BIOBEHAVIORAL SURVEY AND POPULATION SIZE ESTIMATION FOR PEOPLE WHO INJECT DRUGS IN UNGUJA, ZANZIBAR, 2023

INTRODUCTION

The 2023 Integrated Bio-behavioral Survey (IBBS) among people who inject drugs (PWID) was conducted between July and September 2023 in Unguja, Zanzibar, Tanzania. Survey objectives were to estimate Zanzibar's progress toward the Joint United Nations Programme on HIV/AIDS (UNAIDS) 95-95-95 targets[1] and the number of PWID in Unguja. The survey included a total of 455 PWID recruited using respondent driven sampling (RDS). Survey data were weighted using self-reported network size and Gile's Sequential Sampling in RDS-Analyst. The survey was conducted by the Zanzibar Integrated HIV, Hepatitis, TB, and Leprosy Programme with funding from the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) and technical assistance provided by the University of California, San Francisco and the U.S. Centers for Disease Control and Prevention.

SURVEY OBJECTIVES

Primary Objectives

Among PWID in Unguja, Zanzibar:

1. Estimate progress toward UNAIDS 95-95-95 targets
2. Estimate the prevalence of HIV
3. Estimate the population size

Secondary Objectives

Among PWID in Unguja, Zanzibar:

1. Estimate the prevalence of hepatitis B, hepatitis C, and syphilis antibodies
2. Estimate CD4 count among those living with HIV
3. Estimate HIV viral load suppression among those living with HIV
4. Identify and characterize risk behaviors, sexual and drug use networks, and experiences of violence and discrimination
5. Assess health seeking behaviors
6. Assess uptake of HIV prevention, care, and treatment services as they relate to the 95-95-95 cascade, including those targeting key populations
7. Estimate HIV incidence

SURVEY METHODS

RECRUITMENT METHODS AND ELIGIBILITY CRITERIA

Participants were recruited using RDS and met the following eligibility criteria to participate:

a) injected drugs in the past 3 months;
b) male or female aged 18 years or older or mature minor[2] aged 15-17 years;
c) lived in Unguja for the past 3 months;
d) willing and able to provide informed consent; and
e) in possession of a valid recruitment coupon.

No personally identifying information was collected. All participant materials were labeled and linked using pre-printed barcode stickers containing unique identification numbers. Participants were given three coupons to recruit their peers, except for those who joined at the end of the survey when recruitment was stopped.

DATA COLLECTION METHODS

[1] Joint United Nations Programme on HIV/AIDS (UNAIDS). (2020). *Prevailing against pandemics by putting people at the centre.* UNAIDS. https://aidstargets2025.unaids.org/assets/images/prevailing-against-pandemics_en.pdf

[2] Mature minors are those whose circumstances allow them to consent for themselves, as per the Zanzibar National HIV and AIDS Prevention and Treatment Guidelines of 2020. Non-mature minors were excluded.

Information was collected from consenting participants through an interviewer-administered quantitative questionnaire. The questionnaire collected data on participants' socio-demographic characteristics, sexual and drug risk behaviors, sexually transmitted infections (STI) and HIV knowledge, social networks, and access to and utilization of HIV-related services.

Consenting participants were tested for HIV and screened for syphilis, hepatitis B, and hepatitis C on-site using rapid tests. HIV testing at the survey site was conducted using a serological rapid diagnostic testing algorithm of SD Bioline™ HIV-1/2 3.0 [Standard Diagnostics, Kyonggi-do, South Korea] followed by Uni-Gold™ HIV [Trinity Biotech, Bray, Ireland], in line with Zanzibar's testing guidelines[3]. Double reactive specimens were tested for CD4, HIV viral load, and recency, and those with an HIV viral load >200 copies/mL were tested for HIV drug resistance. Hepatitis B was tested using a rapid antigen test [SD Bioline™ HBsAg] and a supplemental core antibody IgM laboratory test. Hepatitis C was tested using a rapid antibody test [Bioline HCV] with reactive specimens tested for HCV viral load. Syphilis was tested using a rapid antibody test [First Response™ Syphilis Anti-TP Card Test].

All rapid test results (HIV, HBV, HCV, and syphilis) were returned to participants during the first survey visit. Laboratory test results were returned to participants during subsequent visits to the survey site, except for recency and HIV drug resistance results. Recency results were not returned to participants because they are not clinically relevant and are not returned as part of recency surveillance. HIV drug resistance results were not returned to participants because testing was done after the close of the survey. In addition, drug resistance testing is not part of the standard of care for changing a client from first- to second-line treatment.

