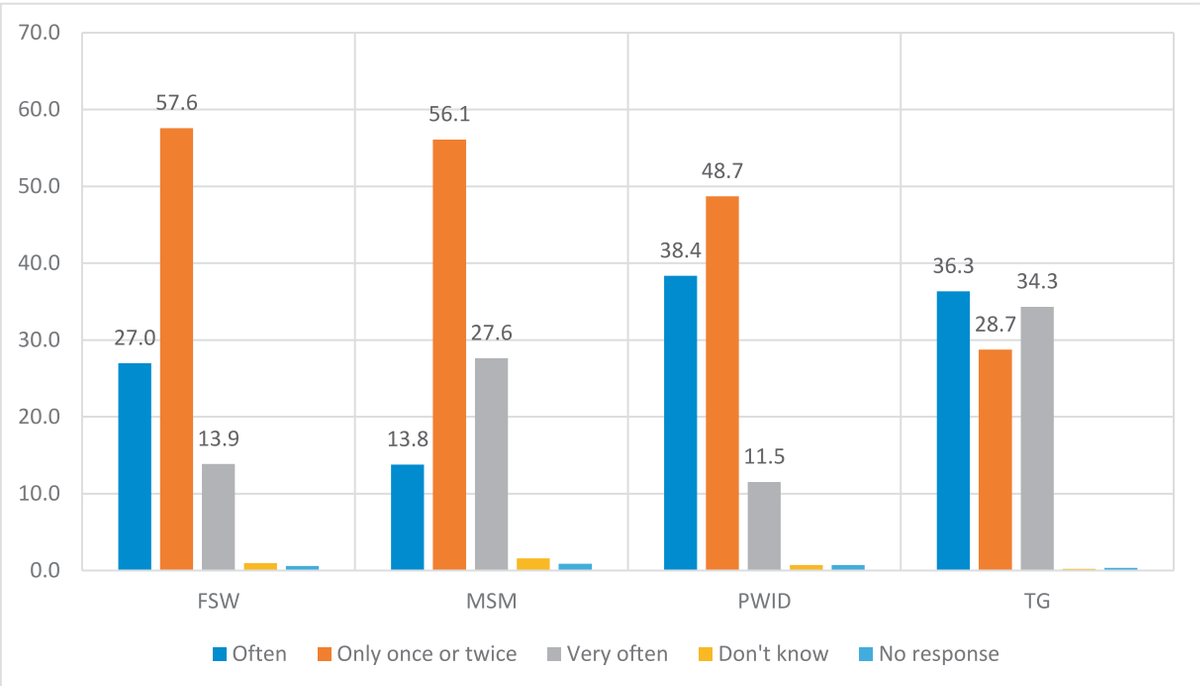


Fig 45: Frequency of Harassment by KP Typology

6.10.3: Stigma & Discrimination

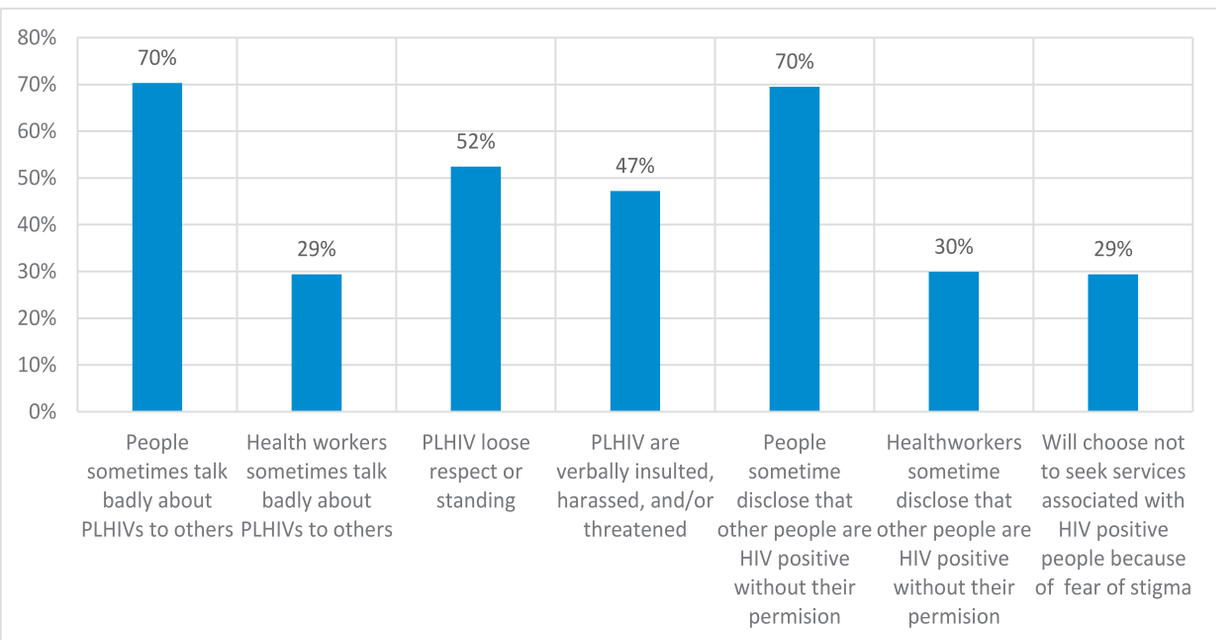


Fig 46a: Stigma & Discrimination Reported by FSW

Fig 46a shows 70% FSW responded on various incidences of stigma and discrimination against PLHIV and stated that people sometimes disclose the HIV positive status of others without their permission. 29% of FSW will choose not to seek HIV positive services because of fear of stigma.

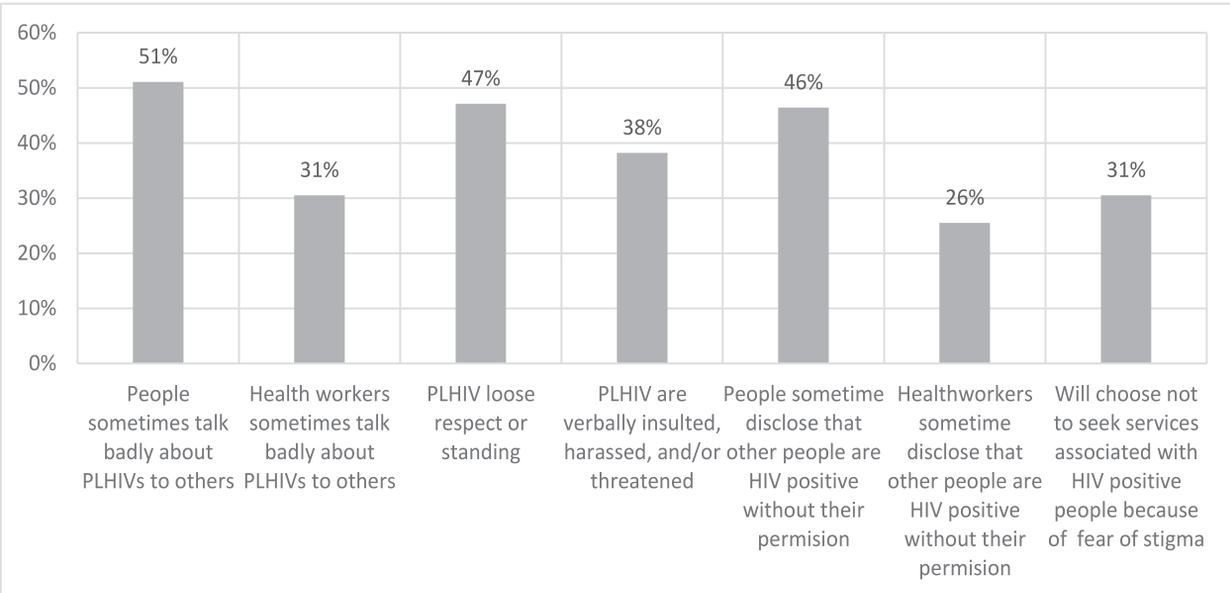


Fig 46b: Stigma & Discrimination Reported by PWID

Fig 46b, PWID interviewed during the study answered on various incidences of stigma and discrimination against PLHIV. 46% stated that people sometimes disclose the HIV positive status of others without their permission. 31% of PWID will choose not to seek HIV positive services because of fear of stigma.

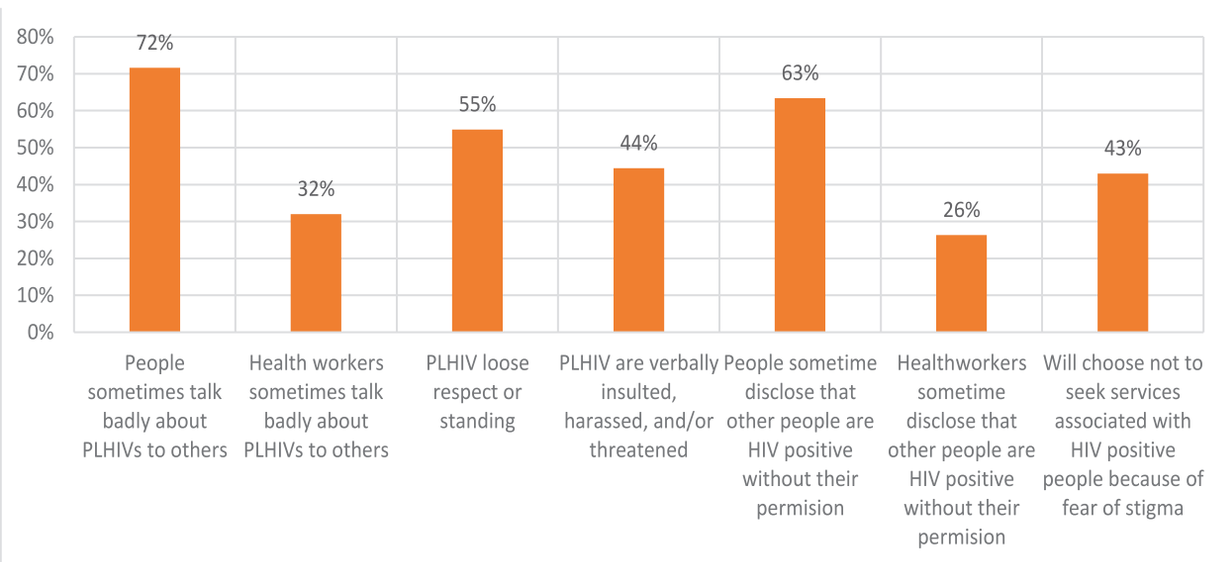


Fig 46c: Stigma & Discrimination Reported by MSM

Fig 46c, MSM interviewed during the study answered on various incidences of stigma and discrimination against PLHIV. 63% stated that people sometimes disclose the HIV positive status of others without their permission. 43% MSM will choose not to seek HIV positive services because of fear of stigma.

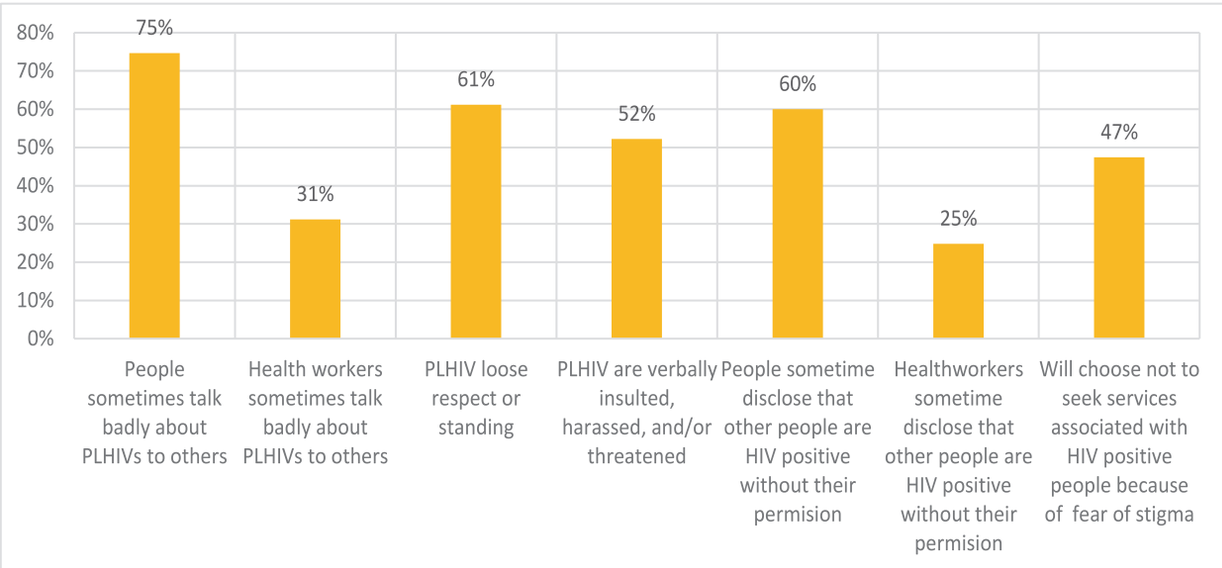


Fig 46d: Stigma & Discrimination Reported by TG

Fig 46d, Transgender persons interviewed during the study answered on various incidences of stigma and discrimination against PLHIVs. 60% stated that people sometimes disclose the HIV positive status of others without their permission. 47% of TG will choose not to seek HIV positive services because of fear of stigma.

Fear of stigma associated with seeking HIV positive services is highest amongst TG (47%) and MSM (43%).

6.11 90-90-90 CASCADE ANALYSIS

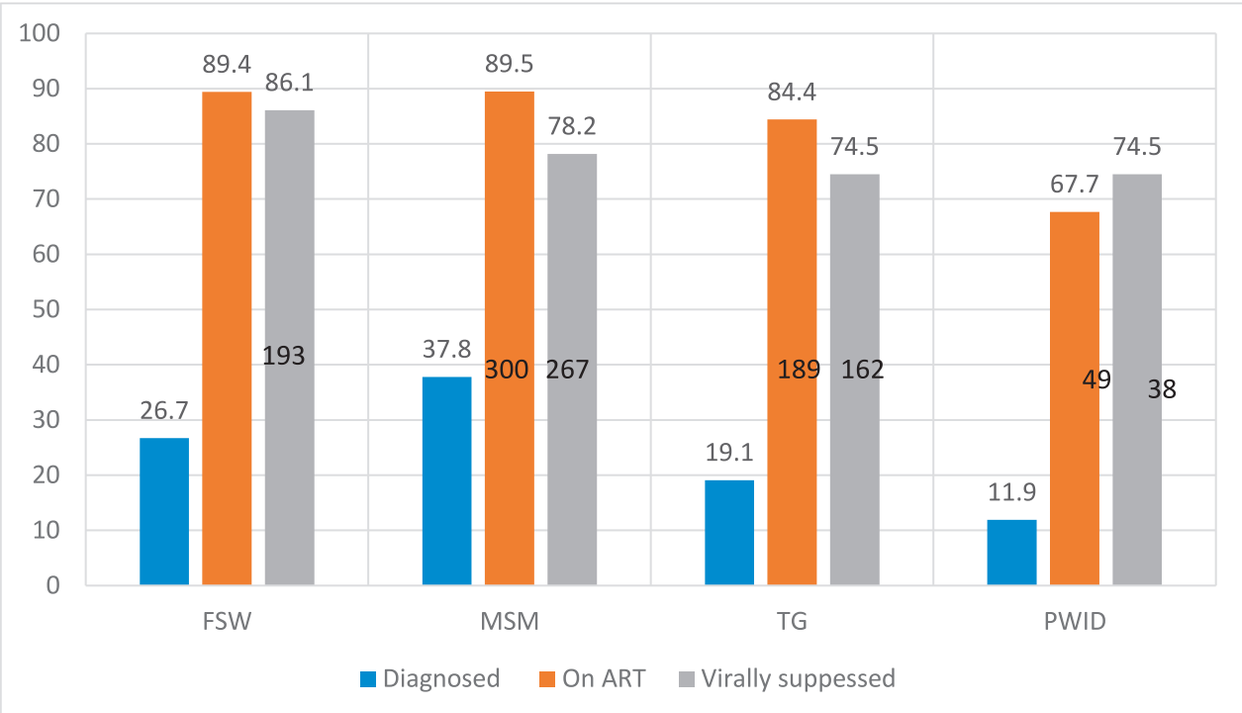


Fig 47: HIV 90-90-90 Cascade by KP Typology

Across the HIV treatment cascade, 26.7%, 38%, 19% and 12% of FSW, MSM, TG and PWID are diagnosed and know their status respectively. Amongst those diagnosed and know their status 89%, 90%, 84% and 68% of the respective KPs are on ART while 86%,78%,75% and 75 of those on ART have achieved viral suppression.

This cascade analysis highlights the need for emphasis on the first 90 and primary prevention efforts while raising consciousness to the need for a holistic KP size estimation exercise across the country.

6.12 TYPOLOGY SPECIFIC RESULTS

6.12.1 FSW Typology

6.12.1.1 Sex Work Debut

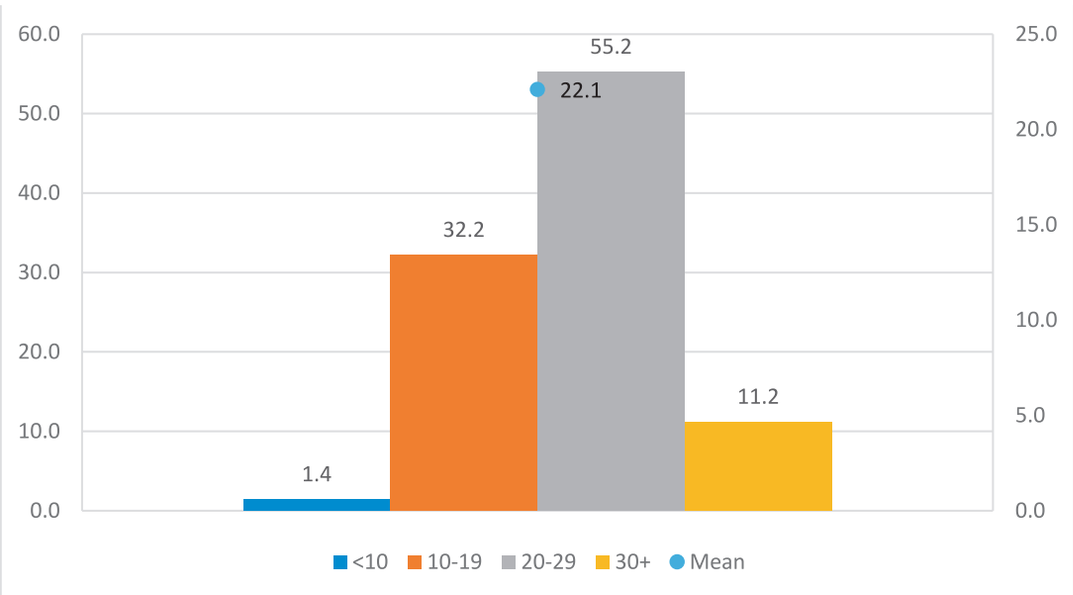


Fig 48: Age of Sex Work Debut

Mean age of sex work debut among FSW is twenty-two years. One-third of FSW started sex work before the age of nineteen years.

6.12.1.2 Duration in Sex Work

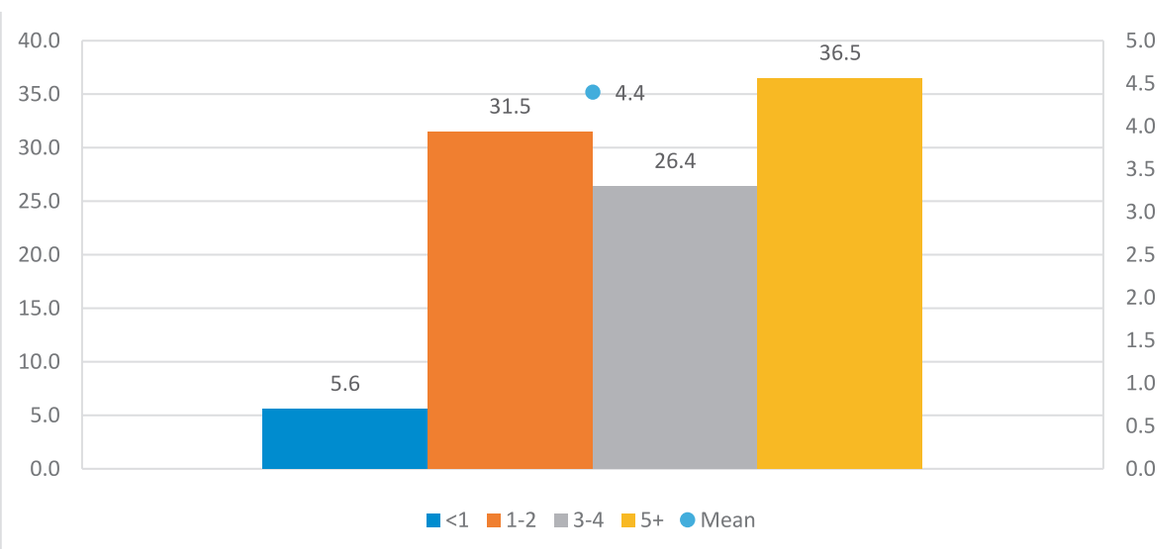


Fig 49: Years in Sex Work

Approximately 37% of FSW have spent five years and above in sex work while only 6% have spent less than one year in sex work. The mean number of years spent in sex work was four years.

6.12.1.3 Reasons for going into sex Work

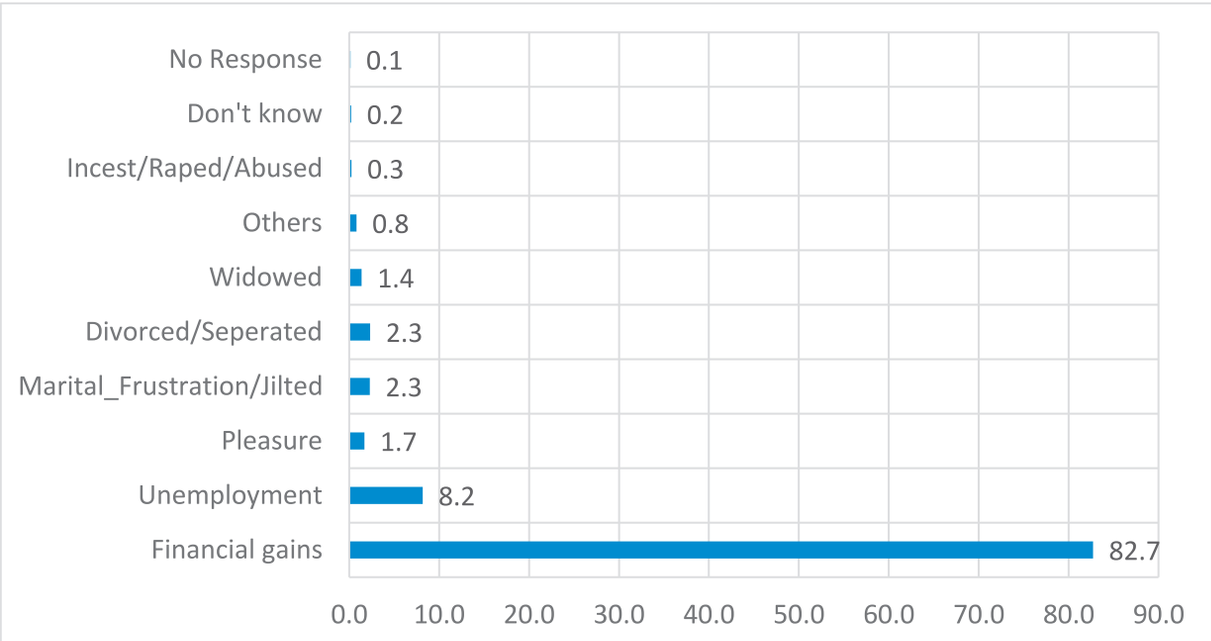


Fig 50: Reasons for going into Sex among FSW

6.12.1.4 Awareness and Use of Female Condom by States

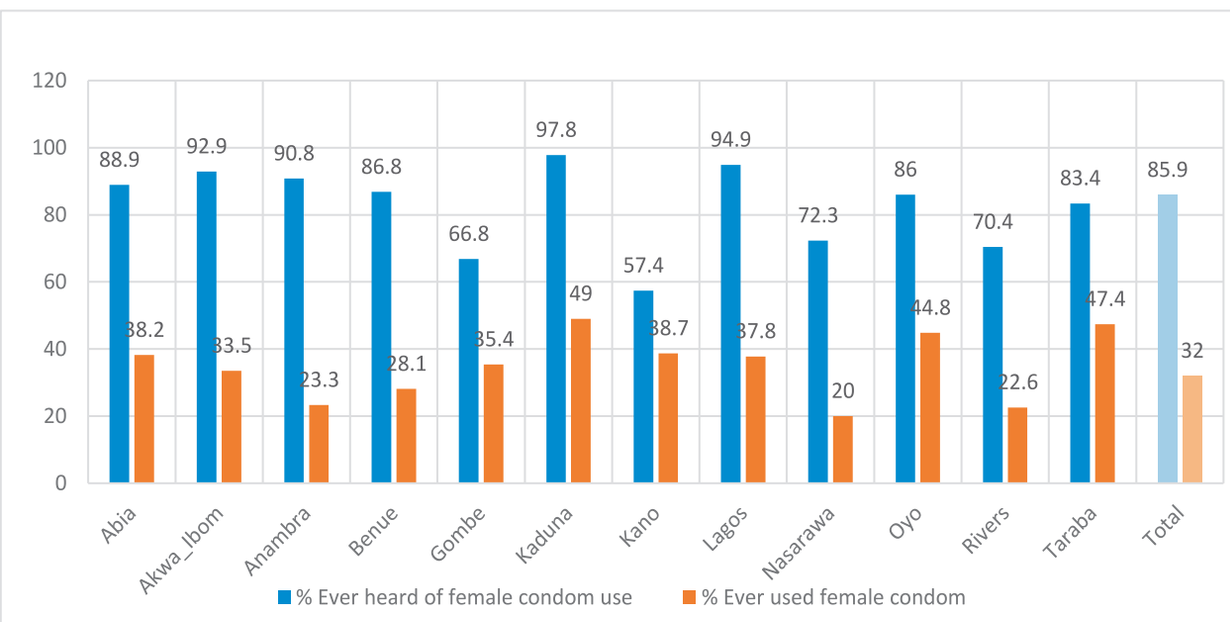


Fig 51: Awareness and Use of Female Condom by States

86% of FSW respondents had ever heard of female condom. Of these, 32% reported to have ever used a female condom. Female condom ever used remains low across all the states studied in this IBBSS.

