An Assessment of the Pilot Needle and Syringe Programme for People Who Inject Drugs in Nigeria

April 2021

University of Manitoba

An Assessment of the Pilot Needle and syringe programme for People Who Inject Drugs in Nigeria

Collaboration Institution

National Agency for the Control of AIDS

University of Manitoba

Society for Family Health

The Global Fund to fight AIDS, Tuberculosis and Malaria

April 2021

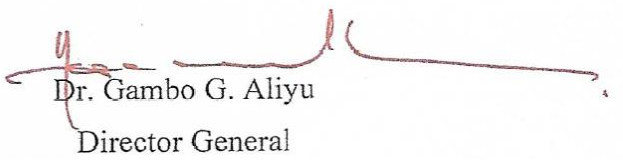
Foreword

Achieving HIV/AIDS epidemic control, especially within the Key Population, is critical in the drive towards ending HIV/AIDS in Nigeria. Evidence has shown that Key Population are disproportionately affected by HIV/AIDS and they serve as reservoirs of infection within the general population. People Who Inject Drugs are amongst the Key Population sub-typology in Nigeria, and achieving epidemic control through a Needle and Syringe intervention on Harm reduction is a critical means towards realising the gains of Nigeria's 2016 political commitment, made alongside other UN member states, to provide comprehensive service package to people who inject drugs and those affected by substance use disorders. Harm reduction as a set of programs, policy and interventions targeted at reducing the adverse social, economic and health consequences of drug use whilst drug is still being used, provides a veritable window through which HIV burden and impact amongst PWID could be mitigated.

Nigeria is keen on achieving 0% incidence by 2030 in line with her national response strategic goals. Hitherto, there has been no nationally guided intervention specifically for people who inject drugs on Harm reduction. Following the 2016 United Nation's commitment, it became imperative for Nigeria, as a country to consider and implement interventions that are wholistic in content towards controlling the spread and transmission of HIV (as well as other STIs, e.g., Hepatitis) among PWID. The Needle and Syringe pilot program was conceived along the lines of the aforementioned objective. Consequently, through the support of the Global Fund to fight AIDS, Tuberculosis and Malaria, the Government of Nigeria implemented a 3-state (Abia, Gombe & Oyo) pilot project on Harm reduction leveraging on Needle and Syringe exchange. Implementation was executed by the Society for Family Health while the Institute for Global Public Health, University of Manitoba, monitored and evaluated the project on behalf of National Agency for the Control of AIDS in line with set targets and objectives.

Amongst others, the Government of Nigeria reaffirms her resolve to mitigate all forms of barriers impeding PWID access and use of HIV prevention services through the NSP pilot. The result from the evaluation will guide strategic planning across all strata by the drivers of the national response in terms of using data to inform policy decisions and guidelines to strengthen the response effort. Ultimately, I expect that this will contribute to the realisation of an AIDS free Nigeria by 2030. I am confident that this result will enjoy widespread consensus, stakeholder buy-in and ownership for scale -up of sustainable interventions aimed at preventing HIV and other STI transmission among PWID, especially at the sub-national level.

I therefore recommend the Needle and Syringe Pilot program assessment report for use.



Dr. Gambo G. Aliyu

Director General

National Agency for the Control of AIDS

Acknowledgements

We thank Global Fund and National Agency for Control of AIDS for the opportunity to assess the first needle and syringe pilot in Nigeria. We extend our thanks to Society for Family Health for their support during the assessment. We thank the team of data collectors and all the CBO partners and their staff in the three states. We thank Brooks Anderson for compiling and editing this report and Caroline M. Mburu for analysing the key informant interviews.

The assessment team led by Parinita Bhattacharjee included Dr Kalada Green, Adediran Adesina, Dr Shajy Isac, Japheth Kioko, Shem Kaosa, Dr Faran Emmanuel, Dr Lisa Lazarus, and Dr Rob Lorway.

Contents

Abbreviations

AIDS	Acquired immunodeficiency syndrome
ART	Antiretroviral therapy
CBO	Community-based organisation
CDC	Centre for Disease Control and Prevention
CF	Community facilitator
FCT	Federal Capital Territory
FSW	Female sex worker
HCV	Hepatitis C virus
HIV	Human immunodeficiency virus
HTS	HIV testing services
IBBSS	Integrated Biological Behavioural Surveillance Survey
IEC	Information, education, and communication
KII	Key informant interview
KPSE	Key population size estimation
MSM	Men who have sex with men
NACA	National Agency for the Control of AIDS
NDDHR	National Programme on Drug Demand and Harm Reduction
NS	Needles and syringes
NSP	Needle and syringe programme
ORW	Outreach worker
PBS	Polling booth survey
PLHIV	People living with HIV
PrEP	Pre-exposure prophylaxis
PWID	People who inject drugs
STI	Sexually transmitted infection
TB	Tuberculosis
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNODC	United Nations Office on Drugs and Crime
UoM	University of Manitoba
WHO	World Health Organization

Executive Summary

Nigeria's national HIV prevalence is estimated to be 1.4% among adults aged 15–49 years, with a total estimated population of 1.9 million persons living with HIV.[1] The nation has a mixed epidemic, partly driven by urban key populations, particularly female sex workers (FSWs), men who have sex with men (MSM), and people who inject drugs (PWID), with substantial overlap with urban casual sexual networks.[2]

In 2018 it was estimated that nearly 80,000 people in Nigeria (nearly 0.1% of the adult population) inject drugs.[3] PWID and their partners contribute about 9% of new HIV infections in the nation annually.[4] Unsafe injection practices, such as sharing contaminated needles, are a major risk factor for transmission of blood-borne infections such as Hepatitis B, Hepatitis C, and HIV.[5]

Key population geographic mapping and size estimation studies conducted by Nigeria's National Agency for the Control of AIDS and partners in 2018[6] and the Society for Family Health's Global Fund-supported key population programme data reported that a considerable percentage of female PWID engage in sex work, which increases their risk of acquiring HIV and other infections and transmitting the same to clients and their other sexual and injecting partners.[7]

Such findings led the WHO in 2019 to recommend that Nigeria's Ministry of Health define a holistic, health sector driven approach for addressing the harms of drug use.[8] In response, the Government of Nigeria commissioned a Needle and Syringe programme (NSP) pilot project to complement the interventions that were already being implemented as part of the national harm reduction programme for PWID.

---

[1] Federal Ministry of Health, Nigeria. 2019. Nigeria HIV/AIDS Indicator and Impact Survey (NAIIS) 2018: Technical Report. Abuja: Federal Ministry of Health. http://ciheb.org/media/SOM/Microsites/CIHEB/documents/NAIIS-Report-2018.pdf.

[2] National Agency for the Control of AIDS (NACA). 2019. Revised National HIV and AIDS Strategic Framework 2019-2021. Abuja: National Agency for the Control of AIDS. https://naca.gov.ng/wp-content/uploads/2019/03/NATIONAL-HIV-AND-AIDS-STRATEGIC-FRAMEWORK-1.pdf

[3] UNODC. 2018. Drug use in Nigeria. Vienna: United Nations Office on Drugs and Crime. https://www.unodc.org/documents/nigeria//Drug_Use_Survey_Nigeria_2019_BOOK.pdf.

[4] National Agency for the Control of AIDS (NACA). 2019. Revised National HIV and AIDS Strategic Framework 2019-2021. Abuja: National Agency for the Control of AIDS. https://naca.gov.ng/wp-content/uploads/2019/03/NATIONAL-HIV-AND-AIDS-STRATEGIC-FRAMEWORK-1.pdf

[5] UNODC. 2018. Drug use in Nigeria. Vienna: United Nations Office on Drugs and Crime. https://www.unodc.org/documents/nigeria//Drug_Use_Survey_Nigeria_2019_BOOK.pdf.

[6] Federal Ministry of Health. 2019. Mapping and size estimation of key populations in Nigeria: Six states and the Federal Capital Territory.

[7] Federal Ministry of Health. 2020. Protocol for the pilot implementation of needle and syringe programme (NSP) for people who inject drugs (PWID) in six Nigerian states: Abia, FCT, Gombe, Lagos, Nasarawa and Oyo States.

[8] WHO-Nigeria. 2019. Nigeria moves to end Communicable Diseases among people who use drugs. Press release. August 19. https://www.afro.who.int/news/nigeria-moves-end-communicable-diseases-among-people-who-use-drugs.

The aim of Nigeria's NSP pilot project was to examine the feasibility, effectiveness, and quality of a needle and syringe programme among PWID in Nigeria towards scale of intervention and establishment of a monitoring and evaluation structure for PWID activities in Nigeria.

The NSP pilot had the following objectives:

1. Assess the effectiveness of a pilot needle and syringe project in preventing HIV and viral hepatitis among PWID in Nigeria.
2. Develop a system of monitoring and evaluating NSP interventions and use the data for the scale-up of NSP in Nigeria.
3. Build the capacity of project staff of implementing partners / sub-recipients to deliver a quality NSP using rights-based and gender-responsive models.
4. Evaluate the optimisation of service delivery and uptake among PWID to improve access to testing, prevention, and treatment of HIV/AIDS, STIs, TB, and viral hepatitis devoid of stigma, discrimination, and violence.

The NSP pilot took place in the states of Abia, Gombe, and Oyo from July to December 2020. The pilot provided needle and syringe exchange through fixed site and outreach models of service delivery to 2,739 male and female PWID who were HIV and Hepatitis B and C negative, aged 15 and above.

The NSP pilot project was integrated into the following package of HIV, STI, Hepatitis, and TB interventions for PWID:

- HIV testing and counselling
- Linkage to ART services
- Social behavioural change communication - targeted information, education, and communication
- Condom promotion
- Screening of and prevention messaging on STIs
- Linkage to STI treatment services
- Violence and discrimination prevention and response
- TB screening
- Hepatitis B and C screenings
- Referral services for viral hepatitis and TB management

The University of Manitoba (UoM) was responsible for assessing the NSP pilot project's feasibility, effectiveness, and quality. Such assessment was done by reviewing the pilot project's service delivery and uptake of services for the testing, prevention, and treatment of HIV/AIDS, STIs, TB,

and viral hepatitis by PWID, and the project's efforts to address the structural issues of stigma, discrimination, and violence.

The assessment of the NSP pilot project was planned as an evaluation, with a baseline assessment before the intervention and an endline assessment after the intervention. However, by the time the protocol was approved and the contract with UoM for the assessment was signed, the NSP pilot project had already started. Hence a baseline study was not feasible. In the end, the assessment was done only at one time period, during the months of November and December 2020.

This study assessed the NSP pilot project's feasibility by analysing project monitoring data recorded during the project's implementation. To assess the project's effectiveness, polling booth surveys (PBSs) were conducted with 670 PWID in 67 survey sessions in December 2020. To assess the project's quality, 18 key informants were interviewed: four PWID, eight community facilitators, and six programme implementers.

The assessment found that the NSP pilot project was feasible, that it was partially effective, and that its quality was good.

Monitoring data showed that, though the pilot project initially planned to reach 1,751 PWID (256 PWID in Abia, 461 PWID in Gombe, and 1,034 PWID in Oyo), the pilot project actually registered and reached 2,739 PWID (499 PWID in Abia, 720 PWID in Gombe, and 1,520 PWID in Oyo). In Gombe and Oyo, the outreach staff reached 100% of the registered PWID at least once a month. The reason for lower outreach coverage in Abia needs to be studied.

Results were uneven across states and over time. Although the NSP pilot project in Oyo mobilised 82% of registered female PWID and 70% of male PWID for HIV testing in October, the pilot in Gombe reportedly mobilised no PWID for HIV testing during the project. Needle and syringe distribution was generally lower than the World Health Organization's guideline of 17 NS per PWID per month.[9] Condom distribution was uneven across the states and months, and the pilot in Oyo ran out of stock of condoms, but, on average, PWID in Gombe each received 27 male condoms in September and 30 male condoms in October, demonstrating the ability of the project to distribute male condoms. Monitoring data reported that none of the registered PWID were screened for TB in Gombe, 100% of registered PWID in Abia were screened for TB in August, and 72% of registered PWID in Oyo were screened for TB in October. According to monitoring data, no PWID were screened for hepatitis B or hepatitis C during the pilot. In Gombe, five incidents of police

[9] WHO. 2004. Effectiveness of sterile needle and syringe programming in reducing HIV/AIDS among injecting drug users. Geneva: World Health Organization. https://www.who.int/hiv/pub/prev_care/effectivenesssterileneedle.pdf

violence against male PWID were reported in September. All five of these incidents were addressed during the month by the pilot in Gombe.

In general, monitoring data quality seemed poor in some states. Data was not available against all indicators across all months or desegregated by sex. For example, records of NS distribution to male and female PWID in Abia were combined. There were inconsistencies in the data. For example, in Abia in November, the number of males tested for HIV for the first time (286) was more than three times greater than the number of males tested for HIV (88).

The monitoring system needs improvement.

PBS responses provided an impression of the causes and severity of HIV risk and vulnerability among PWID in the three states. In some locations responses indicated that many PWID shared needles, had unprotected sex, had poor condom skills, had STI symptoms, sold/bought sex, and experienced violence, stigma, and discrimination.

A very high level of awareness among PWID that sharing needles can transmit HIV indicates that the pilot project provided information that can help them reduce their risk of HIV and hepatitis transmission. While a high proportion of respondents reported use of new needles, 36% of respondents reported sharing needles at last injection. Needle sharing at last injection was reported by 82% of respondents in Gombe state. Almost half of the PBS respondents (48%) reported that they were unable to obtain a clean needle when needed at least once in the past month, and this was twice as common among respondents in Gombe (96%), indicating that NS distribution in Gombe did not meet the need of PWID.

Nearly half of the PBS respondents (47%) reported that they were diagnosed with an STI in the last three months, and this was almost twice as common among the male respondents in Gombe (91%). This could be a consequence of a high proportion of respondents engaging in selling and buying sex, unavailability of condoms, and incorrect condom use. Half of the respondents (51%) reported an occasion in the past month of wanting a condom but being unable to obtain one in that time and place. This was reported by all of the women in Gombe (100%), which indicates that condom distribution needs attention. Though a high proportion of respondents reported using a condom at last sex, 43% overall reported experiencing slippage or breakage the last time a condom was used, and such a mishap was reported by all of the women in Gombe. This suggests that PWID need training on the correct use of condoms.

Fully 60% of the PBS respondents reported being screened for TB, and 52% reported being screened for hepatitis B or C in the six months preceding the survey. Testing PWID so that they

know their HIV status is essential for achieving UNAIDS's first 95 target. Some 94% of the PBS respondents had ever tested for HIV, though the proportion reporting in Oyo state (86%) was much lower. Recent testing was also very high among the respondents.

Although the monitoring data reported no incidents of violence in Oyo or Abia during the project, 37% of PBS respondents in Abia and 28% of PBS respondents in Oyo reported experiencing physical or sexual violence in the six months preceding the survey. Experiences of violence (33%), stigma and discrimination (74%), and incarceration (50%) in the last six months were common, but 82% of PBS respondents who experienced violence, stigma or discrimination reported that the project supported them after such experiences. Contact with a community facilitator or outreach worker in the past month was reported by 94% of PBS respondents, with such contact lower in Oyo (88%) than in Abia and Gombe (99% and 98% respectively).

Though it is very clear that in the short period of time the NSP pilot project showed positive outcomes, several improvements need to be made:

1. The disparity between states on some outcomes is stark. For example, 8% of PBS respondents in Abia and 11% of respondents in Oyo reported currently experiencing an STI symptom, but 92% of PBS respondents in Gombe reported this. In such cases, the reasons need to be explored and support to states needs to be provided based on programme performance and gaps.
2. In many places the PBS results do not match what has been reported by the project through the monitoring reports. For example, the monitoring data indicate that PWID in Gombe were not mobilised for HTS during the pilot, but all PBS respondents from Gombe reported that they had been tested for HIV in the last three months. Discrepancies need to be examined further. Overall, it appears that more training on how to detect/capture service provision and fill the monthly monitoring tools is needed, and there appears to be a need for a better system of recording the services provided by the project.
3. Needle sharing is still quite high, so needle availability should be improved. But sharing appears to also be influenced by norms and practices within the community, so cultural or other state-specific practices that promote sharing should be explored and addressed.
4. Transmission though sexual route also needs attention, as a high proportion of PWID engaged in sex work or buying sex. Condom availability and condom skills need to be improved, as many PWID reported experiencing STI symptoms and condom mishaps.
5. Structural interventions will need attention as violence, stigma and discrimination are high and there is evidence that these impede access to services and vital commodities.

Key informant interviews revealed that services and items provided by the pilot were readily available to the PWID. However, informants did mention rationing of new NS and some frequent injectors not getting enough needles. The project should review such policies and ensure that all PWID get new needles as per their need. Scaling up the project to saturate coverage of estimated populations is critical, as there was evidence of sharing between PWID who were registered and those who were not registered and hence did not have access to new NS. Till there is an optimum population that shares needles, HIV prevention will remain a challenge.

Community facilitators (CFs) were within easy reach of the PWID. CFs overcame the challenge of the community's initial suspicion and resistance by empathising, persisting, and considering this assignment as a humanitarian mission, not just a job. Involvement of current or ex-drug users as CFs increased trust among PWID. This shows the importance of involving the key population community in key population programmes.