ANALYSIS APPROACH

Data were analyzed using RDS-Analyst, a software package that adjusts RDS data collected for social network size and recruitment patterns. In RDS-Analyst, the Gile's estimator and self-reported network size were used to produce weighted point estimates and weighted 95% confidence intervals for all survey data. All data presented in this report are weighted, except for median and inter-quartile range (IQR).

The survey started with 5 seeds and 16 seeds were added during data collection. The seed with the longest chain in this survey had 24 waves and 127 participants including seeds. The seed with the greatest number of participants had 19 waves and 202 participants. Eight seeds did not grow (i.e., the seed did not recruit other participants). Convergence and equilibrium were achieved for key variables including HIV and HCV prevalences.

HIV PREVALENCE AND POPULATION SIZE ESTIMATE

The HIV prevalence was 9.3% (95% CI: 6.1, 12.5) among PWID in Unguja, Zanzibar. There were no statistical differences in HIV prevalence based on age. The population size estimate (PSE) for PWID in Unguja was 2,351 (1606, 3235)[4]. This represents 0.4% of men aged 15-49 years in the general population of Unguja.

	HIV Prevalence % (95% CI)*	HIV Incidence** % (95% CI)	Consensus PSE[3] n (95% CI)	PSE as a proportion of men aged 15-49 years of Unguja general population[5] % (95% CI)
PWID	9.3 (6.1, 12.5)	0.7 (0.5, 0.9)	2351 (1606, 3235)	0.4 (0.2, 0.5)

Notes:
* CI: Confidence interval (except for population size estimate: credible interval)
** HIV incidence was estimated using the Osmond method where the risk behavior was defined as onset of injection drug use.

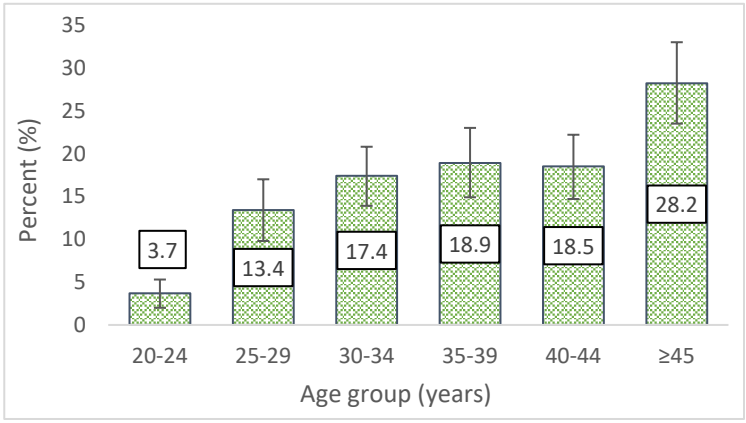
[3] Zanzibar Integrated HIV, Hepatitis TB and Leprosy Programme of the Ministry of Health, Social Welfare, Elderly, Gender, and Children. (2020). *Zanzibar National Guidelines for the Prevention and Treatment of HIV and AIDS*. Ministry of Health Zanzibar.
[4] Population Size Estimate (PSE) was calculated using Anchored Multiplier, based on 3-source capture-recapture and sequential sampling-PSE.
[5] Ministry of Finance and Planning. (2022). *The 2022 Population and Housing Census: Age and Sex Distribution Report Tanzania Zanzibar* (Volume 2C). Tanzania National Bureau of Statistics and President's Office - Finance and Planning, Office of the Chief Government Statistician, Zanzibar. https://www.nbs.go.tz/index.php/en/census-surveys/population-and-housing-census/852-2022-population-and-housing-census-administrative-units-population-distribution-and-age-sex-reports. Males aged 15-49 years = 300,080.

DEMOGRAPHICS

A total of 455 PWID consented to participate in the survey. Almost all (98.4%; 95% CI: 97.2, 99.6) PWID were men. The median age was 38 years (IQR: 32, 45 years). There were no PWID younger than 20 years of age.

More than half of PWID had a primary level of education. One-quarter (25.6%; 95% CI: 21.3, 29.9) partially completed primary school, while a slightly higher proportion (27.2%; 95% CI: 22.5, 31.9) fully completed primary school. Three in ten (31.9%; 95% CI: 27.0, 36.8) partially completed secondary education, while 11.2% (95% CI: 8.1, 14.3) fully completed secondary education. A small proportion (3.8%; 95% CI: 2.1, 5.6) never attended school, and 13.6% (95% CI: 10.2, 16.9) were not able to read and write.