6.12.1.5 PMTCT

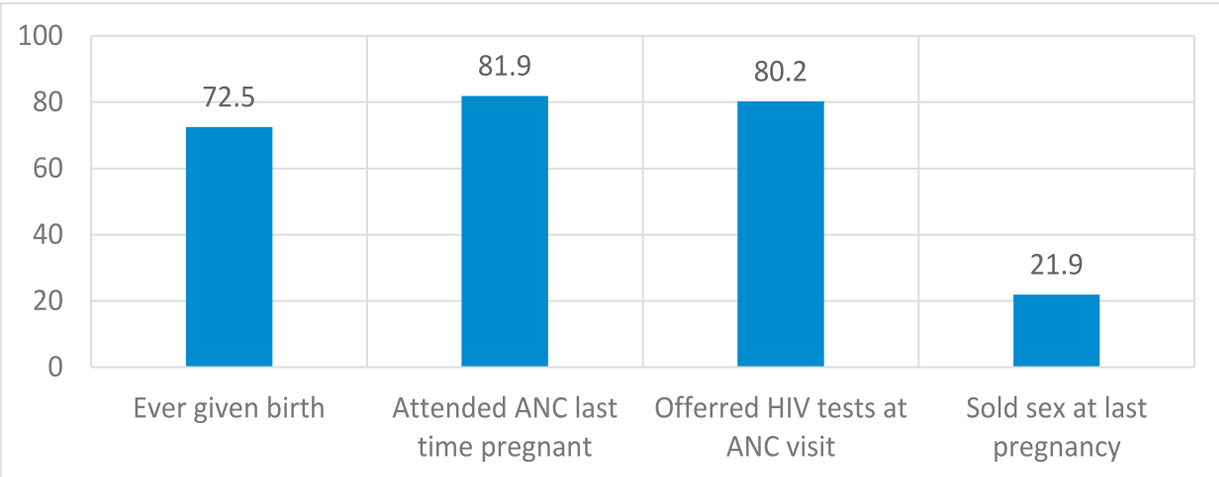


Fig 52a: Percentage Uptake of PMTCT Services (ANC) amongst FSW

Fig 52a shows 73% of FSW have ever given birth. Among these FSW, about 82% attended ANC when they were pregnant last time, 80% were offered HIV test at ANC visit and 22% sold sex at last pregnancy.

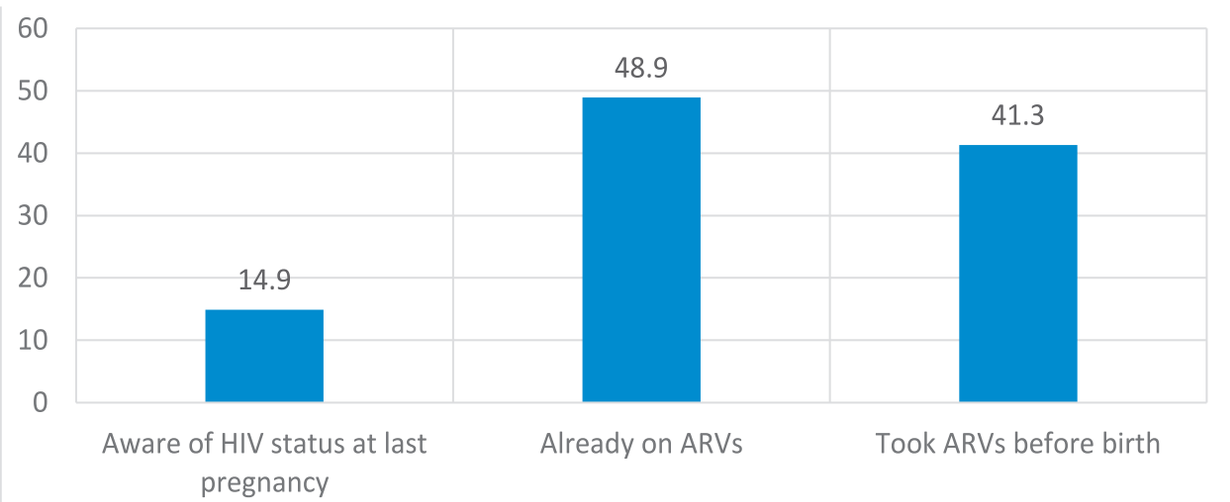


Fig 52b: Percentage Uptake of PMTCT Services (ARV) amongst FSW

With regards to PMTCT also, about 15%, female sex workers were aware of their HIV sero-status at last pregnancy, while 49% amongst these were already on ARVs and 41% of those aware of their status as at last pregnancy took ARV before birth. Amongst FSW, awareness of HIV status at last pregnancy remains very low and ARV coverage for these population also is low at less than 50%.

6.12.2 PWID Typology

6.12.2.1 Injecting drug Debut

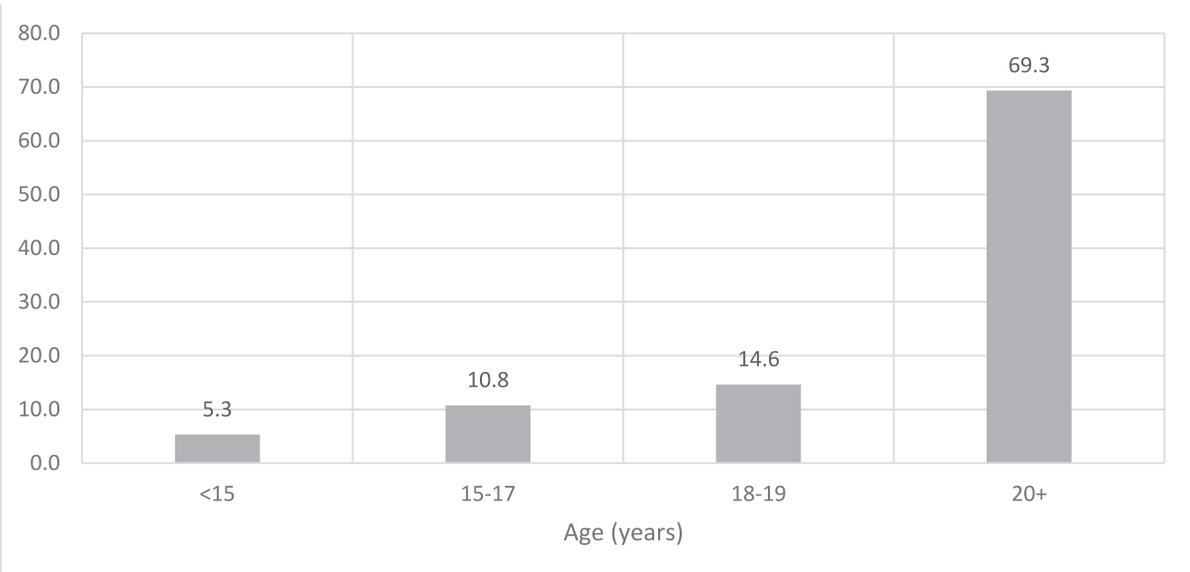


Fig 53: Injecting Drug Debut

Majority of PWID who inject drugs tend to debut in this practice at older age of 20 years plus.

6.12.2.2 Types of Drugs Injected

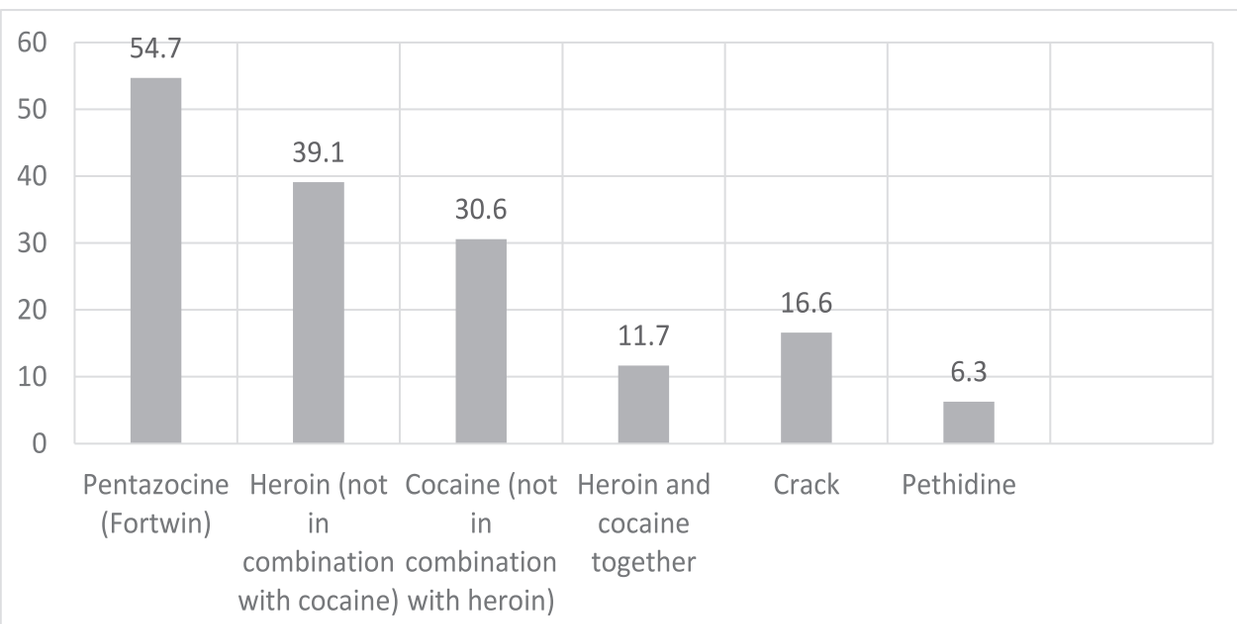


Fig 54: Type of Drugs Injected in the last 12 months prior to the Survey

In the last 12 months preceding the survey, 55% of PWID had injected Pentazocine while 6.3% had injected Pethidine. Other substances injected included heroin, cocaine and crack.

6.12.2.3 Frequency of Drug Injection

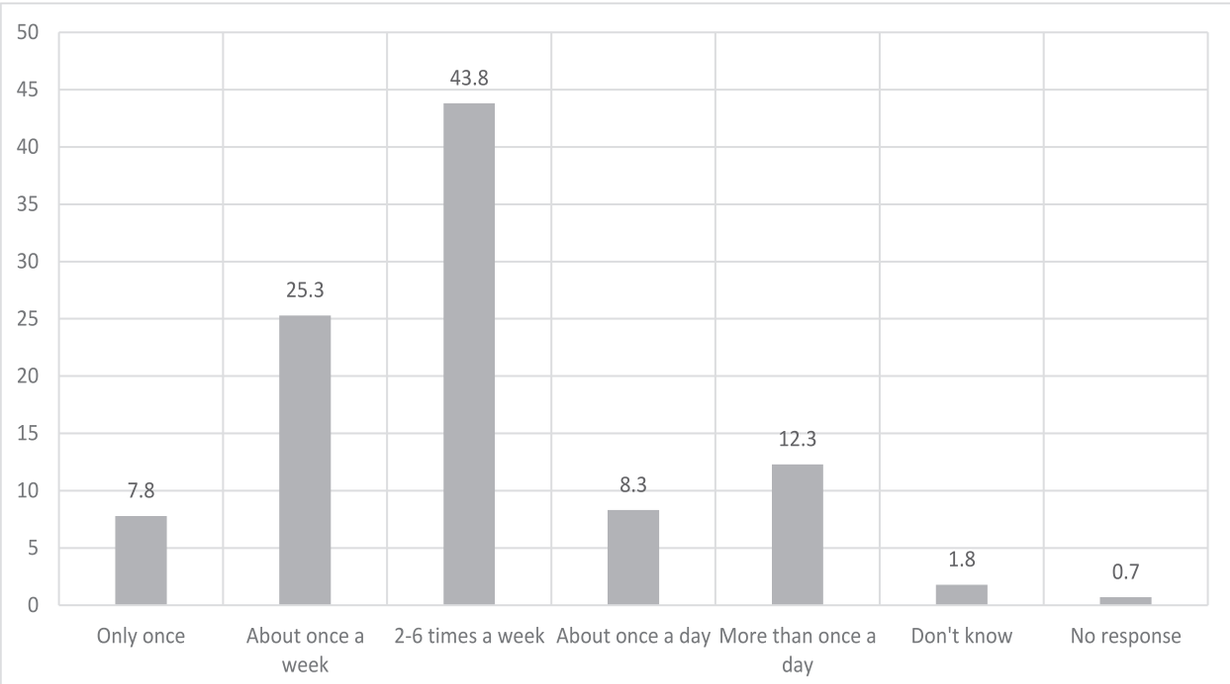


Fig 55: Frequency of Drug Injection in last month prior to the Survey

44% of PWID inject drugs between 2-6 times weekly while 25% do so once a week.

6.12.2.4 Place of Drug Injection

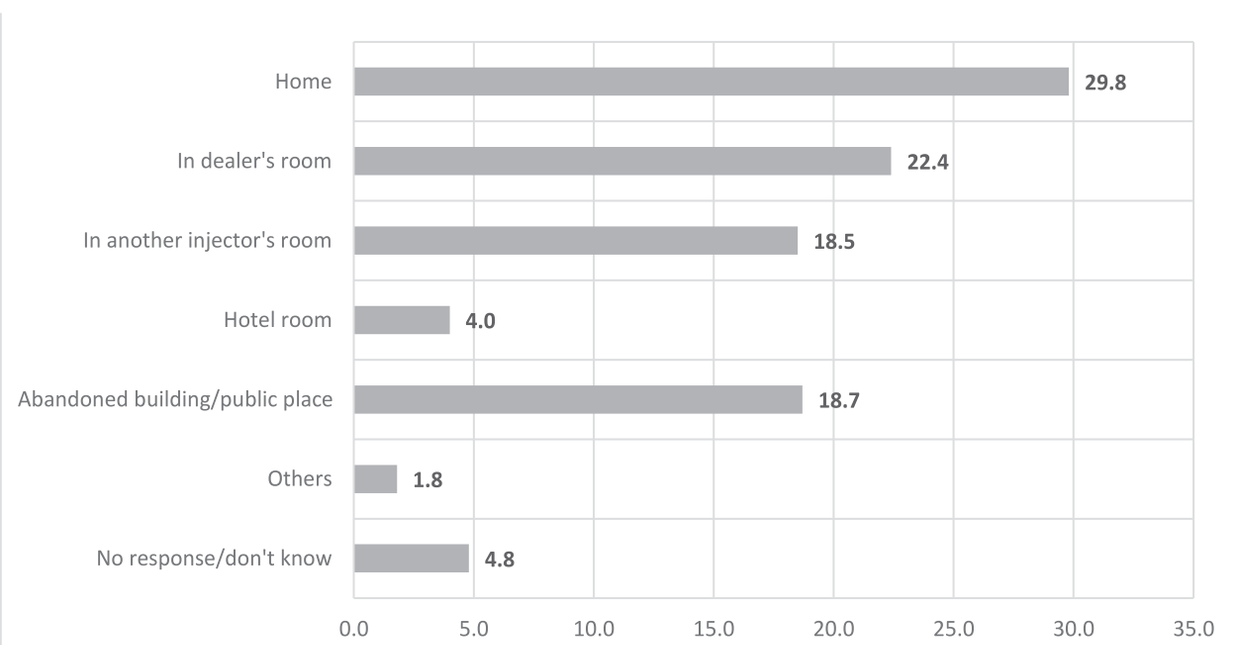


Fig 56: Place of Injecting Drugs -PWID

30% of PWID inject drugs in their homes while 19% do so in abandoned buildings/public places.

6.12.2.5 Frequency of Using New Needles

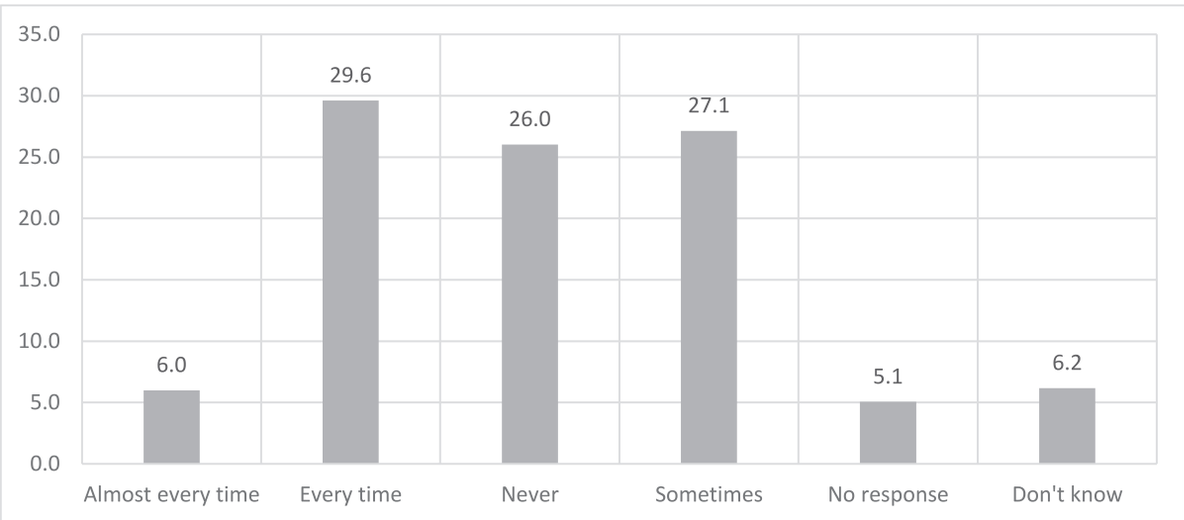


Fig 57: Frequency of using New Needles

The result above indicates that only 6% of PWID use new needles almost every time they inject drugs.

6.12.2.6 Source of Clean Needles/Syringes

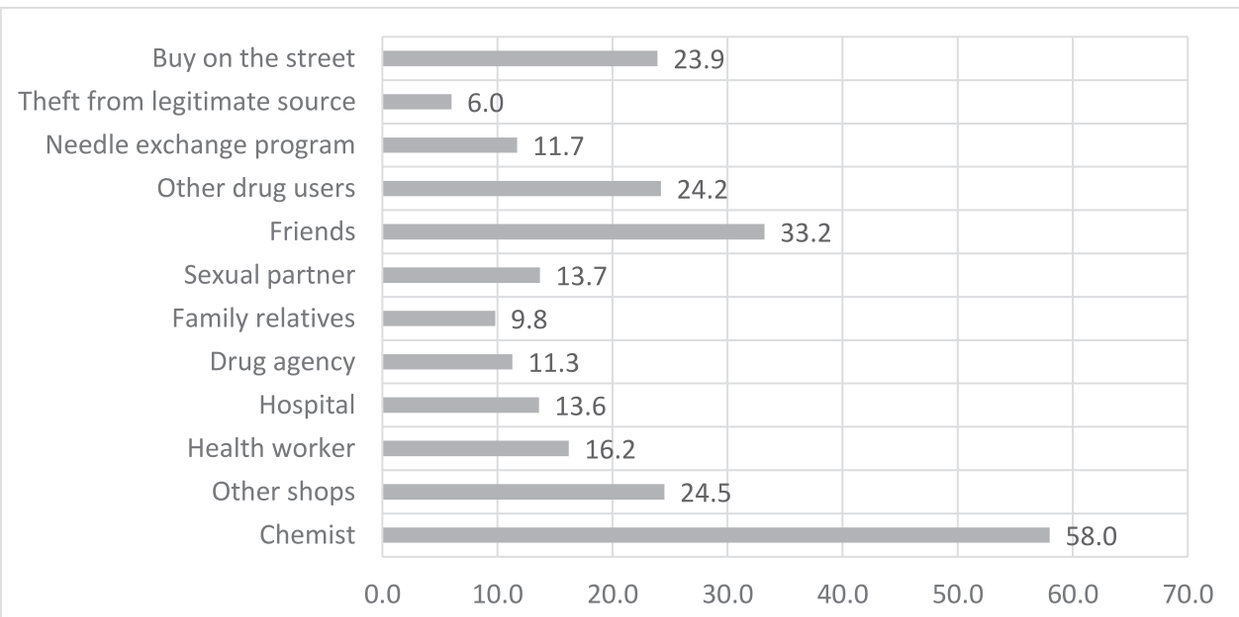


Fig 58: Source of Clean Needles/Syringes among PWID

58% of PWID stated that they received clean needles or syringes from chemist shops, while about 14% received from their sexual partners. Only 6% of respondents get clean needles or syringes through theft from legitimate sources.

6.12.2.7 Disposal of Needles and Syringe

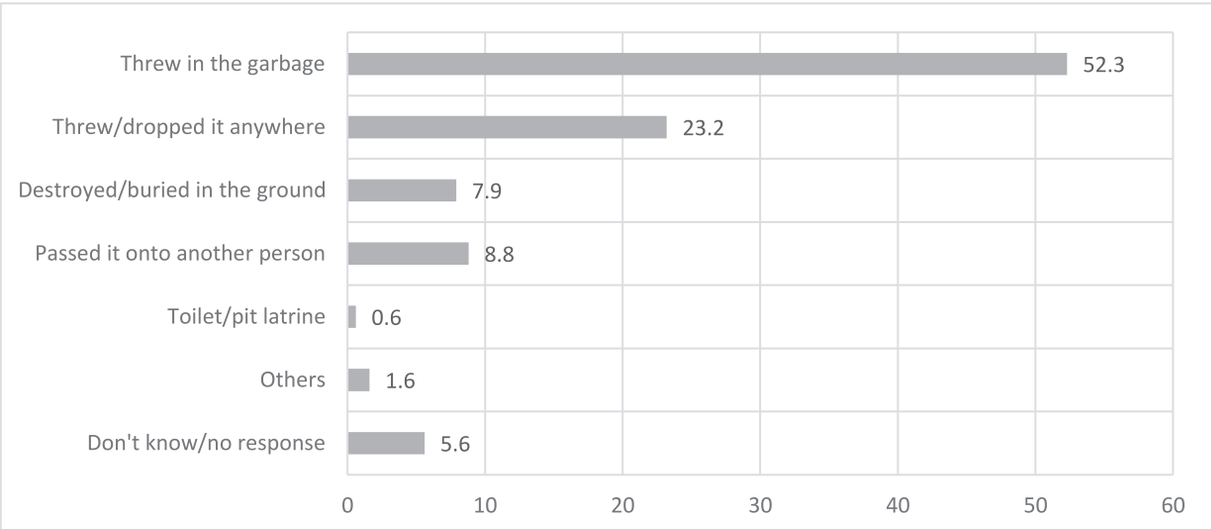


Fig 59: Disposal of Needles and Syringes - PWID

Fig 59 shows that 52% of PWID dispose their needles and syringes in garbage sites while 23% dispose them anywhere. The result also shows that about 8% PWID bury or destroy needles and syringes underground.

6.12.2.8 Sharing of Injecting Equipment

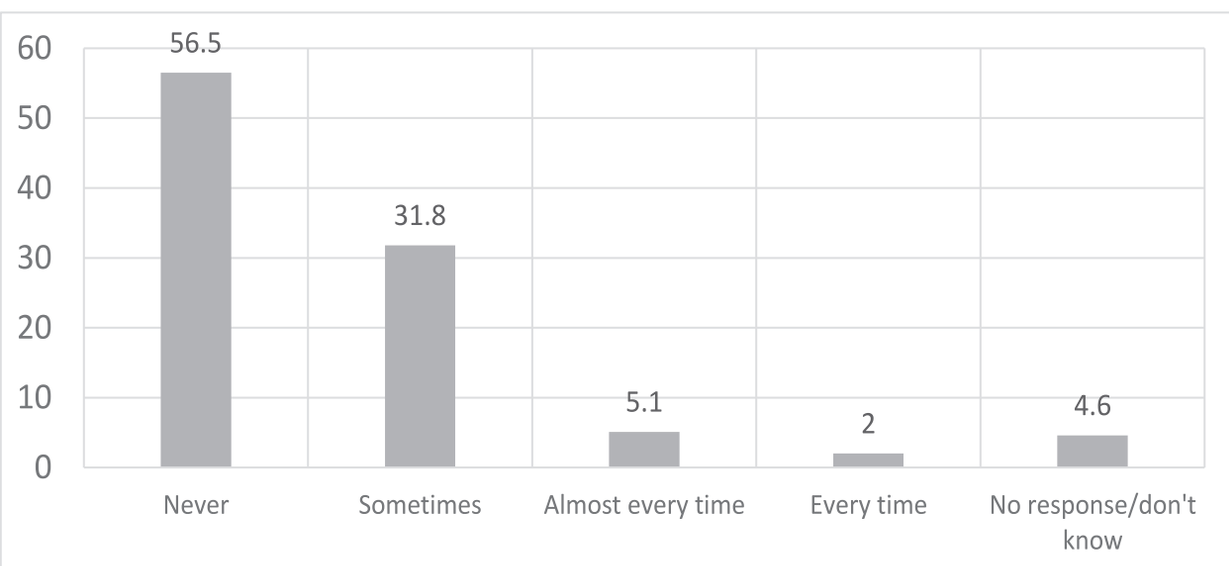


Fig 60: Percentage of PWID Sharing Injecting Equipment (cooker, vials/containers, cotton/filter) in the last one month prior to the Survey

The percentage distribution of PWID sharing injecting equipment show that 57% reported never sharing in the last one month prior to the survey, 32% reported to sometimes share while 5% reported sharing equipment almost every time.