Hostility, especially by the police, towards the service providers and PWID hindered the work of the CFs and caused many PWID to shy away from the programme. Community engagement and supportive structures diminished the experience of violence. Clearly, the projects need to prioritise structural interventions and ensure that law enforcers and general community members are regularly sensitised so that an enabling environment is created for project implementation and for PWID.

Training, feedback, and effective communication among all the stakeholders facilitated valuable interactions with PWID. However, women staff experienced challenges in the project, hence the projects need to understand the needs of the staff and empower them with training, self-confidence, and policies.

Participation of the PWID from the project’s inception improved their use of the project. Regular meetings with the CFs and PWID leaders ensured that feedback was continuously received and incorporated into the NSP. This led to the acceptance and ownership of the project within the PWID community. Incorporation of feedback from the PWID helped to retain them in the project.

Informants cited referral and treatment for wound management as a key aspect of the project that was working very well because this was lacking previously and many PWID who had wounds were not able to access treatment. Difficulties encountered when referring clients to services included a shortage of medical personnel in the facilities where the PWID were referred and long distances to the referral facilities. Referral services need to be strengthened through improving accessibility. The participants also noted the need to scale up the services in the project clinics to include

maternity services and psychosocial services. At the same time, projects should also address other barriers to service access, such as distance.

The assessment shows that piloting and possibly scaling up a needle and syringe programme among PWID focussing on both men and women is feasible in Nigeria. The PBS results and the qualitative assessment show that the pilot projects have been partially effective and are very much acceptable to the PWID community. However the project needs to make improvements by a) understanding the disparity in the programme's implementation and impact in different states; b) setting up a robust monitoring system which captures all the service indicators, ensures data quality, and normalises data use across the cadre of staff; c) understanding the need for NS among the PWID in each state and providing NS as per need while understanding the cultural or community practices of needle sharing; d) providing equal focus on sexual transmission by ensuring that condoms are available and used consistently and correctly; and e) addressing structural barriers that increase the vulnerability of PWID and impede their access to services.

1 Nigeria's NSP Pilot Project

1.1 Introduction

Nigeria's national HIV prevalence is estimated to be 1.4% among adults aged 15–49 years, with a total estimated 1.9 million persons living with HIV.[10] The nation has a mixed epidemic, partly driven by urban key populations, particularly female sex workers (FSWs), men who have sex with men (MSM), and people who inject drugs (PWID), with substantial overlap with urban casual sexual networks.[11]

Directly, FSWs, MSM, and PWID, who constitute an estimated 1% of the adult population, contribute nearly 23% of new HIV infections. Roughly 20% of infections may be attributed to FSWs, their clients, and client partners alone. People who inject drugs, MSM, and their partners respectively contribute about 9% and 10% of the annual new infections. These key populations and their partners together, who constitute an estimated 3.4% of the adult population, contribute as much as 40% of new infections.[12]

1.1.1 Nigeria's strategy for ending AIDS by 2030

Nigeria's National Agency for the Control of AIDS (NACA) sees the goal of ending AIDS as a public health threat by 2030 as achievable. To realise this goal, Nigeria's Revised National HIV and AIDS Strategic Framework 2019–2021 set clear targets for combination prevention services, testing, treatment, viral suppression, and ending vertical transmission of HIV. In line with UNAIDS's fast-track targets, Nigeria aims to ensure that by 2030

- 95% of the population, including key and vulnerable populations, have access to HIV combination prevention interventions;
- 95% of people living with HIV know their status;
- 95% of HIV positive persons are on sustainable antiretroviral therapy;
- 95% of HIV positive persons on ART are virally suppressed; and
- mother-to-child transmission of HIV is eliminated.

[10] Federal Ministry of Health, Nigeria. 2019. Nigeria HIV/AIDS Indicator and Impact Survey (NAIIS) 2018: Technical Report. Abuja: Federal Ministry of Health. http://ciheb.org/media/SOM/Microsites/CIHEB/documents/NAIIS-Report-2018.pdf.

[11] National Agency for the Control of AIDS (NACA). 2019. Revised National HIV and AIDS Strategic Framework 2019-2021. Abuja: National Agency for the Control of AIDS. https://naca.gov.ng/wp-content/uploads/2019/03/NATIONAL-HIV-AND-AIDS-STRATEGIC-FRAMEWORK-1.pdf

[12] National Agency for the Control of AIDS (NACA). 2019. Revised National HIV and AIDS Strategic Framework 2019-2021. Abuja: National Agency for the Control of AIDS. https://naca.gov.ng/wp-content/uploads/2019/03/NATIONAL-HIV-AND-AIDS-STRATEGIC-FRAMEWORK-1.pdf

1.1.2 Why PWID are a key population for HIV control

The World Health Organization (WHO) regards the syndemic of TB, HIV, and viral hepatitis among PWID as a major health concern.[13] Unsafe injection practices, such as sharing contaminated needles, are a major risk factor for transmission of blood-borne infections such as hepatitis B, hepatitis C, and HIV.[14]

The association between injecting drug use and HIV is well established. PWID have the highest risk of hepatitis C infection, with an estimated global prevalence of 67%, and there is an overall prevalence of hepatitis B in PWID of about 8%. The prevalence of latent infection with Mycobacterium tuberculosis and of active TB disease is higher in PWID than in the general population, irrespective of HIV infection. TB is a leading cause of mortality among PWID living with HIV.[15] Special populations of PWID are of great public health significance in HIV control, especially "bridge" populations, such as PWID who are also men who have sex with men or male or female sex workers, from whom HIV can spread to other populations.[16]

1.1.3 PWID in Nigeria

In 2018, the United Nations Office on Drugs and Crime (UNODC) reported the following findings of surveys on drug use in Nigeria:

- Nigeria's PWID population was larger than previously estimated. Nearly 80,000 people in Nigeria (nearly 0.1% of the adult population) were estimated to be PWID. Of these, 61,000 were men, and 18,000 were women.
- The most common drugs injected were pharmaceutical opioids (such as tramadol, codeine, or morphine), followed by cocaine, heroin and tranquilizers. The majority of PWID (75%) injected opioids.
- Some 3.3% of PWID reported that they were diagnosed with hepatitis C, 7.8% reported that they were diagnosed with hepatitis B, 5.1% reported that they were diagnosed with TB, and 9.2 % reported that they were living with HIV.[17]

[13] WHO. 2016. Integrating collaborative TB and HIV services within a comprehensive package of care for people who inject drugs: Consolidated guidelines. Geneva: World Health Organization. https://apps.who.int/iris/bitstream/handle/10665/204484/9789241510226_eng.pdf

[14] UNODC. 2018. Drug use in Nigeria. Vienna: United Nations Office on Drugs and Crime. https://www.unodc.org/documents/nigeria//Drug_Use_Survey_Nigeria_2019_BOOK.pdf.

[15] WHO. 2016. Integrating collaborative TB and HIV services within a comprehensive package of care for people who inject drugs: Consolidated guidelines. Geneva: World Health Organization. https://apps.who.int/iris/bitstream/handle/10665/204484/9789241510226_eng.pdf.

[16] WHO. 2004. Effectiveness of sterile needle and syringe programming in reducing HIV/AIDS among injecting drug users. Geneva: World Health Organization. https://www.who.int/hiv/pub/prev_care/effectivenesssterileneedle.pdf.

[17] The self-reported rate of HIV infection among PWID in UNODC's survey was much higher than the 2014 national data on HIV among PWID, based on bio-behavioural surveillance covering six states, which reported that 3.4% of PWID were living with HIV. National HIV/AIDS & STIs Control Programme. Federal Ministry of Health, Nigeria. 2015.

- On average, a PWID used a syringe three times (range: 1–18 times) before obtaining a new needle or syringe to inject drugs. Except for cleaning the needles and syringes with cold water, the majority of PWID had never used any method to clean their used needle or syringe before injecting.
- More than half of the PWID reported injecting drugs daily or nearly daily. Women were slightly more likely than men to inject daily or nearly daily (54% of men vs. 58% of women). On a typical day when they injected drugs, more women than men reported injecting two to three times a day (40% of women vs. 35% of men).[18]

Key population geographic mapping and size estimation studies conducted by NACA and partners in 2018[19] and the Society for Family Health's Global Fund-supported key population programme data reported that a considerable percentage of female PWID engage in sex work, by which they increase their risk of acquiring HIV and other infections and transmitting the same to clients and their other sexual and injecting partners.[20]

Because of this compelling evidence, the WHO recommended that Nigeria's Ministry of Health define a holistic, health sector driven approach for addressing the harms of drug use.[21]

In response, in May 2019 the Federal Ministry of Health established the National Programme on Drug Demand and Harm Reduction (NDDHR), which is closely linked to the Presidential Advisory Committee on the Elimination of Drug Abuse, with the mandate of coordinating the health sector response to drug use. Similarly, a national technical working group was inaugurated to support the take-off of the NDDHR.[22]

Also in 2019, the Government of Nigeria commissioned a needle and syringe programme (NSP) pilot project to complement the interventions that were already being implemented as part of the national harm reduction programme for PWID.

Integrated Biological and Behavioural Surveillance Survey (IBBSS) 2014. https://naca.gov.ng/wp-content/uploads/2016/11/Final-Nigeria-IBBSS-2014-report.pdf.

[18] UNODC. 2018. Drug use in Nigeria. Vienna: United Nations Office on Drugs and Crime. https://www.unodc.org/documents/nigeria//Drug_Use_Survey_Nigeria_2019_BOOK.pdf.

[19] Federal Ministry of Health. 2019. Mapping and size estimation of key populations in Nigeria: Six states and the Federal Capital Territory.

[20] Federal Ministry of Health. 2020. Protocol for the pilot implementation of needle and syringe programme (NSP) for people who inject drugs (PWID) in six Nigerian states: Abia, FCT, Gombe, Lagos, Nasarawa and Oyo States.

[21] WHO-Nigeria. 2019. Nigeria moves to end Communicable Diseases among people who use drugs. Press release. August 19. https://www.afro.who.int/news/nigeria-moves-end-communicable-diseases-among-people-who-use-drugs.

[22] WHO-Nigeria. 2019. Responding to the challenge of drug use among women in Nigeria. Press release. December 9. https://www.afro.who.int/news/responding-challenge-drug-use-among-women-nigeria.

1.1.4 The importance of needle and syringe programmes

Evidence from 20 years of research shows that NSPs, which provide sterile injecting equipment to PWID, prevent, control, and ultimately reduce prevalence of HIV and other blood-borne infections among injecting drug users by reducing the use and sharing of infected injecting equipment and paraphernalia.[23]

The WHO recommends that authorities responsible for areas threatened by or experiencing an HIV epidemic among PWID should adopt measures urgently to increase the availability and use of sterile injecting equipment and expand implementation to scale as soon as possible. The important point is to reduce the circulation time of needles and syringes.

However, needle and syringe distribution is not sufficient for HIV control among PWID. Sterile needle and syringe availability needs to be supported by a range of complementary services if communities wish to control HIV infection among and from PWID.[24]

The full complement of harm reduction efforts should include

- opioid substitution therapy;
- needle and syringe programmes;
- HIV testing services;
- antiretroviral therapy;
- prevention and treatment of sexually transmitted infections;
- pre-exposure prophylaxis (PrEP);
- condom programming for PWID and their sexual partners;
- information, education, and communication (IEC) for PWID and their sexual partners,
- prevention, vaccination, diagnosis, and treatment for viral hepatitis;
- prevention, diagnosis, and treatment of tuberculosis; and
- overdose management, including provision of naloxone.[25]

[23] WHO. 2007. Guide to starting and managing needle and syringe programmes. Geneva: World Health Organization. http://whqlibdoc.who.int/publications/2007/9789241596275_eng.pdf.
[24] WHO. 2004. Effectiveness of sterile needle and syringe programming in reducing HIV/AIDS among injecting drug users. Geneva: World Health Organization.
https://www.who.int/hiv/pub/prev_care/effectivenesssterileneedle.pdf.
[25] NACA. 2020. National guidelines for implementation of HIV prevention programmes for people who inject drugs in Nigeria. Abuja: National Agency for the Control of AIDS. https://naca.gov.ng/wp-content/uploads/2020/08/PWID-draft-guideline.pdf.

1.2 Overview of Nigeria's NSP pilot project

1.2.1 NSP pilot project's aim and objectives[26]

Aim

The aim of this pilot was to examine the feasibility, effectiveness, and quality of a needle and syringe programme among PWID in Nigeria towards scale of intervention and establishment of a monitoring and evaluation structure for PWID activities in Nigeria.

Objectives

1. Assess the effectiveness of a pilot needle and syringe project in preventing HIV and viral hepatitis among PWID in Nigeria.
2. Develop a system of monitoring and evaluating NSP interventions and use the data for the scale-up of NSP in Nigeria.
3. Build the capacity of project staff of implementing partners / sub-recipients to deliver a quality NSP using rights-based and gender-responsive models.
4. Evaluate the optimisation of service delivery and uptake among PWID to improve access to testing, prevention, and treatment of HIV/AIDS, STIs, TB, and viral hepatitis devoid of stigma, discrimination, and violence.

1.2.2 Pilot project sites

The pilot project took place in the states of Abia, Gombe, and Oyo. In these states, the pilot project was funded under a grant from the Global Fund for AIDS, Tuberculosis and Malaria and implemented by Society for Family Health. Though the protocol suggested that the pilot project would take place in six states, due to funding challenges the pilot project took place in only three states.

For the pilot project, the selection of states and study location was guided by the findings of the University of Manitoba's 2018 key population size estimates (KPSE),[27] which highlighted the number of PWID per Local Government Area within a state.

1.2.3 Pilot project duration

The pilot project was implemented from July to December 2020, and the assessment was conducted in November and December 2020. This included training and implementation (fieldwork). Analysis and report writing were done between January and April 2021

[26] For complete details of the NSP pilot project's protocol, please refer to Federal Ministry of Health, Nigeria. 2020. Protocol for the pilot implementation of needle and syringe programme (NSP) for people who inject drugs (PWID) in six Nigerian states: Abia, FCT, Gombe, Lagos, Nasarawa and Oyo States.

[27] University of Manitoba. 2019. Key population geographic mapping and size estimation-Nigeria 2018. Final Report.

1.2.4 Sample population

The pilot project was implemented among male and female PWID who were HIV and hepatitis B and C negative, aged 15 and above. For the purpose of the pilot, persons 15 to 17 years old were considered to be mature minors if they were not living with their biological parents or guardians. If a child was still under parental care, s/he was not included in the pilot.

1.2.5 NSP pilot project targets

The KPSE PWID estimates and NSP pilot project targets in the three states are shown in Table 1.

Table 1. Estimated PWID and targets for the NSP pilot project in each state

State	State PWID estimate	NSP pilot project target
Abia	3,654	256
Oyo	14,741	1,034
Gombe	6,657	461
Total	25,052	1,751

1.2.6 Recruitment of PWID in NSP pilot project

To recruit PWID participants for the NSP pilot project, the project used the snowball method, by which peers referred their fellow peers to the project. The implementing partner recruited and registered more PWID than the target, anticipating that some PWID would be lost to follow-up during the project. The numbers of PWID registered in each state are shown in Table 2. Participants were recruited and registered within the first month of implementation.

1.2.7 Implementation design

All PWID in the pilot were offered needles and syringes through fixed site and outreach models of service delivery. Outreach was performed by community facilitators (CFs) and outreach workers (ORWs), whose duties included the following:

- Regularly visited hotspots (three times a week) and ensured distribution of needles, syringes, and other injecting equipment in accordance with demand to PWID clients and retrieved used ones
- Conducted one-on-one and group education sessions with PWID
- Motivated PWID to visit the NSP pilot project site/ clinic to receive other services
- Motivated and provided PWID with HIV testing and other referral services
- Maintained an adequate supply of needles and syringes and other commodities for themselves and all peers
- Mapped outreach sites and regularly updated/validated information
- Maintained records of needle/syringe distribution
- Distributed IEC materials

- Disseminated messages and information about NSP pilot project ervices
- Prepared weekly reports
- Built rapport and maintained contact with PWID

The NSP pilot project was integrated into the following package of HIV, STI, hepatitis, and TB interventions for PWID:

- HIV testing and counselling
- Linkage to ART services
- Social behavioural change communication - targeted information, education, and communication
- Condom promotion
- Screening of and prevention messaging on STIs
- Linkage to STI treatment services
- Violence and discrimination prevention and response
- TB screening
- Hepatitis B and C screenings
- Referral services for viral hepatitis and TB management[28]

1.3 How the NSP pilot project was assessed

The University of Manitoba (UoM) assessed the NSP pilot project's feasibility, effectiveness, and quality. Such assessment was done by reviewing the pilot project's service delivery and uptake of services for the testing, prevention, and treatment of HIV/AIDS, STIs, TB, and viral hepatitis by PWID, and the NSP pilot project's efforts to address the structural issues of stigma, discrimination, and violence.

The assessment of the NSP pilot project was planned as an evaluation study, with a baseline assessment before the intervention and an endline assessment after the intervention. However, by the time the protocol was approved and the contract with UoM for the assessment was signed, the NSP pilot had already started. Hence a baseline study was not feasible. In the end, the assessment was done only at one time period, during the months of November and December 2020.