Figure 1: Age distribution of people who inject drugs, Unguja, Zanzibar, 2023



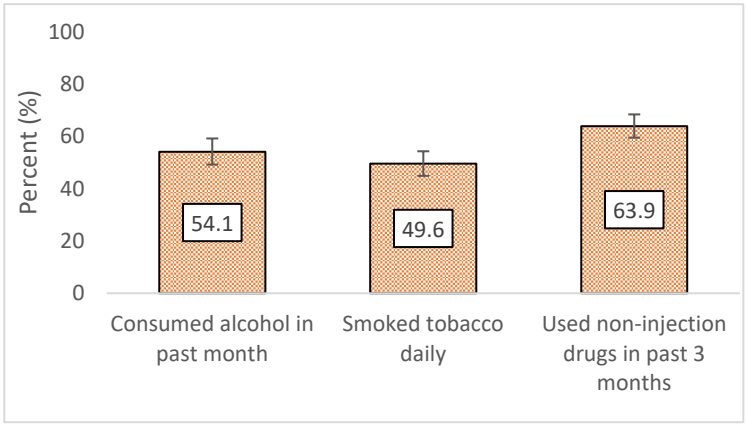
Four in ten (42.7%; 95% CI: 38.2, 47.3) were separated, divorced, or widowed, 36.7% (95% CI: 31.9, 41.4) had never been married, and 20.7% (95% CI: 16.8, 24.4) were currently married.

ALCOHOL AND NON-INJECTION DRUG USE

Five in ten (54.1%; 95% CI: 49.2, 59.2) PWID had consumed alcohol in the past month. Nearly half (49.6%; 95% CI: 44.9, 54.3) smoked tobacco daily.

Six in ten (63.9%; 95% CI: 59.5, 68.4) smoked, inhaled, swallowed, or snorted drugs in the past 3 months for non-medical reasons. Among these, the most used non-injection drugs were hashish or marijuana (68.8%; 95% CI: 63.2, 74.5), heroin (50.9%; 95% CI: 45.1, 56.7), and diazepam (Valium) (39.6%; 95% CI: 33.8, 45.6).

Figure 2: Alcohol and non-injection drug use among people who inject drugs, Unguja, Zanzibar, 2023



INJECTION DRUG USE AND INJECTION-RELATED HIV RISK BEHAVIORS

Median age was 25 years (IQR: 20, 30 years) at first injection, and 72.6% (95% CI: 68.1, 77.2) of PWID had been injecting drugs for at least 7 years. Most (87.6%; 95% CI: 84.6, 90.5) injected white heroin in the past 3 months; fewer (19.0%; 95% CI: 15.4, 22.6) injected brown heroin.

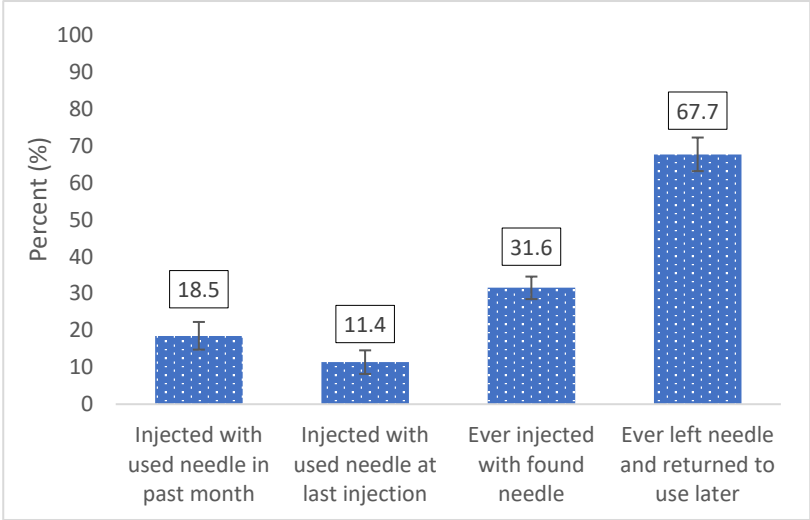
More than half (57.5%; 95% CI: 52.9, 62.2) of PWID reported in the past month that clean injection equipment was always available when needed. Among PWID who were not able to access clean injection equipment when needed, the most commonly cited barriers were cost (30.1%; 95% CI: 21.2, 38.1), vendors being out of stock (26.7%; 95% CI: 17.8, 36.4), vendors refusing to sell to them (19.3%; 95% CI: 11.6, 26.4), and vendors being too far away (18.3%; 95% CI: 5.3, 32.5).