6.12.3 MSM Typology

6.12.3.1 Sex Work Debut

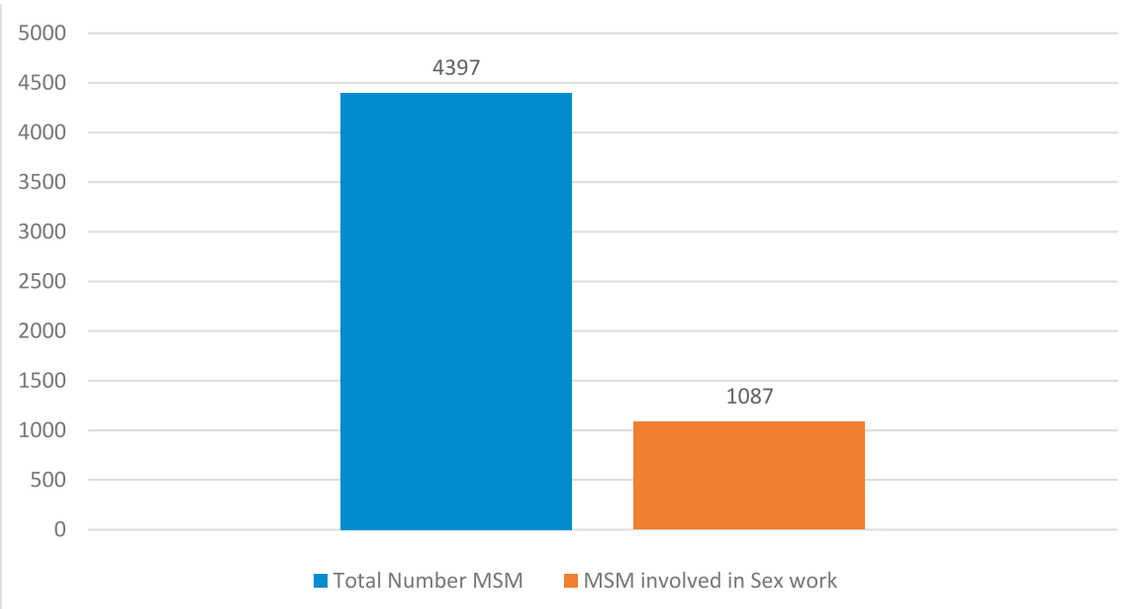


Fig 61: Total Number of MSM and number of MSM involved in Sex Work

Twenty-five percent of MSM are involved in sex work

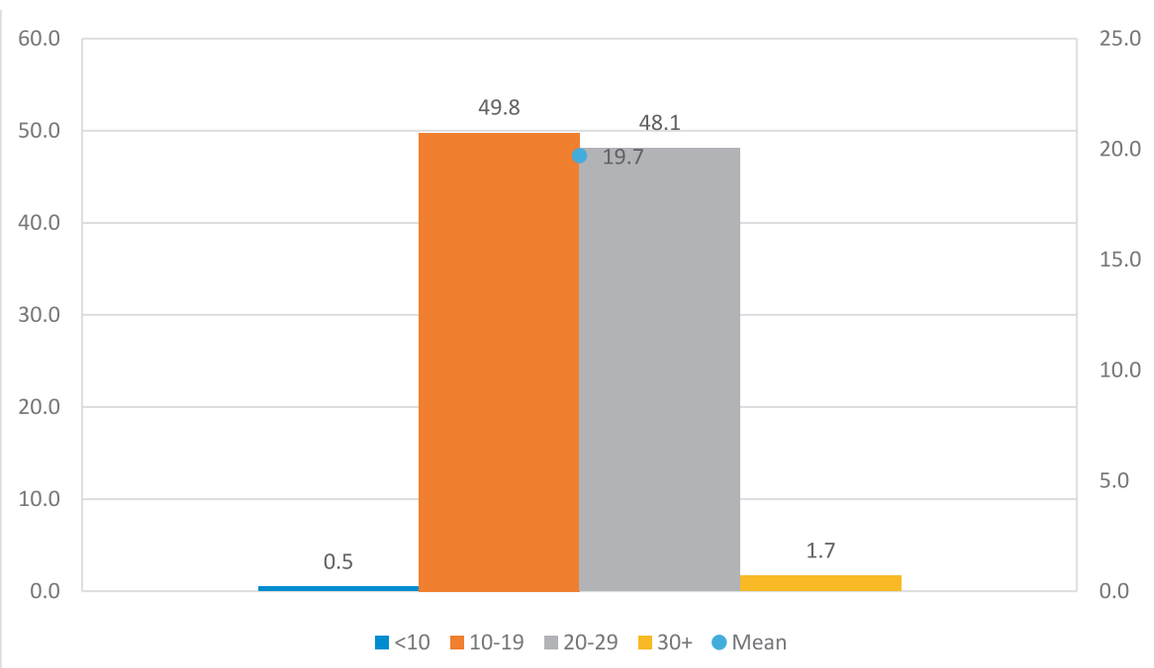


Fig 62: Sex work Debut

Mean age of sex work debut among MSM is twenty years. 50% of the MSM involved in sex work started before the age of nineteen years.

6.12.3.2 Duration in Sex Work

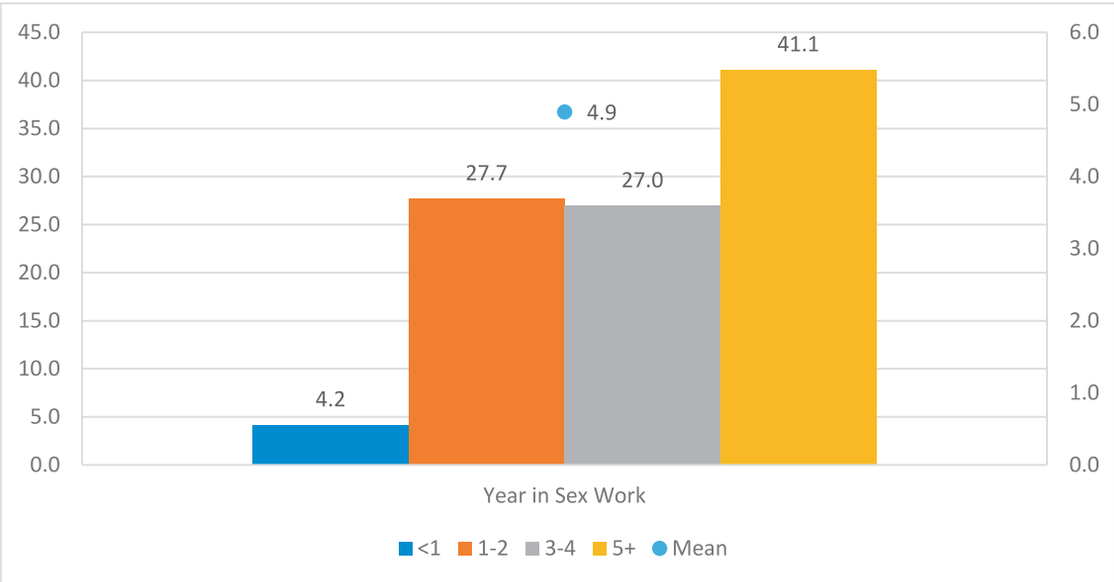


Fig 63: Duration in Sex Work

Approximately 41% of MSM involved in sex work have spent five years and above while only 4% have spent less than one year in sex work. The mean number of years spent in sex work was five years.

6.12.3.3 Reasons for going into sex Work

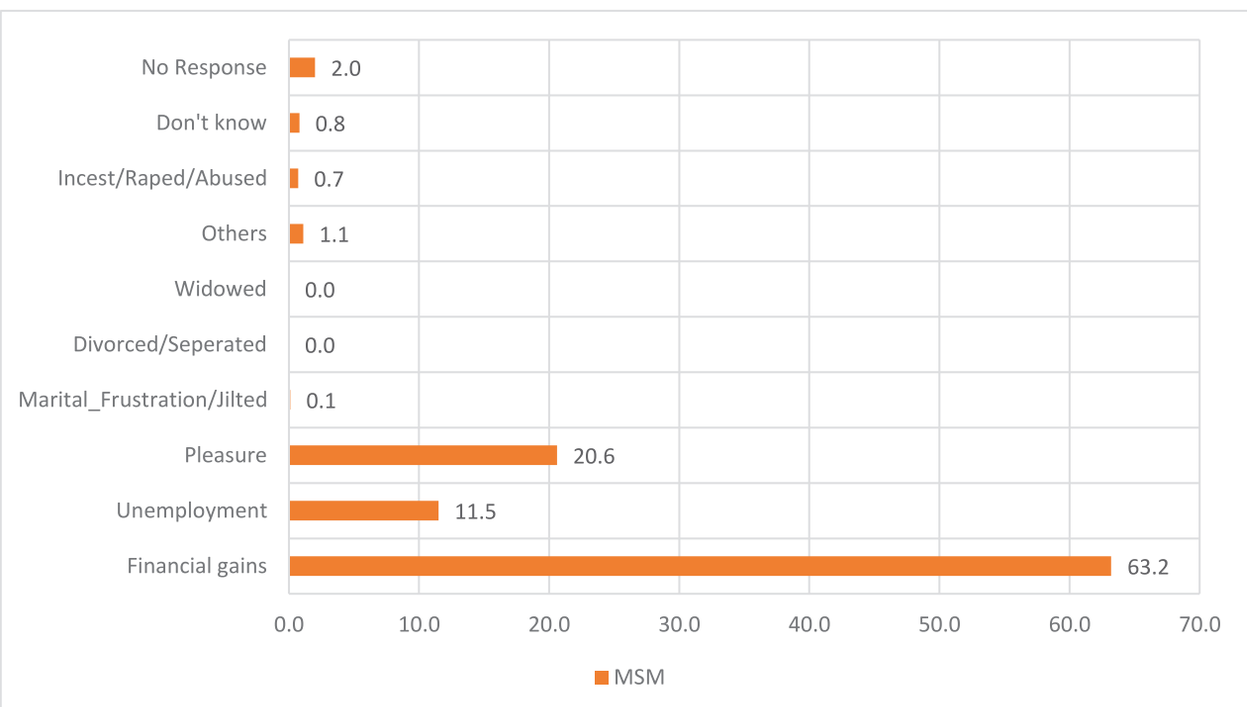


Fig 64: Reasons for going into Sex work among MSM

6.12.4 TG Typology

6.12.4.1 Use of Hormonal Transition Procedure

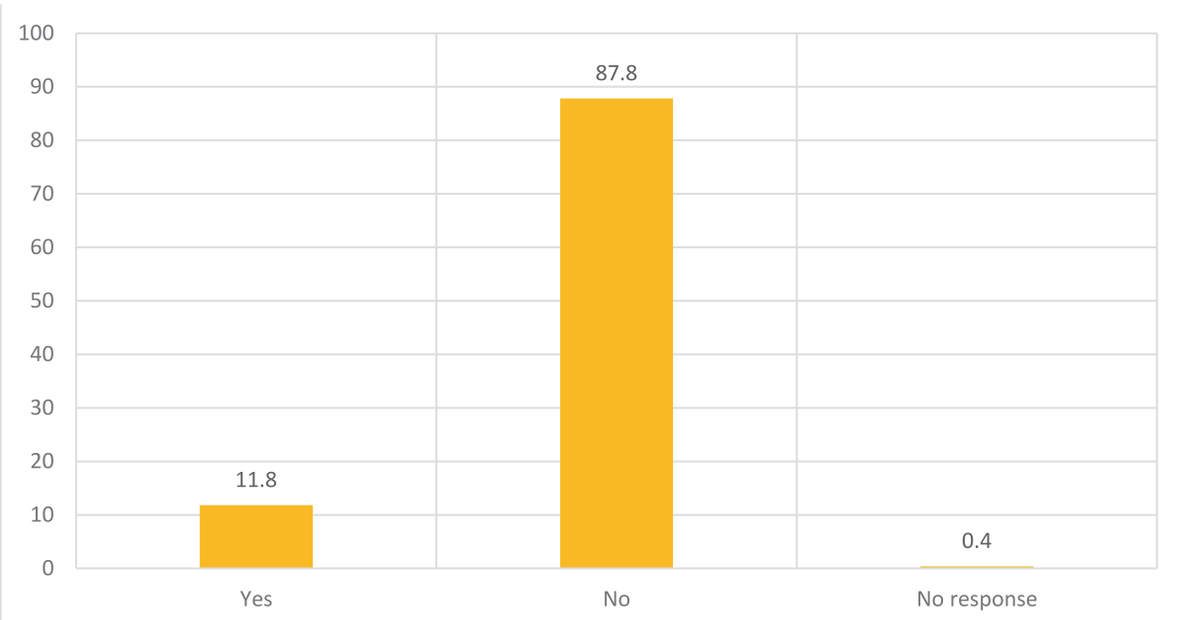


Fig 65: Percentage of TG using Hormones

Only about 12% of TG across all the studied states had tried hormonal transition procedures.

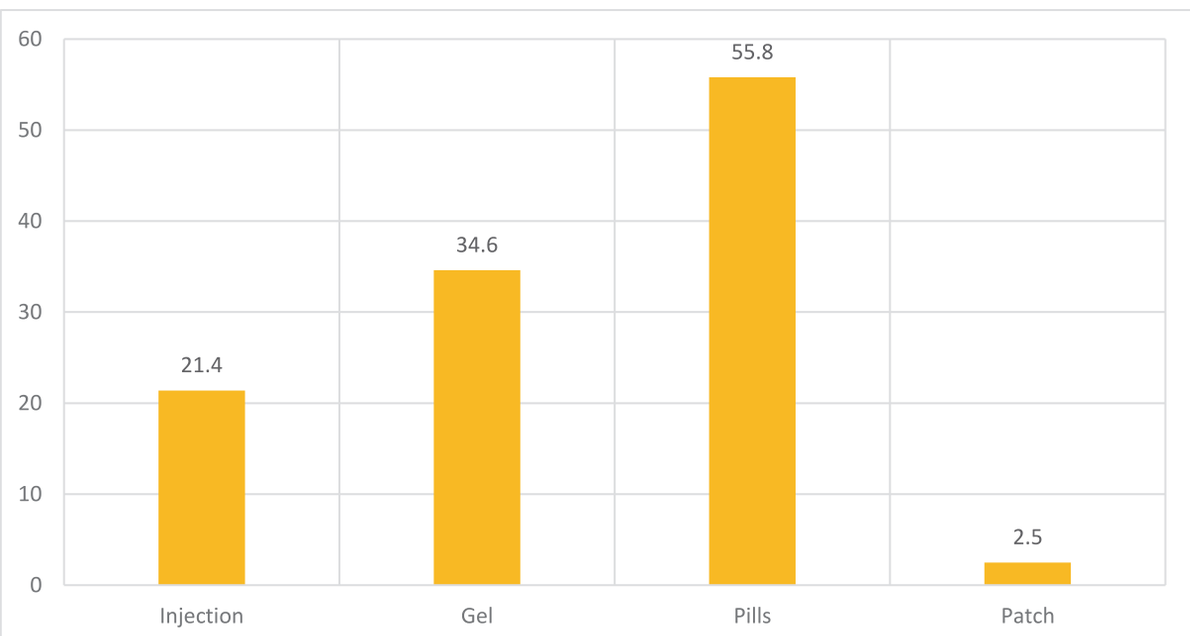


Fig 66: Types of Hormones Used among those that Reported to have ever Used Hormone

The most used hormone by TG is Pills (56%) while patch at 2.5% is the least used.

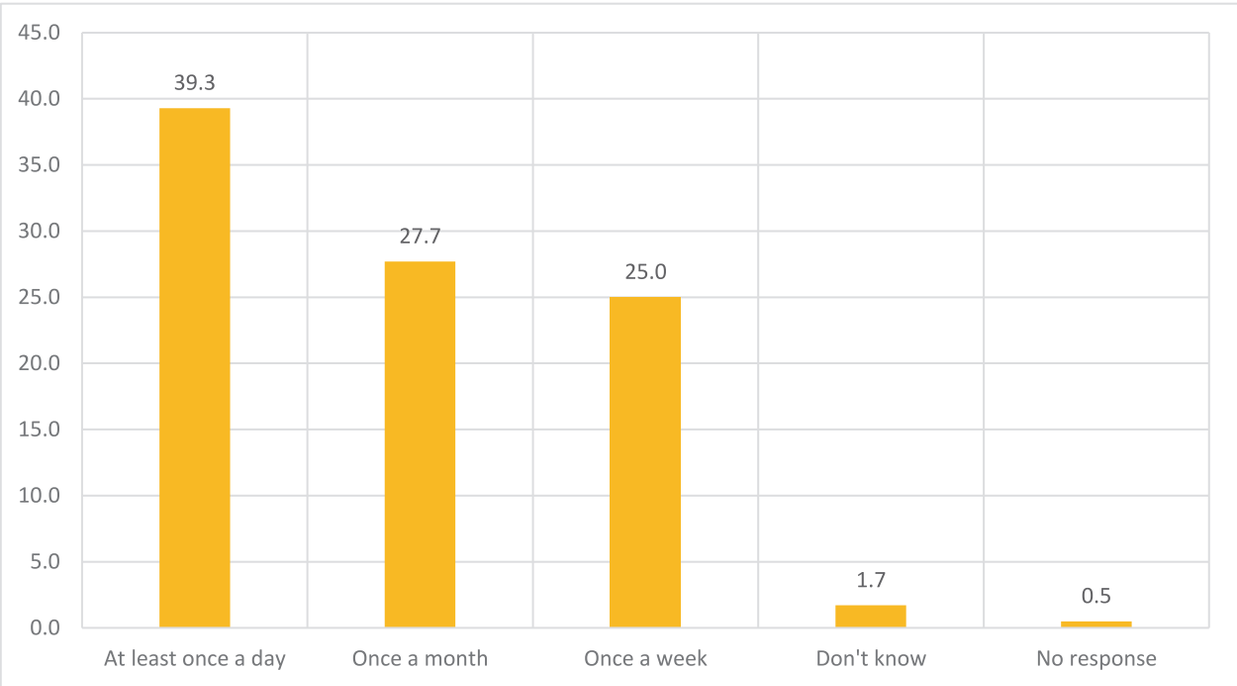


Fig 67: Frequency of Hormone Injection 12 months prior to Survey among TG

Approximately 39% of TG among those that had used hormones, had hormone injection at least once a day in the last 12 months prior to the survey.

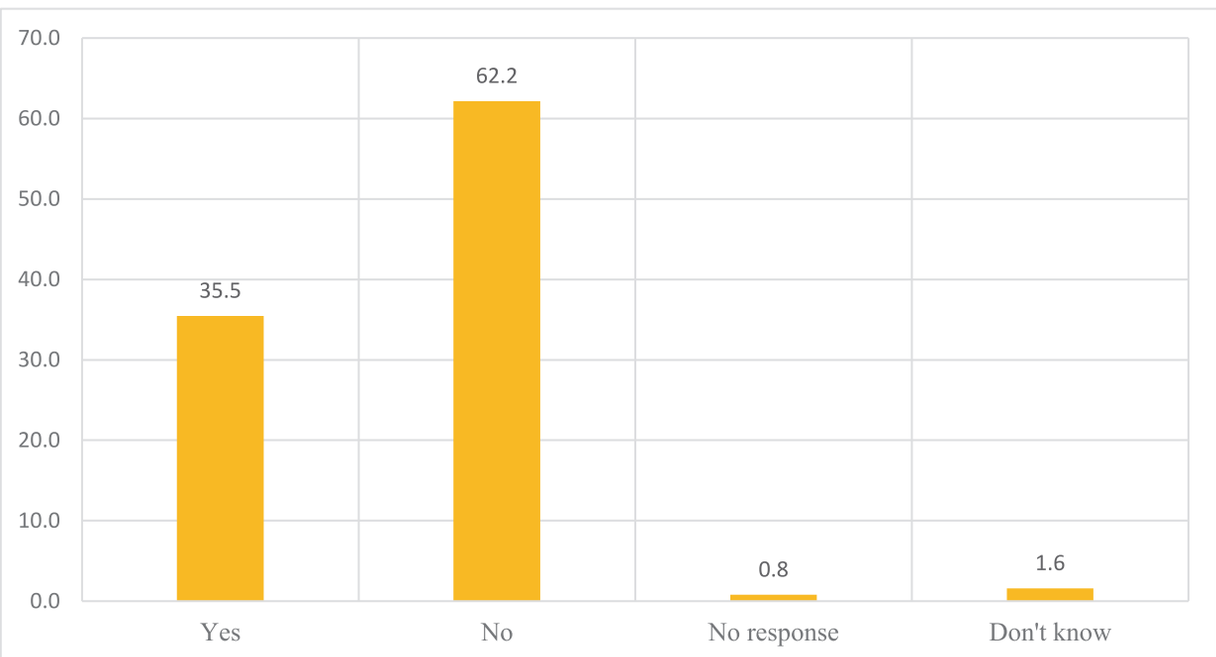


Fig 68: Percentage of TG who were supervised by Health care providers during the use of hormones

Only 36% of TG who used hormones were supervised by healthcare officers.

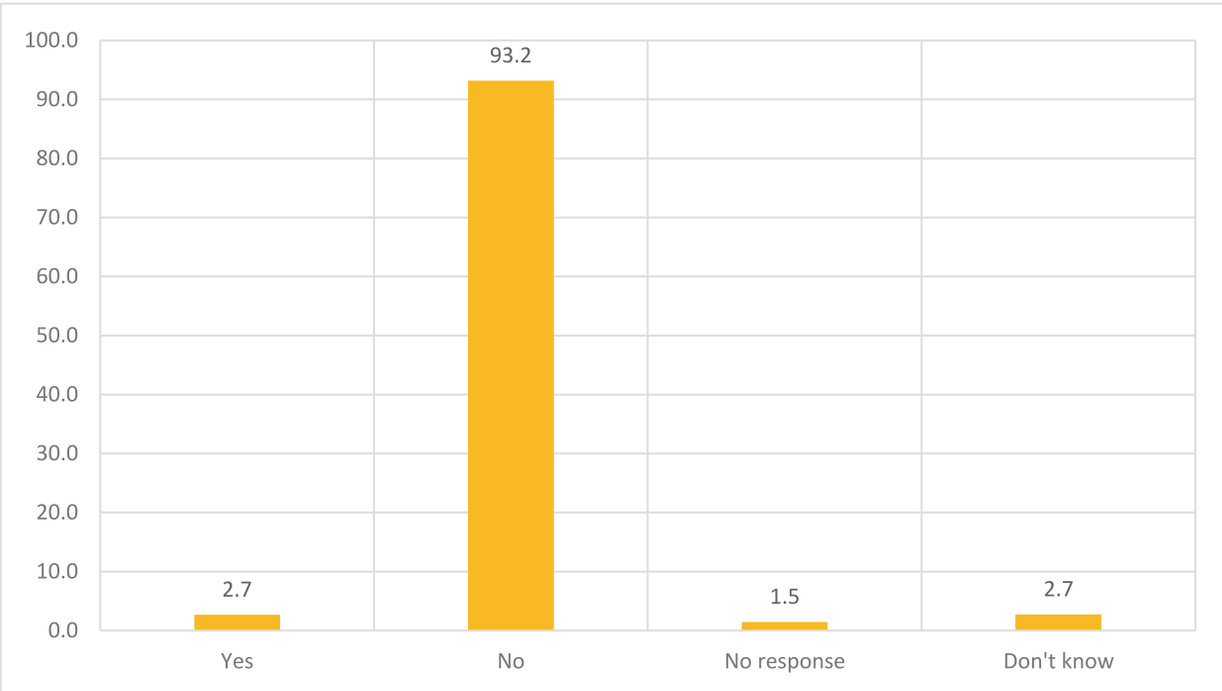


Fig 69: Proportion of TG that have had other Gender Enhancement/Transition Procedure

Only 3% of TG have had other Gender enhancement/transition procedures.