1.3.1 Assessment of feasibility of the pilot project

As mentioned earlier, the plan was to conduct this assessment in the before the intervention of the pilot project. Hence UoM had planned that a monitoring system would be developed in partnership with SFH and NACA and the monthly data collected by this system would be used to assess the feasibility of the pilot. However, due to delays in awarding the contract, the assessment could be

[28] Federal Ministry of Health, Nigeria. 2020. Protocol for the pilot implementation of needle and syringe programme (NSP) for people who inject drugs (PWID) in six Nigerian states: Abia, FCT, Gombe, Lagos, Nasarawa and Oyo States.

done only at the end of the project. By then, SFH had developed a monitoring system and had collected data on a monthly basis. To collect consistent data across the three states, UoM developed a programme output indicators tool and in collaboration with SFH filled the tool using retrospective data from the programme records. This monthly data (June to November 2020) collected using the tool was entered into Microsoft Excel for analyses. Indicators of interest were analysed for the intervention period to understand if a pilot project was feasible.

1.3.2 Assessment of effectiveness of the pilot project

To assess the pilot project's effectiveness, polling booth surveys (PBSs) were conducted with PWID in December 2020.

Polling booth survey sampling frame and sample size

$$n = \frac{Z\alpha^2 * p * (1 - \mathrm{p})^2}{d^2} * D$$

Where *n* be the sample size; *p* be the value of the prevalence indicator (percent used sterilized needle, 71%); *d* be the precision and *D* be the design effect. The sample size is further adjusted with the finite population correction factor considering the estimated PWIDs in the state. Since the sample was drawn using simple random sampling, we used a design effect of 1.

Therefore, the adjusted sample size with the estimated population using a finite population correction factor as n_f = n*fpc

i.e n_f = n * (n*N)/(n+(N-1), where n_f be the adjusted sample size, *n* be the unadjusted sample size for fpc, *N* be the estimated PWID in the state.

As mentioned earlier, the implementing agency registered more PWID than the NSP pilot's target of 1,751, hence, for the polling booth surveys, the assessment used the 2,739 registered PWID who were receiving services as a sampling frame (Table 2). The parameter "percent always used sterilized needle in the past 1 month" from the IBBSS in 2014 was used to calculate the sample size. It ranged from 71% to 86%. We used 71% to have the maximum sample size. We used a design effect of 1, as we were sampling from the registered PWID. This method resulted in a PBS sample size of 670 for three states.

PBS respondents (550 male PWID and 120 female PWID) were randomly selected using the registration lists from the pilot project, stratified by geography (states) and gender (men and women) (Table 2). This sample size needed a total of 67 PBS sessions.

Table 2. PWID registered, PBS samples, and PBS sessions per state

State	PWID registered in the NSP pilot project	Male PWID PBS sample	Female PWID PBS sample	Total PBS sample	# PBS sessions
Abia	499	150	40	190	19
Gombe	720	190	30	220	22
Oyo	1,520	210	50	260	26
Total	2,739	550	120	670	67

After data collection, data were entered using Microsoft Excel and exported to SPSS (v20) for analysis. Descriptive analysis was performed to produce frequencies, proportions and comparative statistics.

1.3.3 Assessment of quality of the pilot project

To assess the quality of the pilot, in-depth key informant interviews were held with NSP implementers, community facilitators, and PWID. A total of 18 key informant interviews (KIIs) were conducted with PWID, community facilitators, and programme implementers, as shown in Table 3.

Table 3. Key informant interview participants by type and state

Participant type	**State**		
	Abia	**Gombe**	**Oyo**
PWID	1	1	1
Community facilitator	3	3	3
Programme implementer	2	2	2

The KII recordings were transcribed into English. The data were then entered into QSR NVIVO version 12.5.0 (NVivo qualitative data analysis software; QSR International Pty Ltd. Version 12, 2018). This social sciences software is used to order and organize qualitative data, to discover richer insights from qualitative and mixed methods research. In this study, the data were organised and grouped into codes that represented different aspects related to the quality of the NSP. This process was iterative, supported by existing literature, and the themes were developed and modified and the relationships between them identified. The emerging patterns were identified.

1.4 Assessment framework

An assessment framework was created based on the following NSP principles recommended by the WHO's 2007 *Guide to Starting and Managing Needle and Syringe Programmes*:

- The comprehensive package for HIV control among PWID includes measures in support of three goals:

1) providing drug users with information and the means to protect themselves and their partners and families from exposure to HIV, including targeted information and education through outreach, provision of condoms and sterile injecting equipment and access to voluntary testing and counselling,

2) facilitating entry into drug dependence treatment, in particular opioid substitution therapy for people dependent on opioids; and

3) encouraging the uptake of other medical care, including general primary care and access to HIV care and ART.

- HIV prevention and drug treatment programmes should provide for voluntary counselling and testing for HIV and other infectious diseases to help injecting drug users change behaviours that place themselves or others at risk.
- HIV prevention programmes should also focus on sexual risk behaviour among people who inject drugs or use other substances.
- Outreach work, peer education and specific measures outside normal service settings and working hours are often needed to reach injecting drug users, including prisoners, youth, women and sex workers.
- Flexible, easy-to-access opioid substitution therapy and other drug treatment services are critical to meeting the needs of injecting drug users.
- Care and support, with community participation, must be provided to injecting drug users living with HIV, and to their families.[29]

1.4.1 Feasibility of the pilot project

Using the WHO's principles, the assessment analysed the monitoring data to assess the extent to which the project

- reached the targeted PWID population,
- provided peer outreach,
- provided needles and syringes and condoms,
- tested PWID for HIV and linked PWID living with HIV to care,
- screened PWID for STIs,
- screened PWID for TB, and

[29] WHO. 2007. Guide to starting and managing needle and syringe programmes. Geneva: World Health Organization. http://whqlibdoc.who.int/publications/2007/9789241596275_eng.pdf.

- addressed violence, stigma, and discrimination.

1.4.2 Effectiveness of the pilot project

Using the WHO's principles, the assessment analysed PBS data to assess the extent to which the project

- provided PWID with information to help them reduce their risk of HIV and hepatitis transmission through injection,
- provided PWID with the means to reduce their risk of HIV and hepatitis transmission through injection,
- provided PWID with information and services to help them reduce their risk of sexual transmission of HIV and hepatitis,
- provided PWID with the means to reduce their risk of sexual transmission of HIV and hepatitis,
- mobilised PWID for TB screening and for hepatitis B and C screening,
- facilitated PWID behaviour change through entry into drug dependence treatment, such as OST, MAT, and other drug treatment services,
- encouraged PWID to enrol in (or linked PWID to) care and support,
- addressed structural drivers of vulnerability, and
- regularly reached PWID with peer education through outreach.

1.4.3 Quality of the pilot project

To assess the quality of intervention, and to document lessons learnt and unwanted outcomes (if any),

qualitative assessment focused on

- availability and use of the NSP,
- availability of community facilitators,
- participation of PWID in design and implementation,
- quality of interaction of the PWID with service providers and community facilitators,
- availability of safe space,
- availability of support for victims of violence, and
- referral and linkage system developed and implemented.

2 Findings

2.1 Feasibility of the pilot

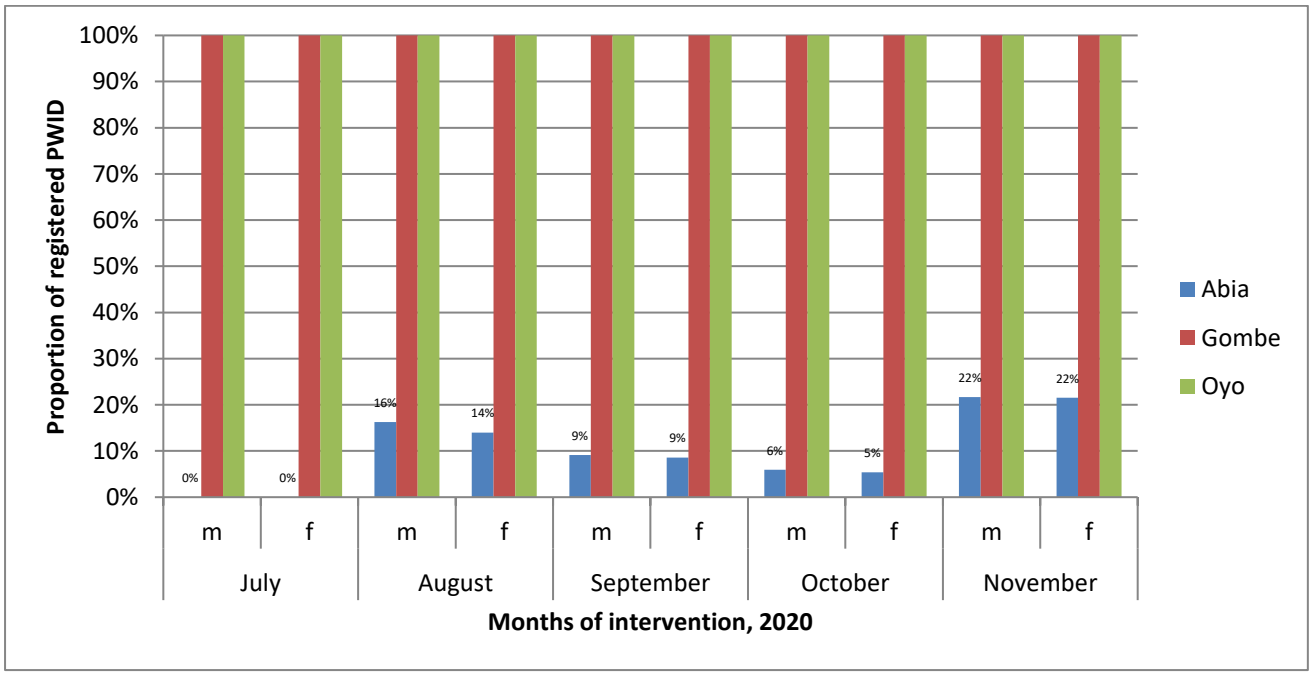
2.1.1 Targeted PWID population reached

The pilot initially aimed to reach 256 PWID in Abia, 461 PWID in Gombe, and 1,034 PWID in Oyo (Table 1). The pilot actually registered and reached 499 PWID in Abia, 720 PWID in Gombe, and 1,520 PWID in Oyo (Table 2).

2.1.2 Peer outreach provided

Monitoring data show that all of the registered PWID in Gombe and Oyo (100%) were contacted at least once each month, whereas far fewer registered PWID were contacted monthly in Abia (Figure 1).

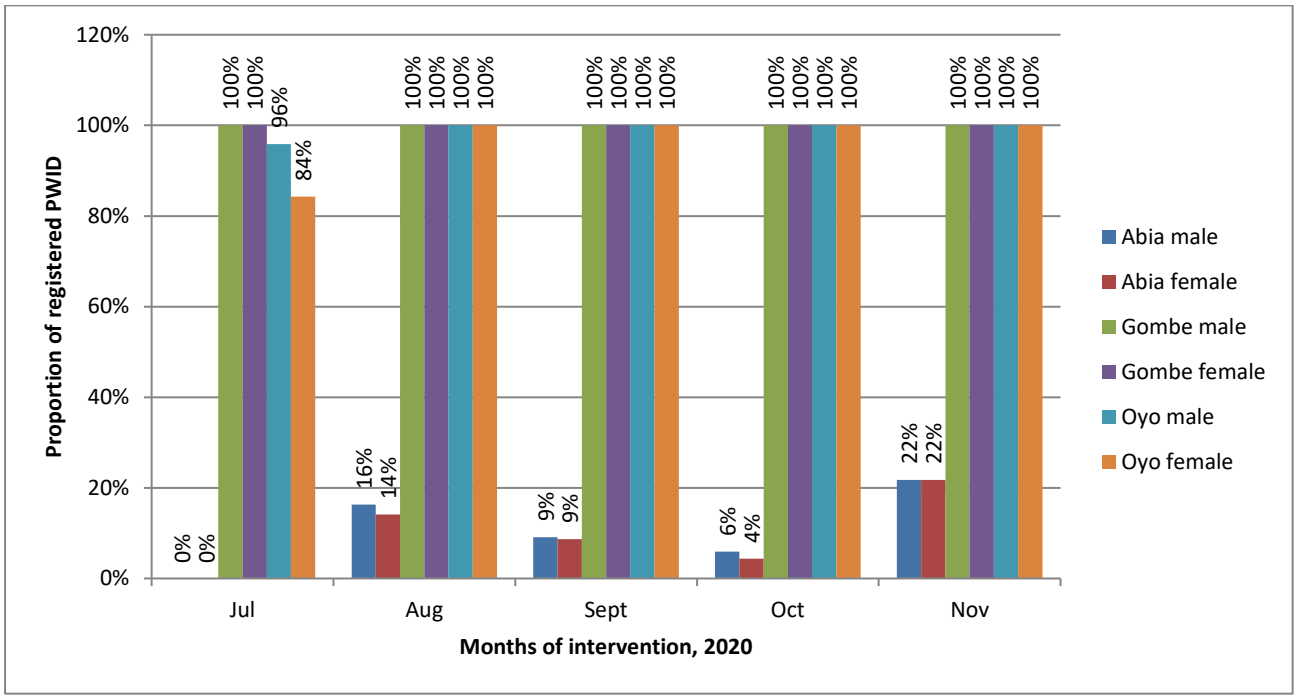
Figure 1. Registered PWID contacted by project outreach team at least once in the month by gender, state, and month (%)



2.1.3 Needles and syringes and condoms provided

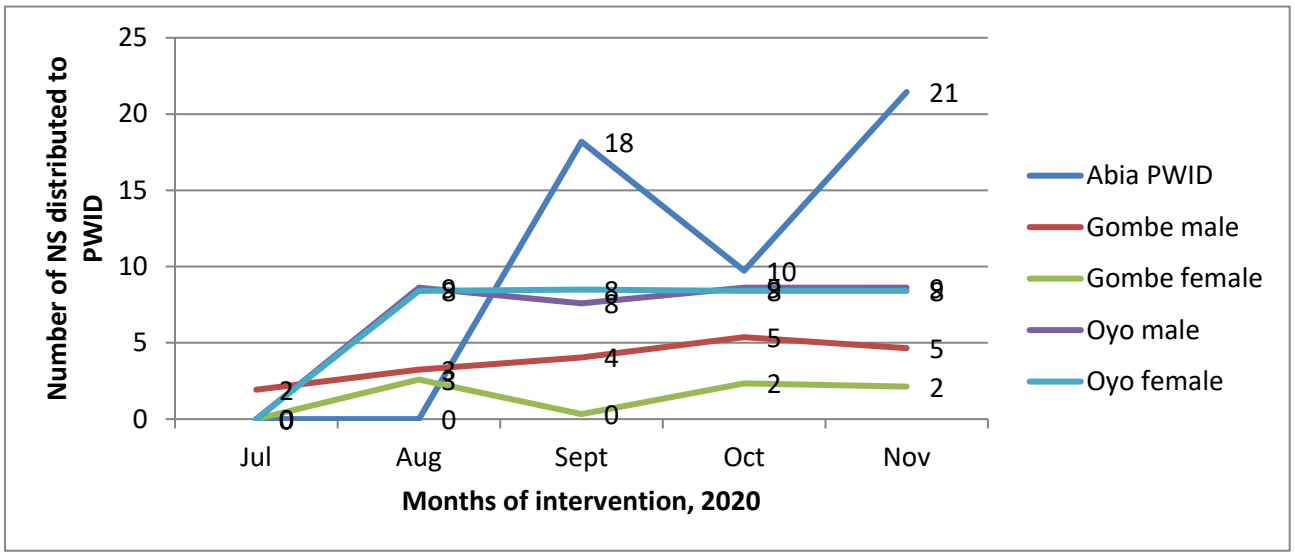
All registered PWID in Oyo and Gombe (100%) received new needles and syringes from the project in August, September, October, and November, but needle and syringe distribution did not reach more than 22% of registered PWID in Abia in any month (Figure 2).