Half (49.6%; 95% CI: 44.6, 54.6) of PWID had ever overdosed on narcotics to the point of losing consciousness, and 89.5% (95% CI: 86.9, 92.0) had seen another person overdose on narcotics.

Four in ten (43.5%; 95% CI: 38.2, 48.4) had ever shared a needle, and 18.5% (95% CI: 14.8, 22.3) used a needle or syringe to inject drugs immediately after someone else had used it in the past month. At last injection, 11.4% (95% CI: 8.2, 14.6) used a needle or syringe immediately after someone else had used it, and 11.2% (95% CI: 8.0, 14.4) passed their needle or syringe to another person to use. At last injection, 7.3% (95% CI: 4.5, 10.1) both used a needle or syringe immediately after someone else had used it and passed that needle or syringe to another person after injecting.

Among those who ever shared a needle, the main reasons for sharing a needle or syringe the last time they shared were not having enough money to inject alone (27.1%; 95% CI: 20.4, 33.5) and syringes or needles not being available (17.8%; 95% CI: 12.5, 23.2). The last time they shared a needle or syringe, 91.5% (95% CI: 80.4, 100) cleaned the needle or syringe between uses. Among those who cleaned the needle or syringe, most (93.7%; 95% CI: 90.3, 97.0) used cold water.

Figure 3: Direct and indirect needle sharing experiences among people who inject drugs, Unguja, Zanzibar, 2023



Three in ten PWID (31.6%; 95% CI: 28.5, 34.6) had ever found a needle somewhere that was not their own and used it to inject drugs. Nearly seven in ten (67.7%; 95% CI: 63.2, 72.3) had ever left their needle somewhere and returned to use it later. Of those, 20.9% (95% CI: 15.7, 26.1) thought that someone else may have used their needle in their absence, and 16.5% (95% CI: 11.4, 21.6) were not sure.

The majority (91.8%; 95% CI: 89.1, 94.6) of PWID reported that sharing needles when injecting drugs increases the risk of HIV infection, and six in ten (60.8%; 95% CI: 56.4, 65.1) agreed that cleaning needles and syringes between injections reduces the risk of HIV.

SEXUAL HIV RISK BEHAVIORS AND SEXUALLY TRANSMITTED INFECTIONS

Nearly all (96.9%; 95% CI: 94.9, 98.9) PWID had sex at least once in their lifetime. Among those, 63.2% (95% CI: 59.2, 67.1) had either used alcohol before sex or had a sexual partner who used alcohol before sex, and 80.3% (95% CI: 77.2, 83.3) had either used drugs before sex or had a sexual partner who used drugs before sex.

Figure 4: Unpaid and paid sex in the past month among people who inject drugs, Unguja, Zanzibar, 2023

Nearly four in ten (37.7%; 95% CI: 33.9, 41.6) had non-transactional sex (i.e., no money or goods were exchanged) in the past month. Three in ten (43.4%; 95% CI: 38.9, 48.2) paid someone for sex in the past month, while 26.2% (95% CI: 19.7, 32.4) sold sex in the past month.

The majority (78.9%; 95% CI: 74.7, 83.1) of PWID had ever heard of sexually transmitted infections (STIs). Two in ten (20.3%; 95% CI: 16.1, 24.4) experienced STI symptoms in the past 6 months. Among those who experienced STI symptoms, 64.3% (95% CI: 54.9, 74.4) sought treatment because of those symptoms. Among those who sought treatment for STI symptoms, 57.2% (95% CI: 31.1, 84.2) had symptoms for more than a month prior to seeking treatment.

PROGRESS TOWARD THE 95-95-95 TARGETS

95-95-95 UNAIDS Target Definition[6]**:** By 2025 95% of all people living with HIV will know their HIV status; 95% of all people with diagnosed HIV infection will receive sustained antiretroviral therapy (ART); and 95% of all people receiving ART will be virally suppressed.

1ST 95 – AWARENESS OF HIV-POSITIVE STATUS

Awareness of HIV-positive status is defined as people living with HIV who disclosed a prior HIV diagnosis or had a suppressed HIV viral load (<1,000 copies/mL). In Unguja among PWID living with HIV, 89.3% (95% CI: 74.1, 100) were aware of their HIV status.

2ND 95 – AWARE OF HIV-POSITIVE STATUS AND ON ART

Being on ART is defined as those who disclosed current use of ART or had a suppressed viral load. Among PWID living with HIV who knew their HIV status, 98.3% (95% CI: 82.4, 100) were on ART.