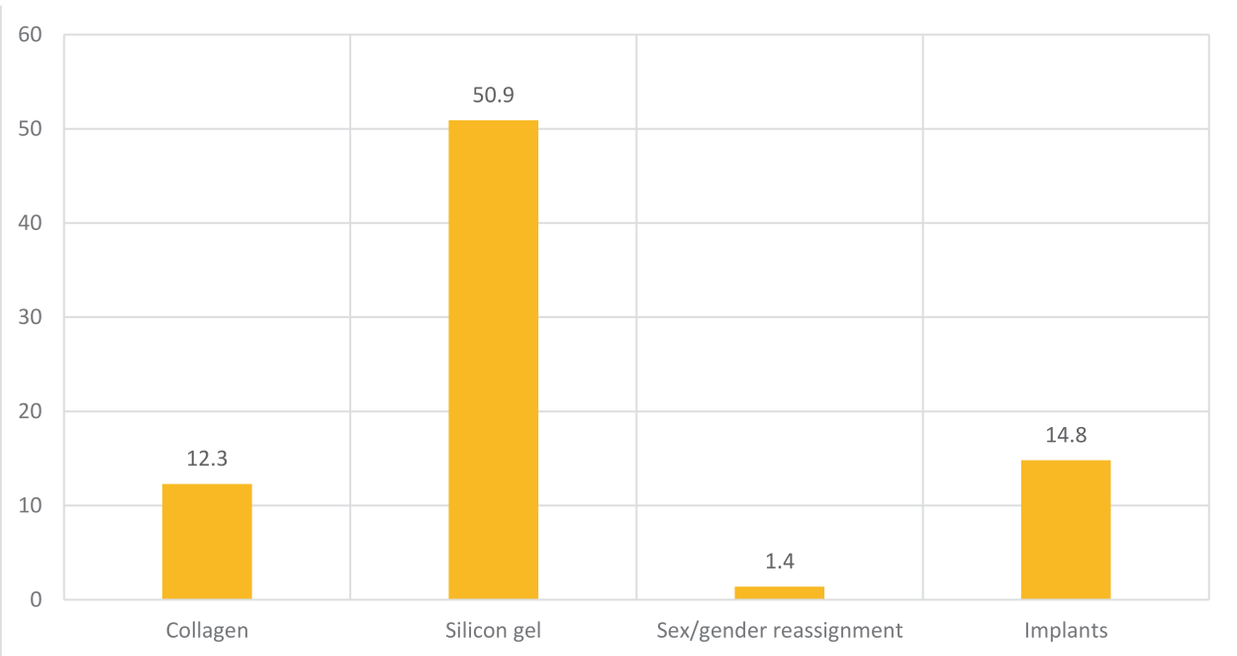


Fig 70: Type of Procedure among TG

The result shows that 51% of TG persons who have undergone transition procedures, opted for silicone gel transition procedures and 15% opted for implants. Only about 1.4 per cent of trans-persons have undertaken a sex/gender reassignment transition procedure.

7.0 CHALLENGES

7.1 Challenges:

The rapid spread of the Corona virus disease (COVID-19) made the Government of Nigeria to introduce preventive measures which included lockdown order, physical distancing, ban of public gatherings and the compulsory use of facemasks. This resulted in the closure of most hotspots/venues where the key populations (KP) network, 'cruise' / meet with their clients and partners. The effect of this action was a reduction in the volume of KP activities within hotspots/venues. As restrictions were gradually lifted, activities at hotspots still remained much lower compared to pre-COVID-19 era. Some spots remained shut while those active were yet to peak in activities as at the commencement of field data collection. The IBBSS project team responded to this disruption by using community networks machinery (KP networks and social groups) to ensure optimal participation of KPs in the study across all typologies.

The lockdown order to curb the spread of COVID-19 as well as curfews in some states also limited the movement of field workers. Thus, in order to meet the sample size for all the KP typologies, the time for data collection was extended and buffer personnel were included in data collection to reinforce teams. Attrition of trained field personnel in some states for personal reasons posed another challenge to field work activity. Such personnel were replaced from the buffer pool of trained field personnel.

Curfew and riot across some states during the #End SARS/Palliative protest disrupted the peak times of KP activities thereby challenging the survey efforts at reaching the KP.

Request for incentives outside approved budgets in some states and State Lab Leads demanding remuneration from the 2020 IBBSS also posed a challenge. Advocacy and continuous appeal to the persons involved was used to ensure that field activities were not adversely affected.

Sample transportation to National Reference Laboratory was also a challenge as transportation cost increased (fuel price hike) with stoppages/disruptions in transportation modes and routes.

Rising cost of commodities and consumables also contributed to the challenges faced with the execution of the 2020 IBBSS.

Sample storage space challenge at the National Reference Laboratory due to rising trend in COVID-19 infections and high volume of biological samples collected (2nd wave effects) caused a draw back in time for starting biological samples analysis.

Field staff remuneration based on the approved budget based on available resources was seen as not commensurate when compared to what past studies offered. This resulted in attrition of some field staff.

7.1.1 COVID-19 Pandemic Mitigation

In response to the COVID-19 pandemic, the University of Manitoba Institute for Global Public Health developed a costed COVID-19 Mitigation plan which was approved by Global Funds to fight AIDS, Tuberculosis and Malaria (GFATM) and this guided risk management in line with the provisions of COVID-19 pandemic protocol by the Nigeria Center for Disease Control (NCDC).

The mitigation plan prescribed strict adherence to the WHO/NCDC protocols on (a) appropriate wearing of face mask, (b) maintain 2 meters physical distance (c) use of alcohol-based hand sanitizers (d) regular hand washing practice (e) regular temperature checks and (f) appropriate COVID-19 travel practices, for all field implementation activities and teams.

7.1.2 Study Limitations

The behavioral component of the survey exclusively relied on respondents' self-reports and this can introduce some recall bias. This data collection method often has limitations that are attributed to the tendency for people to under report socially unacceptable attitudes and behaviors (e.g., risky sexual behavior) and to over-report socially acceptable behaviors (desirability bias).

8.0 DISCUSSIONS, RECOMMENDATIONS AND CONCLUSIONS:

8.1 Discussions

The 2020 IBBSS aims to improve on past objectives as it provides answers on global indices based on WHO/UNAIDS global indicators framework covering monitoring and evaluation indicators and overlapping risk behaviors determinant/outcome indicators. Its outcome is essential for placing the country on a global scale in KP trend analysis and in tracking efforts towards achieving the 90-90-90 cascade. The 2020 IBBSS expanded its recruitment and reach base for MSM key population in the survey by including virtual sites users and the Transgender community.

Information produced by 2020 IBBSS will give the program planners/policy makers a clearer picture of current risk behaviors among different KP typologies and sub typologies. It will inform the intervention program that will be implemented and give an indication of how well the interventions packages put in place have worked over time. Information from the IBBSS is a resource for mobilizing funding and other resources for program improvements and policy interventions.

- HIV testing rates among FSWs are twice that of PWIDs. MSM and TGs have similar rate of HIV testing which is slightly less than FSWs.
- STIs rates remain high for all KP typology across all states, as over 30% of KP report having had STIs. Kaduna, Nasarawa and Taraba states have the highest numbers of FSWs, MSM and PWIDs reporting STIs. A good proportion of KP across all typologies **still** patronize traditional healers for STI treatment (average 11%).
- Exposure to HTS and STI services remained very low across all KP typologies studied.
- PrEP and PEP exposure and uptake were very low across all typologies studied. FSWs and PWIDs were the least exposed and had the least uptake compared with MSM and TGs.
- Amongst FSWs, awareness of HIV status at last pregnancy remains very low and ARV coverage for these population is low at less than 50% and this is indicative of suboptimal access to PMTCT services.
- Risk perception of contracting HIV remains low across all KP typology despite high knowledge of HIV transmission modalities**.**

- Fear of stigma associated with seeking HIV positive services was highest amongst TGs (47%) and MSM (43%) underlining the fact that stigma and discrimination continues to pose a challenge to service access for KP in Nigeria.
- Harassment of KP by law enforcement agents was highest in Rivers and Oyo states for PWIDs, while FSW harassment by law enforcement agents was highest in Kaduna and Abia states. About 45% PWIDs reported to have ever been arrested or threatened to be arrested by a law enforcement agent in the last 6 months.
- Violence on KP remain high with forced unprotected sex (without condom) highest amongst TGs with approximately 55% of them experiencing this form of violence.
- Consistent condom use in the last 6 months with regular partners by KP across all typologies remains very low ranging from 15% (PWIDs) to 41% (TG). KP Condom use at last sex with their regular partners was also low and lowest amongst PWIDs.
- MSM and TG are having unprotected receptive anal intercourse (URAI) shown by the high proportions of this practice with their regular partners across the states studied.
- Highest HIV Prevalence spike from the last IBBSS (2014) was observed among the PWID (3.6-10.9) and NBBFSW (8.6-15)

8.2 Recommendations

i. There is a need for deeper analyses (deep dives) of the IBBSS data set including bi-variate and multi-variate analyses to provide further information for programming and policy for KP groups in Nigeria. Also, triangulation of the NAIIS data and the IBBSS data to facilitate robust information for overall HIV prevention and care activities in the country.

ii. Data from the 90-90-90 cascade suggests the need to re-focus on primary prevention strategies and the first 90 if the country is to make appreciable stride towards getting to Zero in the fight against HIV. Further to this, is the need for nationwide size estimation of KP.

iii. 2020 IBBSS revealed the need for more research efforts on the TG group to provide additional information on this group. An ethnographic study is recommended to further study the TG groups across the country in selected states to better understand their characteristics, define them and provide appropriate programs for them.

iv. Utilization of IBBSS data to inform refocusing/ design of program implementation for KP in Nigeria and analyzed data use for journal supplement production and contribution to global knowledge and learnings.

v. Re-invigorated programming focus on PWIDs, given the significant rise in prevalence and poor service access as depicted by program, behavioral and impact indicators revealed by the 2020 IBBSS.

vi. In order to provide further insights into HIV epidemiology amongst KP in Nigeria, it is recommended to follow through with the conduct of phylogenetic analysis and biological specimen confirmation via EQA in a certified laboratory such as that at University of Manitoba laboratory in Winnipeg.

vii. The conduct of routine IBBSS surveys every 2- 3 years as prescribed by WHO would help provide updates and data on HIV epidemiological transitions among KP in Nigeria.

viii. HIV Recency testing, drug resistance, ARV metabolite and HIV sub-typing tests to further enrich the HIV epidemiology spectrum among KPs in Nigeria are also recommended. The recency testing will unravel contribution of new infections among KP and to the rising HIV prevalence across KP typologies in the country.

ix. Resource mobilization efforts are recommended for nationwide (36 + 1 states) IBSSS for a comprehensive review and avoidance of extrapolations from selected sampling studies and surveys.

x. Implementation of Differentiated Service Delivery models on HIV testing and treatment is recommended for the typologies based on their unique characteristics with participation of the Key Population communities.

8.3 CONCLUSIONS

The results from 2020 IBBSS showed increase in HIV prevalence amongst KP across different typologies in the survey. This reflects the need to conduct a more robust IBBSS that will include all states in the country and develop interventions based on the findings across the country. The results from the survey have provided further evidence to the Federal Ministry of Health (FMoH),

the National Agency for the Control of AIDS, Nigeria (NACA) and stakeholders for more research efforts on the TG group.

The active implementation of strategies aimed at addressing the epidemic among the KP will help in reduction of HIV prevalence in the country as the KP are in same space with other segments of the population. More efforts should be put into HTS for the KP and linkage to care. The PLHIV among the KP who are on ART can achieve viral suppression thereby improving lives and decreasing the risk of transmission of HIV.

The IBBSS will contribute significantly to the epidemic control in Nigeria by guiding useful evidence-based actions in line with best and global practices.

APPENDIX

Appendix 1 Percentage distribution of respondents by age group by state

Appendix 1.1 Percentage distribution of FSW respondents by state

State	15-19	20-24	25-29	30-34	35-49	50+	Total
Abia	4.6	32.7	29.1	20.8	12.8	0	413
Akwa_Ibom	10.7	32.8	25.5	18.2	12.7	0	411
Anambra	4.1	32.5	42.9	14.5	6	0	415
Benue	6.3	30.4	33	17.3	13	0	415
Gombe	4.3	18.6	31.1	25.1	20.2	0.7	415
Kaduna	1.7	20	31.1	24.6	22.7	0	415
Kano	6.3	26.3	28.4	19.8	17.1	2.2	415
Lagos	1	14.5	29.6	22.4	30.1	2.4	415
Nasarawa	2.9	27	31.1	20.7	17.6	0.7	415
Oyo	2.9	20.5	32	19	21.4	4.1	415
Rivers	4.6	28.2	29.9	21.2	16.1	0	415
Taraba	2.9	27.5	27.7	21.7	18.8	1.4	415
Total	4.3	25.9	31	20.4	17.4	1.0	4,974

Appendix 1.2 Percentage distribution of PWID respondents by state

	15-19	20-24	25-29	30-34	35-49	50+	Total
Abia	2.4	15.8	29.9	24.5	25.3	2.2	368
Akwa_Ibom	1.4	25.8	28.8	22.3	21.2	0.5	368
Anambra	4.1	25.0	24.5	15.8	27.7	3.0	368
Benue	5.4	19.8	19.0	28.3	25.8	1.6	368
Gombe	1.9	28.3	30.7	25.0	13.9	0.3	368
Kaduna	4.6	33.2	31.3	16.3	14.1	0.5	368
Kano	1.4	13.0	34.2	25.0	23.4	3.0	368
Lagos	0.5	10.9	20.1	16.3	32.3	19.8	368
Nasarawa	13.6	29.1	33.7	13.9	9.0	0.8	368
Oyo	3.5	18.8	21.2	25.5	26.9	4.1	368
Rivers	0.0	4.9	28.5	23.6	41.3	1.6	368
Taraba	2.7	24.0	35.0	21.6	16.4	0.3	366
Total	3.5	20.7	28.1	21.5	23.1	3.1	4414

Appendix 1.3 Percentage distribution of MSM respondents by state

	15-19	20-24	25-29	30-34	35-49	50+	Total
Abia	7.3	45.3	24.7	17.6	5.1	0.0	369
Akwa_Ibom	18.6	48.4	22.4	7.0	3.5	0.0	370
Anambra	20.7	43.5	22.6	8.6	3.5	1.1	372
Benue	8.3	30.1	39.2	17.7	4.6	0.0	372
Gombe	9.2	46.2	31.8	9.2	3.5	0.0	368
Kaduna	3.5	41.9	34.4	14.0	6.2	0.0	372
Kano	12.6	37.9	34.4	7.3	6.7	1.1	372
Lagos	12.9	45.4	30.4	8.1	3.2	0.0	372
Nasarawa	14.8	41.7	29.6	10.8	2.7	0.5	372
Oyo	9.9	40.6	27.2	14.5	7.3	0.5	372
Rivers	20.2	38.7	26.1	8.9	5.6	0.5	372
Taraba	14.6	36.0	24.5	17.5	7.3	0.0	314
Total	12.7	41.4	29.0	11.7	4.9	0.3	4397

Appendix 1.4 Percentage distribution of TG respondents by state

State	15-19	20-24	25-29	30-34	35-49	50+	Total
Abia	21.1	55.6	20.6	1.6	1.1	0.0	369
Akwa Ibom	20.3	50.4	22.8	4.9	1.6	0.0	369
Anambra	4.6	49.7	34.4	8.6	2.7	0.0	372
Benue	14.8	40.3	28.0	10.5	6.5	0.0	372
Gombe	8.0	49.9	33.6	6.6	1.9	0.0	363
Kaduna	3.8	53.5	36.6	4.8	1.3	0.0	372
Kano	21.0	47.3	20.2	8.3	3.0	0.3	372
Lagos	12.9	34.1	30.9	15.3	6.2	0.5	372
Nasarawa	16.1	39.5	27.2	9.9	6.7	0.5	372
Oyo	4.6	40.9	29.6	12.4	11.8	0.8	372
Rivers	29.7	55.9	10.0	4.4	0.0	0.0	229
Taraba	15.6	46.5	20.3	10.9	6.3	0.4	256
Total	13.8	46.7	26.9	8.3	4.2	0.2	4,190

Appendix 2 HIV Knowledge indicators by state

Appendix 2.1 HIV Knowledge indicators among FSW by state

State	Healthy looking person can have HIV	HIV transmitted by used needle	Consistent condom use	Transmission from mother to child	Sexual abstinence to prevent HIV
Abia	93.7	92	98.6	73.9	95.4
Akwa Ibom	96.8	96.1	96.8	93.9	95.1
Anambra	97.6	91.6	90.6	83.4	74
Benue	99.3	96.1	75.7	98.3	71.1
Gombe	69.4	77.4	76.6	62.2	80.7
Kaduna	97.8	96.4	95.4	73.7	82.2
Kano	68.7	67.5	64.8	47.7	62.4
Lagos	91.3	86	83.6	81.5	40.5
Nasarawa	80.2	70.8	82.7	69.4	44.3
Oyo	88.4	87.2	73	84.6	46
Rivers	88.7	87.2	94.9	76.9	93
Taraba	83.4	90.8	97.1	81.2	94.2
Total	91.4	87.7	86.4	82.1	68.7

Appendix 2.2 HIV Knowledge indicators among PWID by state

	Healthy looking person can have HIV	HIV transmitted by used needle	Consistent condom use	Transmission from mother to child	Sexual abstinence to prevent HIV
Abia	45.7	65.5	69.6	37.5	67.4
Akwa_Ibom	95.4	88.0	78.8	55.4	52.4
Anambra	78.3	78.0	85.3	79.1	74.5
Benue	54.6	53.3	60.1	47.6	60.6
Gombe	75.3	72.3	68.5	63.3	51.6
Kaduna	88.6	94.8	95.7	51.6	82.9
Kano	70.1	96.7	87.5	47.0	79.3
Lagos	86.4	87.8	82.9	73.9	67.7
Nasarawa	66.6	66.8	72.6	50.8	74.2
Oyo	83.2	81.8	85.1	73.6	85.3
Rivers	98.1	97.0	98.9	85.9	97.0
Taraba	86.6	91.8	74.0	68.9	53.6
Total	**77.4**	**77.5**	**78.2**	**61.6**	**70.9**

Appendix 2.3 HIV Knowledge indicators among MSM by state

	Healthy looking person can have HIV	HIV transmitted by used needle	Consistent condom use	Transmission from mother to child	Sexual abstinence to prevent HIV
Abia	84.3	85.4	79.7	83.5	79.7
Akwa_Ibom	95.4	94.9	93.8	85.4	83.5
Anambra	92.5	96.5	98.1	41.1	97.0
Benue	89.0	88.4	88.2	74.7	70.4
Gombe	62.5	87.8	91.0	63.3	66.8
Kaduna	79.8	58.3	81.7	77.2	69.4
Kano	65.1	76.9	79.0	61.3	73.7
Lagos	91.7	91.7	84.1	75.8	73.9
Nasarawa	95.2	95.4	92.2	71.2	83.9
Oyo	92.5	96.8	76.1	89.5	72.0
Rivers	96.8	93.0	84.9	76.6	68.0
Taraba	86.0	94.9	87.3	86.3	82.8
Total	89.8	89.7	85.7	75.8	74.6

Appendix 2.4 HIV Knowledge indicators among TG by state

States	Healthy looking person can have HIV	HIV transmitted by used needle	Consistent condom use	Transmission from mother to child	Sexual abstinence to prevent HIV	Total
Abia	92.4	94.3	86.4	89.4	75.6	369
Akwa Ibom	91.3	88.1	75.3	61.2	56.1	369
Anambra	64.0	66.7	57.3	69.4	66.4	372
Benue	98.7	94.6	96.5	64.2	63.4	372
Gombe	88.7	97.0	92.0	78.2	71.9	363
Kaduna	98.1	96.8	96.8	75.0	76.3	372
Kano	80.6	87.6	87.9	48.7	58.3	372
Lagos	95.2	97.6	91.1	92.5	87.9	372
Nasarawa	84.1	85.2	66.1	70.4	51.3	372
Oyo	93.8	90.1	75.8	88.7	68.3	372
Rivers	94.3	96.1	89.5	78.2	66.4	229
Taraba	91.0	93.0	94.5	81.6	93.4	256
Total	91.8	90.9	81.9	80.7	70.0	4,190

Appendix 3 Self-reported STI symptoms in the last 12 months by state

Appendix 3.1 Self-reported STI symptoms in the last 12 months among FSW by state

State	Genital discharge	Burning pain on urination	Genital ulcers/sores/rash	Swellings in groin area	Itching of the genitals	Swelling around the anus/anal warts	At least one STI symptom
Abia	11.6	6.5	6.5	0.2	27.1	0.2	40.4
Akwa_Ibom	28.0	6.8	5.1	1.5	29.7	1.2	48.7
Anambra	14.2	13.0	5.3	0.2	53.3	1.0	59.0
Benue	44.3	30.8	1.4	1.0	49.9	0.5	58.6
Gombe	27.5	10.4	1.9	1.4	34.2	3.1	53.3
Kaduna	53.0	37.1	11.6	1.9	69.4	1.2	75.9
Kano	11.8	8.9	10.1	4.1	22.2	1.7	47.7
Lagos	21.2	11.8	2.9	1.7	37.6	0.7	50.1
Nasarawa	33.0	52.0	1.9	0.2	42.9	0.7	66.3
Oyo	13.5	8.7	5.1	1.7	22.4	0.5	29.2
Rivers	39.3	5.3	4.6	0.0	33.5	0.2	44.6
Taraba	55.4	26.7	5.1	8.0	66.5	5.1	72.0
Total	29.8	41.5	21.8	4.4	1.2	0.9	55.6

Appendix 3.2 Self-reported STI symptoms in the last 12 months among PWID by state

	Genital discharge	Burning pain on urination	Genital ulcers/sores/rash	Swellings in groin area	Itching of the genitals	Swelling around the anus/anal warts
Abia	1.1	3.3	1.4	0.3	5.7	1.1
Akwa_Ibom	3.0	16.3	2.4	3.8	17.4	1.4
Anambra	2.7	2.7	4.1	2.4	2.4	0.5
Benue	22.0	17.9	9.0	10.1	16.6	6.5
Gombe	18.5	32.9	19.3	15.5	20.1	7.3
Kaduna	16.6	36.1	12.5	1.4	14.4	1.4
Kano	8.4	8.2	1.4	0.5	10.1	0.3
Lagos	8.2	12.2	6.5	3.3	15.8	1.6
Nasarawa	20.7	25.3	6.3	8.4	22.8	1.6
Oyo	18.2	23.9	3.8	3.5	5.4	0.0
Rivers	6.3	29.6	1.9	0.8	9.2	0.3
Taraba	8.2	39.3	4.6	2.2	11.2	1.4
Total	13.1	20.5	6.1	5.3	13.9	2.8

Appendix 3.3 Self-reported STI symptoms in the last 12 months among MSM by state

	Genital discharge	Burning pain on urination	Genital ulcers/sores/rash	Swellings in groin area	Itching of the genitals	Swelling around the anus/anal warts	At least one STI symptom
Abia	4.3	5.1	3.8	2.7	6.8	2.4	11.9
Akwa_Ibom	4.3	6.8	3.0	1.9	5.1	12.2	23.5
Anambra	2.7	15.6	10.2	1.1	12.6	1.6	31.7
Benue	8.1	13.2	1.9	1.6	19.1	16.4	29.3
Gombe	3.8	4.3	2.7	1.1	4.1	0.0	7.3
Kaduna	24.2	13.4	12.4	12.4	24.7	8.6	38.4
Kano	10.5	18.5	5.9	2.2	2.2	0.3	24.5
Lagos	7.5	18.3	12.6	2.7	15.6	1.6	35.2
Nasarawa	2.7	5.6	0.5	0.5	2.2	0.0	6.5
Oyo	1.6	3.2	0.0	0.0	1.6	0.8	7.0
Rivers	16.4	19.4	11.8	1.6	17.5	14.0	35.8
Taraba	7.6	11.8	4.5	5.7	10.5	12.4	22.3
Total	9.3	12.6	15.2	8.9	2.5	6.5	30.2

Appendix 3.4 Self-reported STI symptoms in the last 12 months among TG by state

States	Genital discharge	Burning pain on urination	Genital ulcers/sores/rash	Swellings in groin area	Itching of the genitals	Swelling around the anus/anal warts	At least one STI symptom	Total
Abia	16.3	24.1	12.2	4.9	14.6	6.8	48.2	369
Akwa Ibom	10.8	9.2	2.7	1.6	16.5	1.9	26.0	369
Anambra	11.6	9.1	4.3	7.8	16.1	13.2	35.5	372
Benue	7.8	9.1	5.4	2.2	22.3	7.5	32.8	372
Gombe	8.5	14.9	2.8	1.7	17.4	2.5	34.4	363
Kaduna	19.6	14.5	1.9	4.8	20.2	7.0	36.6	372
Kano	15.3	21.8	2.4	1.1	17.5	8.1	47.8	372
Lagos	15.1	14.5	2.4	1.3	5.1	4.3	27.4	372
Nasarawa	12.4	10.5	7.0	3.2	9.7	4.0	22.3	372
Oyo	6.2	6.7	1.1	1.6	5.9	15.9	27.2	372
Rivers	9.2	12.2	9.2	2.6	14.8	5.2	26.2	229
Taraba	27.0	23.8	12.5	26.2	36.7	18.4	58.6	256
Total	10.8	11.0	3.2	2.8	11.3	10.4	30.9	4,190

Appendix 4 Source of STI treatment by state

Appendix 4.1 Source of STI treatment among FSW by state

	Friend/family member	NGO	No response	Others	Pharmacy /chemist	Private hospital	Public hospital	Traditional healer	Total
Abia	0.0	1.5	1.4	0.0	46.8	27.7	11.3	10.6	141
Akwa Ibom	1.2	1.2	0.0	0.0	55.9	27.1	13.5	1.2	170
Anambra	0.5	0.5	0.0	0.0	63.2	18.7	2.9	14.4	209
Benue	0.4	15.3	0.0	0.0	28.8	17.0	37.6	0.9	229
Gombe	0.0	2.4	1.8	0.0	29.3	13.2	50.3	3.0	167
Kaduna	0.0	3.6	0.0	0.1	44.8	24.7	17.2	9.0	279
Kano	1.6	3.2	1.6	0.0	22.2	9.5	50.8	11.1	63
Lagos	1.0	2.6	0.0	0.9	35.9	33.3	18.5	5.1	195
Nasarawa	12.4	1.6	0.0	0.2	41.6	8.1	2.2	33.5	185
Oyo	2.8	9.4	0.0	0.0	41.5	18.9	25.5	0.9	106
Rivers	1.0	6.0	0.0	0.2	54.8	6.5	4.2	27.4	168
Taraba	3.0	19.6	0.0	0.1	41.2	11.8	15.5	9.8	245
Total	2.6	4.7	0.1	0.7	44.2	20.4	16.4	10.9	2157