Figure 2. Registered PWID who received NS kit directly from the pilot in the reporting month by gender, state, and month (%)



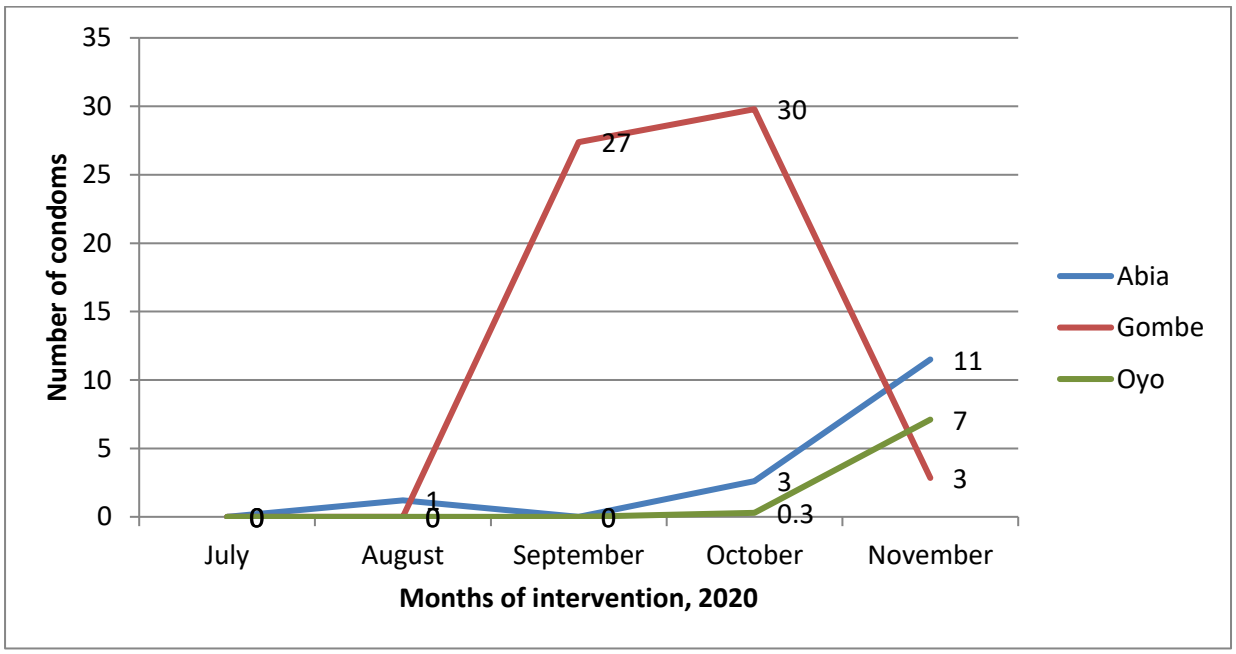
The projects in Gombe and Oyo distributed fewer than 10 needles and syringes per month to PWID who received needles and syringes from those pilots (Figure 3). The pilot in Abia did not report NS distribution by gender. Abia also started reporting late and could provide NS distribution data for only three months. On average, NSP clients who received NS from the project in Abia each received 18 NS in September, 10 NS in October, and 21 NS in November.

Figure 3. Numbers of NS distributed to PWID who received NS from the pilot by gender, state, and month



The distribution of male condoms to registered PWID was highly uneven across the months and states (Figure MD 4). Gombe distributed the most male condoms per NSP client in September and October (27 and 30 male condoms per client respectively).

Figure 4. Male condoms distributed per registered PWID by state and month



2.1.4 PWID tested for HIV and PLHIV linked to care

Registered PWID were mobilised for HIV testing in Oyo and Abia in August, September, and October, but no PWID were tested for HIV in Gombe during the pilot, as per reports (Table 4). In Oyo in November, 82% of the registered female PWID (261 of 318) and 70% of the registered male PWID (836 of 1202) were tested for HIV.

Table 4. Registered PWID tested for HIV in the reporting month by gender, state, and month

State	Gender	Jul	Aug	Sept	Oct	Nov	Total
Abia	Male	0	66	37	24	88	215
	Female	0	13	8	5	20	46
Gombe	Male	0	0	0	0	0	0
	Female	0	0	0	0	0	0
Oyo	Male	0	214	152	836	0	1202
	Female	0	32	25	261	0	318

During the pilot, two men tested HIV positive in Abia, nine men tested HIV positive in Gombe (though monitoring reports suggested that no one was tested), and three men and two women tested HIV positive in Oyo (Table 5).

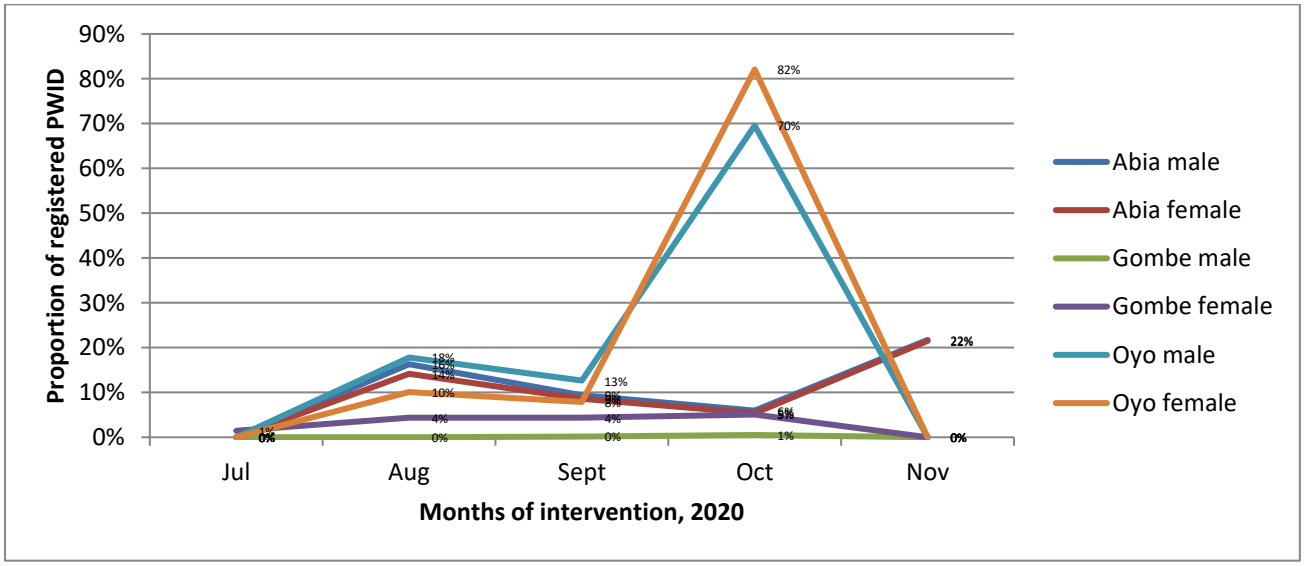
Table 5. PWID tested HIV positive and linked to treatment by gender and state

State	Gender	PWID tested HIV positive	Linked to treatment
Abia	Male	2	2
	Female	0	0
Gombe	Male	9	9
	Female	0	0
Oyo	Male	3	3
	Female	2	1

2.1.5 Screened PWID for STIs

According to monitoring data, the pilot in Abia mobilised the highest percentage of its clients for STI screening, with 82% of women and 70% of men screened in October (Figure 5). Gombe reported the lowest rates of STI screening.

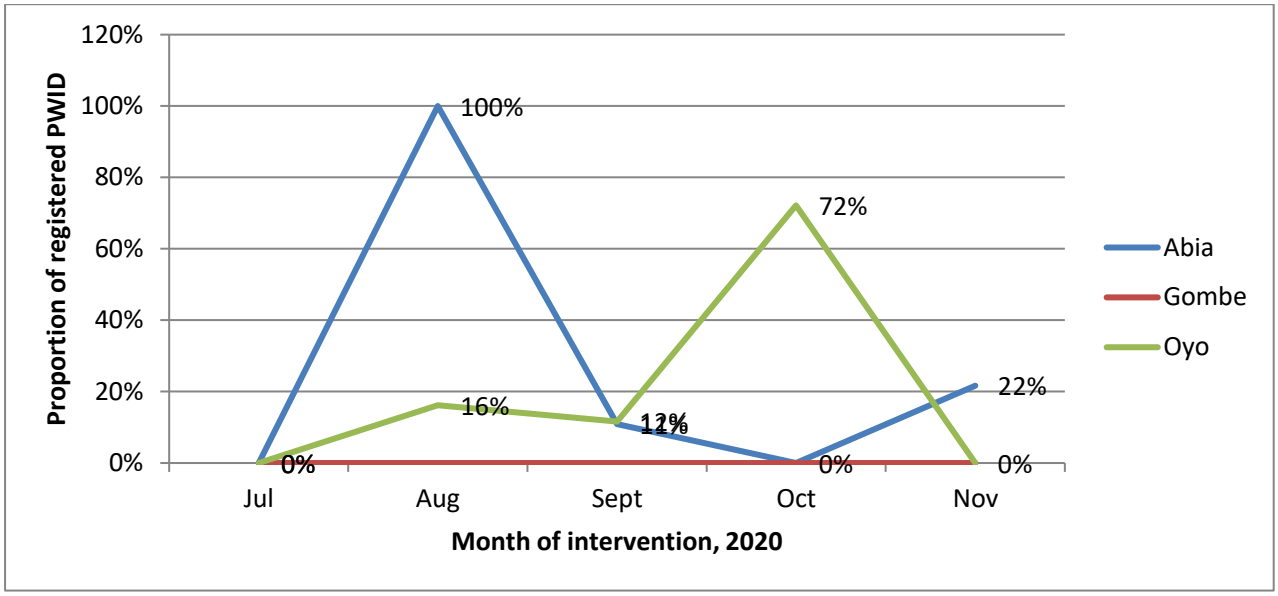
Figure 5. Registered PWID screened for STI in the reporting month by gender, state, and month (%)



2.1.6 Screened PWID for TB

Monitoring data suggests that no PWID were screened for TB in Gombe, 100% of registered PWID in Abia were screened for TB in August, and 72% of registered PWID in Oyo were screened for TB in October (Figure 6).

Figure 6. Registered PWID who were screened for TB by state and month (%)



2.1.7 Addressed violence, stigma, and discrimination

According to the monitoring data, no incidents of violence or stigma and discrimination were reported by PWID in Oyo or Abia during the pilots. In Gombe, four incidents of police violence against male PWID under the age of 25 and one incident of police violence against a male PWID above the age of 24 were reported in September. All five of these incidents were addressed during the month by the pilot in Gombe.

2.2 Effectiveness of the pilot

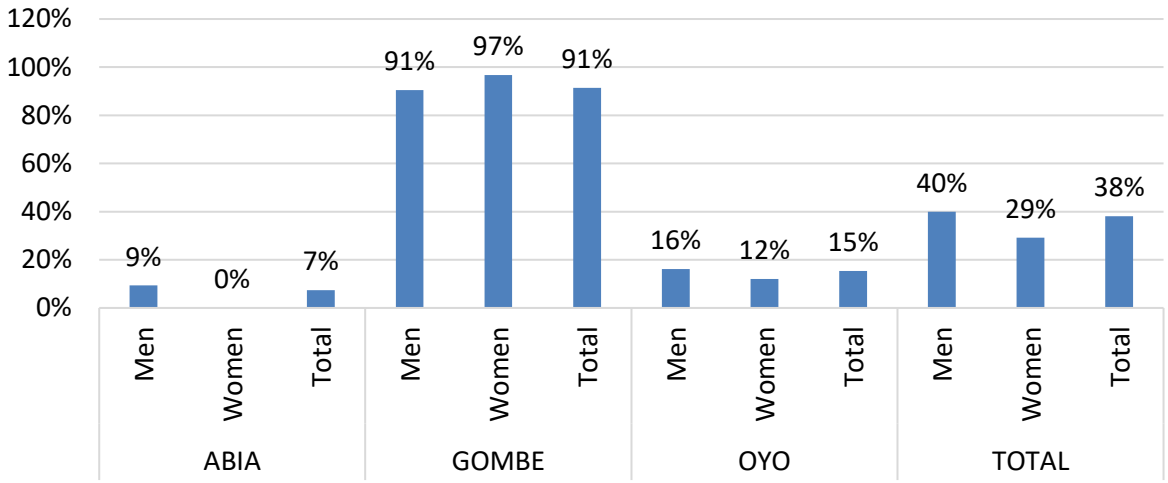
2.2.1 Risk and vulnerability profiles

The findings of the polling booth surveys provide a sense of the sources and severity of HIV risk and vulnerability among PWID in Nigeria.

Risk indicators

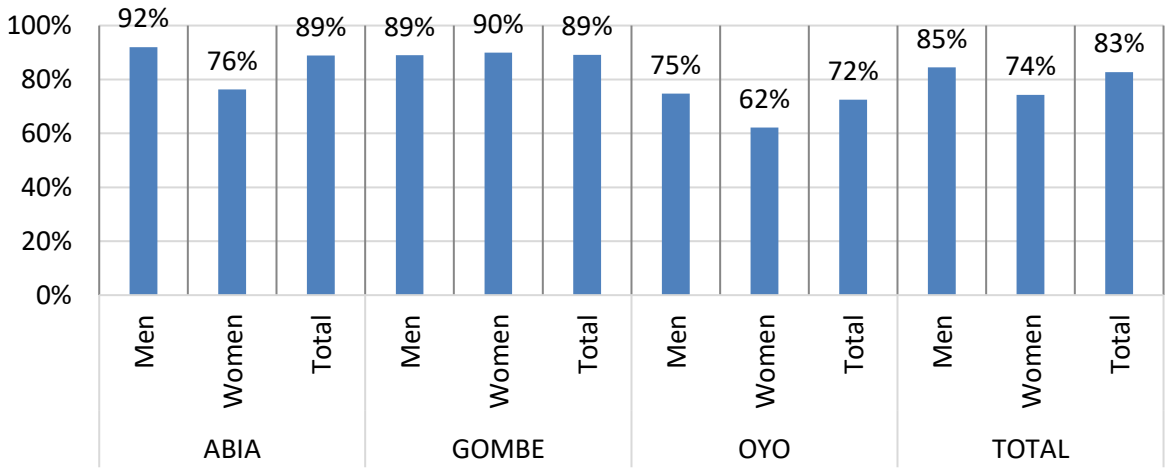
Just over one-third of PBS respondents (38%) reported that they shared a needle in the last month (Figure 7), ranging from 7% of PWID in Abia to 91% of PWID in Gombe. On average, men (40%) were more likely than women (29%) to have or shared a needle in the last month.

Figure 7. PWID who shared a needle with someone in the last month by state and gender (%)



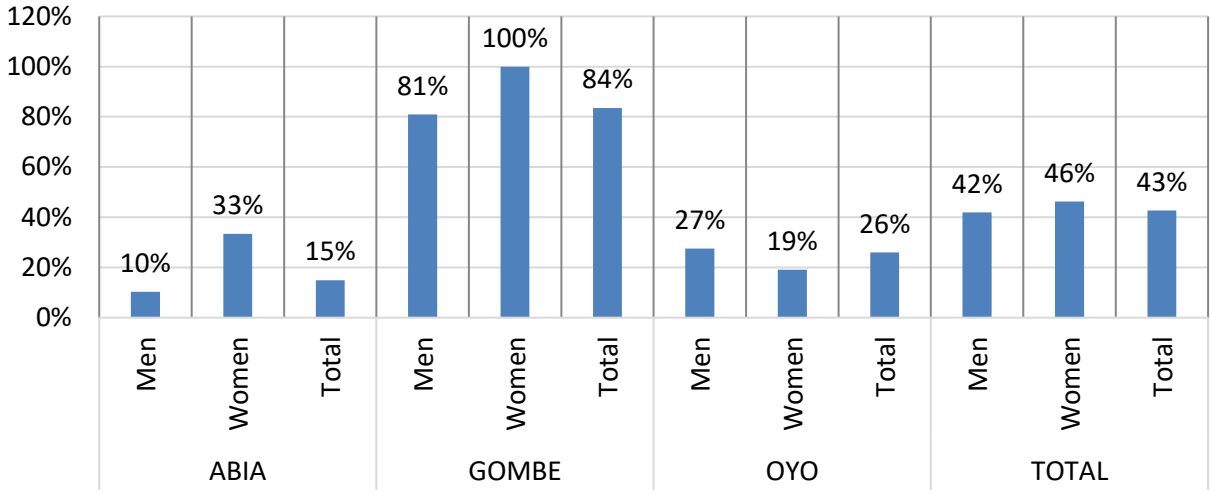
Some 83% of PBS respondents reported that they used a condom at last sex (Figure 8). Men (85%) were more likely than women (74%) to report condom use at last sex. Condom use at last sex was reported by 89% of PWID in Abia and Gombe, but by only 72% of PWID in Oyo.

Figure 8. PWID who used a condom the last time they had sex by state and gender (%)



However, 43% of PBS respondents also reported a condom mishap the last time any of their sexual partners used a condom, ranging from 15% of PWID in Abia to 84% of PWID in Gombe (Figure 9).