3RD 95 – AWARE OF HIV-POSITIVE STATUS AND ON ART AND VIRALLY SUPRESSED

Viral suppression is defined as an HIV viral load <1,000 copies/mL. Of PWID living with HIV who knew their HIV status and were on ART, 80.2% (95% CI: 64.2, 95.5) were virally suppressed.

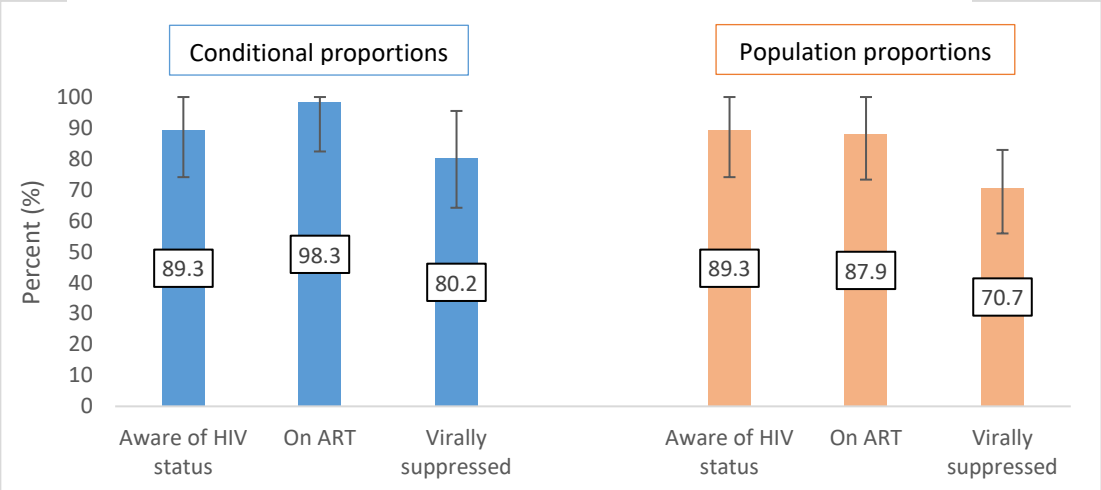
An undetectable HIV viral load is defined as an HIV viral load <50 copies/mL. Among PWID living with HIV who knew their status and were on ART, 75.7% (95% CI: 49.7, 99.5) had an undetectable viral load, 5.1% (95% CI: 0, 10.9) had low level viremia (50-999 copies/mL), and 19.2% (95% CI: 0, 44.7) were unsuppressed (≥1,000 copies/mL).

[6] Joint United Nations Programme on HIV/AIDS (UNAIDS). (2020). *Prevailing against pandemics by putting people at the centre.* UNAIDS. https://aidstargets2025.unaids.org/assets/images/prevailing-against-pandemics_en.pdf

OVERALL 95-95-95 PROGRESS

The 95-95-95 figures show progress towards the UNAIDS targets. We present both conditional proportions (calculated using the value of each data point as the denominator for the subsequent data point) and population proportions (calculated using the number of people living with HIV as the denominator for all data points). At a population level, among PWID living with HIV, 87.9% (95% CI: 73.3, 100) were on ART, and 70.7% (95% CI: 55.9, 82.9) were virally suppressed.

Figure 5: Progress towards 95-95-95 targets among people who inject drugs, Unguja, Zanzibar, 2023



HEPATITIS B, HEPATITIS C, SYPHILIS, AND CO-INFECTION PREVALENCES (N=598)

Hepatitis B antigen prevalence* % (95% CI)	HIV-HBV co-infection % (95% CI)	Hepatitis C antibody prevalence % (95% CI)	Hepatitis C detectable VL % (95% CI)	HIV-HCV co-infection % (95% CI)	Syphilis antibody prevalence % (95% CI)	HIV-syphilis co-infection % (95% CI)
3.3% (1.7,4.9)	0.9% (0,1.8)	30.3% (25.6,35.1)	22.0% (17.8,26.1)	3.5% (1.9,5.2)	0.8% (0.2,1.3)	0%

**All participants who had a reactive test for hepatitis B surface antigen were core antibody (IgM) negative, indicating chronic infection.*

Key findings among PWID related to hepatitis B, hepatitis C, syphilis, and co-infection with HIV included:

- Prevalence of chronic hepatitis B infection was 3.3% (95% CI: 1.7, 4.9). Prevalence of chronic hepatitis B and HIV co-infection was 0.9% (95% CI: 0, 1.8).
- Hepatitis C antibodies were detected in 30.3% (95% CI: 25.6, 35.1), and the prevalence of active hepatitis C infection was 22.0% (95% CI: 17.8, 26.1).
- Among those who screened positive for hepatitis C antibodies, 72.5% (95% CI: 64.8, 80.8) had active hepatitis C infection.
- Overall, 3.5% (95% CI: 1.9, 5.2) of PWID were co-infected with HIV and active hepatitis C.
- Among PWID living with HIV, 63.1% (95% CI: 48.5, 76.8) had HCV antibodies compared to 27.0% (95% CI: 22.4, 31.7) of HIV-negative PWID.
- Syphilis antibody prevalence was 0.8% (95% CI: 0.2, 1.3). There were no cases of HIV-syphilis co-infection.

SOCIAL ENABLERS: STIGMA AND ABUSE (10-10-10 TARGETS)

The 2023 Global AIDS Monitoring (GAM) report includes indicators and questions designed for use by national AIDS programs and partners to assess the state of a country's HIV and AIDS response and to measure progress towards achieving national HIV targets. The

UNAIDS 10-10-10 targets aim to remove social and legal impediments to accessing or using HIV services[7]. Several 10-10-10 targets relevant to key populations were measured in this survey.

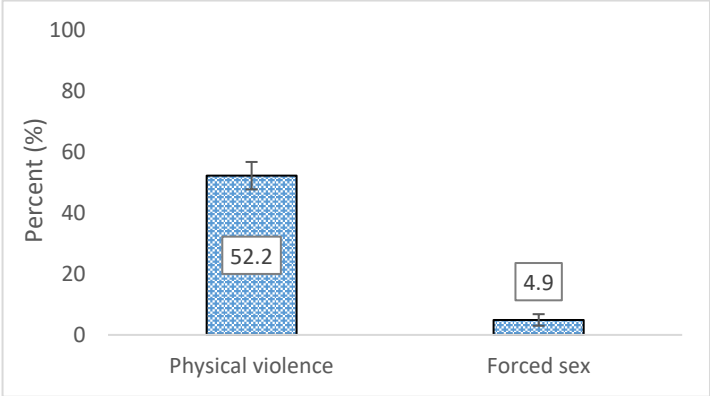
EXPERIENCED PHYSICAL VIOLENCE AND/OR FORCED SEX IN THE LAST 12 MONTHS[8]

Experiences of violence varied among PWID in Unguja. Half (52.2%; 95% CI: 47.7, 56.7) of PWID experienced physical violence in the last 12 months, while 4.9% (95% CI: 3.0, 6.8) were forced to have sex in the last 12 months.

Among those who experienced physical violence, the most common perpetrators of that violence were police (75.5%; 95% CI: 69.8, 81.8) and strangers (40.6%; 95% CI: 33.3, 48.2).

Among those who experienced physical violence, 16.3% (95% CI: 12.2, 20.3) reported the violence to an authority. The most cited reasons for not reporting physical violence to the authorities were not knowing where to go or that they should report (32.2%; 95% CI: 25.8, 39.0), fear of retaliation (21.8%; 95% CI: 16.4, 27.0), and feeling ashamed or embarrassed (18.2%; 95% CI: 12.6, 24.1).

Figure 6: Experiences of physical and forced sex in the last 12 months among people who inject drugs, Unguja, Zanzibar, 2023



Among those who were forced to have sex, none reported the violence to an authority, and 4.2% (95% CI: 0, 10.4) sought medical attention after the incident. The most cited reasons for not reporting were feeling ashamed or embarrassed (47.0%; 95% CI: 30.5, 64.5) and not knowing where to go or whether to report (30.4%; 95% CI: 14.2, 47.9).

EXPERIENCED STIGMA AND/OR DISCRIMINATION IN THE PAST 6 MONTHS[9]

Being the target of stigma and/or discrimination as an PWID was common in Unguja. Based on experiences from the past 6 months, 82.7% (95% CI: 79.3, 86.0) of PWID experienced name calling, teasing, or insults, 66.8% (95% CI: 62.7, 70.9) had been excluded from a social gathering, 82.7% (95% CI: 78.9, 86.4) reported that others had lost respect for them, and 75.9% (95% CI: 71.9, 79.9) were abandoned by their loved ones because they injected drugs.