Appendix 4.2 Source of STI treatment among PWID by state

	Pharmacy/ chemist	Friend/family member	NGO	Private hospital	Public hospital	Traditional healer	Others	No response	Total
Abia	45.5	9.1	0	4.5	0	40.9	0	0	22
Akwa Ibom	40.9	1.5	1.5	16.7	13.6	22.7	3	0	66
Anambra	16.7	16.7	0	16.7	16.7	33.3	0	0	6
Benue	21.7	0	17.4	26.1	21.7	0	0	4.3	23
Gombe	5.6	0	7.9	16.9	66.3	3.4	0	0	89
Kaduna	39.7	0	4.6	19.8	13	22.9	0	0	131
Kano	12.3	0	8.8	17.5	15.8	45.6	0	0	57
Lagos	25	0	11.5	28.8	34.6	0	0	0	52
Nasarawa	36.1	0.8	1.6	21.3	25.4	14.8	0	0	122
Oyo	49.4	0	0	12.6	4.6	33.3	0	0	87
Rivers	3.7	0	91.9	0.7	3	0.7	0	0	135
Taraba	62	1.3	1.3	8.9	11.4	15.2	0	0	79
Total	30.03	0.69	17.95	14.6	19.10	16.69	0.23	0.12	869

Appendix 4.3 Source of STI treatment among MSM by state

	Pharmacy/ chemist	Friend/ family member	NGO	Private hospital	Public hospital	Traditional healer	Others	No response	Total
Abia	22.5	0.0	7.5	17.5	7.5	35.0	0.0	10.0	40
Akwa Ibom	25.6	0.0	53.8	12.8	2.6	5.1	0.0	0.0	39
Anambra	46.7	0.0	6.5	14.1	25.0	6.5	1.1	0.0	92
Benue	22.8	0.0	57.6	12.0	7.6	0.0	0.0	0.0	92
Gombe	9.5	4.8	14.3	0.0	57.1	14.3	0.0	0.0	21
Kaduna	16.0	0.0	41.5	12.8	16.0	12.8	0.0	0.0	94
Kano	4.5	0.0	78.8	3.0	10.6	3.0	0.0	0.0	66
Lagos	24.6	2.6	11.4	23.7	20.2	16.7	0.9	0.0	114
Nasarawa	30.0	5.0	20.0	15.0	30.0	0.0	0.0	0.0	20
Oyo	12.5	0.0	33.3	41.7	8.3	0.0	4.2	0.0	24
Rivers	28.1	0.0	48.8	14.0	3.3	5.0	0.8	0.0	121
Taraba	31.3	2.1	39.6	12.5	12.5	2.1	0.0	0.0	48
Total	44.2	2.6	4.7	20.4	16.4	10.9	0.7	0.1	771

Appendix 4.4 Source of STI treatment among TG by state

State	Pharmacy/chemist	Friend/family member	NGO	Private hospital	Public hospital	Traditional healer	Others	Don't know	No response	Total
Abia	27.9	0.0	6.4	27.9	33.6	4.3	0.0	0.0	0.0	140
Akwa Ibom	35.4	3.1	13.8	13.8	10.8	21.5	1.5	0.0	0.0	65
Anambra	23.5	11.8	17.6	21.6	11.8	5.9	0.0	3.9	3.9	51
Benue	50.6	5.9	3.5	15.3	22.4	2.4	0.0	0.0	0.0	85
Gombe	44.1	2.0	3.9	19.6	19.6	9.8	1.0	0.0	0.0	102
Kaduna	22.1	1.1	14.7	38.9	14.7	8.4	0.0	0.0	0.0	95
Kano	21.6	0.0	4.1	14.4	23.7	34.0	1.0	0.0	1.0	97
Lagos	42.0	0.0	39.1	7.2	4.3	5.8	1.4	0.0	0.0	69
Nasarawa	10.2	0.0	11.9	30.5	30.5	16.9	0.0	0.0	0.0	59
Oyo	9.3	0.0	34.9	39.5	11.6	2.3	2.3	0.0	0.0	43
Rivers	48.1	0.0	15.4	26.9	1.9	7.7	0.0	0.0	0.0	52
Taraba	45.9	0.8	12.8	13.5	19.5	6.8	0.8	0.0	0.0	133
Total	26.7	1.3	20.5	26.6	15.6	8.0	0.9	0.2	0.2	991

Appendix 5 HIV Risk perception by state

State	FSW (%)	PWID (%)	MSM (%)	TG (%)
Abia	44.3	11.1	47.7	26.0
Akwa Ibom	35.0	23.9	34.9	27.9
Anambra	43.9	17.1	54.6	28.2
Benue	54.2	18.5	57.5	29.3
Gombe	73.3	41.8	16.3	35.0
Kaduna	44.8	39.4	47	16.4
Kano	9.9	31.0	34.1	22.6
Lagos	46.8	21.2	34.7	12.4
Nasarawa	22.2	22.0	40.3	28.5
Oyo	45.5	9.8	12.9	24.5
Rivers	32.3	66.0	66.7	41.5
Taraba	21.9	44.5	58.9	46.1
Total	38.9	29.3	42.7	24.0

Appendix 6 Female Condom Use

Appendix 6.1 Female Condom Use by State

State	% Ever heard of female condom use	% Ever used female condom
Abia	88.9	38.2
Akwa Ibom	92.9	33.5
Anambra	90.8	23.3
Benue	86.8	28.1
Gombe	66.8	35.4
Kaduna	97.8	49.0
Kano	57.4	38.7
Lagos	94.9	37.8
Nasarawa	72.3	20.0
Oyo	86.0	44.8
Rivers	70.4	22.6
Taraba	83.4	47.4
Total	85.9	32.0

Appendix 6.2 Female Condom Heard and Use among PWID

State	% Ever heard of female condom use	% Ever used female condom
Abia	47.0	5.8
Akwa Ibom	75.5	16.9
Anambra	31.5	18.1
Benue	42.7	18.5
Gombe	69.3	18.0
Kaduna	57.9	17.4
Kano	69.8	9.7
Lagos	56.0	10.2
Nasarawa	37.5	14.5
Oyo	73.4	10.0
Rivers	79.9	25.5
Taraba	48.6	9.6
Total	57.4	14.8

Appendix 7 Types of information or HIV/AIDS services received from an outreach worker/peer educator in the past 12 months by state

Appendix 7.1 Types of information or HIV/AIDS services received from an outreach worker/peer educator in the past 12 months by state among FSW

State	Free condoms	Education on safe sex	Education on safe injection	Needle/syringe	Referral for STI services	Referral for HTS services
Abia	85.5	81.8	5.5	25.5	40.0	45.5
Akwa Ibom	72.8	86.0	2.6	6.1	2.6	3.5
Anambra	89.7	74.1	1.6	3.8	3.8	20.5
Benue	83.2	77.9	1.3	1.3	65.0	54.0
Gombe	25.7	21.1	1.7	1.7	1.1	1.1
Kaduna	94.3	93.3	1.0	21.5	64.6	58.9
Kano	81.4	54.3	4.3	0.0	4.3	1.4
Lagos	90.9	63.6	3.9	15.6	14.3	16.9
Nasarawa	65.4	23.1	11.5	0.0	0.0	11.5
Oyo	56.1	32.3	1.3	4.9	17.5	16.1
Rivers	94.9	83.7	3.1	19.4	7.1	0.0
Taraba	89.6	82.3	1.8	1.8	35.4	10.4
Total	82.1	74.2	15.5	8	30.6	29.7

Appendix 7.2 Types of information or HIV/AIDS services received from an outreach worker/peer educator in the past 12 months by state among PWID

state	Free condoms	Education on safe sex	Education on safe injection	Needle/syringe	Referral for STI services	Referral for HTS services	Total
Abia	83.3	66.7	50	25	8.3	0	12
Akwa Ibom	72.1	49.2	13.1	3.3	1.6	1.6	61
Anambra	9.1	0	0	0	0	0	11
Benue	52.1	46.6	41.1	13.7	26	28.8	73
Gombe	72.4	73.7	75	23.7	11.8	10.5	76
Kaduna	85.2	57.7	29.1	27.5	12.2	47.6	189
Kano	75	53.3	42.4	46.7	16.3	5.4	92
Lagos	48.5	69.7	48.5	21.2	12.1	4.5	66
Nasarawa	58.8	11.8	11.8	2.9	5.9	5.9	68
Oyo	88.8	77	74.2	74.2	7.9	9	178
Rivers	35.6	21.8	31	1.1	1.1	2.3	87
Taraba	87.9	87.9	15.2	12.1	6.1	42.4	33
Total	62.8	51.3	41.8	24.5	11.9	15.9	946

Appendix 7.3 Types of information or HIV/AIDS services received from an outreach worker/peer educator in the past 12 months by state among MSM

State	Free condoms	Education on safe sex	Education on safe injection	Needle/syringe	Referral for STI services	Referral for HTS services	Total
Abia	61.2	55.3	5.9	0.0	1.2	7.1	85
Akwa Ibom	50.0	47.1	5.1	0.7	13.2	34.6	136
Anambra	60.7	64.3	23.2	19.6	28.6	32.1	56
Benue	79.7	72.4	35.8	8.9	57.7	56.9	123
Gombe	93.9	87.9	27.3	13.6	45.5	47.0	66
Kaduna	92.7	92.7	41.6	40.1	45.3	43.8	137
Kano	83.1	68.2	8.1	8.8	14.9	12.2	148
Lagos	89.9	85.3	62.8	24.8	18.6	13.2	129
Nasarawa	66.7	39.4	9.1	3.0	24.2	12.1	33
Oyo	92.4	84.0	2.1	0.7	9.7	10.4	144
Rivers	81.6	82.2	9.2	8.0	67.5	64.4	163
Taraba	81.7	83.1	26.8	4.9	21.1	13.4	142
Total	79.7	75.5	30.4	14.1	31.4	31.8	1362

Appendix 7.4 Types of information or HIV/AIDS services received from an outreach worker/peer educator in the past 12 months by state among TG

State	Free condoms	Education on safe sex	Education on safe injection	Needle/ syringe	Referral for STI services	Referral for HTS services	Total
Abia	61.7	66.0	21.3	14.9	27.7	44.7	47
Akwa Ibom	51.2	74.4	27.9	2.3	23.3	27.9	43
Anambra	6.4	5.1	2.6	0.0	1.3	1.3	78
Benue	93.8	68.8	12.5	9.4	34.4	40.6	32
Gombe	86.2	85.3	28.4	17.2	10.3	12.9	116
Kaduna	67.9	70.5	20.5	3.6	57.1	81.3	112
Kano	77.4	71.0	14.5	3.2	11.3	6.5	62
Lagos	60.0	64.0	21.3	18.7	20.0	18.7	75
Nasarawa	69.8	66.0	22.6	9.4	11.3	9.4	53
Oyo	98.5	95.5	79.5	15.2	17.4	15.9	132
Rivers	69.4	72.2	8.3	8.3	13.9	33.3	36
Taraba	80.6	80.6	33.8	5.0	7.2	5.8	139
Total	83.0	81.4	52.4	12.3	21.5	24.1	925

Appendix 8 Percentage ever heard of PrEP and PEP and ever taken PrEP and PEP by state

Appendix 8.1 Percentage of FSW ever heard of PrEP and ever taken PrEP by state

State	Ever heard of PrEP	Number	Ever taken PrEP	Number
Abia	17.2	413	14.1	71
Akwa Ibom	27.3	411	17.0	112
Anambra	1.4	415	33.3	6
Benue	43.1	415	22.3	179
Gombe	7.7	415	50.0	32
Kaduna	53.5	415	11.7	222
Kano	9.4	415	56.4	39
Lagos	35.4	415	21.8	147
Nasarawa	1.0	415	75.0	4
Oyo	17.6	415	24.7	73
Rivers	3.6	415	13.3	15
Taraba	38.3	415	18.2	159
Total	22.9	4,974	20.1	1,059

Appendix 8.2 Percentage of FSW ever heard of PEP and ever taken PEP by state

State	Ever heard of PEP	Number	Ever taken PEP	Number
Abia	9.9	413	7.3	41
Akwa Ibom	54.3	411	2.7	223
Anambra	1.7	415	0	7
Benue	38.8	415	21.7	161
Gombe	5.5	415	21.7	23
Kaduna	40.7	415	6.5	169
Kano	1.7	415	14.3	7
Lagos	14.5	415	16.7	60
Nasarawa	0.5	415	50	2
Oyo	11.8	415	6.1	49
Rivers	3.4	415	14.3	14
Taraba	25.5	415	9.4	106
Total	22.6	4,974	9.6	862

Appendix 8.3 Percentage of PWID ever heard of PrEP and ever taken PrEP by state

State	Ever heard of PrEP	Total	Ever taken PrEP	Total
Abia	1.4	368	0.0	5
Akwa Ibom	4.6	368	23.5	17
Anambra	21.2	368	5.1	78
Benue	41.8	368	10.4	154
Gombe	10.9	368	47.5	40
Kaduna	11.4	368	33.3	42
Kano	1.4	368	0.0	5
Lagos	8.7	368	34.4	32
Nasarawa	10.1	368	24.3	37
Oyo	20.4	368	2.7	75
Rivers	47.8	368	6.8	176
Taraba	8.5	366	6.5	31
Total	25.4	4416	11.2	692

Appendix 8.4 Percentage of PWID ever heard of PEP and ever taken PEP by state

State	Ever heard of PEP	Total	Ever taken PEP	Total
Abia	0.0	368	0.0	0
Akwa Ibom	3.8	368	0.0	14
Anambra	4.1	368	0.0	15
Benue	22.8	368	4.8	84
Gombe	7.6	368	32.1	28
Kaduna	13.9	368	11.8	51
Kano	4.6	368	5.9	17
Lagos	5.2	368	21.1	19
Nasarawa	9.0	368	21.2	33
Oyo	18.2	368	3.0	67
Rivers	45.9	368	2.4	169
Taraba	6.3	366	4.3	23
Total	18.6	4416	5.0	520

Appendix 8.5 Percentage of MSM ever heard of PrEP and ever taken PrEP by state

State	Ever heard of PrEP	n	Ever taken PrEP	n
Abia	45.0	369	10.2	166
Akwa Ibom	56.2	370	16.8	208
Anambra	42.7	372	59.7	159
Benue	42.5	372	42.4	158
Gombe	19.6	368	69.4	72
Kaduna	32.3	372	40.0	120
Kano	39.0	372	13.1	145
Lagos	58.6	372	29.8	218
Nasarawa	22.3	372	26.5	83
Oyo	37.9	372	22.7	141
Rivers	44.1	372	31.7	164
Taraba	37.9	314	15.1	119
Total	49.6	4,397	27.3	1753

Appendix 8.6 Percentage of MSM ever heard of PEP and ever taken PEP by state

State	Ever heard of PEP	Total	Ever taken PEP	Total
Abia	41.5	369	7.2	153
Akwa Ibom	46.2	370	5.3	171
Anambra	21.8	372	45.7	81
Benue	30.9	372	7.8	115
Gombe	18.2	368	62.7	67
Kaduna	21.5	372	6.3	80
Kano	39.2	372	5.5	146
Lagos	55.6	372	14.5	207
Nasarawa	11.6	372	9.3	43
Oyo	18.3	372	13.2	68
Rivers	32.3	372	10.0	120
Taraba	26.1	314	4.9	82
Total	42.6	4397	11.3	1333

Appendix 8.7 Percentage of TG ever heard of PrEP and ever taken PrEP by state

State	Ever heard of PrEP	Total	Ever taken PrEP	Total
Abia	28.2	369	38.5	104
Akwa Ibom	46.9	369	23.7	173
Anambra	33.6	372	5.6	125
Benue	19.9	372	25.7	74
Gombe	18.7	363	27.9	68
Kaduna	52.4	372	45.6	195
Kano	28.8	372	51.4	107
Lagos	29.8	372	28.8	111
Nasarawa	23.7	372	30.7	88
Oyo	51.9	372	14.5	193
Rivers	42.4	229	34.0	97
Taraba	23.0	256	40.7	59
Total	40.6	4,190	23.8	1,394

Appendix 8.8 Percentage of TG ever heard of PEP and ever taken PEP by state

State	Ever heard of PEP	N heard	Ever taken PEP	Total
Abia	20.1	369	24.3	74
Akwa Ibom	35.2	369	7.7	130
Anambra	23.9	372	4.5	89
Benue	12.4	372	8.7	46
Gombe	3.3	363	8.3	12
Kaduna	23.9	372	2.2	89
Kano	20.2	372	5.3	75
Lagos	14.8	372	5.5	55
Nasarawa	14.2	372	3.8	53
Oyo	44.9	372	4.2	167
Rivers	24.0	229	16.4	55
Taraba	11.3	256	31.0	29
Total	29.1	4,190	5.3	874

Appendix 9 Stigma and discrimination by state

Appendix 9.1 Stigma and discrimination among FSW by state

State	People sometimes talk badly about PLHIV to others	Health workers sometimes talk badly about PLHIV to others	PLHIV lose respect or standing	PLHIV are verbally insulted, harassed and/or threatened	People sometimes disclose that other people are HIV positive without their permission	Health workers sometimes disclose that other people are HIV positive without their permission	Will choose not to seek services associated with HIV positive people because of fear of stigma	Total
Abia	72.9	27.4	71.9	69.7	68.5	25.2	46.7	413
Akwa-Ibom	78.8	28	75.9	71.8	80.8	25.3	28	411
Anambra	83.1	27.7	55.2	52.3	79.3	23.6	21.9	415
Benue	61.7	29.6	38.3	26.3	69.4	37.8	5.3	415
Gombe	57.8	53.5	56.9	54.7	62.4	56.6	62.2	415
Kaduna	59.8	16.1	20.5	33.7	57.3	14	32.3	415
Kano	31.8	11.3	22.4	21.2	37.6	16.1	23.4	415
Lagos	68.7	13.3	38.3	28.9	69.4	13.7	24.8	415
Nasarawa	78.6	60.7	69.6	64.3	77.1	65.8	51.8	415
Oyo	71.3	12.5	53.5	49.2	57.3	4.1	26.3	415
Rivers	53	15.7	36.9	20.5	26.7	9.6	45.8	415
Taraba	72	30.4	35.2	29.6	64.1	21.9	21.4	415
Total	70.3	29.4	52.4	47.2	69.5	29.9	29.4	4,974

Appendix 9.2 Stigma and discrimination among PWID by state

State	People sometimes talk badly about PLHIV to others	Health workers sometimes talk badly about PLHIV to others	PLHIV lose respect or standing	PLHIV are verbally insulted, harassed and/or threatened	People sometimes disclose that other people are HIV positive without their permission	Health workers sometimes disclose that other people are HIV positive without their permission	Will choose not to seek services associated with HIV positive people because of fear of stigma	Total
Abia	59.5	25.8	44.6	40.5	57.9	13.6	58.4	367
Akwa Ibom	46.7	18.8	45.7	35.9	28.0	7.6	44.6	368
Anambra	55.7	44.0	53.8	52.2	52.7	42.9	46.5	368
Benue	38.3	36.1	37.8	28.0	38.6	36.7	23.9	368
Gombe	56.3	14.1	28.3	14.9	67.4	13.9	10.9	368
Kaduna	89.1	53.3	75.3	66.3	81.3	38.3	59.8	368
Kano	79.3	18.5	73.9	58.4	79.9	14.4	45.4	368
Lagos	38.0	21.5	37.2	34.5	36.1	23.4	21.7	368
Nasarawa	63.6	29.6	53.5	43.8	54.9	28.3	39.4	368
Oyo	92.4	48.9	85.1	58.4	75.5	40.5	50.3	368
Rivers	41.0	25.8	39.9	39.4	38.9	14.9	12.2	368
Taraba	79.5	22.7	54.6	25.1	85.2	13.7	25.7	366
Total	**70**	**29**	**52**	**47**	**70**	**30**	**29**	**4413**

Appendix 9.3 Stigma and discrimination among MSM by state

State	People sometimes talk badly about PLHIV to others	Health workers sometimes talk badly about PLHIV to others	PLHIV lose respect or standing	PLHIV are verbally insulted, harassed and/or threatened	People sometimes disclose that other people are HIV positive without their permission	Health workers sometimes disclose that other people are HIV positive without their permission	Will choose not to seek services associated with HIV positive people because of fear of stigma	Total
Abia	73.2	29	69.1	39	70.7	19	72.1	369
Akwa Ibom	86.5	47.8	60.8	38.4	81.6	46.2	41.9	370
Anambra	93.5	39	68.3	40.6	80.1	16.1	30.1	372
Benue	79	23.9	45.2	49.2	71.2	21.8	26.1	372
Gombe	59.2	28.8	55.7	44	48.6	25	56	368
Kaduna	45.7	29.3	21.8	19.9	40.1	16.9	24.7	372
Kano	54	31.7	36	26.6	41.4	30.1	48.4	372
Lagos	66.1	25.8	55.9	44.6	53.5	20.4	41.7	372
Nasarawa	70.2	30.9	72.8	43.8	76.1	24.2	16.4	372
Oyo	52.4	33.6	11.8	25.3	59.9	29.6	12.6	372
Rivers	82.5	33.9	65.6	63.7	78.2	24.5	55.4	372
Taraba	77.1	20.1	71.3	69.7	69.4	16.9	55.7	314
Total	71.6	32.0	54.9	44.4	63.4	26.3	43.0	4397

Appendix 9.4 Stigma and discrimination among TG by state

State	People sometimes talk badly about PLHIV to others	Health workers sometimes talk badly about PLHIV to others	PLHIV lose respect or standing	PLHIV are verbally insulted, harassed and/or threatened	People sometimes disclose that other people are HIV positive without their permission	Health workers sometimes disclose that other people are HIV positive without their permission	Will choose not to seek services associated with HIV positive people because of fear of stigma	Total
Abia	82.4	36.6	68.0	58.5	93.0	37.1	43.4	369
Akwa Ibom	72.9	38.2	57.2	36.9	70.5	31.2	32.5	369
Anambra	41.4	37.9	39.2	33.9	39.0	41.1	62.4	372
Benue	86.0	28.8	55.9	36.3	83.1	18.5	44.9	372
Gombe	90.6	28.4	85.7	78.5	87.3	16.0	70.0	363
Kaduna	85.2	20.4	59.4	25.3	84.7	16.7	38.7	372
Kano	56.5	29.6	50.8	48.9	55.1	16.4	42.5	372
Lagos	68.3	53.0	59.4	55.6	67.5	55.4	57.3	372
Nasarawa	63.4	17.5	53.2	51.9	69.1	15.1	21.0	372
Oyo	77.2	28.0	65.9	60.2	41.1	16.9	50.5	372
Rivers	88.2	30.6	72.5	67.7	84.7	27.9	33.2	229
Taraba	91.0	53.9	58.2	77.0	92.6	49.6	67.6	256
Total	74.7	31.2	61.2	52.2	60.0	24.8	47.4	4190

Appendix 10 Sexual debut

Appendix 10.1 Sexual debut among FSW by state

State	<10	10-19	20-29	30+
Abia	0.2	80.1	19.6	0.0
Akwa Ibom	0.5	69.1	30.4	0.0
Anambra	0.7	83.9	15.4	0.0
Benue	0.0	84.6	15.4	0.0
Gombe	1.9	83.1	14.9	0.0
Kaduna	0.0	87.0	12.8	0.2
Kano	1.2	80.5	17.8	0.5
Lagos	0.5	77.1	22.4	0.0
Nasarawa	0.5	86.7	12.8	0.0
Oyo	1.0	61.4	36.9	0.7
Rivers	0.0	76.9	22.4	0.7
Taraba	0.5	72.3	27.0	0.2
Total	0.6	78.6	20.6	0.2

Appendix 10.2 Sexual debut among PWID by state

State	<10	10-19	20-29	30+
Abia	1.6	66.0	31.8	0.5
Akwa Ibom	4.3	78.3	17.1	0.3
Anambra	0.3	77.7	22.0	0.0
Benue	1.4	62.0	36.7	0.0
Gombe	0.8	73.6	25.3	0.3
Kaduna	2.2	72.8	24.2	0.8
Kano	8.4	46.7	41.6	3.3
Lagos	0.8	67.1	32.1	0.0
Nasarawa	6.3	63.3	29.9	0.5
Oyo	2.7	82.3	13.9	1.1
Rivers	0.3	54.9	42.7	2.2
Taraba	0.0	66.1	33.6	0.3
Total	2.4	67.6	29.2	0.8

Appendix 10.3 Sexual debut among MSM by state

State	<10	10-19	20-29	30+
Abia	3.8	91.1	5.1	0.0
Akwa_Ibom	2.2	67.0	30.0	0.8
Anambra	1.9	70.2	27.2	0.8
Benue	1.6	70.7	27.7	0.0
Gombe	0.3	65.2	34.2	0.3
Kaduna	2.4	57.8	38.2	1.6
Kano	0.3	77.4	22.0	0.3
Lagos	4.3	78.2	17.5	0.0
Nasarawa	0.3	82.5	17.2	0.0
Oyo	0.8	78.2	19.9	1.1
Rivers	7.0	83.3	9.7	0.0
Taraba	2.2	85.4	12.4	0.0
Total	2.3	75.5	21.9	0.4