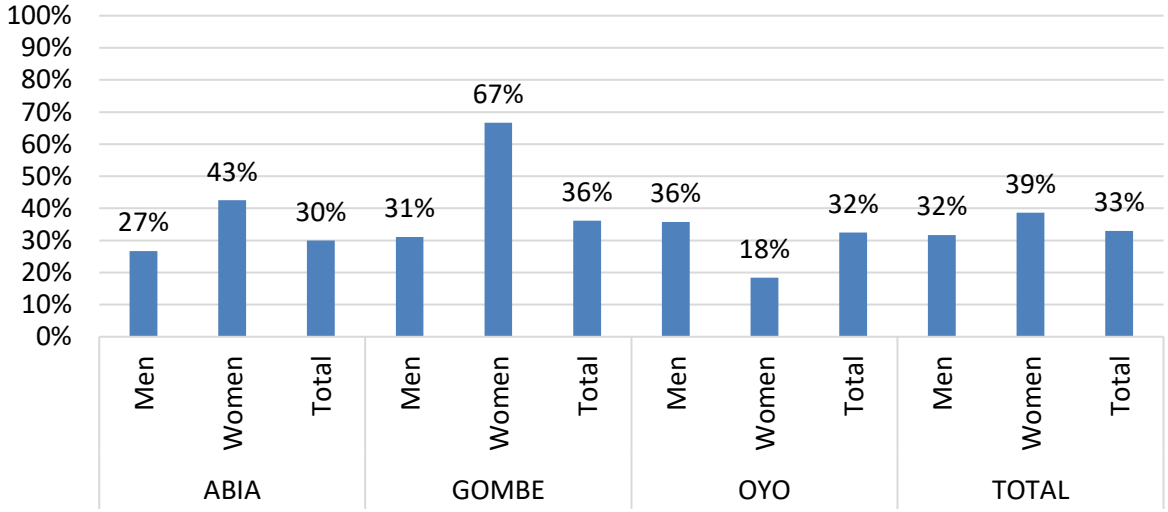
Figure 9. PWID whose condom burst or slipped away the last time a sexual partner used a condom by state and gender (%)



Vulnerability indicators

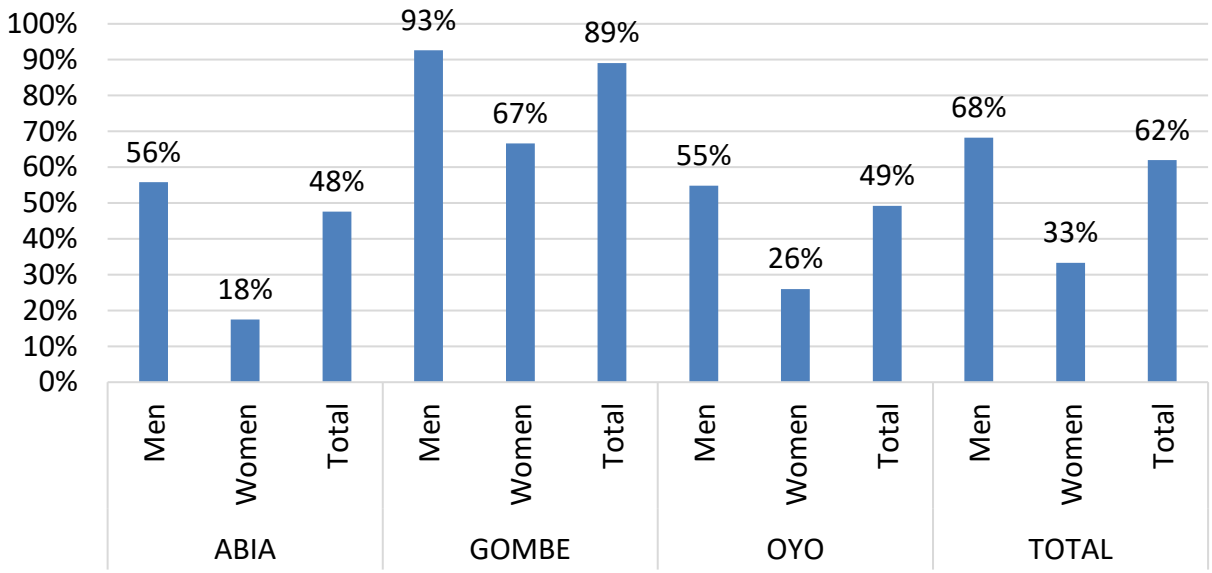
Overall, one-third of PBS respondents (33%) reported that they had sold sex or provided sex for money or gifts in the last six months (Figure 10). Women (39%) were more likely than men (32%) to have sold sex or provided sex for money or gifts in the last six months.

Figure 10. PWID who sold sex or provided sex for money or gifts in the last six months by state and gender (%)



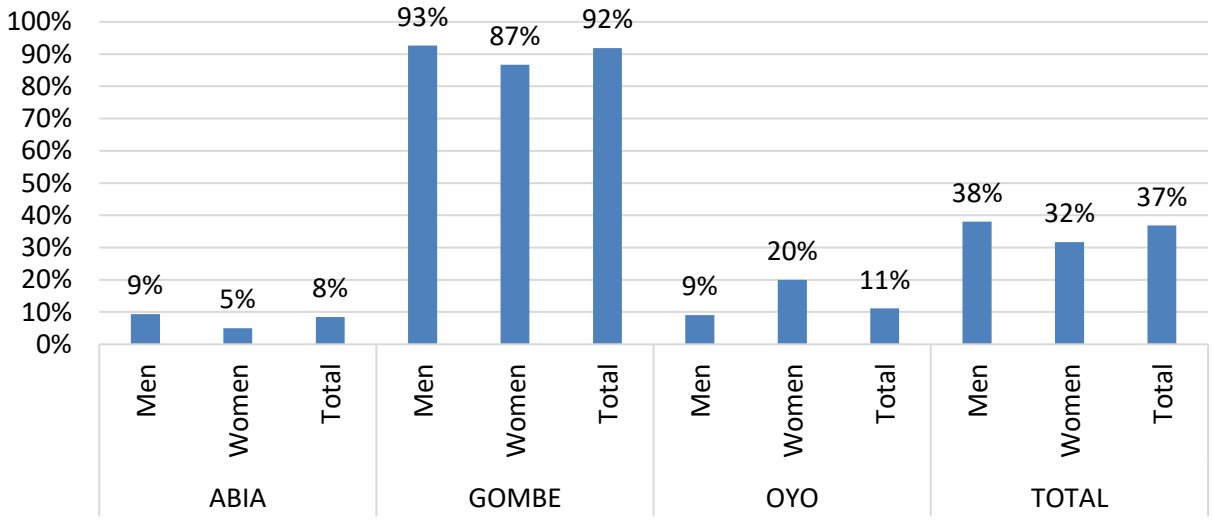
On average, 62% of PBS respondents also reported that they bought or paid for sex in the last six months (PBS 11). Men (68%) were approximately twice as likely as women (33%) to have done so.

Figure 11. PWID who bought / paid for sex in the last six months by state and gender (%)



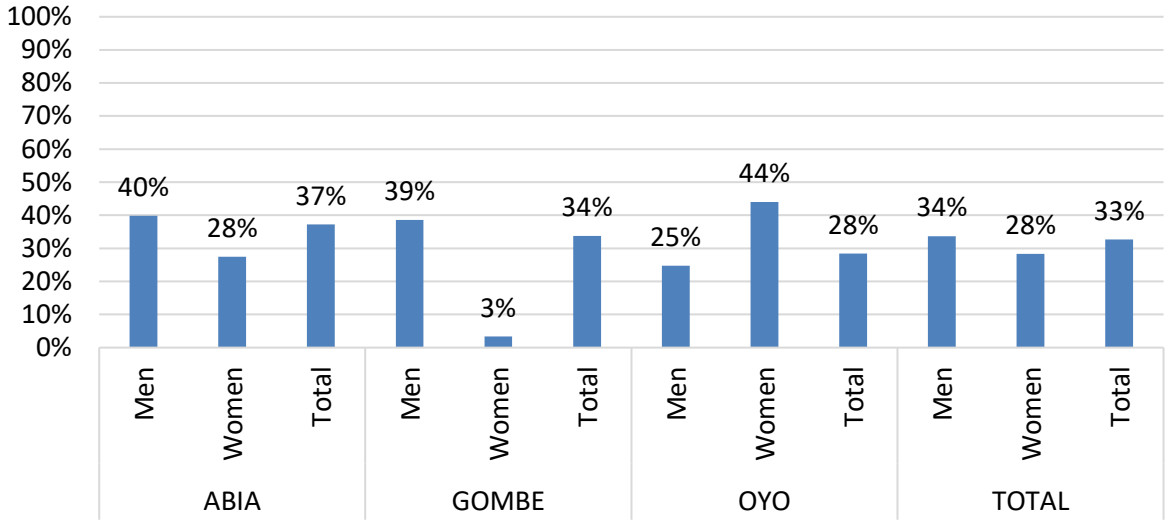
Over one-third of respondents (37%) reported that they were experiencing an STI symptom at the time of the survey, ranging from 8% of PWID in Abia to 92% of PWID in Gombe (Figure 12).

Figure 12. PWID currently experiencing an STI symptom by state and gender (%)



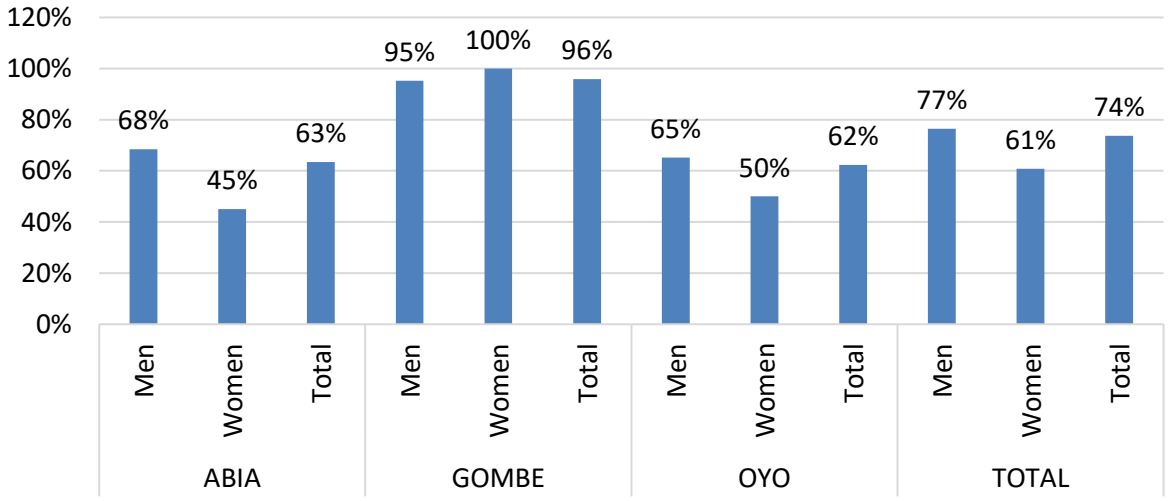
One-third of respondents (33%) reported that they had experienced physical or sexual violence in the past six months (Figure 13). Violence was reported by 3% of women in Gombe but 44% of women in Oyo.

Figure 13. PWID who experienced physical or sexual violence in the past six months by state and gender (%)



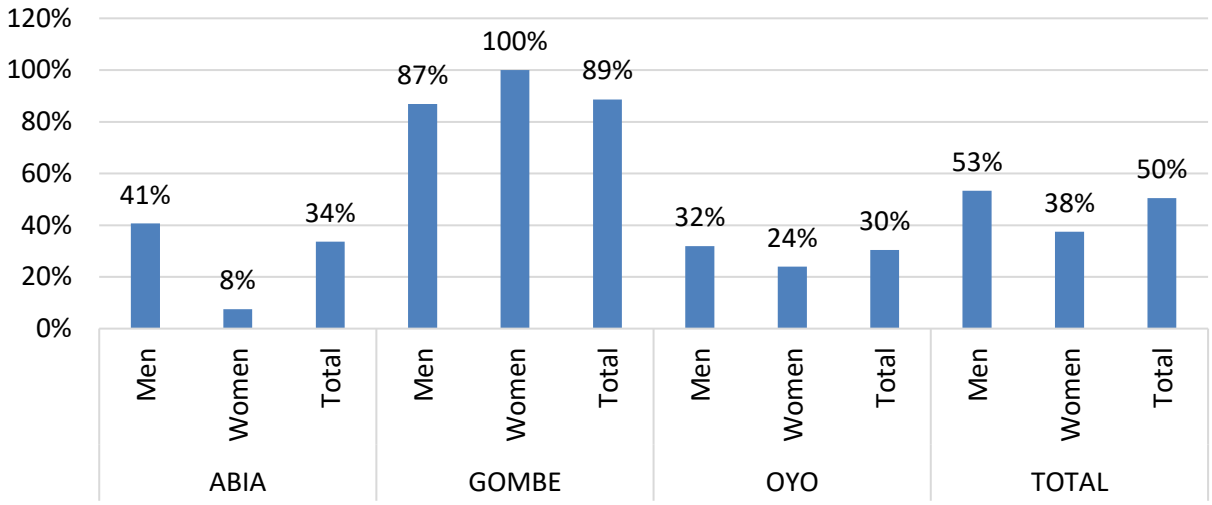
Nearly three-quarters of respondents (74%) reported that they had experienced stigma and discrimination in the past six months because of their injecting drug behaviour, ranging from 62% of PWID in Oyo to 96% of PWID in Gombe (Figure 14).

Figure 14. PWID who experienced stigma and discrimination because of their injecting drug behaviour in the past six months by state and gender (%)



Half of PBS respondents (50%) reported that they had been incarcerated or jailed in the past six months because of injecting drug behaviour, ranging from 30% of PWID in Oyo to 89% of PWID in Gombe (Figure 15). On average, men (53%) were more likely than women (38%) to have been incarcerated/jailed, although 100% of women in Gombe had been incarcerated/jailed.

Figure 15. PWID incarcerated or jailed because of injecting drug behaviour in the past six months by state and gender (%)

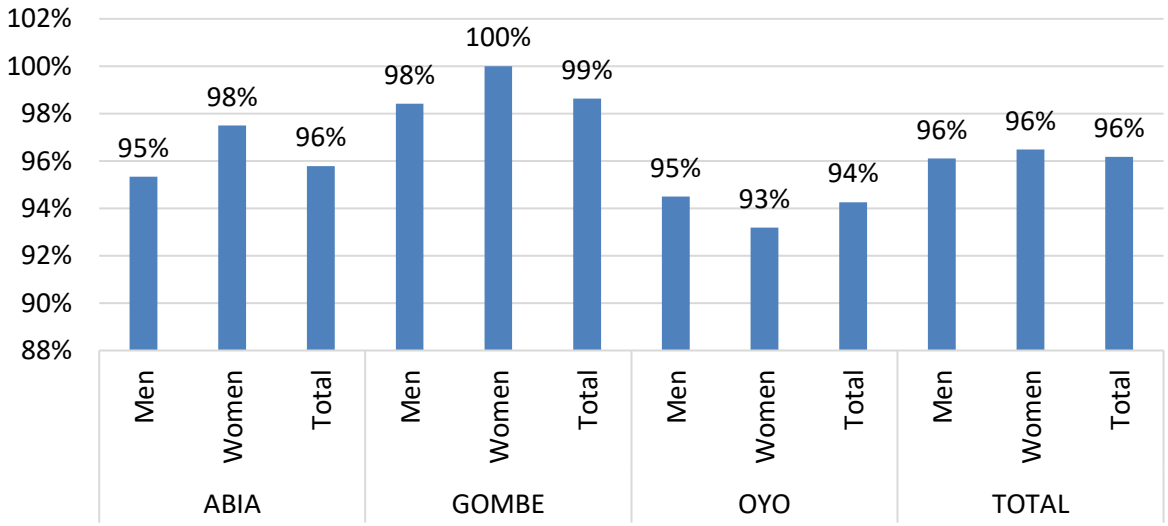


2.2.2 Assessment by NSP principles

2.2.2a Provided PWID with information to help them reduce their risk of HIV and hepatitis transmission through injection

Nearly all of the PBS respondents (96%) acknowledged that sharing needles and syringes can transmit HIV and other diseases (Figure 16). Awareness was lowest (93%) among women in Oyo and highest (100%) among women in Gombe. Overall, men and women were equally aware (96%).

Figure 16. PWID who knew that sharing needles and syringes can transmit HIV and other diseases by state and gender (%)



2.2.2b Encouraged PWID to enrol in (or linked PWID to) care and support

Overall, 94% of PBS respondents reported that they had ever been tested for HIV (Figure 17), and nearly all of the ever-tested PWID (98%) had taken an HIV test in the past three months (Figure 18).