Figure 7: Experiences of stigma and discrimination in the past 6 months among people who inject drugs, Unguja, Zanzibar, 2023

[7] Joint United Nations Programme on HIV/AIDS (UNAIDS). (2023). *2024 Global AIDS Monitoring Report: Indicators and questions for monitoring progress on the 2021 Political Declaration on HIV and AIDS.* UNAIDS. https://www.unaids.org/sites/default/files/media_asset/global-aids-monitoring_en.pdf

[8] **GAM indicator 4.1:** physically hurt, such as hit or choked or threatened with a knife or other weapon; tricked, lied, or threatened to force sex.

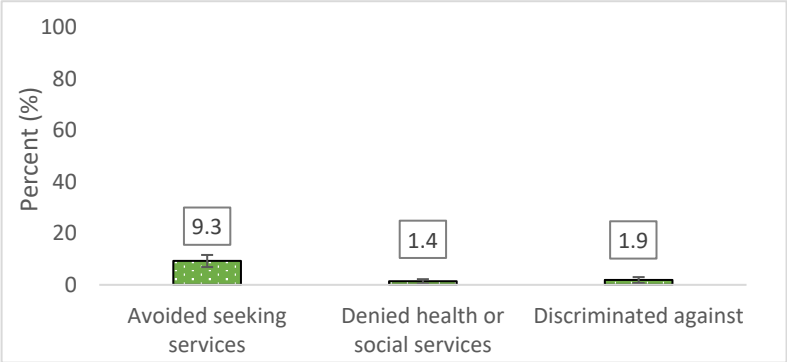
[9] **GAM indicator 6.5:** felt excluded from family activities because [PWID], scolded because [PWID], blackmailed because [PWID].

AVOIDANCE OF DISCRIMINATION AND EXPERIENCES OF DISCRIMINATION IN HEALTHCARE IN THE PAST 12 MONTHS[10]

In the last 12 months, 9.3% (95% CI: 6.9, 11.6) of PWID avoided seeking health or social services due to fear of being discriminated against, 1.4% (95% CI: 0.5, 2.2) were denied health or social services, and 1.9% (95% CI: 0.7, 3.0) were discriminated against by a healthcare provider because they injected drugs.

Two in ten (22.2%; 95% CI: 18.5, 26.0) knew where to report discrimination experienced during health services.

Figure 8: Avoidance of and experiences of discrimination in healthcare in the past 12 months among people who inject drugs, Unguja, Zanzibar, 2023



KEY POPULATION PREVENTION INDICATORS

ENGAGEMENT WITH PEER EDUCATORS AND KEY POPULATION-FRIENDLY CLINICS

Nearly four in ten (38.1%; 95% CI: 33.4, 42.9) PWID engaged with a peer educator in the last 12 months. Of those, the majority interacted with a peer educator only once (22.4%; 95% CI: 15.3, 29.9) or twice (40.5%; 95% CI: 32.9, 47.9) during that period. Commonly provided services were information about HIV transmission and prevention (73.1%; 95% CI: 66.9, 79.4), general counseling from a peer counsellor (43.3%; 95% CI: 36.2, 50.1), linkage to HIV testing (35.9%; 95% CI: 28.5, 43.2), and condoms (28.4%; 95% CI: 20.5, 36.1).

Two in ten PWID (19.3%; 95% CI: 15.4, 23.1) sought HIV services from a clinic providing PWID-friendly services in the past 12 months. Among those, commonly received services were information about HIV transmission and prevention (40.0%; 95% CI: 29.4, 49.6), HIV testing (37.7%; 95% CI: 25.8, 49.0), counseling from a peer counsellor (34.5%; 95% CI: 23.2, 45.6), and counseling from a professional or voluntary counseling and testing counselor (30.8%; 95% CI: 19.2, 42.6).

PERCEIVED HIV RISK AND HIV TESTING

Excluding PWID known to be living with HIV, less than half (45.1%; 95% CI: 40.0, 50.3) perceived themselves to be at high risk for HIV infection. Commonly cited reasons for feeling at risk of HIV infection were injecting drugs (70.4%; 95% CI: 65.0, 75.9) and inconsistent condom use (38.7%; 95% CI: 33.2, 44.2).

The majority (93.0%; 95% CI: 90.2, 95.8) of PWID had been tested for HIV at least once in their lifetime. Of those who had been tested at least once, excluding PWID known to be living with HIV, 31.9% (95% CI: 27.0, 36.8) had an HIV test within 3 months, 16.1% (95% CI: 12.7, 19.4) had an HIV test in the past 3 to 6 months, 11.4% (95% CI: 8.3, 14.5) had an HIV test in the past 6 to 12 months, and 32.8% (95% CI: 27.9, 37.7) had an HIV test longer than a year before the survey. Some (7.8%; 95% CI: 4.7, 10.9) PWID could not remember when their last HIV test was. Excluding PWID known to be living with HIV, 3.5% (95% CI: 0.3, 6.6) and 12.5% (8.5, 16.5) routinely tested for HIV every month and every 3 months, respectively.