Appendix 10.4 Sexual debut among TG by state

State	<10	10-19	20-29	30+
Abia	1.6	90.8	7.6	0.0
Akwa Ibom	8.4	83.2	8.1	0.3
Anambra	0.5	87.4	12.1	0.0
Benue	1.6	80.6	17.5	0.3
Gombe	2.8	76.6	20.7	0.0
Kaduna	1.6	96.2	2.2	0.0
Kano	6.7	81.5	11.6	0.3
Lagos	1.9	80.6	17.5	0.0
Nasarawa	8.1	77.7	14.0	0.3
Oyo	1.3	79.0	19.4	0.3
Rivers	10.5	84.7	4.8	0.0
Taraba	5.9	73.0	21.1	0.0
Total	4.0	82.8	13.1	0.1

Appendix 11 Condom use by partner type by state

Appendix 11.1 Condom use among FSW by partner type by state

	Regular partners			Casual partners			Client		
State	Condom use at last sex	Consistent condom use in the last 6 months	N	Condom use at last sex	Consistent condom use in the last 6 months	N	Condom use at last sex	Consistent condom use in the last 6 months	N
Abia	70.3	55.4	148	94.5	93.2	73	99.5	96.6	413
Akwa Ibom	60.6	37.0	297	89.4	35.8	179	96.1	68.4	411
Anambra	39.4	11.1	216	87.3	72.7	110	99.0	84.8	415
Benue	76.5	48.2	307	80.9	59.2	152	73.5	42.2	415
Gombe	79.5	45.8	83	81.5	53.7	54	75.9	41.7	415
Kaduna	47.6	36.0	267	96.7	90.1	151	99.3	94.9	415
Kano	74.7	67.2	198	71.8	66.5	170	63.1	57.6	415
Lagos	39.7	34.7	239	68.6	64.7	51	98.1	89.2	415
Nasarawa	38.0	18.2	274	90.4	55.3	291	88.9	49.9	415
Oyo	46.5	33.7	187	80.2	75.3	81	95.7	94.2	415
Rivers	58.2	49.5	194	96.8	88.2	93	96.1	90.4	415
Taraba	42.7	26.7	307	90.2	67.6	173	91.6	73.0	415
Total	53.4	34.1	2,717	87.2	57.9	1,578	91.0	70.1	4,974

Appendix 11.2 Condom use among PWID by partners type by state

State	Condom use at last sex	Consistent condom use in the last 6 months	N	Condom use at last sex	Consistent condom use in the last 6 months	N	Condom use at last sex	Consistent condom use in the last 6 months	N
Abia	26.7	2.1	195	64.8	29.6	71	34.4	27.3	32
Akwa Ibom	41.4	21.6	292	75.7	55	169	72.9	80	48
Anambra	32.3	11	127	75	25	16	75	100	4
Benue	53.2	12.8	47	53.1	15.6	32	50	33.3	18
Gombe	56	34.7	248	84.4	43.4	173	89.2	27.5	102
Kaduna	61.1	27.7	347	77.9	45.2	217	71.6	45.5	141
Kano	37.6	26	181	72.1	50	68	56.8	60	44
Lagos	44.4	17.6	153	67.7	38.7	31	81.3	38.5	16
Nasarawa	28.2	6.6	227	49.3	21.7	138	42.9	25	56
Oyo	33.1	14.5	317	78.1	40.6	187	68.8	13.6	32
Rivers	78.8	2.4	245	91.1	5.4	168	95.9	9.9	148
Taraba	55	22.7	220	76.9	38.5	130	76.9	48.9	117
Total			2,599			1,400			758

Appendix 11.3 Condom use among MSM by partners type by state

	Regular partners			Casual partners			Client		
State	Condom use at last sex	Consistent condom use in the last 6 months	n	Condom use at last sex	Consistent condom use in the last 6 months	n	Condom use at last sex	Consistent condom use in the last 6 months	n
Abia	51.7	31.3	176	63.4	35.4	161	89.1	65.2	46
Akwa Ibom	83.3	33.0	270	90.7	48.6	107	87.5	22.9	48
Anambra	79.7	30.1	316	92.0	38.0	263	92.4	25.5	184
Benue	58.2	15.8	349	70.7	18.3	164	68.1	21.7	69
Gombe	73.2	32.6	328	84.0	38.9	131	82.5	38.4	177
Kaduna	69.5	19.1	262	80.4	23.4	209	78.8	29.1	179
Kano	70.3	30.0	317	65.5	20.0	55	78.9	36.8	19
Lagos	64.7	40.5	326	80.4	51.8	245	83.5	66.1	109
Nasarawa	65.8	32.2	345	76.6	37.3	209	85.3	68.6	102
Oyo	80.3	57.4	305	69.8	51.2	86	87.5	75.0	16
Rivers	63.6	28.4	341	78.2	34.7	225	82.4	51.4	74
Taraba	73.8	31.6	294	85.0	55.0	220	69.8	28.6	126
Total	67.9	33.6	3,629	79.8	43.1	2,075	82.9	52.0	1,149

Appendix 11.4 Condom use among TG by partners type by state

	Regular partners			Casual partners			Client		
State	Condom use at last sex	Consistent condom use in the last 6 months	n	Condom use at last sex	Consistent condom use in the last 6 months	n	Condom use at last sex	Consistent condom use in the last 6 months	n
Abia	79.9	47.7	333	92.7	70.8	260	89.9	73.5	238
Akwa Ibom	48.7	28.0	314	58.9	26.8	112	73.9	39.1	46
Anambra	61.1	19.4	36	45	5.0	20	52.6	10.5	19
Benue	40.2	17.0	276	71.1	47.6	166	79.7	58.1	74
Gombe	67.6	41.0	278	77.2	42.8	215	85.7	52.6	133
Kaduna	91	66.2	343	91.5	71.8	213	93.4	76.2	286
Kano	62.5	24.9	293	73.3	29.0	210	63	35.5	138
Lagos	60.6	18.8	340	74.5	34.0	188	67.2	35.9	64
Nasarawa	66.4	35.2	247	69.5	35.1	151	61.2	32.7	98
Oyo	76.6	49.0	363	79.8	55.4	267	77.7	59.2	233
Rivers	61.6	31.6	177	73.8	36.9	160	71.7	48.9	92
Taraba	60.1	14.4	243	81.1	25.0	164	79.9	22.7	154
Total	71.9	41.2	3243	79.0	50.7	2126	79.1	58.3	1575

Appendix 11.5 Consistent Condom Use and Condom Use at Last Sex by Partner Typology

	FSW			MSM			PWID			TG		
	Condom use at last sex (%)	Consistent condom use in the last 6 months (%)	N	Condom use at last sex (%)	Consistent condom use in the last 6 months (%)	N	Condom use at last sex (%)	Consistent condom use in the last 6 months (%)	N	Condom use at last sex (%)	Consistent condom use in the last 6 months (%)	N
Regular	53.4	34.1	2,717	67.9	33.6	3629	51.1	15.6	2599	71.2	41.2	3243
Casual	87.2	57.9	1,578	79.8	43.1	2075	77.1	31.9	1400	79.0	50.7	2126
Client	91.0	70.1	4974	82.9	52.0	1149	79.8	26.8	758	79.1	58.3	1575

Appendix 12 Frequency of harassment by law enforcement

Appendix 12.1 FSW Frequency of harassment by law enforcement agent by state

	Don't know	Never	No response	Often	Only once or twice	Very often	Total
Abia	0.5	30	0.2	26.9	18.4	24	413
Akwa_Ibom	0.2	42.6	1.7	15.8	34.8	4.9	411
Anambra	2.2	65.3	2.9	1.7	27.2	0.7	415
Benue	5.5	74.7	7	2.7	7.7	2.4	415
Gombe	2.7	45.8	1.9	13.5	26.5	9.6	415
Kaduna	0.5	25.3	0.7	28.9	36.9	7.7	415
Kano	1.7	42.4	17.6	13.7	18.6	6	415
Lagos	2.7	47.2	1.9	13.5	26.7	8	415
Nasarawa	1.2	82.7	3.9	2.2	9.2	1	415
Oyo	1.9	67	7.7	8.4	10.1	4.8	415
Rivers	3.4	51.3	6	8.4	12.8	18.1	415
Taraba	1.7	73.5	1.7	4.8	14.5	3.9	415
Total							4974

Appendix 12.2 PWID Frequency of harassment by law enforcement agent by state

	Don't know	Never	No response	Often	Only once or twice	Very often	Total
Abia	3.5	60.2	3.8	12.0	11.7	8.7	368
Akwa Ibom	0.5	50.0	2.7	23.4	16.8	6.5	368
Anambra	2.7	20.4	20.9	14.7	38.9	2.4	368
Benue	18.2	16.3	25.5	3.8	33.4	2.7	368
Gombe	1.9	35.1	1.1	30.7	14.4	16.8	368
Kaduna	0.0	62.0	2.7	10.9	22.6	1.9	368
Kano	0.5	52.2	0.3	18.8	13.0	15.2	368
Lagos	0.8	67.1	1.6	14.7	8.4	7.3	368
Nasarawa	1.4	60.9	11.7	7.9	14.4	3.8	368
Oyo	0.0	42.4	2.7	16.8	35.1	3.0	368
Rivers	0.0	6.3	0.3	53.8	31.0	8.7	368
Taraba	9.0	60.9	3.3	4.4	20.8	1.6	366
Total	3.2	44.5	6.4	17.7	21.7	6.6	4414

Appendix 12.3 MSM Frequency of harassment by law enforcement agent by state

State	Very often	Often	Only once or twice	Never	No response	Don't know	Total
Abia	1.1	2.4	3.5	74.5	7.9	10.6	369
Akwa Ibom	0.5	1.9	4.6	91.9	0.5	0.5	370
Anambra	0.3	0.8	5.1	86.8	5.6	1.3	372
Benue	1.3	5.4	14.2	70.7	6.5	1.9	372
Gombe	0.3	0.5	1.1	91.0	1.9	5.2	368
Kaduna	1.1	5.9	3.8	80.6	5.9	2.7	372
Kano	0.8	0.3	0.8	77.2	18.8	2.2	372
Lagos	11.0	3.2	16.1	68.0	0.8	0.8	372
Nasarawa	0.3	0.5	2.2	93.8	1.3	1.9	372
Oyo	0.3	0.5	4.3	87.6	3.0	4.3	372
Rivers	0.5	0.5	6.5	92.2	0.0	0.3	372
Taraba	2.9	11.8	3.8	53.5	23.6	4.5	314
Total	4.6	2.3	9.3	79.5	3.1	1.2	4397

Appendix 12.4 TG Frequency of harassment by law enforcement agent by state

State	Very often	Often	Only once or twice	Never	Don't know	No response	Total
Abia	1.1	1.9	18.4	71.0	6.2	1.4	369
Akwa Ibom	2.7	2.4	5.7	86.7	0.0	2.4	369
Anambra	7.3	12.4	17.7	37.9	16.9	7.8	372
Benue	0.0	0.5	7.5	71.8	11.8	8.3	372
Gombe	2.5	4.1	8.5	84.8	0.0	0.0	363
Kaduna	2.4	4.0	14.8	78.2	0.5	0.0	372
Kano	1.3	0.3	12.1	83.6	1.9	0.8	372
Lagos	18.8	19.1	11.0	49.7	0.0	1.3	372
Nasarawa	1.6	4.8	3.2	86.0	0.3	4.0	372
Oyo	21.0	18.5	7.3	53.0	0.3	0.0	372
Rivers	1.3	0.0	2.2	95.2	0.4	0.9	229
Taraba	0.4	1.2	7.0	90.6	0.8	0.0	256
Total	12.0	11.7	9.2	63.4	2.2	1.6	4,190

Appendix 13 Frequency of alcohol use by state

Appendix 13.1 Frequency of alcohol use among FSW by state

State	At least once a week	Everyday	Never	No response	Occasionally	Total
Abia	25.4	55	4.1	0.2	15.3	413
Akwa Ibom	38.7	29	5.1	0.7	26.5	411
Anambra	23.9	21.7	6.3	0.7	47.5	415
Benue	9.4	15.7	27.5	5.1	42.4	415
Gombe	11.6	25.1	29.6	0.7	33	415
Kaduna	17.6	45.3	23.4	1	12.8	415
Kano	6.5	6	51.1	18.6	17.8	415
Lagos	21.9	19.8	17.1	0.5	40.7	415
Nasarawa	13.5	68.4	8	0	10.1	415
Oyo	10.6	26.3	37.1	0.7	25.3	415
Rivers	7.7	44.8	15.7	0	31.8	415
Taraba	10.4	31.8	30.4	0	27.5	415
Total	20.1	33.1	15.8	1.8	29.1	4974

Appendix 13.2 Frequency of alcohol use among PWID by state

State	At least once a week	Everyday	Never	No response	Occasionally	Total
Abia	37.3	23.7	1.9	2.2	34.9	368
Akwa_Ibom	11.4	35.3	15.8	0.0	37.5	368
Anambra	21.7	9.8	10.9	5.4	52.2	368
Benue	17.1	8.7	9.0	15.8	49.5	368
Gombe	7.3	7.9	48.6	1.1	35.1	368
Kaduna	9.5	29.3	26.4	0.3	34.5	368
Kano	4.3	3.8	74.7	1.6	15.5	368
Lagos	9.2	25.0	29.9	0.8	35.1	368
Nasarawa	9.0	16.0	29.3	6.3	39.4	368
Oyo	16.3	65.8	4.9	0.5	12.5	368
Rivers	47.3	2.7	8.2	0.0	41.8	368
Taraba	17.8	13.1	36.3	2.2	30.6	366
Total	19.4	19.3	17.5	5.3	38.5	4414

Appendix 13.3 Frequency of alcohol use among MSM by state

State	At least once a week	Everyday	Occasionally	Never	No response	Total
Abia	11.1	21.7	32.8	28.7	5.7	369
Akwa_Ibom	28.6	6.5	57.6	7.3	0.0	370
Anambra	30.6	5.4	42.7	20.4	0.8	372
Benue	18.0	20.7	46.2	13.7	1.3	372
Gombe	5.2	4.1	10.3	79.9	0.5	368
Kaduna	7.5	2.4	14.2	75.0	0.8	372
Kano	0.5	5.6	4.0	80.9	8.9	372
Lagos	19.4	26.1	32.0	22.6	0.0	372
Nasarawa	10.2	3.8	38.7	47.0	0.3	372
Oyo	17.2	9.7	37.6	35.5	0.0	372
Rivers	20.4	13.7	44.9	21.0	0.0	372
Taraba	14.6	3.8	19.7	56.4	5.4	314
Total	18.4	15.9	36.2	28.4	1.1	4397

Appendix 13.4 Frequency of alcohol use among TG by state

State	At least once a week	Everyday	Occasionally	Never	No response	Total
Abia	26.6	15.2	50.1	7.9	0.3	369
Akwa Ibom	30.9	7.0	34.4	27.4	0.3	369
Anambra	9.1	9.4	69.1	9.7	2.7	372
Benue	21.2	12.1	39.8	25.5	1.3	372
Gombe	11.0	5.2	11.0	71.9	0.8	363
Kaduna	5.1	3.5	34.4	57.0	0.0	372
Kano	6.5	1.3	12.4	79.6	0.3	372
Lagos	22.3	22.3	15.9	38.7	0.8	372
Nasarawa	9.7	5.4	25.5	57.5	1.9	372
Oyo	11.6	6.5	28.8	53.0	0.3	372
Rivers	10.9	9.2	38.9	41.0	0.0	229
Taraba	13.3	8.6	25.0	52.0	1.2	256
Total	13.2	8.8	30.3	47.0	0.6	4,190

Appendix 14 Prevalence across States and KP Typology

	FSW		PWID		MSM		TG	
States	%	Number tested	%	Number tested	%	Number tested	%	Number tested
Abia	6.1	413	4.1	368	10.6	369	15.5	367
Akwa_Ibom	11.4	412	3.8	368	21.2	368	22.8	369
Anambra	6.5	415	2.2	368	17.2	372	4.8	372
Benue	20.2	415	23.4	368	21.0	372	12.1	372
Gombe	24.3	415	9.2	368	7.3	369	15	361
Kaduna	26.5	415	2.4	368	16.8	370	9.4	372
Kano	13.3	414	5.2	368	10.8	372	7	371
Lagos	12.8	415	8.2	368	27.4	372	28.8	372
Nasarawa	23.9	415	0.8	368	22.0	372	14.8	372
Oyo	12.8	415	5.4	368	37.1	372	46.5	372
Rivers	7.0	415	8.0	364	35.8	369	34.5	229
Taraba	18.1	415	2.7	366	26.3	312	16.4	256
Total	15.5	4,974	10.9	4,410	25.0	4,389	28.8	4,185

Appendix 15 Proportion Ever Heard and Ever Taken PrEP and PEP

	Ever heard of PREP		Ever taken PrEP		Ever heard of PEP		Ever taken PEP	
	%	N	%	N	%	N	%	N
FSW	22.9	4,974	20.1	1,059	22.6	4,974	9.6	862
MSM	49.6	4,397	27.3	1,753	42.6	4,397	11.3	1,333
PWID	25.4	4,414	11.2	692	18.6	4,414	5.0	520
TG	40.6	4,190	23.8	1,394	29.1	4,190	5.3	874

Appendix 16 Global Fund Indicators

Impact Indicator Name	Category	Disaggregation	Weighted percentage
HIV I-9a(M) Percentage of men who have sex with men who are living with HIV	Age	15-19	11.9
HIV I-9a(M) Percentage of men who have sex with men who are living with HIV	Age	20-24	23.9
HIV I-9a(M) Percentage of men who have sex with men who are living with HIV	Age	25+	30.7
HIV I-9a(M) Percentage of men who have sex with men who are living with HIV	Age	<25	20.9
HIV I-10(M) Percentage of sex workers who are living with HIV	Gender	Transgender	21.9
HIV I-10(M) Percentage of sex workers who are living with HIV	Gender	Female	15.3
HIV I-10(M) Percentage of sex workers who are living with HIV	Gender	Male	16.3
HIV I-10(M) Percentage of sex workers who are living with HIV	Age	25+	19.1
HIV I-10(M) Percentage of sex workers who are living with HIV	Age	<25	13.0
HIV I-11(M) Percentage of people who inject drugs who are living with HIV	Gender	Transgender	0.0
HIV I-11(M) Percentage of people who inject drugs who are living with HIV	Gender	Female	15.7
HIV I-11(M) Percentage of people who inject drugs who are living with HIV	Gender	Male	10.1
HIV I-11(M) Percentage of people who inject drugs who are living with HIV	Age	15-19	10.5
HIV I-11(M) Percentage of people who inject drugs who are living with HIV	Age	20-24	12.1
HIV I-11(M) Percentage of people who inject drugs who are living with HIV	Age	25+	10.6
HIV I-11(M) Percentage of people who inject drugs who are living with HIV	Age	<25	11.8

Outcome Indicator Name	Category	Disaggregation	Weighted percentage
HIV O-4a(M) Percentage of men reporting the use of a condom the last time they had anal sex with a non-regular partner	Age	15-19	38.0
HIV O-4a(M) Percentage of men reporting the use of a condom the last time they had anal sex with a non-regular partner	Age	20-24	45.6
HIV O-4a(M) Percentage of men reporting the use of a condom the last time they had anal sex with a non-regular partner	Age	25+	56.3
HIV O-4a(M) Percentage of men reporting the use of a condom the last time they had anal sex with a non-regular partner	Age	<25	50.5
HIV O-5(M) Percentage of sex workers reporting the use of a condom with their most recent client	Gender	Transgender	79.9
HIV O-5(M) Percentage of sex workers reporting the use of a condom with their most recent client	Gender	Female	89.6
HIV O-5(M) Percentage of sex workers reporting the use of a condom with their most recent client	Gender	Male	78.6
HIV O-5(M) Percentage of sex workers reporting the use of a condom with their most recent client	Age	15-19	77.0
HIV O-5(M) Percentage of sex workers reporting the use of a condom with their most recent client	Age	20-24	84.9
HIV O-5(M) Percentage of sex workers reporting the use of a condom with their most recent client	Age	25+	86.8
HIV O-5(M) Percentage of sex workers reporting the use of a condom with their most recent client	Age	<25	83.5
HIV O-6(M) Percentage of people who inject drugs reporting the use of sterile injecting equipment the last time they injected	Gender	Transgender	
HIV O-6(M) Percentage of people who inject drugs reporting the use of sterile injecting equipment the last time they injected	Gender	Female	23.1
HIV O-6(M) Percentage of people who inject drugs reporting the use of sterile injecting equipment the last time they injected	Gender	Male	30.9
HIV O-6(M) Percentage of people who inject drugs reporting the use of sterile injecting equipment the last time they injected	Age	15-19	21.8
HIV O-6(M) Percentage of people who inject drugs reporting the use of sterile injecting equipment the last time they injected	Age	20-24	27.5

HIV O-6(M) Percentage of people who inject drugs reporting the use of sterile injecting equipment the last time they injected	Age	25+	26.7
HIV O-6(M) Percentage of people who inject drugs reporting the use of sterile injecting equipment the last time they injected	Age	<25	30.4
HIV O-11(M) Percentage of people living with HIV who know their HIV status at the end of the reporting period (Transgender)	Gender	Transgender	
HIV O-11(M) Percentage of people living with HIV who know their HIV status at the end of the reporting period (FSW)	Gender	Female	
HIV O-11(M) Percentage of people living with HIV who know their HIV status at the end of the reporting period (MSM)	Gender	Male	
HIV O-12 Percentage of people living with HIV and on ART who are virologically suppressed (transgender)	Gender	Transgender	74.5
HIV O-12 Percentage of people living with HIV and on ART who are virologically suppressed (FSW)	Gender	Female	86.7
HIV O-12 Percentage of people living with HIV and on ART who are virologically suppressed (MSM)	Gender	Male	80.6
HIV O-12 Percentage of people living with HIV and on ART who are virologically suppressed (PWID)			76.4
HIV O-12 Percentage of people living with HIV and on ART who are virologically suppressed (PWID)	Gender	Male	83.2
HIV O-12 Percentage of people living with HIV and on ART who are virologically suppressed (PWID)		Female	61.2
HIV O-10 Percent of respondents who say they used a condom the last time they had sex with a non-marital, non-cohabiting partner, of those who have had sex with such a partner in the last 12 months	Gender	Female	
HIV O-10 Percent of respondents who say they used a condom the last time they had sex with a non-marital, non-cohabiting partner, of those who have had sex with such a partner in the last 12 months	Gender	Male	
HIV O-10 Percent of respondents who say they used a condom the last time they had sex with a non-marital, non-cohabiting partner, of those who have had sex with such a partner in the last 12 months	Age	25+	
HIV O-10 Percent of respondents who say they used a condom the last time they had sex with a non-marital, non-cohabiting partner, of those who have had sex with such a partner in the last 12 months	Age	20-24	

HIV O-10 Percent of respondents who say they used a condom the last time they had sex with a non-marital, non-cohabiting partner, of those who have had sex with such a partner in the last 12 months	Age	15-19	
HIV O-9 Percentage of people who inject drugs reporting condom use at last sex	Gender	Transgender	
HIV O-9 Percentage of people who inject drugs reporting condom use at last sex	Gender	Female	
HIV O-9 Percentage of people who inject drugs reporting condom use at last sex	Gender	Male	
HIV O-9 Percentage of people who inject drugs reporting condom use at last sex	Age	15-19	
HIV O-9 Percentage of people who inject drugs reporting condom use at last sex	Age	20-24	
HIV O-9 Percentage of people who inject drugs reporting condom use at last sex	Age	25+	
HIV O-9 Percentage of people who inject drugs reporting condom use at last sex	Age	<25	

Federal Ministry of Health, Nigeria.

Integrated Behavioral and Biological Surveillance Survey (IBBSS) 2020

Survey Consent Form for Study Participants.

This interview is part of a study that the Federal Ministry of Health is conducting in collaboration with other partners. We are interviewing people here in [NAME OF CITY, TOWN, OR SITE] to find out about certain behaviors that affect people's health in this environment. We are conducting this study to learn more about the problems affecting FSW, TG, MSM and PWID including possible infections, such as HIV and other STI. About 20,000 people will take part in this research. We also need to know how many people are infected with this virus and determine how the disease is affecting these population and our country. The information obtained will help policy and program decisions with regards to mitigating the impact of HIV and AIDs among Key Population in Nigeria.

I am going to ask you questions some of which may be very personal. Your answers are completely confidential. Your name will not be written on this form and will never be used in connection with any of the information you tell me. You may need to know that this exercise is taking place in many states of the country. The information collected from you and others will help the government to find solution to some health problems affecting people in this environment. We would greatly appreciate your help in participating in this survey. The findings from this study will be used to create a report, but YOU WILL NOT BE NAMED OR IDENTIFIED IN ANY WAY in this report. We DO NOT NEED TO KNOW YOUR NAME. The survey is entirely voluntary; there is no obligation to participate. If you decide not to do it, it is fine with us. You will receive NGN 1500 for your time and effort in participating in the survey so long as you complete the behavioral interview and consent for blood sample collection. But we implore that you participate, better programs and services can be achieved after this survey. If you have any questions, please ask me now or at any time during the interview.

If you agree to participate, I will ask you some questions and then my colleague will take a blood sample for HIV testing. Altogether, the administration of questionnaire and collection of blood sample will take about 60 minutes to complete. The HIV test results will be shared with you without anyone else knowing it. We might store the blood samples in the National Reference

Laboratory to conduct further tests if needed. This survey has been approved by the NHREC. If you have any questions about your rights as a subject participating in a survey, or if you wish to discuss your participation in the survey, please contact the National Coordinator 'NASCP' (Dr Akudo Ikpeazu [08037879884]). By saying to me that you agree to participate in this study, you are providing me consent to complete the survey and understand that your blood sample will be tested for HIV and stored for future test.