Figure 17. PWID who had ever taken an HIV test by state and gender (%)

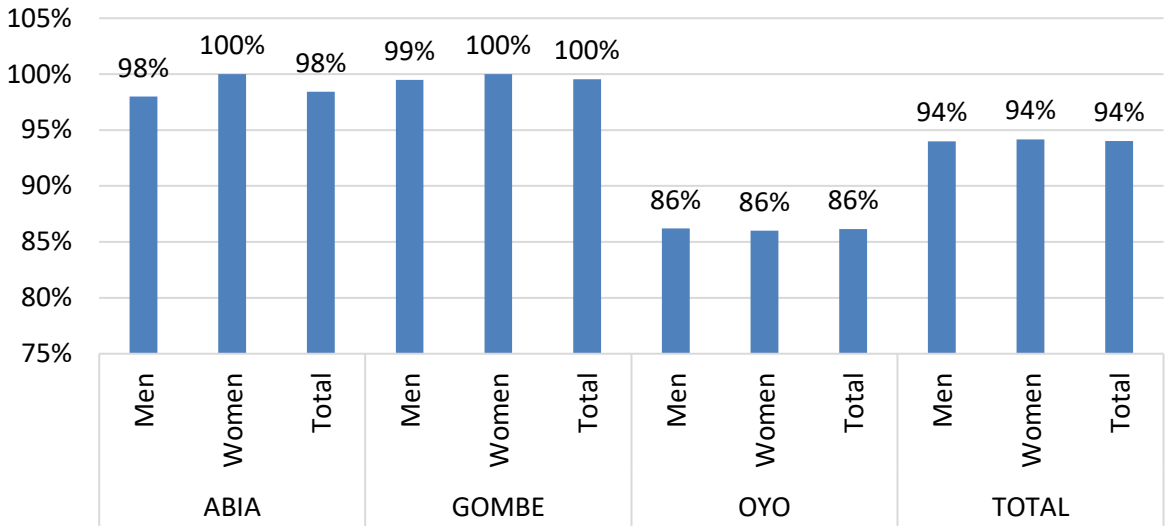
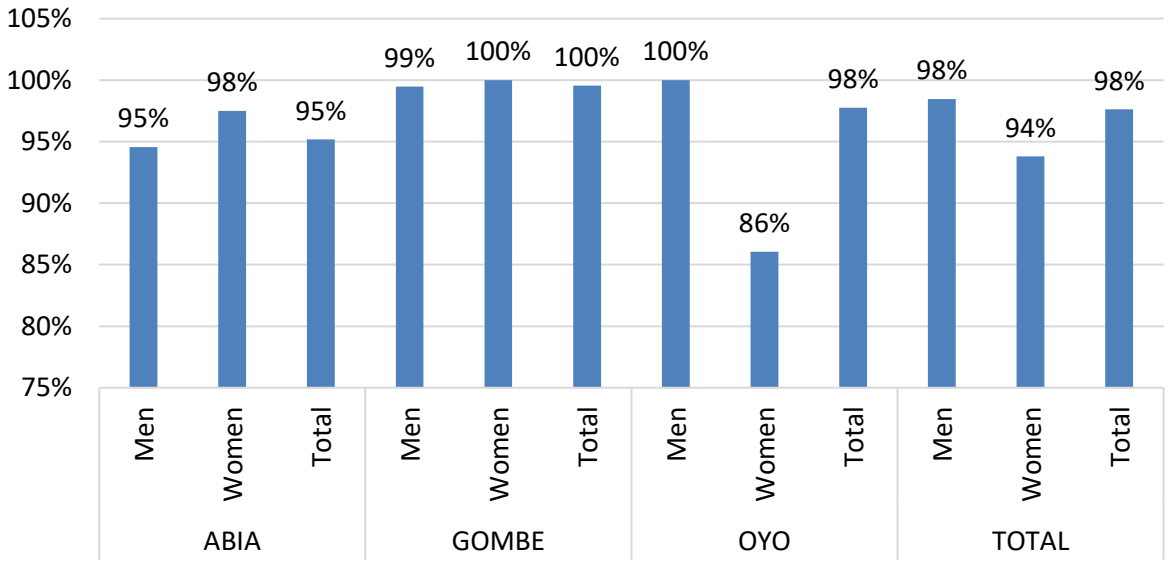


Figure 18. Proportion of ever-tested PWID who were tested for HIV in the past three months by state and gender (%)



2.2.2c Provided PWID with the means to enable them to change behaviour to reduce their risk of HIV and hepatitis transmission through injection

The majority of PBS respondents (92%) reported that they used a new needle and syringe the last time they injected heroin or narcotic drugs (Figure 19). Over one-third of respondents (36%) also reported that they shared a needle with another person the last time they injected drugs, ranging from 13% of PWID in Abia to 82% of PWID in Gombe (Figure 20).

Figure 19. PWID who used a new (unused) needle and syringe the last time they injected heroin or narcotic drugs by state and gender (%)

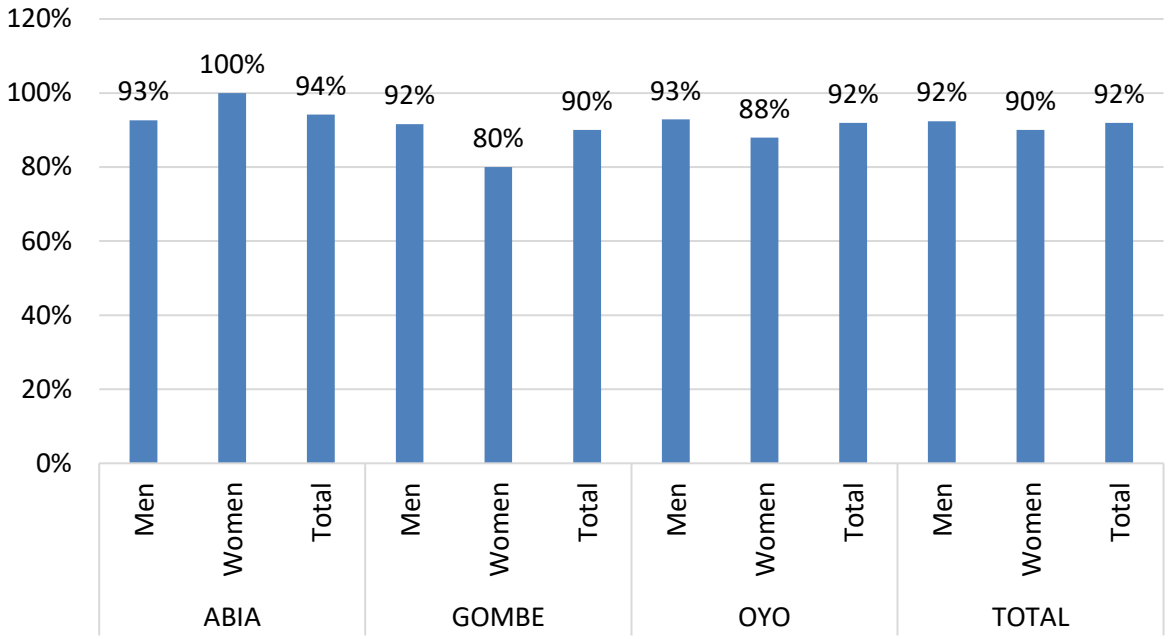
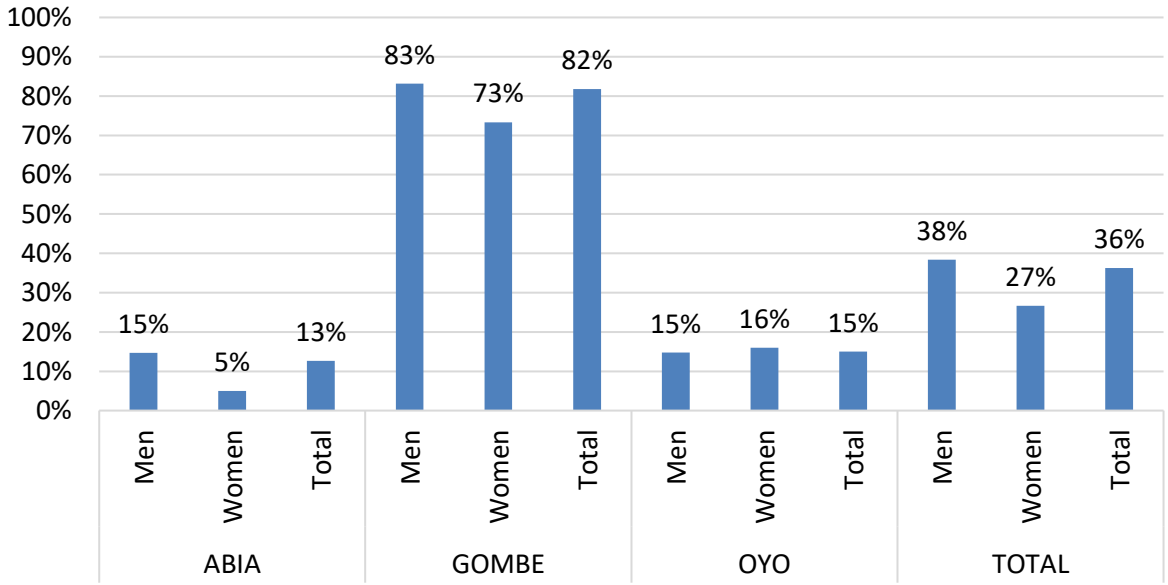
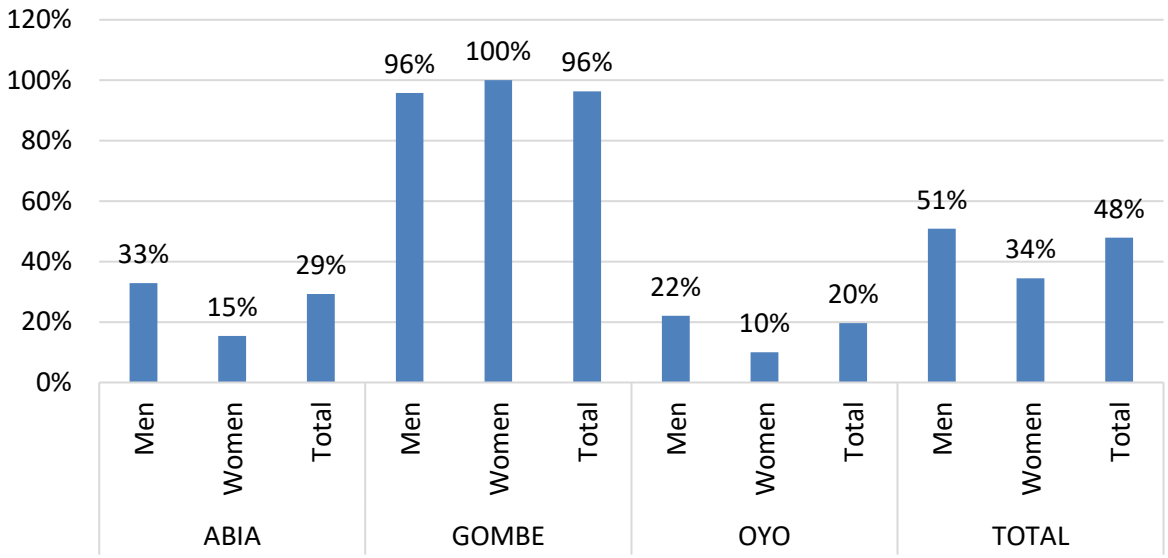


Figure 20. PWID who shared an injecting needle with another person the last time they injected drugs by state and gender (%)



Nearly half of PBS respondents (48%) reported an occasion in the past month of wanting a new needle but none being available at that time and place (Figure 21). Such an experience was reported by nearly all of the PWID in Gombe (96%), by 29% of PWID in Abia, and by 20% of PWID in Oyo. On average, more men (51%) than women (34%) reported such an experience.

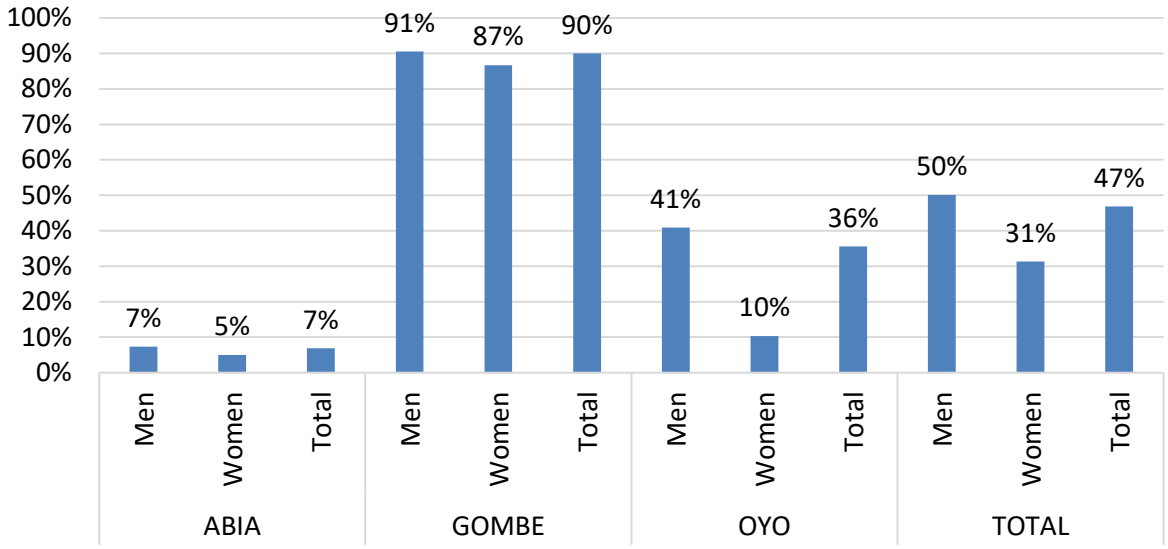
Figure 21. PWID who reported an occasion in the past month of wanting a new needle but none being available at that time and place by state and gender (%)



2.2.2d Provided PWID with information and services to help them reduce their risk of sexual transmission of HIV and hepatitis

Nearly half of the PBS respondents (47%) reported that they had been diagnosed with an STI in the last three months, ranging from 7% of PWID in Abia to 90% of PWID in Gombe (Figure 22). Overall, more men (50%) than women (31%) had been diagnosed with an STI in the last three months.

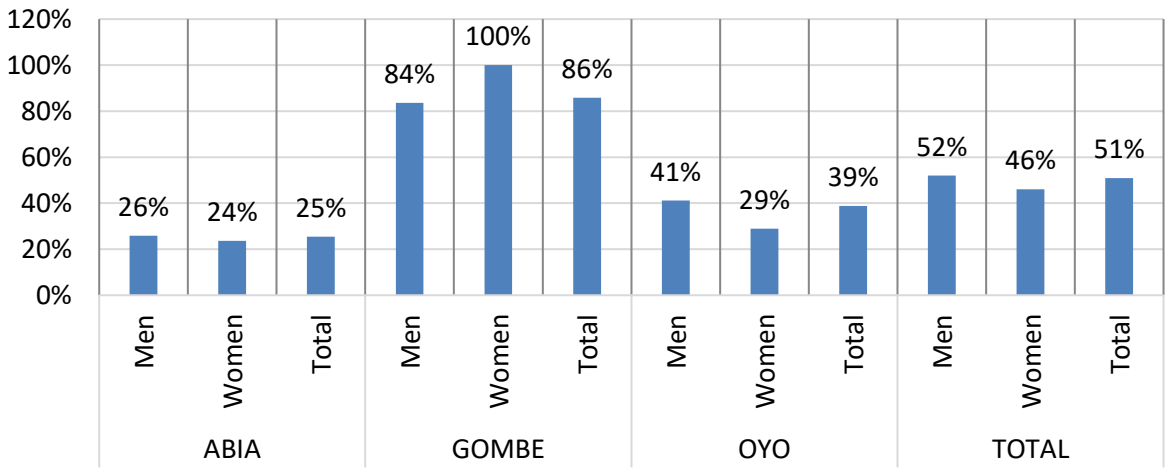
Figure 22. PWID who were diagnosed with an STI in the last three months by state and gender (%)



2.2.2e Provided PWID with means to enable them to change behaviour to reduce their risk of sexual transmission of HIV and hepatitis

Half of PBS respondents (51%) reported an occasion in the past month of intending to use a condom but being unable to obtain one at that time and place (Figure 23). Such an experience was most common in Gombe (86%) and least common in Abia (25%). The difference between men and women was greatest in Gombe (84% vs. 100% respectively).

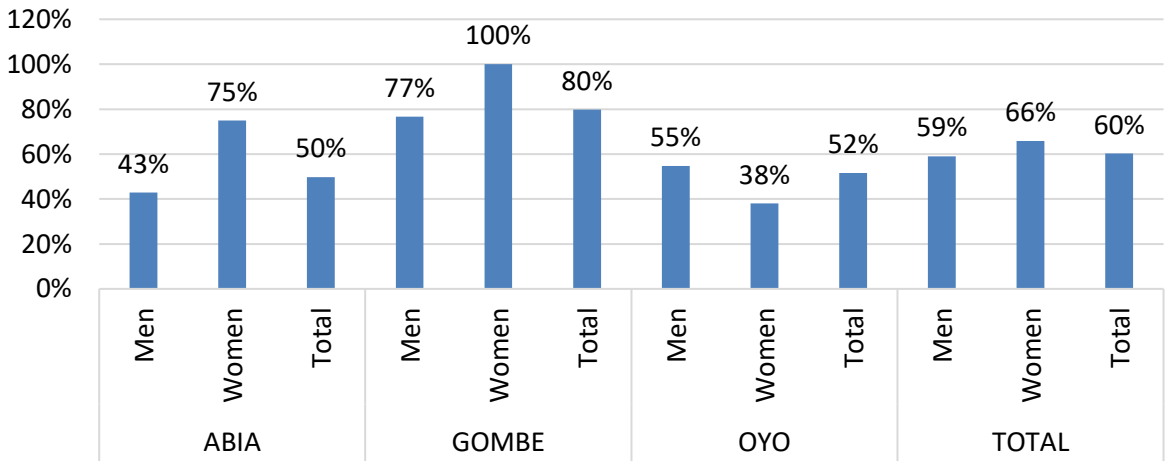
Figure 23. PWID who reported an occasion in the past month of intending to use a condom but being unable to obtain one at that time and place by state and gender (%)



2.2.2f Mobilised PWID for TB screening and for hepatitis B and C screening

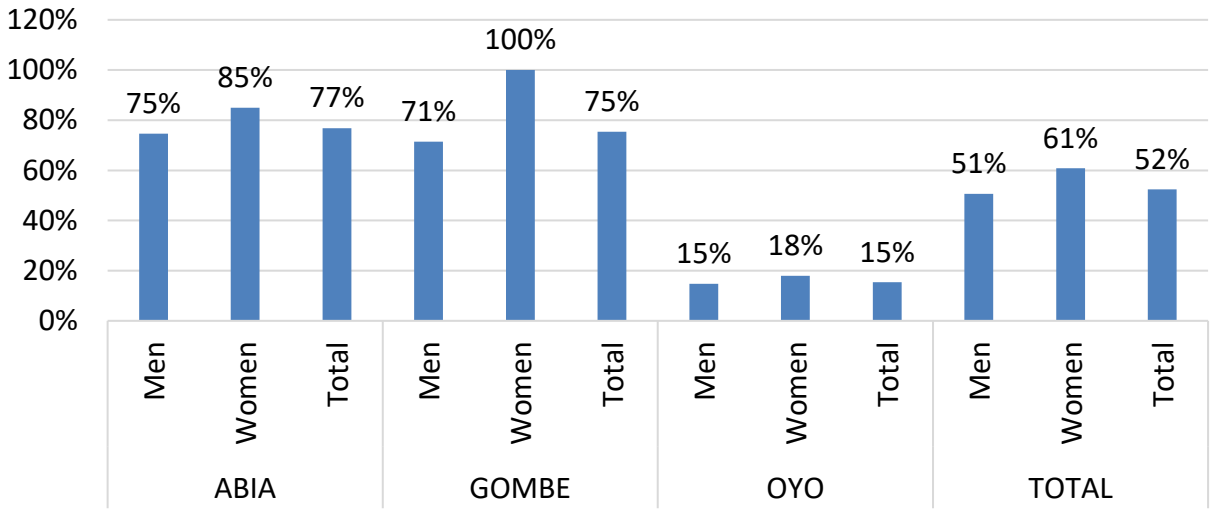
Overall, 60% of PBS respondents reported that they had been screened for TB in the last six months, ranging from 50% of PWID in Abia to 80% of PWID in Gombe (Figure 24). In general, women (66%) were more likely than men (59%) to have been screened for TB in the last six months, with the difference being greatest in Abia (75% vs. 43% respectively).