Among PWID who have never been tested for HIV, reasons for not testing included not seeing the importance of HIV testing (34.3%; 95% CI: 19.4, 50.2), fear of knowing one's status (25.5%; 95% CI: 12.1, 39.0), and not feeling at risk (22.5%; 95% CI: 12.4, 32.1).

One-quarter (25.4%; 95% CI: 21.1, 29.7) of PWID had ever heard of an HIV self-test. Among those, 9.6% (95% CI: 2.6, 16.3) had ever taken an HIV self-test. Among those who had never used an HIV self-test, 68.6% (95% CI: 64.0, 73.2) would use one if recommended to them.

[10] **GAM indicator 6.6:** afraid to seek health services, treated unfairly or denied health care, avoided seeking HIV services.

PRE-EXPOSURE PROPHYLAXIS AWARENESS AND UPTAKE

Two in ten PWID (19.9% (95% CI: 16.1, 23.7) had ever heard of pre-exposure prophylaxis (PrEP). Among those who had heard of PrEP, 12.0% (95% CI: 6.7, 17.1) had ever used PrEP.

Among those who had heard of but never used PrEP, reasons for not using PrEP included not knowing where to get PrEP or not having PrEP available close to where they live (39.3%; 95% CI: 26.6, 50.6) and not wanting or not having time to access PrEP (22.3%; 95% CI: 14.4, 30.1).

CONCLUSIONS AND KEY CONSIDERATIONS

The population of PWID in Unguja was predominantly male with a median age of 38 years. Nearly three-quarters of PWID had been injecting drugs for at least 7 years.

The largest gap in achieving the UNAIDS 95-95-95 targets was in the third 95, reaching HIV viral suppression, with seven in ten PWID living with HIV being virally suppressed. Given that the majority of PWID known to be living with HIV were on ART, high viral loads could be the result of poor ART adherence. Improving adherence counseling, strengthening "undetectable equals untransmittable" or U=U messaging, and ensuring frequent interactions between PWID who are on ART and health care workers to give ART reminders may improve adherence to treatment and subsequently, viral suppression levels.

The first of the 95-95-95 targets, HIV diagnosis, also had not been reached. The majority of PWID who were not known to be living with HIV did not access HIV testing services routinely, defined as monthly or quarterly. This highlights a programmatic gap in reaching PWID with routine HIV testing. Three-quarters of PWID had never heard of HIV self-testing, although most reported they would use an HIV self-test if it was recommended to them. Strengthening access to and uptake of routine HIV testing services, including promoting the use of self-test kits and making them easily accessible, might support HIV awareness and linkage to prevention and treatment services.

There was a high prevalence of active HCV infection among PWID, with more than one in five having active hepatitis C infection. Having HCV treatment immediately available and accessible could cure those who currently have an active infection and reduce the level of active hepatitis C within this key population. In addition, providing consistent screening for hepatitis C and ensuring the availability and accessibility of HCV viral load tests to confirm active infection is critical to monitor ongoing transmission and identify new infections.

Sharing of injecting equipment was common, with nearly one in five PWID using a needle or syringe to inject drugs after someone else had used it in the past month. This is likely contributing to the high prevalence of hepatitis C and HIV among PWID in Unguja. Sensitizing gatekeepers, including people like pharmacists who sell injection equipment, and educating PWID on the importance of using clean and sterile injecting equipment might help to increase availability of and acceptability of providing clean needles, reduce needle sharing, and help control the transmission of blood-borne infections.

A minority of PWID were aware of PrEP. Uptake of HIV services more broadly, both from peer educators and PWID-friendly clinics, in the past year was also limited. Increasing the number of PWID reached through both methods could increase opportunities to provide HIV, PrEP, and hepatitis education as well as other HIV prevention services such as HIV testing.

Experiences of physical violence, stigma, and discrimination were common among PWID in Unguja. Half of PWID experienced physical violence in the last 12 months, and three-quarters were abandoned by their loved ones in the past 6 months because they injected drugs. Providing sensitization to the community and to law enforcement on drug addiction as a health issue as well as the rights and appropriate treatment of PWID could reduce violence, stigma, and discrimination towards this population.

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