DO YOU AGREE TO PARTICIPATE IN THE INTERVIEW? Yes: ☐ No ☐

DO YOU AGREE TO HAVE YOUR BLOOD SAMPLE COLLECTED? Yes: ☐ No ☐

DO YOU AGREE TO HAVE YOUR BLOOD SAMPLE STORED? Yes: ☐ No ☐

Federal Ministry of Health, NIGERIA

INTEGRATED BIOLOGICAL AND BEHAVIOURAL SURVEILLANCE SURVEY (IBBSS 2020)

CONFIDENTIALITY AGREEMENT

I, _____ in my role as _____for the 2020 IBBSS, representing _____(state), understand and agree to comply with the following requirements:

1. I will treat all information collected for this survey as confidential before, during, and after the survey period. I will NOT use such information for any purposes other than for the work assigned to me during this survey.
2. I will NOT tell anyone outside the survey about any of the participants, including what I know about them and their HIV test results.
3. I will NOT remove participant information, whether in paper, audio, or electronic format, from authorized storage area unless I have explicit permission of the State Survey Coordinator.
4. I will refer all data-related questions asked of me that are not within my authority to disclose to the necessary survey team member/coordinator/supervisor/investigators.
5. I will maintain all related survey data/material in a secured location at all times. I will also make sure that persons not involved in this survey do not have access to survey material.
6. I will report the loss of any survey data/material or corruption of any computer files (known to me) containing survey data immediately to the IBBSS committee coordinator, who is responsible for reporting this information to the Principal Investigator.
7. I will NOT misuse any information security privileges that I may have from working on this survey.
8. I WILL comply fully with any other data confidentiality procedures that I am instructed to follow for this survey.
9. I WILL protect all electronic survey data with passwords.
10. I will NOT give access or password(s) to survey data to any person other than designated survey personnel.
11. I will NOT produce copies or back-up of survey data sets except as required for the maintenance of the systems.
12. I WILL ensure that the back-up datasets are also stored according to the confidentiality guidelines mentioned above.
13. If I cause a breach or become aware of a breach in confidentiality, I will take immediate steps to secure the sensitive information and inform the IBBSS Committee coordinator.
14. I WILL help facilitate any investigations into breaches of client confidentiality to the best of my ability.

I understand that failure to comply with these rules and regulations could result in disciplinary action.

_____ signature

_____ Date:

Interview Refusal/Withdrawal Form
Integrated Behavioural and Biological Surveilance Survey

Refused Consent for Behavioural Interview

Withdrew Consent for Behavioural Interview

Refused Consent for Blood Sample Draw & Storage

Withdrew Consent for Blood Sample Draw & Storage.

Date: _____

Participants Unique Code: _____

Name of Field Interviewer: _____

Interviewer reads:
Thank you for considering taking part in this survey. I would like to ask you about your reasons for not taking part in the survey. Your answers will help us make the survey better for the future.

1. Are you willing to give a reason for not wanting to take part in the survey?
   ____Yes_____No *(If no, go to Final Statement section)*

2. What are the reasons that you did not wish to take part in the survey?

Do not read reasons aloud. Mark all that apply.

___*Do not have time to participate in this survey*
___*Not interested in this survey*
___*Had a bad survey experience before*
___*Find the topic(s) uncomfortable or embarrassing*
___*Fear breach of confidentiality/privacy*
___*Community rumors about survey*
___*Do not think it is safe*
___*Do not want me or my family to get tested*
___*Already know I am HIV positive*
___*Already know I am HIV negative*
___*Find the process uncomfortable or embarrassing*
___*Do not want to draw attention to this house*
___*Prefer to test away from home*
___*Prefer to test without partner/parent/family present*
___*Superstition/traditional or religious beliefs or objections about HIV testing or giving blood*
__ *Other, not captured above (specify):*_____

Final Statement:

Interviewer reads: Thank you very much for your time.

Federal Ministry of Health, NIGERIA

INTEGRATED BIOLOGICAL AND BEHAVIOURAL SURVEILLANCE SURVEY (IBBSS 2020)

Form A. Spot Sampling Frame Details

KP Typology: _____ State: _____

*This form will be used during IBBSS pre-validation per spot (to be filled by Interviewer/Supervisor)

Spot name

Spot type

New/Old

Spot Address/details;

Contact person;

Phone number;

Insert the Day/time-location combinations to enter sampling frame; Complete the final day/time combinations below after observing the Spot and reaching consensus among informants.

Peak Day Vs Peak Time_____

Peak Day Vs Lean Time_____

Lean Day Vs Peak Time_____

Lean Day vs Lean Time_____

Date of Validation	Peak operation Day(s) of the week	Peak operating Time	Estimated measure of size/spot volume (Min vs Max)	Special event

Federal Ministry of Health, NIGERIA

INTEGRATED BIOLOGICAL AND BEHAVIOURAL SURVEILLANCE SURVEYS (IBBSS 2020)

Spot Validation Collation Form Typology_____

Spot Name	Type of Spot	Old/New	Number per Spot (KPSE)	Average KP Volume per spot validated (IBBSS)	Peak time	Peak Day

*This form will be used during spot validation exercise (pre - field activities) per state (to be filled by the supervisor)

State/LGA_____ KP Typology_____



Federal Ministry of Health, NIGERIA

INTEGRATED BIOLOGICAL AND BEHAVIOURAL SURVEILLANCE SURVEY (IBBSS 2020)

SAMPLE TRACKING FORM:

Team Supervisor Name: _____Phone Number: _____

Field Laboratarian Name: _____Phone Number: _____Typology_____

State Laboratarian Name _____Phone Number:_____

Date Dispatched: _____ Date Received:_____

S/N	Sample ID	Field RTK Result	Time of departure from survey site or lab.	Sending Laboratorian Signature	Time of arrival at receiving lab.	Receiving laboratorian Signature.	Driver's signature	Additional comments.

*This form will be used during IBBSS field activities per state for the Biological samples (to be filled by the dispatching and receiving Laboratorian)

Federal Ministry of Health

NATIONAL AGENCY FOR THE CONTROL OF AIDS
NACA

Centre for Global Public Health
University of Manitoba

TRIP REPORT

(*TO BE USED BY ALL WHO TAKE MONITORING/TRAINING TRIPS*)

TO: *[Supervisor]*

CC: *[Team Leader]*

FROM: *[Name, Title]*

REPORT DATE:

TRAVEL FROM: TRAVEL TO:

TRAVEL DATES:

PURPOSE:

[One-sentence summary of the scope of work per country reflected in the travel authorization with any changes as appropriate.]

EXECUTIVE SUMMARY:

[*Include a brief overview (no more than three to four sentences) of the "Activities, Accomplishments, and Deliverables" section.]*

ACTIVITIES, ACCOMPLISHMENTS, AND DELIVERABLES:

[This section should reference the scope of work and should report on the trip's activities as they relate to the overall goal(s) of the project(s). It should also contain information, including important data or descriptive observation, on any organizational and project site visits. If deliverables are required from the trip, they should be referenced and briefly described here. If applicable and appropriate, any required deliverables should also be attached to the trip report.]

CHALLENGES

-

RESOLUTION OF CHALLENGES:

-

PERSONS CONTACTED:

[Use format: Dr./Mr./Ms. Name, Title, and Organization. Key persons met during the trip and that person's affiliation with the project. If the traveler deems appropriate that any of the persons contacted should receive a copy of the Trip Report, s/he should denote (with an asterisk *) the persons to receive a copy of the Trip Report. The traveler's supervisor must approve this list of persons prior to distribution by the traveler.]

NEXT STEPS:

[Include planned follow-up activities related to this trip and indicate their timeline. If there are no immediate follow-up activities, insert "None."]

Reviewed and Approved by Supervisor: _____ _____

Signature (*if approving manually*) Date

Supervisor's Name:

Federal Ministry of Health

NATIONAL AGENCY FOR THE CONTROL OF AIDS
NACA

Centre for Global Public Health
University of Manitoba

WEEKLY PROGRESS REPORT

(For Internal Monitoring- Supervisors, State Coordinators)

STUDY/EXERCISE NAME	IBBSS-NIGERIA 2020		
START DATE		COMPLETION DATE	
WEEK NO.			
BACKGROUND	*(indicate coverage at LGA level, number of interviews per KP type, other activities)*		
MAIN BODY			
CHALLENGES			
RESOLUTION OF CHALLENGES			
LESSON LEARNT			
RECOMMENDATION			
COMMENTS			

PREPARED BY (Name and title)	PREPARED BY (Signature)	DATE

APPROVED BY (Name and title)	APPROVED BY (Signature)	DATE

Federal Ministry of Health, NIGERIA

INTEGRATED BIOLOGICAL AND BEHAVIOURAL SURVEILLANCE SURVEY (IBBSS 2020)

NON-CONFORMANCE EVENT FORM

REPORTNING OFFICER_____

DESIGNATION_____

_____

SIGN_____DATE___

_

PHONE_____

_____

SUPERVISOR_____

_____

SIGN_____DATE____

_____

PHONE_____

_____

STATE OF INCIDENT

_____

LGA

_____

_____

TYPOLOGY

_____

___

EVENT/OCCURENCE	ACTION TAKEN	FINAL SOLUTION/DATE

Federal Ministry of Health, NIGERIA

INTEGRATED BIOLOGICAL AND BEHAVIOURAL SURVEILLANCE SURVEY (IBBSS 2020)

REFRIGERATOR LOG

Month/year:

Equipment: Refrigerator (INSERT ROOM NUMBER AND FREEZER NAME OR NUMBER.

Normal Temperature range: ±6ºC ± 2ºC (acceptable variation).

Day:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Morning ^{0}c:																															
Evening ^{0}c:																															

Corrective action: _____

Date (DD/MM/YY) _____

Supervisors' initials: _____

Federal Ministry of Health, NIGERIA
2020 HIV &AIDS INTEGRATED BIOLOGICAL AND BEHAVIOURAL SURVEILLANCE SURVEYS (IBBSS)

-20 ºC FREEZER LOG.

Month/year:

Equipment: -20 ºC Freezer (INSERT ROOM NUMBER AND FREEZER NAME OR NUMBER.

Critical Temperature range: -18ºC $\pm$ 2ºC (acceptable variation).

Day:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Temperature:																															
Initials:																															

Corrective action: _____

Date (DD / MM / YY) _____

Supervisors' initials: _____

Federal Ministry of Health, NIGERIA

INTEGRATED BIOLOGICAL AND BEHAVIOURAL SURVEILLANCE SURVEY (IBBSS 2020)

REFRIGERATOR LOG

Month/year:	
Equipment:	Refrigerator (INSERT ROOM NUMBER AND FREEZER NAME OR NUMBER.
Normal Temperature range:	± 6ºC ± 2ºC (acceptable variation).

Day:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Morning ^{0}c:																															
Evening ^{0}c:																															

Corrective action: _____

Date (DD/MM/YY) _____

Supervisors' initials: _____

IBBSS 2020 NATIONAL STEERING COMMITTEE

1. Dr E . Osagie Ehanire - Hon Minister of Health – Chair
2. Abdullahi Mashi – Permanent Secretary Federal Min. of Health
3. Dr Umo M. Ene-Obong – Former Director of Public Health
4. Dr Akudo Ikpeazu -NC NASCP-Secretary
5. Dr Gambo Aliyu -DG NACA
6. Dr Erasmus Morah-UNAIDS Country Representative
7. Dr Mark Gaimbrone – PEPFAR Country Director
8. Dr Ghaji Ismaila Bello -DG National Population Commission
9. Dr Fiona Braka – WHO Country Rep
10. Dr Yemi Kale – Statistician General of the Federation and CEO NBS
11. Dr Patrick Nguku – Regional Technical Coordinator AFENET
12. Dr Sylvia Adebajo – UMB/MGIC Country Director

IBBSS 2020 NATIONAL TECHNICAL COMMITTEE

1. Dr Umo. M. Ene-Obong- Former Director of Public Health- Chair
2. Dr Akudo Ikpeazu -NC NASCP -Secretary
3. Dr Nsebong Akpan -NC-NTDs (former Ag. NC NASCP)
4. Dr Adebobola Bashorun -Head SI (former HCU/DPH)
5. Dr Clement Adesigbin – Head Prevention NASCP
6. Dr Greg Ashefor – Director RME -NACA
7. Dr James Anenih – NACA
8. Mrs Grace Bassey – Head Lab NASCP FMOH
9. Dr Hadiza Khamofu- Country Director FHI 360
10. Dr Ibrahim Dalhatu- US CDC
11. Dr Oluwafunke Ilesanmi- WHO
12. Dr Dorothy Ochola-Odonga- UNICEF
13. Dr Godspower Omoregie – SFH
14. Akin Atobatele-USAID
15. Otse Ogorry -PEPFAR
16. Dr Charles Nzelu – FMOH/DPRS (former Head SI)
17. Dr Bodunde Onifade – NASCP
18. Ima John Dada -NASCP
19. Mr Gabriel Ikwulono-NASCP
20. Mr Alex Onwuchekwa-NASCP
21. Dr Sabo Uba- NASCP FMoH
22. Prof Sabitu Kabir -Data/Epid ABUTH Zaria
23. Dr Koffi Gaatien -UNAIDS
24. Dr Kalada Green-University of Manitoba (UOM)
25. Mr Bartholomew Ochonyen -Heartland Alliance
26. Prof Samson Adebayo- NAFDAC
27. Prof Iliyasu Zubair-Epidemiologist
28. Mr Francis Agbo -NACA

IBBSS 2020 PROGRAMME IMPLEMENTATION TEAM

1. Dr Akudo Ikpeazu- NASCP
2. Dr Greg Ashefor -NACA
3. Dr Adebobola Bashorun- NASCP
4. Mrs Grace Bassey-NASCP
5. Mr Alex Onwuchekwa-NASCP
6. Dr Uba Sabo-NASCP
7. Mr Gabriel Ikwulono-NASCP
8. Mr Ombugadu Obadiah-NASCP
9. Dr Gbenga Ijaodola-NASCP
10. Dr Kalada Green-UOM
11. Adediran Adesina-UOM
12. Moses Okpara-UOM
13. Chukwuebuka Ejeckam-UOM
14. Rose Aguolu -NACA
15. Chidiebere Ezeokafor-NACA
16. Adelola Patricia-NASCP
17. Dr Peter Nwaokenneya-NASCP

Institute for Global Public Health University of Manitoba (CGPH UoM) / West Africa Centre for Public Health and Development (WACPHD) International/Country Team

GLOBAL TEAM (CGPH UoM)

S/NO	NAME	DESIGNATION	LOCATION
1	PROF. James Blanchard	Director	Canada
2	Dr. Faran Emmanuel	Epidemiologist	Pakistan/ Canada
3	Dr. Shajy Isac	STA-M &E	India
4	Doris Kuzma	Director Finance & Admin.	Canada
5	Dr. Kalada Green	Country Coordinator (CGPH UoM) / Director (WACPHD)	Nigeria

NIGERIAN COUNTRY OFFICE TEAM

S/NO	NAME	DESIGNATION	LOCATION
1.	Chukwuebuka Ejeckam	Database Manager/Programme Manager	Nigeria
2.	Juliana Adah	Finance Lead/Advisor	Nigeria
3.	Judith Edafe	Admin/HR Manager	Nigeria
4.	Dr Agbo Ejiofor Christopher	Laboratory Lead	Nigeria
5.	Moses Okpara	Community Mobilization/ Linkage to Care Lead	Nigeria
6.	Titilope Badru	Senior Data Analyst	Nigeria
7.	Adediran Adesina	Data Analyst	Nigeria
8.	Uzoabaka Chibuzo	Procurement and Supply Chain Management Officer	Nigeria
9.	Jerry Inalegwu Ejembi	IT Officer	Nigeria
10.	Olufumilayo Afolabi	Finance Officer	Nigeria
11.	Michael Isikima	Data Officer	Nigeria
12.	Kefas Komos Haruna	Logistics	Nigeria
13.	Danladi Musa	Logistics	Nigeria

14. Ademu John	Volunteer	Nigeria
15. Okereke Yvonne	Volunteer	Nigeria
16. Obasa Ayomide	Volunteer	Nigeria
17. Larai Baba Tupkop	Intern	Nigeria

Super Master Trainers

DESIGNATION	NAMES
Questionnaire Admin Super Master Trainer	Dr Funke Oki
Questionnaire Admin Super Master Trainer	Dr Bashorun Adebobola
Finance Super Master Trainer	Mr Olotu Muritala
Ethics Super Master Trainer	Mr Ado Danladi
HIV Counselling and Testing Super Master Trainer	Mrs Nike Kehinde
Data Management / Sampling Super Master trainer	Dr Adedayo Olubunmi
Laboratory Super Master Trainer	Augustine Onyeaghala
Quantitative Research Super Master	Dr Aisha Nasir
KP Qualitative Research Super Master	Dr Uduak Essen
Sampling/Survey Management Super Master Trainer	Mr Shekarah Musa
UoM Global/Regional Master Trainers / Virtual Facilitators	Dr Faran Emmanuel Dr Shajy Isac
UoM Regional/ National Master Trainers	Dr Green Kalada Mrs Titi Badru Mr Ebuka Ejeckam Mr Adediran Adesina Mrs Julie Ojo Dr Agbo Ejiofor Christopher

STATE IBBSS MANAGEMENT COMMITEES

Abia State IBBSS Committee

1. Okeh Maria - SAPC
2. Dr. Eme Ajike - PM ABSACA
3. Ihemanma Okechukwu - State Lab. Lead
4. Uche-Ikonne Chikezie – State ART Focal Person
5. Obinna Chinwendu – FSW KP Rep.
6. Chukwu Emeka - State KP Coordinator
7. Ozeh Michael Ogbonnaya - NEPWHAN, State Coordinator
8. Dr. Ugochukwu Onyeonoro - UoM State Representative.
9. Eluwa Ugochukwu E. - UoM Admin / Finance
10. Ngozi Ugwumba - UoM State technical compliance & conformance office

Abia State Field Team

S/No	Name	Role
1.	**Dr. Ugochukwu Onyeonoro**	**UoM State Representative**
2.	Anaba Chibuzo Lynda	Supervisor FSW
3.	Ebiri Okoro, Ikenna, Oteiri	Interviewer FSW
4.	Akwarandu Chidinma Queen	Interviewer FSW
5.	Ibekwe Kingsley Imo	Interviewer FSW
6.	Ikeagwulonu Chidinma	Counsellor FSW
7.	Chukwu Nancy Grace	Counsellor FSW
8.	Idorenyin Daniel Jimmy	Social Mobilizer FSW
9.	Chukwuenye Vivien Okwudili	Laboratory Scientist
10.	Agwu Chinyere Nduka	Supervisor PWID
11.	Kanu Ndubuisi Collins	Interviewer PWID
12.	Gideon Nwankwo	Interviewer PWID
13.	Onwuchekwa Faith Odochi	Interviewer PWID
14.	Iro Chinedu Okezie	Counsellor PWID
15.	Sunday Chinyere Nancy	Counsellor PWID
16.	Nnamchi Festus Chukwu	Social Mobilizer PWID
17.	Ike Nwanne	Laboratory Scientist

18.	Okpara Robert Onuke	Supervisor MSM
19.	Ottih Michael Chiemela	Interviewer MSM
20.	Ariwa, Okechukwu Martin	Interviewer MSM
21.	Udogwu Chijioke Thaddeus	Interviewer MSM
22.	Nwogu Joshua Chigozie	Counsellor MSM
23.	Chime-Dimbo Sandra Obianuju	Counsellor MSM
24.	Omekara Harrison Chimdiukwu	Social Mobilizer MSM
25.	Udensi Nnenna	Laboratory Scientist
26.	Ejiogu Franklin Chigozie	Supervisor TG
27.	Obinna-Odoemela Onyinyechi	Interviewer TG
28.	Onwuchekwa Nkiruka Gloria	Interviewer TG
29.	Anikwe Chinedu	Interviewer TG
30.	Akwarandu Tochi Gold	Counsellor TG
31.	Ngele Kelechi Jane	Counsellor TG
32.	Nnedu Ebuka Bitrus	Laboratory Scientist
33.	Orji Eugene Chijioke	Social Mobilizer TG
34.	Lovina Okoro Abia	Counsellor
35.	Ulu Okechukwu	Satellite Laboratory Scientist
36.	Duru Chinenye Ogechi	IT/Data Officer

Akwa Ibom State IBBSS Committee

1. Dr. Usanga, Ime - SACA
2. Dr. Igbemi, Igbemi - AKSAPC
3. Mr Akaka, Christopher - State Lab Lead
4. Godspower Umoh – TG KP Rep.
5. Dr. Mrs. Steven, Ekemini - State ART Focal Person
6. Mr. Iniekung, Victor – PWID KP Rep
7. Ms. Ndak, Idongesit – FSW KP Rep
8. Mr. Ibok, Udoro - MSM KP Rep
9. Ms. Umoh, Ekemini - UoM State technical compliance & conformance office
10. Mr. Baridi, Nyima - UoM Admin / Finance

Akwa-Ibom State Field Team

S/No	Name	Role
1.	Umoh, Ekemini Abraham	UoM State Representative
2.	Jim, Irene Friday	Supervisor FSW
3.	Etukudo, Ekom, Monday	Interviewer FSW
4.	Etteh Mfonobong Itauma	Interviewer FSW
5.	Akpainyang Udeme Godwin	Interviewer FSW
6.	Nwawo, Michael Nse	Counsellor FSW
7.	Etuk, Esther Okon	Counsellor FSW
8.	Joseph, Abigail Nsima	Social Mobilizer FSW
9.	Akpan, Michael Aniedi	Laboratory Scientist
10.	Ekpezu, Ewezu Kanu	Supervisor PWID
11.	Harrison Emmanuel Friday	Interviewer PWID
12.	Ashefor Michael Ekohi	Interviewer PWID
13.	Ohikere, Victor Jimoh	Interviewer PWID
14.	Obot, Abigail Idongesit	Counsellor PWID
15.	Robinson, Joy	Counsellor PWID
16.	Akpan, Simeon Moses	Social Mobilizer PWID
17.	Okon Bassey Ibanga	Laboratory Scientist
18.	Inyang Usen. E.	Supervisor MSM
19.	Udoh, Emediong Dominic	Interviewer MSM
20.	Jacob, Wisdom Sunday	Interviewer MSM
21.	Udoh, Ubong Emmanuel	Interviewer MSM
22.	Udo Nsisong Okon	Counsellor MSM
23.	Asuquo, Bassey	Counsellor MSM
24.	Nkpuma Kelechi Friday	Social Mobilizer MSM
25.	Blessing Uma-Mba	Laboratory Scientist
26.	Udo, Ime Edet	Supervisor TG

27.	Loretta Amba	Interviewer TG
28.	Inyang Etorobong Bassey	Interviewer TG
29.	Ubokulo, Michael A	Interviewer TG
30.	Archibong Joseph Harrison	Counsellor TG
31.	Ekundayo Olajumoke Felicia	Counsellor TG
32.	Akpan, Favour Essien	Social Mobilizer TG
33.	Paul Daniel E	Laboratory Scientist
34.	Etuk, Akan Itukho	Satellite Laboratory Scientist
35.	Umoh, Ekemini Abraham	IT/Data

Anambra State IBBSS Committee

1. Dr. Afam Anaeme - SAPC
2. Mr. Johnbosco Okeke - ANSACA
3. Mrs Amara Anojulu - State Lab Lead
4. Mrs Ngozi Obinwa - ART Focal Person, SMOH
5. Orji Israel – MSM KP Rep
6. Anaeto Chinenye – TG KP Rep
7. Uzoeto Anneth – FSW KP Rep
8. Ezinwanyi Chima – PWID KP Rep
9. Tetteh Chinelo - UoM State technical compliance & conformance office
10. Emmanuel Chibuzor - UoM State Representative.
11. Anajekwu Amaka - Uom Admin / Finance

Anambra State Field Team

S/No	Name	Role
1	Emmanuel Chibuzo Chijioke	UoM State Representative
2	Valerie Nkechi Anofochi	Supervisor FSW
3	Emodi Nwamaka Rosemary	Interviewer FSW
4	Chukwurah Chidubem	Interviewer FSW
5	Oraegbu Andrew Tobechukwu	Interviewer FSW
6	Anigbogu Chiamaka	Counsellor FSW
7	Eze Adaeze	Counsellor FSW
8	Emmanuel Josephine Chidinma	Social Mob FSW

9	Ibemesi Vivian Uju	Laboratory Scientist
10	Akpunonu Ikechukwudife Vincent	Supervisor PWID
11	Ogazi Obianuju	Interviewer PWID
12	Martins Patrick. A	Interviewer PWID
13	Orajekwe Jerry	Interviewer PWID
14	Odumegwu Obiageli Anastasia	Counsellor PWID
15	Nwobu Valentine Chinwuba	Counsellor PWID
16	Chukwuma Onyedika	Social Mob PWID
17	Aighakhoumwin Nosa Jackson	Laboratory Scientist
18	Agbara Moses Chibuzor	Supervisor MSW
19	Ezeh Chinaza Eucharia	Interviewer MSM
20	Ihegbu Nnanyereugo Chinedu	Interviewer MSM
21	Okafor Christian Nwabueze	Interviewer MSM
22	Arinze Uche Ugochukwu	Counsellor MSM
23	Anamali Victoria	Counsellor MSM
24	Nwogo Hilary Chidubem	Social Mob MSM
25	Ofomah Genevieve Makuochukwu	Laboratory Scientist
26	Ariri Chioma Emmanuella	Supervisor TG
27	Anaeto Chinenye	Interviewer TG
28	David-Chiedum Obunike Paul Chijioke	Interviewer TG
29	Anene Ugochukwu	Interviewer TG
30	Anojulu Onyeka Peter	Counsellor TG
31	Efifie Chidimma Nkechinyere	Counsellor TG
32	Ifediata Adaora Geraldine	Laboratory Scientist
33	Adina Chukwunwedu	Social Mob TG
34	Onyekonwu Vivian	Satellite Laboratory Scientist
35	Okafor Chibuoke Marvin	IT/Data