Figure 24. PWID screened for TB in the last six months by state and gender (%)



Some 52% of PBS respondents reported that they had been screened for hepatitis B or C in the last six months, ranging from 15% of PWID in Oyo to 77% of PWID in Abia (Figure 25). Women (61%) were more likely than men (51%) to report having been screened.

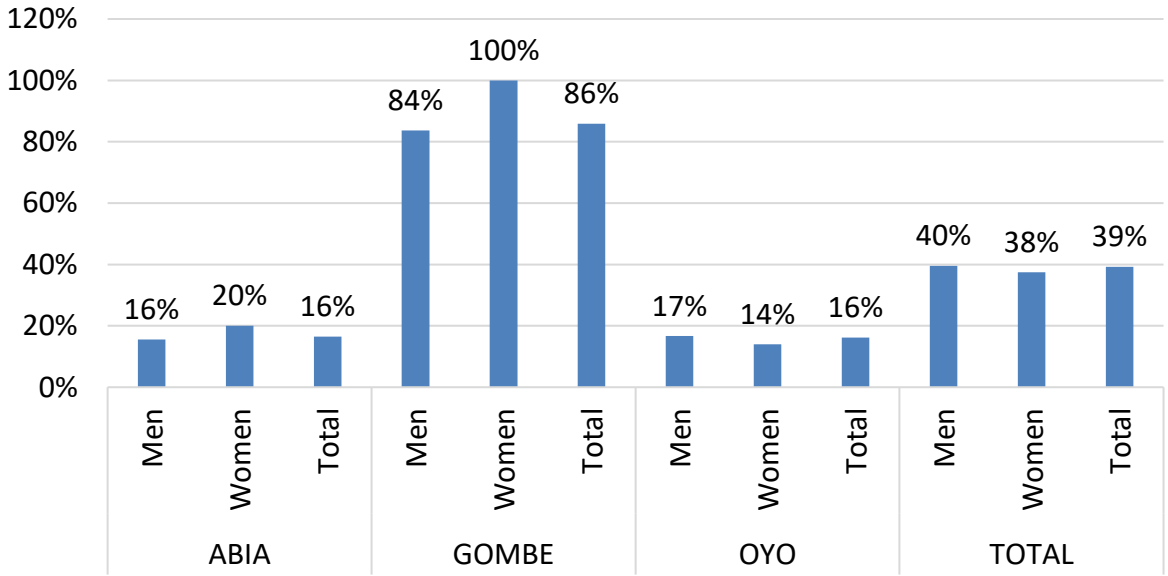
Figure 25. PWID screened for hepatitis B or C in the last six months by state and gender (%)



2.2.2g Facilitated PWID behaviour change through entry into drug dependence treatment, such as OST, MAT, and other drug treatment services

Overall, 39% of PBS respondents reported that they had ever undergone drug rehabilitation/detox/treatment, ranging from 16% of PWID in Oyo and Abia to 86% of PWID in Gombe (Figure 26).

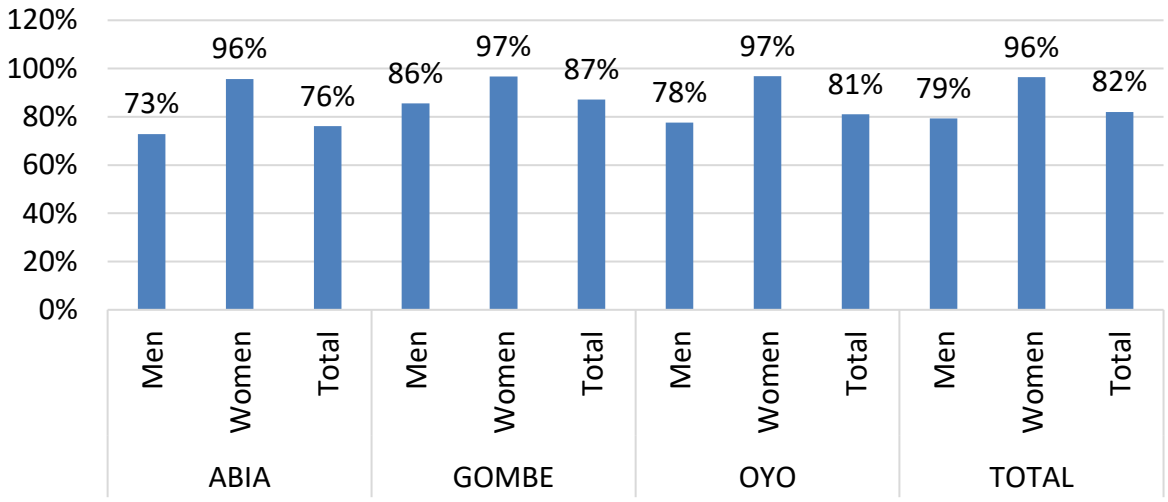
Figure 26. PWID who have ever undergone any drug rehabilitation/detox/treatment programme by state and gender (%)



2.2.2h Addressed structural drivers of vulnerability

Overall, 82% of PBS respondents reported that they were supported by the intervention/clinic/DIC when they experienced violence, stigma, or discrimination in the past six months (Figure 27). Women (96%) were more likely than men (79%) to have received support.

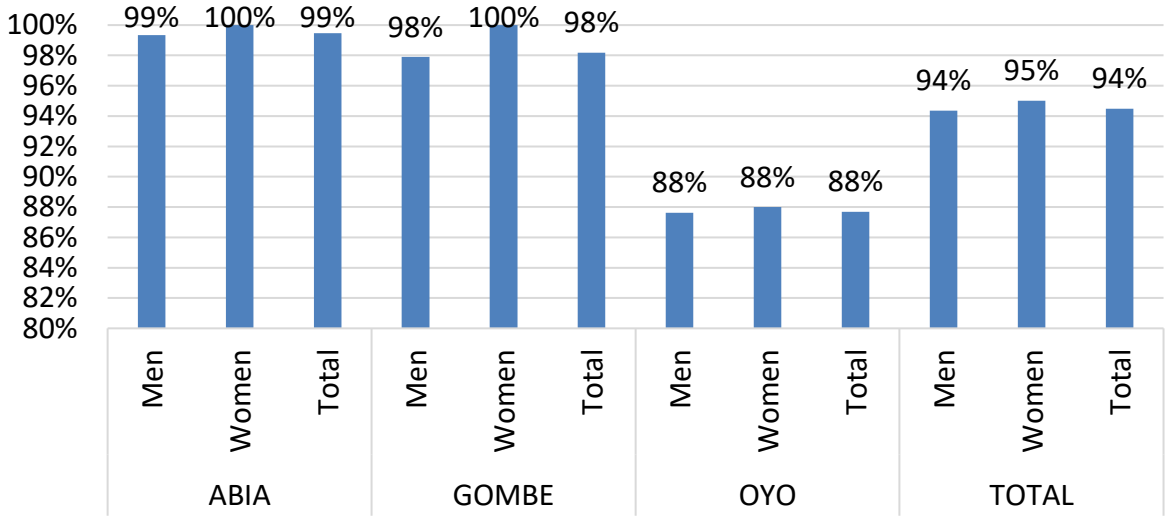
Figure 27. PWID who were supported by the intervention/clinic/DIC when they experienced violence, stigma, or discrimination in the past six months by state and gender (%)



2.2.2i Reached PWID with peer education through outreach

Some 94% of PBS respondents reported that they had been met by a community facilitator or outreach worker from the intervention in the last month (Figure 28). Men (94%) and women (95%) were almost equally likely to have been contacted.

Figure 28. PWID who were met by a community facilitator or outreach worker from the intervention in the last month (%)



2.3 Quality of the pilot

2.3.1 Availability and use of the NSP

In this study participants were asked whether NS was readily available. Most of them reported that it was available in the target areas.

Regular supply of needles and syringes was a key factor in the use of the project. Steady supply of NS was possible because orders for the items were placed up to two months in advance to prevent stock outs. A programme implementer in Abia observed that, *"We always have at least two months of stock at any given time, and this we do by keeping track of the stock inventory so that there are no stock outs."*

In addition, the participants reported that good coordination across all levels—including the community facilitators, monitoring and evaluation officers, and programme implementers—ensured that the PWID received the required services and materials in a timely fashion, which enhanced community trust. Community facilitators (CFs) noted that whenever they made requests for NS they were supplied promptly. The PWID often called to request NS, and these were supplied to them without fail. This motivated the community facilitators, who agreed that the PWID would get very distressed when needles and syringes were not supplied to them on time:

"Yesterday, a girl who is one of my clients called me and said that she needed a needle and syringe in a certain hotel, so I took some for both her and her boyfriend. I even paid for my own transport." Community facilitator, Abia.

"The leaders give us the needles and syringes as we request and we distribute them to the PWID as they demand, because if we don't, they call often, distressed, even shaking, and so we try to make sure that they are available." Community facilitator, Abia.

An organised supply chain from the head office to the drop-off point facilitated the availability of NS supplies. The delivery days were clearly known to the PWID, the PWID were able to call at any time and request for the supplies, and the managers ensured that supply was always adequate.

Nevertheless, one of the challenges was that while the implementers tried to cater to the varied needs among the PWID in terms of how many needles and syringes they each needed, implementers were also focused on harm reduction, so there was a limit to how many needles and syringes they could distribute at any given point. This was especially the case among those PWID who injected very often, with some injecting every 30 minutes. The injection materials could not be provided to cater for such frequent injection, so such PWID still shared NS. Another challenge was that those PWID who were not enrolled in the NSP pilot project shared needles and syringes with their friends

who were in the project. The participants of this study thus observed that a scaling up of the project was needed so make it accessible to more PWID.

2.3.2 Availability of community facilitators

The community facilitators were always available to the PWID when they needed them. They were in the community, among the PWID on specific days of the week and at specific times, including in the early morning and late evening. They not only made themselves available, but they also developed, over time, very cordial relationships with their clients. They did this by responding to clients' calls, attending to the needs of their clients even after official work hours and referring clients to other facilities for services they did not offer. Another key strategy that the community facilitators employed was creativity in their interaction with the PWID. The community facilitators did this because of the knowledge that the PWID were neglected, marginalised and stigmatised and thus hard to reach. Some of the strategies that they employed included regular and consistent visits and the use of incentives such as wrist bands, key holders and snacks. These enabled CFs to continue to access PWID. For example, a CF in Gombe remarked, *"I give the PWID small incentives like some snacks called "puff puff" which encourages them to continue in the project and to trust me."* Another CF in Gombe added, "*The PWID would decline to be tested for HIV until we gave them money, so we now have key holders which we share with them."* The PWID also reciprocated with their own small gifts to the community facilitators like souvenirs. This reciprocal and affable relationship ensured the continued availability of community facilitators in the area.

This was noteworthy, because according to the participants of this study, community entry was a big challenge initially due to community resistance and mistrust. The CFs established trust over time by empathising, persisting, and considering this assignment as a humanitarian mission, not just a job. They therefore persisted in reaching out to the PWID even after several rejections and in some cases being beaten by bunk owners. The availability of the community facilitators was also enabled by the motivation that they received from the CBOs who supported them and this encouraged them to continue to avail themselves for this service. Since the CFs offered regular training to the PWID on safe injection practices, this facilitated their acceptability to the community. A PWID in Oyo said, *"The CFs are doing very well and I really appreciate them."* Therefore, since the community facilitators showed up consistently, this encouraged the PWID to continue coming for services, as a PWID in Abia observed, *"At first I was not free with the CF but after he continued coming, I realised that he was not a security agent and I started opening up to him."*

2.3.3 Participation of PWID in design and implementation

One of the factors that led to the involvement of PWID in the design and implementation of the NSP was the fact that CBOs involved in the project were led by key population community members. As a result, the PWID already knew these community members and this motivated them to be involved. This approach helped to address the earliest misconception that the NSP was promoting the use of hard drugs in the community, as stated by one programme implementer in Oyo: *"For us in this state, we have a good relationship with the CBOs, community members and other stakeholders. This has helped the people to know that we are here to reduce harm among the PWID and not to promote the use of drugs."* Another key aspect was the use of former and current PWID to reach out to their peers and encourage them to participate in the programme. In this study, some of the PWID were actually included into the NSP as community facilitators and this transformed them as expressed in the following quotes:

"I use drugs as the executive director of this CBO and this has given me an opportunity to reach out to others in the community who use drugs. For some of the community facilitators, this is their first job, and it has made them become responsible. This initiative has changed their lives." Programme implementer, Oyo.

"Some of us are former PWID and others are still using drugs. We work together, select leaders among us including community facilitators, we assisted in the design of this programme and also brought in bunk leaders who opened the way to reach out to the PWID." Community facilitator, Gombe.

PWID were involved from the initial stage of the project, including the training, and this facilitated community entry and buy-in. The programme facilitators were also able at this stage to recruit those in the community that they could work with in the NSP. The PWID were involved in the implementation of this programme through the snowball approach, whereby they brought others into the programme from their social networks.

The findings of this study also showed that regular meetings with the CFs and PWID leaders ensured that continuous feedback was received and incorporated into the NSP. This led to the continued acceptance and ownership of the programme within the communities. For example, one participant reported that the PWID requested the 2ml syringe and not the 1ml syringe that they were being given and this change was made. This incorporation of feedback from the PWID helped to retain them in the programme. However, the key difficulty in involving PWID still remained the stigma from the society that made them hesitant to be involved in the NSP. The PWID were afraid

of being harassed and therefore they often secluded themselves and thus their participation was limited.

2.3.4 Quality of interaction of the PWID with service providers and community facilitators

The interviewees reported that the interaction between the service providers, community facilitators, and the PWID was based on trust, consistency, and quality services. The PWID were fearful at first but once trust was established, they were eager to participate in the programme. A PWID in Abia observed, *"In the beginning I was fearful and did not want to tell the CF the truth, but when I realized he was a fellow guy and he told me about not sharing needles I was encouraged to open up to him."* Since the services were offered free of charge, this motivated the PWID to continue to participate in the programme. PWID were motivated to participate in the NSP by the broad range of services offered: wound care and treatment, ARVs, counselling, needles and syringes, partner testing, training on harm reduction, STIs and HIV treatment, provision of condoms and lubricants, retrieval of used needles and syringes and TB treatment.

Regular trainings for PWID on harm reduction, syringe disposal, overdose prevention, and wound prevention were instrumental in gaining their trust in the NSP. An implementer in Gombe noted, *"It has been a wonderful experience interacting with PWID. Initially, they were not interested but because of the services we offer now they are."*

Open communication channels and supportive supervision improved the quality of service provision to the PWID, because feedback from the PWID and the CFs was incorporated into the programme, especially on referral and wound management. The good working relationship between community facilitators, outreach workers and monitoring and evaluation officers also ensured that issues were addressed in a timely manner.

The training that the CFs received prepared them to deal with unpredictable and hostile PWID. Community facilitators observed that the training on gender-based violence and stigma improved their ability to work with the PWID. A CF in Gombe opined, *"We know how to handle the PWID, how to talk to them, and how to reach them even when they are hostile. This we are able to do because of the training that we received."* Most of the CFs described the experience of working among PWID as wonderful. The training enabled them to contribute to the well-being of members of their community and they were eager to learn about the management of hepatitis C, TB, and cancer, so that they could have more impact. Community facilitators also proposed that training them and the PWID on how to run small businesses might also improve the livelihoods of the PWID.

The interaction between the CFs and the PWID was also one of comradeship and not just work. They spent time using drugs together and just being friends. The PWID were also glad to see the effort that the service providers made to reach them, such as walking long distances to attend to them and serving them with kindness and joy, as a PWID in Abia observed: *"It makes me happy that they treat us well and tell us that injecting drugs is not the end of life".* This made the community facilitators eager to offer services to PWID even when it was outside their designated work hours.

The support that the CBOs offered to the CFs by responding to their concerns in a timely manner was also a motivator for quality interactions. A programme implementer in Abia said, *"In one instance a community facilitator wanted to enrol a client in a facility but the case manager was uncooperative. I called the case manager and the issue was addressed because I did not want a delay to happen."* Nevertheless, an impediment for female staff of the project was their inability to visit the PWID without a male colleague due to concerns over their safety, as expressed by an implementer in Gombe: "*I am not able to go to the bunk on my own due to concerns for my safety. Therefore, when the CBO officers are busy with other work and are unable to accompany me, I cannot go to the PWID in the community and they thus have to wait."*

2.3.5 Availability of safe space

Safety was a challenge for all the people involved in the NSP. In the initial stages of the programme, the CFs observed that they were harassed by bunk owners and PWID due to the perception that this was an attempt by the government to spy on them and their activities. Gaining entry into the PWID community was therefore difficult, as expressed by a CF in Oyo: *"Harassment is common from the bunk owners before you get to know them. I have been beaten."* However, once trust was established and the bunk owner accepted the CF and introduced him or her to the PWID, then the CF was able to work in that area.

Hostility from the PWID was another safety concern. This took the form of needles and syringes rejection, refusal to return used items for disposal, and fights among themselves, which all created a tense work environment for the CFs. The PWID retained the used needles and syringes because they were not sure that the NSP would last and so they kept some for future use. In addition, the constant harassment and regular arrests by the police hindered the work of the CFs and made the PWID very fearful. This fear caused many PWID to shy away from the project. A CF in Abia observed, *"At first, the PWID did not want to come out because they thought that this was an avenue to have them arrested, but over time they realized the NSP project was for their benefit through the HIV testing services, condoms, and training on safe sex, and they became comfortable with us."*

Regular arrests by the police and constant haggling for the CFs' release impaired the work of the CFs, leading a CF in Gombe to remark, "*The police often harass us, claiming that we are distributing drugs to the PWID, and yet their representatives were there during the training on NSP. So maybe this sensitisation needs to be given to every police officer in the state."* Stigma towards PWID prevented them from seeking services when they needed them, such as when they required wound care. This was especially hard for women who inject drugs because even among the PWID community they were regularly harassed, had less power, often needed antenatal and child health services, and were often victims of sexual abuse.

2.3.6 Availability of support for victims of violence

The CFs noted that they regularly experienced violence from the police or the PWID. Even for PWID, police violence occurred often. This was often indirect, in that once the police came into the bunks people would begin to flee, and the risk of being injured while fleeing was very high.

CFs addressed police harassment was in two ways. They would try to negotiate and explain to the police by showing their identity cards and explaining what they did with the PWID. In some instances, they would also call their seniors, especially if they had been arrested, to negotiate for their or a PWID's release, or when injured to obtain treatment. Raids by the police complicated outreach, as illustrated by the following statements:

"Sometimes it is not safe because you might be at the bunk and then the police show up and everyone starts running and you too can be injured in the chaos. However, when we complain to the office, they take care of us." Community facilitator, Oyo.

"The last time I was in the bunk, the police raided the area. I ran and got wounded, and when I told the leaders they provided treatment for me." Community facilitator, Abia.

2.3.7 Referral and linkage system developed and implemented

According to this study, referral services were offered for STI management, HIV/AIDS management, and wound care and treatment. Referral and treatment for wound management was cited as a key aspect of the project that was working very well because this was lacking previously and many PWID who had wounds were not able to access treatment.

Several difficulties were observed related to the referral of clients for other services. Two difficulties were a) a shortage of medical personnel in the facilities where the PWID were referred and b) long distances to the referral facilities. An implementer in Abia observed, *"I would prefer that the closest health facilities be equipped and workers trained on wound care so that we can refer our clients there, because the one stop shop is far from the actual site of the NSP."* The

participants also stated the need to scale up the services to make them more holistic to include maternity services and psychosocial services.

3 Discussion

The assessment used a mixed method approach with three main data sources. Broad analysis of the findings showed that the NSP pilot project was feasible and has been partially effective in a short period of time. Provision of good quality services based on trust and confidence of the PWID community does take time but is possible.

3.1 Monitoring data indicate that the NSP pilot project was feasible

The NSP pilot project's outreach teams in all the three states reached more PWID than were initially targeted. In Gombe and Oyo, the teams also reached 100% of the registered PWID at least once a month. The reason for lower outreach coverage in Abia needs to be studied.

All registered PWID in Oyo and Gombe (100%) received new needles and syringes from the project in August, September, October, and November, but the average monthly number of NS distributed per PWID who received NS never exceeded 9 in Oyo or 5 in Gombe, which is much lower than the WHO recommendation of 17 NS per PWID per month. Needle and syringe distribution did not reach more than 22% of registered PWID in Abia in any month, but PWID who received NS in Abia received 18 NS in September and 21 NS in November.

The pilot project in Oyo mobilised 82% of female PWID and 70% of male PWID for HIV testing in October, all of whom were being tested for the first time. The pilot in Gombe reported testing no PWID for HIV during the pilot. The data from Abia also had quality issues. During the pilot, a total of 16 PWID were tested positive for HIV, 15 PWID living with HIV were enrolled in care, and 15 PWID living with HIV were linked to ART.

The pilot project in Abia mobilised the highest percentage of its clients for STI screening, with 82% of women and 70% of men screened in October. Gombe reported the lowest rates of STI screening. Condom distribution was uneven across the states and months, and the pilot in Oyo ran out of stock of condoms. On average, PWID in Gombe each received 27 male condoms in September and 30 male condoms in October, demonstrating the ability of the project to distribute male condoms. Monitoring data reported that no PWID were screened for TB in Gombe, 100% of registered PWID in Abia were screened for TB in August, and 72% of registered PWID in Oyo were screened for TB in October. According to monitoring data, no PWID were screened for hepatitis B or hepatitis C during the pilot.

Quality of monitoring data seems poor in some states. Data was not available against all indicators across all months or desegregated by sex. For example, records of NS distribution to male and female PWID in Abia were combined. There were inconsistencies in reporting numbers. For

example, in Abia in November, the number of males tested for HIV for the first time (286) was more than three times greater than the number of males tested for HIV (88). The monitoring system needs improvement.

Monitoring data showed geographical disparity. Some states performed better than the other states. Gombe seemed to have better monitoring data across all indicators compared to Abia. This needs to be explored more. Programme managers should use this analysis to decide where to intensify their support.

NS distribution is lower generally than the WHO guideline. It is even lower than condom distribution in some states. This needs to be explored. The injecting behaviour of the PWID community in the states needs to be understood and the need for NSP estimated accordingly. Distribution of more condoms needs to be understood to see if PWID have equal or higher sexual risk. This needs to be also understood using a gender lens.

Violence against PWID and programme response to violence were reported only in Gombe. The monitoring system recorded no reports of stigma and discrimination against PWID during the project, but, overall, 74% of PBS respondents reported experiencing stigma and discrimination in the six months preceding the survey. Such discrepancies indicate that a) the monitoring data may not accurately reflect the prevalence of violence, stigma and discrimination against PWID, and b) the project needs to focus on addressing structural barriers.

3.2 Polling booth survey findings indicate that the NSP pilot project was partially effective in a short period of time

PBS responses provided an impression of the causes and severity of HIV risk and vulnerability among PWID in the three states. In some locations responses indicated that many PWID shared needles, had unprotected sex, had poor condom skills, had STI symptoms, sold/bought sex, and experienced violence, stigma, and discrimination.

The very high level of awareness among PWID that sharing needles can transmit HIV indicates that the pilot provided information that can help them reduce their risk of HIV and hepatitis transmission.

In 2004, the WHO advised that NS Programmes should eventually provide 200 sterile needles and syringes per PWID per year, or approximately 17 sterile needles and syringes per PWID per month.[30] A very high proportion of PBS respondents (92%) reported use of new needles at last

[30] WHO. 2004. Effectiveness of sterile needle and syringe programming in reducing HIV/AIDS among injecting drug users. Geneva: World Health Organization. https://www.who.int/hiv/pub/prev_care/effectivenesssterileneedle.pdf

injecting episode. Even though a high proportion of respondents reported use of new needles, 36% also reported sharing needles at last injection, again a much higher proportion in Gombe state. Almost half of the respondents (48%) reported that they were unable to obtain a clean needle when needed at least once in the past month, and this was twice as common among respondents in Gombe (96%), indicating that NS distribution in Gombe did not meet the need of PWID.

Nearly half of the PBS respondents (47%) reported that they were diagnosed with an STI in the last three months, and this was almost twice as common among male respondents in Gombe (91%). This could be a consequence of a high proportion of respondents engaging in selling and buying sex, unavailability of condoms, and incorrect condom use. Half of the respondents (51%) reported that they had an incident in the past month of wanting a condom but being unable to obtain one in that time and place. This was reported by all of the women in Gombe (100%), which indicates that condom distribution needs attention. Though a high proportion of respondents reported using a condom at last sex, 43% overall also reported experiencing slippage or breakage the last time a condom was used, and such a mishap was reported by all of the women in Gombe. This suggests that PWID need training and skill building on the correct use of condoms.

Fully 60% of the PBS respondents reported being screened for TB, and 52% reported being screened for hepatitis B or C in the six months preceding the survey.

Testing PWID so that they know their HIV status is essential for achieving UNAIDS's first 95 target. Some 94% of the PBS respondents had ever tested for HIV, though the proportion reporting in Oyo state (86%) was much lower. Recent testing was also very high among the respondents.

Over one-third of PBS respondents in Abia (37%) and 28% of PBS respondents in Oyo reported experiencing physical or sexual violence in the six months preceding the survey. Experiences of violence (33%), stigma and discrimination (74%), and incarceration (50%) in the last six months were common among PBS respondents, but 82% of those who experienced violence, stigma, or discrimination reported that the project supported them after such experiences. Contact with a community facilitator or outreach worker in the past month was reported by 94% of PBS respondents, with such contact lower in Oyo (88%) than in Abia and Gombe (99% and 98% respectively).

Though it is very clear that in the short period of time the NSP pilot project showed positive outcomes, several improvements need to be made:

1. The disparity between states on some outcomes is stark. For example, 8% of PBS respondents in Abia and 11% of respondents in Oyo reported currently experiencing an STI symptom, but 92% of PBS respondents in Gombe reported such. In such cases, the reasons need to be explored and support to states needs to be provided based on programme performance and gaps.

2. In many places the PBS results do not match what has been reported by the project through the monitoring reports. For example, the monitoring data indicate that no PWID in Gombe were mobilised for HTS during the pilot, but all PBS respondents from Gombe reported that they had been tested for HIV in the last three months. Monitoring data indicate that few (three or fewer per month) male PWID in Gombe were screened for STIs during the pilot, but 91% of male PBS respondents in Gombe reported that they had been diagnosed with an STI in the last three months. Monitoring data reported that no PWID were screened for TB in Gombe, but 80% of PBS respondents in Gombe reported that they had been screened for TB in the last six months. Overall, half of PBS respondents and 100% of women in Gombe reported having been screened for hepatitis B or C in the last six months, but monitoring data indicated that no PWID were screened for hepatitis B or C during the pilot. Some 63% of PBS respondents in Abia, 96% of respondents in Gombe, and 62% of respondents in Oyo reported experiencing stigma and discrimination in the past six months, but monitoring tool reported no incidents of stigma or discrimination in Oyo, Gombe, or Abia during the project. Although 37% of PBS respondents in Abia and 28% of respondents in Oyo reported experiencing physical or sexual violence in the six months preceding the survey, the monitoring system recorded no reports of violence against PWID in Abia and Oyo during the project. Although 99% of PBS respondents in Abia reported being contacted by an outreach worker or community facilitator in the last month, monitoring data reported that 22% of registered PWID in Abia were contacted in November. Such discrepancies need to be examined further. Overall, it appears that more training on how to detect/capture service provision and fill the monthly monitoring tools is needed, and there appears to be a need for a better system of recording the services provided by the project.

3. Needle sharing is still quite high, so needle availability should be improved. But sharing appears to be influenced by norms and practices within the community, as well as by NS availability, so we need to also explore and address cultural or other state-specific practices which promote sharing.

4. Transmission though sexual route also needs attention, as a high proportion of PWID engaged in sex work or buying sex. Condom availability and condom skills need to be improved, as many PWID reported experiencing STI symptoms and condom mishaps.

5. Structural interventions will need attention as violence, stigma and discrimination are high and there is evidence that these impede access to services and vital commodities.

3.3 Key informant interviews reveal that the quality of the NSP pilot project was good

The NSP pilot's quality was enhanced by uninterrupted NS distribution, the CFs' dedication to their work, PWID involvement in the NSP's design and implementation, and open communication between all stakeholders.

The services and items provided by the NSP were readily available to the PWID. The supply of NS was steady because inventory was closely monitored and supplies were ordered months in advance. The steady supply of goods and services was also due to clear coordination across the programme's levels and a well-organised supply chain. However, informants did mention rationing of new NS and some of the frequent injectors not getting enough needles. The project should review such policies and ensure that all PWID get new needles as per their need. Scaling up the project to saturate coverage of estimated populations is critical, as there was evidence of sharing between PWID who were registered and those who were not registered, who did not have access to new NS. Till there is an optimum population that shares needles, HIV prevention will remain a challenge.

Community facilitators were within easy reach of the PWID and were available whenever PWID needed them. CFs were in the community, among the PWID on specific days of the week and at specific times, including in the early morning and late evening. CFs overcame the challenge of the community's initial suspicion and resistance by empathising, persisting, and considering this assignment as a humanitarian mission, not just a job. Involvement of current or ex-drug users as CFs increased the trust among the PWID. This shows the importance of involving the key population community in programmes with PWID and key populations.

Participation of the PWID from the inception of the programme improved their use of the NSP pilot. PWID participated in the design and implementation of the NSP because CBOs involved in the programme were led by community members. PWID were involved from the initial stage of the programme, including the training, and this facilitated community entry and buy-in. Regular meetings with the CFs and PWID leaders ensured that feedback was continuously received and incorporated into the NSP. This led to the acceptance and ownership of the programme within the PWID community. Incorporation of feedback from the PWID helped to retain them in the programme.

Training, feedback and effective communication among all the stakeholders facilitated valuable interactions with PWID. PWID were motivated to participate in the NSP pilot by the broad range

of free services offered. Regular trainings for PWID on harm reduction, syringe disposal, overdose prevention, and wound prevention were instrumental in gaining their trust in the NSP pilot. Open communication channels and supportive supervision improved the quality of service provision to the PWID, because feedback from the PWID and the CFs was incorporated into the programme, especially on referral and wound management. However, women staff experienced challenges in the project and hence the projects need to understand the needs of the staff and empower the staff with training, self-confidence, and policies to overcome some of the limitations.

Hostility, especially by the police, towards the service providers and PWID was common. Constant harassment and regular arrests by the police hindered the work of the CFs and made the PWID fearful. This fear caused many PWID to shy away from the programme. Regular arrests by the police and constant haggling for the CFs' release impaired the work of the CFs. Community engagement and the supportive structures diminished the experience of violence. Clearly, the projects need to prioritise structural interventions and ensure that law enforcers and general community members are regularly sensitised so that an enabling environment is created for project implementation and for PWID.

Informants cited referral and treatment for wound management as a key aspect of the programme that was working very well because this was lacking previously and many PWID who had wounds were not able to access treatment. Difficulties encountered when referring clients to services included a shortage of medical personnel in the facilities where the PWID were referred and long distances to the referral facilities. Referral services need to be strengthened through improving accessibility. The participants also noted the need to scale up the services in the project clinics to include maternity services and psychosocial services. At the same time projects should also address other barriers to access to services, like distance.

4 Limitations

The assessment has several limitations. Though the assessment was planned as an evaluation with two points of data collection (at the beginning of the project and at the end of the project), due to delays in contracting we could collect only one round of data, towards the end of the project. In the absence of two data points we cannot confidently measure the effectiveness of the intervention. The monitoring data has several limitations. As the assessment took place later in the intervention, UoM could not support the intervention to develop a monitoring system and reporting tools as planned. As part of the assessment, UoM collected retrospective data from the projects. UoM could not get data on all the indicators needed, because the data was incomplete and inconsistent. We had to use

that data to conduct analysis, and, due to poor quality of the monitoring data, we could not compare or triangulate the performance of the project.

In the PBS data analysis we also found that the responses in Gombe State were very different from responses in other states, and some responses in the state were inconsistent. For example, 90% of respondents in Gombe reported that they used a new needle the last time they injected, but 82% of respondents in Gombe reported that they shared a needle the last time they injected. This needs to be explored further to understand if the respondents did not understand the questions correctly or there are other norms and practices that the assessment did not capture.

5 Conclusion

The assessment shows that piloting and possibly scaling up an NS programme among PWID focussing on both men and women is feasible in Nigeria. The PBS results and the qualitative assessment show that the pilot projects have been partially effective and are very much acceptable to the PWID community. However the programme needs to make improvements by a) understanding the disparity in the project's implementation and impact in different states; b) setting up a robust monitoring system which captures all the service indicators, ensures data quality, and normalises data use across the cadre of staff; c) understanding need for NS among the PWID in each state and providing NS as per need while understanding the cultural or community practices of needle sharing; d) providing equal focus on sexual route of transmission by ensuring that condoms are available and also used consistently and correctly; and e) addressing structural barriers that increase the vulnerability of PWID and impede their access to services.