Benue State IBBSS Committee

1. Dr Gabriel Anefu- SAPC
2. Regina.E. Ameh- SACA
3. Ashinze Peter- UoM State Representative
4. Jenu Ezekiel - KP Rep PWID
5. Maria Okwoli - KP Rep FSW
6. Ashwa Loveth- KP Rep TG
7. Anchackor Peter- KP Rep MSM
8. Michael Onuh - State Lab Lead
9. Osayende Ayewah- UoM State technical compliance & conformance office
10. Agatha Akpaka- Uom Admin / Finance

Benue State Field Team

S/N	Name(S)	Role
1.	Oweazi Ahinze Peter	UoM State Representative
2.	Ikpe Doreen	Supervisor FSW
3.	Ashivei Stella	Interviewer FSW
4.	Inyagi Patrick	Interviewer FSW
5.	Stephany Mbia	Interviewer FSW
6.	Idoko Veronica	Counsellor FSW
7.	Chenge Aondohemba	Counsellor FSW
8.	Isaac Michelle Ehikowoicho	Social Mobilizer FSW
9.	Jude Vembe Sesugh	Laboratory Scientist
10.	Ikpu Christopher	Supervisor PWID
11.	Angyo Mdondo Andrew	Interviewer PWID
12.	Adah Aromeh	Interviewer PWID
13.	Adi Charles Orrdain	Interviewer PWID
14.	Omirigbe Stanley Omirigbe	Counsellor PWID
15.	Aondokaa, Mmemga Ray	Counsellor PWID
16.	Kuma Baaki Victor	Social Mobilizer PWID
17.	Tyoule Teghtegh John	Laboratory Scientist
18.	Michael Aondo-Verrkombol	Supervisor MSM
19.	Iyoo, Jonathan Umahemba	Interviewer MSM
20.	Ogbe Emmanuel Ediba	Interviewer MSM

21.	Tsebo Mwuese	Interviewer MSM
22.	Jennifer Iveren Dei	Counsellor MSM
23.	Okpeh Sunday	Counsellor MSM
24.	Okwe Moses	Social Mobilizer MSM
25.	Anaigba Jessica	Laboratory Scientist
26.	Amodu Blessing Stephen	Supervisor TG
27.	Agim Grace Joy B.	Interviewer TG
28.	Onoja Ajuma	Interviewer TG
29.	Lortim Cynthia Sewuese	Interviewer TG
30.	Grace Dooshima Agbatar	Counsellor TG
31.	Adange Godwin Aondohemba	Counsellor TG
32.	Agbo Enoch	Social Mobilizer TG
33.	Ayila Faith	Laboratory Scientist
34.	Michael Onuh	Satellite Laboratory Scientist
35.	Edia Adada	IT/Data

Gombe State IBBSS Committee

1. Ibrahim Hassan -SMOH/ SAPC
2. Dr. Suraj Abdulkarim -GOMSACA
3. Muhammed B Idris- O/C Med POL NPF
4. Musa Shehu- PWID KP Rep
5. Osuji Christopher -MSM KP Rep
6. Nazifi Salisu -TG KP Rep
7. Christy Samuel -FSW KP Rep
8. Aliyu Shelley Ibrahim -State Lab Lead
9. Kelly Ugochukwu Osuji - UoM State technical compliance & conformance office
10. Omotayo Adebayo - UoM State Representative
11. Sheba Mamman- UoM Admin / Finance

Gombe State Field Team

S/N	Name	Role
1	Adebayo Adeyemi Omotayo	UoM State Representative
2	Ahmed Rasheeda Almustapha	Supervisor FSW

3	Sadiya Abdulkarin	Interviewer FSW
4	Samaila Kabiru	Interviewer FSW
5	Tabitha Paul	Interviewer FSW
6	Simon Emmanuel Joda	Counsellor FSW
7	Deborah Robert	Counsellor FSW
8	Garba Safiya	Social Mobilizer FSW
9	Sani Fatima Muhammad	Laboratory Scientist
10	El-Nafaty Aliyu Mahmoud	Supervisor Pwid
11	Akinyemi Sarah Ebele	Interviewer PWID
12	Christopher Edison	Interviewer PWID
13	Haruna Rebecca	Interviewer PWID
14	Bappah Sulaiman Dukku	Counsellor PWID
15	Pwajok Victor Gyang	Counsellor PWID
16	Musa Shehu Sulaiman	Social Mobilizer PWID
17	Holen Yakubu Shalom	Laboratory Scientist
18	Ibrahim Abdulkarim	Supervisor MSM
19	Aliyu Saminu	Interviewer MSM
20	Usman Shaibu	Interviewer MSM
21	Aduak Grace Alheri	Interviewer MSM
22	Jehud Jerry Denis	Counsellor MSM
23	Gaude Brains Tinoemo	Counsellor MSM
24	Saleh Umar	Social Mobilizer MSM
25	Ehigie Mary Iyore	Laboratory Scientist
26	Aliu Christopher	Supervisor TG
27	Dauda Emmanuel Azi	Interviewer TG
28	Kolo Mohammed	Interviewer TG
29	Musa Mercy	Interviewer TG
30	Salisu Hafsat Sabiya	Counsellor TG

31	Yamta Luka	Counsellor TG
32	Yahaya Hassan	Social Mobilizer TG
33	Elisha Edom Ngale	Laboratory Scientist
34	Maryam Bulus Maiyanga	Satellite Laboratory Scientist
35	Abdurra'uf Basheer	IT/Data

Kaduna State IBBSS Committee Members

1. Faith Zakari- SAPC
2. Dr. Isa Baka- ES KASACA
3. Mr Jonathan Zaki. - State Lab Lead
4. Virginia Bonnet - ART Focal Person
5. Dr. Khadija Liman Hamza – UoM State Representative
6. Dr. Lawal Aminu – UoM State technical compliance & conformance office
7. Ahmed Ahmed -KP Rep
8. Agbo Susan -KP Rep
9. Bashar Usman- KP Rep
10. Mohammed Ismail- KP Rep.
11. Rachel Frederick- UoM Admin / Finance

Kaduna State Field Team

S/No	Name	Role
1	Hamza, Khadeejah, Liman	UoM State Representative
2	Usman Halima Saadiya	Supervisor FSW
3	Rohbam Evelyn Nicholas	Interviewer FSW
4	Okoriko Ajuma Stephanie	Interviewer FSW
5	Abdulrazak Mansurah	Interviewer FSW
6	Wokili Abdulkudus Mohammed	Counsellor FSW
7	Lamba Martha Gimbia	Counsellor FSW
8	Boshi Judith	Social Mobilizer FSW
9	Ibrahim Maimuna Abu	Laboratory Scientist
10	Rita Musa	Supervisor PWID
11	Queen Ochanya Esa	Interviewer PWID
12	Auta Gambo	Interviewer PWID

13	Usman Ibrahim	Interviewer PWID
14	Jafaru Mercy Shekari	Counsellor PWID
15	Lukman Ibrahim Musa	Counsellor PWID
16	Musa Dahiru	Social Mobilizer PWID
17	Anka Abubakar Umar	Laboratory Scientist
18	Jibril Muhammad Bashar	Supervisor MSM
19	Nkom Michael Akuying	Interviewer MSM
20	Alhassan Abdullahi Yusuf	Interviewer MSM
21	Sule-Otu Abdulmajeed Amoto	Interviewer MSM
22	Aliyu Auwal Aliyu	Counsellor MSM
23	Mayaki Abdulhakim	Counsellor MSM
24	Sunday Dede Jide	Social Mobilizer MSM
25	Usman Musa	Laboratory Scientist
26	Sani Ahmed Tijjani	Supervisor TG
27	Miss Cookie Alhassan Saidu Musa	Interviewer TG
28	Yashim Hilda	Interviewer TG
29	Maimuna Umar Bindawa	Interviewer TG
30	Habila Kombo Gayus	Laboratory TG
31	Usman Jamila Ladan	Counsellor TG
32	Sabiya Rukayya Salihu	Counsellor TG
33	Hyacinth John	Social Mobilizer TG
34	Nabila Abubakar	Laboratory Scientist
35	Ada Naomi Onu	Satellite Laboratory Scientist
36	Babandi Shamsideen	IT/Data

Kano State IBBSS Committee

1. Mr. Ade-Yusuf Ali Taiwo- Northwest Zonal Coordinator, NACA
2. Aliyu Baana Ibrahim – KP TG Rep
3. Aisha Umar Muhammad – KP FSW Rep

4. Ibrahim Hassan- KP MSM Rep
5. Abdulhadi Abdullahi – KP PWID Rep
6. Bashir Umar - UoM State technical compliance & conformance office
7. Dr. Muhammad Usman- UoM State Representative
8. Musa Peter Muhammed- UoM Admin / Finance
9. Nasiru Sadiq Magaji – Lab Lead

Kano State Field Team

S/N	Names	Role
1.	Dr Muhammad Sani Usman	UoM State Representative
2.	Abdullah Zainab Aliyu	Supervisor FSW
3.	Abdullahi Abba Muhammad	Interviewer FSW
4.	Hafsat Mohammad	Interviewer FSW
5.	El- Yakub Firdausi Ado	Interviewer FSW
6.	Kafingana Shuaibu Musa	Interviewer FSW
7.	Kakira Amina Nura	Counsellor FSW
8.	Abdulrahman Nuhu Ibbi	Counsellor FSW
9.	Fidausi Y Muhammed	Social Mobilizer FSW
10.	Anyanwu Ugochukwu Obidike	Laboratory Scientist
11.	Hassan Hauwa Ibrahim	Supervisor PWID
12.	Umar Abdullahi	Interviewer PWID
13.	Abubakar Nasir	Interviewer PWID
14.	Amina Mustapha	Interviewer PWID
15.	Adam Sunusi Salisu	Interviewer PWID
16.	Abubakar Muhammed	Counsellor PWID
17.	Fatima Haruna	Counsellor PWID
18.	Ladi Mary Innocent	Social Mobilizer PWID
19.	Adigun Sunday	Laboratory Scientist
20.	Atiku Salma Ibrahim	Supervisor MSM
21.	Muyideen Haruna	Interviewer MSM

22.	Hassan, Sagir Abdullahi	Interviewer MSM
23.	Muazu Rabiatu Ahmad	Interviewer MSM
24.	Maryam Salihu Abdullahi	Counsellor MSM
25.	Yusuf Maryam	Counsellor MSM
26.	Umar Abdullahi	Social Mobilizer MSM
27.	Muhammad Yahuza Ali	Laboratory Scientist
28.	Muhammad Buhari	Supervisor TG
29.	Inalegwu Abraham Ogili	Interviewer TG
30.	Ahmad Nazif Sani	Interviewer TG
31.	Aliyu Sunusi	Interviewer TG
32.	Abdulkarim Abdulmujib	Interviewer TG
33.	Nuhu Saadatu Rabiu	Counsellor TG
34.	Usman Ibrahim Umar	Counsellor TG
35.	Sani Auwalu Anas	Social Mobilizer TG
36.	Ahmad Abbas Hamdullahi	Laboratory Scientist
37.	Usman Ahmad Abdullahi	Satellite Laboratory Scientist
38.	Suleiman, Yusuf	IT/Data

Lagos State IBBSS Committee:

1.Dr Yeside Shogbamimu-SAPC (LSMOH)
2.Dr. Omolola Sule-SACA
3.Mr. Jenrola -State Pab Lead (SMOH)
4.Dr. Sylvester Zamije A - UoM State Representative
5.Mr. Peter Kass-KP Rep MSM
6.Ms.Ese Blessing KP Rep FSW
7.Lady Diana- KP Rep PWID
8. Cross Roboh - KP Rep TG
9.Fatoki Taiye Timmy- UoM State technical compliance & conformance office
10.Eloho Iyase – UoM Admin / Finance

Lagos State Field Team

S/N	Names	Role
1.	Sylvester Zamije A.	UoM State Representative
2.	Chux-Onyekwere Ebelechukwu Francisca	Supervisor FSW
3.	Abubakar Joy Oge	Interviewer FSW
4.	Ikonne Chiamaka Amarachi	Interviewer FSW
5.	Enilobo Oyeyemi Aderonke	Interviewer FSW
6.	Gloria Acholonu Chinonso	Counsellor FSW
7.	Magdalene Nwaneri	Counsellor FSW
8.	Imaobong Abraham Udoh	Social Mobilizer FSW
9.	Famuyiwa Christiana Olufolake	Laboratory Scientist
10.	Taiwo Folashade Olawunmi	Supervisor PWID
11.	Israel Ifenyin	Interviewer PWID
12.	Akinniyi Olamide	Interviewer PWID
13.	Joseph Edem Diana	Interviewer PWID
14.	Afolabi Sunday Olabowale	Counsellor PWID
15.	Rhoda, Aleka Andornimye	Counsellor PWID
16.	Nneji Ebere Rejoice	Social Mobilizer PWID
17.	Awolola Motunrayo	Laboratory Scientist
18.	Obidinnu Augusta Ogechukwu	Supervisor MSM
19.	Oyedele Olusola Dorcas	Interviewer MSM
20.	Balikis Sule	Interviewer MSM
21.	Arowosegbe Omowunmi Seun	Interviewer MSM
22.	Olatunde-Ajagbe Yemisi Olayinka	Counsellor MSM
23.	Oraegbu Jennifer Nneka	Counsellor MSM
24.	Okechuckwu Martins Alex	Social Mobilizer MSM
25.	Olla Ganiyat Omowumi	Laboratory Scientist
26.	Ifeduba Obiageri Nnena	Supervisor TG
27.	Muhammed Abdulmalik Lawal	Interviewer TG
28.	Aregbesola Kunle Samson	Interviewer TG
29.	Emerald Nnoruka	Interviewer TG
30.	Obike Glory Onyejiuwaka	Counsellor TG
31.	Talabi Elizabeth Damilola	Counsellor TG
32.	Adebiyi Omolayo	Social Mobilizer TG
33.	Jolaiye Funbi Tolulope	Laboratory Scientist
34.	Mrs Omosalewa Alao.	Satellite Laboratory Scientist
35.	Ebiyomi, Augustina	IT/Data

Name: Nasarawa State IBBSS Committee

1. Dr Peter Attah -SAPC
2. Dr Ruth Bello -ED NASACA
3. Kyari Stephen Habila -State Lab Lead
4. Regina Aluku -State Lab Focal
5. Samuel Shamah- KP TG Rep
6. Lucy Aniwange- KP FSW Rep
7. A.A. Muhammed- KP PWID Rep
8. Francis Onah- KP MSM Rep
9. Winifred Agogo - UoM State technical compliance & conformance office

10. Dr. Musa Abdullahi- UoM State Representative
11. Musa Sadiq Abubakar- UoM Admin / Finance

Nasarawa State Field Team

S/N	Names	Role
1.	Musa Abdullahi	UoM State Representative
2.	Jibril Jabir Ibrahim	Supervisor FSW
3.	Awakan Abiola Ibukunoluwa	Interviewer FSW
4.	Ochani Blessing Eyum	Interviewer FSW
5.	Makpa Victoria Ilya	Interviewer FSW
6.	Nuhu Ilyasu Halima	Interviewer FSW
7.	Alih Maimunatu	Counsellor FSW
8.	Aboki Awusa Jonah	Counsellor FSW
9.	Dim Nanre	Social Mobilizer FSW
10.	Ejeckam Onyinyechukwuka Nkeiruka	Laboratory Scientist
11.	Idris Sulaiman	Supervisor PWID
12.	Musa Umar Suleiman	Interviewer PWID
13.	Danjuma Zunaidu Mohammed	Interviewer PWID
14.	Balang Yop Henrietta	Interviewer PWID
15.	Muhammad Zulaiha Usman	Interviewer PWID
16.	Suleiman Yusuf	Counsellor PWID
17.	Kuje Ovey Angba	Counsellor PWID
18.	Musa Mohammed Bage	Social Mobilizer PWID
19.	Mark Chinelo Prisca	Laboratory Scientist
20.	Odom Bruno Uzoma	Supervisor MSM
21.	Alobo Bright Alobo	Interviewer MSM
22.	Ojo, Ukata, Emefu	Interviewer MSM
23.	Uzor Obinna	Interviewer MSM
24.	Micheal Asheahe Lilian	Counsellor MSM

25. Oshoke Douglas — Counsellor MSM
26. Amir Abdullahi — Social Mobilizer MSM
27. Ifabumuyi Samuel Oluwafumbi — Laboratory Scientist
28. Adah Ojonugwa Eric — Supervisor TG
29. Eneh Chukwuma Samuel — Interviewer TG
30. Inyama Evelyn Obatare — Interviewer TG
31. Clement John Abashi — Interviewer TG
32. Odeh Alice Unara — Counsellor TG
33. Awom Emmanuel — Counsellor TG
34. David Anderson — Social Mobilizer TG
35. Obadiah O. Helen — Laboratory Scientist
36. Maryam Muhammad Hassan — Satellite Laboratory Scientist
37. Attah Francis Julius — IT/Data

Oyo State IBBSS Committee

1. Dr Ayinde Olubunmi- SAPC, MOH
2. Dr Abass Waheed-E. S, SACA
3. Onumabor Jude-KP Rep. - MSM
4. Ella Nwabrije- KP Rep.- FSW
5. Kolawole Oreoluwa-KP Rep.- PWID
6. Obono Efa Lekam-KP Rep. TG
7. Bolaji Olufemi-State Lab Lead, MOH
8. Peace Emmanuel- UoM State technical compliance & conformance office
9. Morenike Oguntokun- UoM State Representative
10. Dr Lawal Oyewole-ART Focal Person/DPH, MOH
11. Olujimi Suzan- UoM Admin / Finance

Oyo State Field Team

S/N	Name	Role
1	Oguntokun Morenike	UoM State Representative
2	Bamgboye, Eniola, Adetola	Supervisor FSW
3	Maduka Amala Uzoma	Interviewer FSW
4	Oyedokun Joy Oyetoke	Interviewer FSW
5	Oladunjoye Oluwadamilola Mary	Interviewer FSW
6	Arowolo Bukayo Olatunji	Counsellor FSW
7	Onoko Peggy Okiemute	Counsellor FSW

8	Juliet Nwafor	Social Mobilizer FSW
9	Adepegba Mary Funmibi	Laboratory Scientist
18	Akinboye Olufunso Emmanuel	Supervisor PWID
19	Makinde Okediran. E	Interviewer PWID
20	Ogundipe Kolade Samuel	Interviewer PWID
21	Adebayo Aderibigbe Adedotun	Interviewer PWID
22	Ayejusunle Esther	Counsellor PWID
23	Adeyemi Ademayowa	Counsellor PWID
24	Dauda Olayide Hammed	Social Mobilizer PWID
25	Omokayode Oluwafemi Emmanuel	Laboratory Scientist
10	Ayodele Austin Ayobamidele	Supervisor MSM
11	Ashefor Innocent Ige	Interviewer MSM
12	Adighibe Darlington	Interviewer MSM
13	Ajana Kingsley Chinedu	Interviewer MSM
14	Olatuja Dayo Moses	Counsellor MSM
15	Abass Akinyemi Ajibola	Counsellor MSM
16	Akinbami Ayodeji Muyiwa	Social Mobilizer MSM
17	Osuntade Abiodun Abiola	Laboratory Scientist
26	Onifade Oluwaseun Samuel	Supervisor TG
27	Monyei Charles Ifechukwude	Interviewer TG
28	Charles Nlewedu	Interviewer TG
29	Adeoye Ruth Adenike	Interviewer TG
30	Mbang, Irene Andrew	Counsellor TG
31	Emenyonu Onyinye Venessa	Counsellor TG
32	Michael Eniola Olamilekun	Social Mobilizer TG
33	Oni Ibukunoluwa Christabel	Laboratory Scientist
34	Folake Oketola	Satellite Laboratory Scientist
35	Odini Joshua	IT/Data

Rivers State IBBSS Committee

1. Dr. Naaziga Francis-Pm RIVSACA
2. Dr. Edewor Ufuoma- Pm SASCP
3. Mrs. Andy-Nwokocha Mary-State Lab Lead, RSMOH
4. Mr. Davies Akuye -KP Rep
5. Mrs. Aseme Josephine- KP Rep
6. Mr. Jumbo Godwin -KP Rep
7. Pharm. Arugu Stephen -ART Focal Person SASCP
8. Banigo Godswill - UoM State technical compliance & conformance office
9. Dr. Maduka Omosivie- UoM State Representative
10. Ethel Dokubo - UoM Admin / Finance

Rivers State Field Team

S/N	Name	Role
1.	Maduka, Omosivie	UoM State Representative
2.	Ndoma-Egba, Lauretta	Supervisor FSW
3.	Alaribe Chidinma Uloma	Interviewer FSW
4.	Obuge Rhema	Interviewer FSW
5.	Gboelo Blessing Beete	Interviewer FSW
6.	Awulonuh Maureen Akumefula	Counsellor FSW
7.	Ekejiuba Fyne Ogadinma	Counsellor FSW
8.	Tase Rose Anneh	Social Mobilizer FSW
9.	Ugochi, Valerie Esame	Laboratory Scientist
10.	Nnabugwu Mighty Chukwudimma	Supervisor PWID
11.	Egboro Moses	Interviewer PWID
12.	Igbikidima Damiebi	Interviewer PWID
13.	Ekachi Nelson	Interviewer PWID
14.	Wisdom Obiwe	Counsellor PWID
15.	Ekpete, Obutor Happiness	Counsellor PWID
16.	Amalaha Cletus	Social Mobilizer PWID
17.	Williams Boma	Laboratory Scientist
18.	Bull-Emmanuel Prudence Abibara	Supervisor MSM
19.	Njar, Raphael, Atamgba	Interviewer MSM
20.	Isaac Ikechukwu	Interviewer MSM
21.	Wolemonwu David Augustine	Interviewer MSM
22.	David, Joshua	Counsellor MSM
23.	Isaac Lilian Chioma	Counsellor MSM
24.	Onyemeziri Lawrence Chidi	Social Mobilizer MSM
25.	Omuruka, Sweeten	Laboratory Scientist
26.	Green Tumini Edith	Supervisor TG
27.	Ikondu Bethel Adaku	Interviewer TG
28.	Ogumba Onyedikachi Francis	Interviewer TG
29.	Bubu-Joe Irikefe Augustus	Interviewer TG
30.	Clement Ibite	Counsellor TG
31.	Obuah, Precious, Uchenna	Counsellor TG
32.	Godstime Dickson	Social Mobilizer TG
33.	Amadi Godpower Sampson	Laboratory Scientist
34.	Anwoh Augustine Chukwuma	Satellite Laboratory Scientist
35.	Chris Ebenezer Chidoro	IT/Data

Taraba State IBBSS Committee

1. Dr Daudu Ba'ade - SAPC, SMOH
2. Dr Garba Danjuma - DG, TACA
3. Mrs Elizabeth Joshua - State Laboratory Lead, SMOH
4. Tsamu Yaro - ART F/P, SPIU - NACA
5. Jeremy Sule - TG KP Rep

6. Jarah Boniface - FSW KP Rep
7. Mohammed Sulaiman - PWID KP Rep
8. Kingsley Nnebedum - MSM KP Rep
9. Emmanuel Sambo - UoM State Representative
10. Akan Udoete - UoM State technical compliance & conformance office
11. Daniel James O. - UoM Admin / Finance

Taraba State Field Team

S/N	Name	Role
1	Sambo Emmanuel Ande	UoM State Representative
2	Gidado Ishaqa	Supervisor FSW
3	Adeyoju Favour Priscilla	Interviewer FSW
4	Daudu Patricia Uniyam	Interviewer FSW
5	Nafinji Atsie	Interviewer FSW
6	Inuwa Amina	Counsellor FSW
7	Wisdom Christopher	Counsellor FSW
8	Offor Chinonye Bacelia	Social Mob FSW
9	Alpha Yahaya	Laboratory Scientist
10	Ahmad Tasiu Muhammad	Supervisor PWID
11	Judith Hadiza Dame	Interviewer PWID
12	Hassan Mansur Musa	Interviewer PWID
13	Madanga Luna Banga	Interviewer PWID
14	Bashir Idris	Counsellor PWID
15	Tor Evelyn Nyiekumbur	Counsellor PWID
16	Mohammed Isa	Social Mob PWID
17	Akyaras Jonathan Mamman	Laboratory Scientist
18	Nwagbo, Chimere, Raphael	Supervisor MSM
19	Mallongah Moses Ahmadu	Interviewer MSM
20	Tyokase Oryina Enoch	Interviewer MSM
21	Musa, Auwal, Tukur	Interviewer MSM
22	Mariki Agbu	Counsellor MSM

S/N	Name	Role
23	Anuye Steve Paul	Counsellor MSM
24	Ibrahim Ubale Umar	Social Mob MSM
25	Banya Richard James	Laboratory Scientist
26	Onunara, Onyekachi, Divine	Supervisor TG
27	Ojelade Elijah Joseph	Interviewer TG
28	Kure Yakubu	Interviewer TG
29	Obiero Gabriel	Interviewer TG
30	Dr Usman Bakari	Counsellor TG
31	Vakkai, Godswill Thomas	Counsellor TG
32	Agyo Tinyang Williams	Social Mob TG
33	David Idiemise O	Laboratory Scientist
34	Usman Abdulrasheed	Satellite Laboratory Scientist
35	Salla Stanley	IT/Data


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