BIOBEHAVIORAL SURVEY AND POPULATION SIZE ESTIMATION FOR FEMALE SEX WORKERS AND SEXUALLY EXPLOITED GIRLS IN UNGUJA, ZANZIBAR, 2023

INTRODUCTION

The 2023 Integrated Bio-behavioral Survey (IBBS) among female sex workers (FSW) and sexually exploited girls (SEG) (girls <18 years given money for sex) was conducted between May and July 2023 in Unguja, Zanzibar. Survey objectives were to estimate Zanzibar's progress toward the Joint United Nations Programme on HIV/AIDS (UNAIDS) 95-95-95 targets and the number of FSW/SEG in Unguja. The survey included a total of 598 FSW/SEG 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 (CDC).

SURVEY OBJECTIVES

Primary Objectives

Among FSW/SEG 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 FSW/SEG in Unguja, Zanzibar:

1. Estimate the prevalence of hepatitis B, hepatitis C, and syphilis Treponemal 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 related to the 95-95-95 cascade
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) exchanged sexual intercourse for money in the past month;
b) female aged 18 years or older (FSW) or mature minor[1] aged 15-17 years (SEG);
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 3 coupons to recruit their peers, except for those who joined at the end of the survey when recruitment was being stopped.

[1] Mature minors are those whose circumstances allow them to consent for themselves, as per Zanzibar national guidelines. Non-mature minors were excluded.

DATA COLLECTION METHODS

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 using rapid tests at the survey site. 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[2]. 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 Respondent Driven Sampling-Analyst (RDS-A), a software package that adjusts RDS data for social network size and recruitment patterns. In RDS-A, 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). We analyzed FSW and SEG together, as a single population.

The survey started with 4 seeds and 4 seeds were added during data collection. The longest chain in this survey had 11 waves and 148 participants including the seed. The chain with the largest number of participants had 10 waves and 291 participants. Two chains had only a single wave with 2 and 3 participants, respectively. Convergence and equilibrium were achieved for key variables including HIV prevalence.

HIV PREVALENCE AND POPULATION SIZE ESTIMATE

The HIV prevalence was 21.1% (95% CI: 17.2, 25.0) among FSW/SEG in Unguja, Zanzibar. The population size estimate (PSE) for FSW/SEG in Unguja was 5,787 (3488, 8701)[3]. This represents 1.6% of women aged 15-49 years in the general population of Unguja.

	HIV Prevalence % (95% CI) *	HIV Incidence** % (95% CI)	Consensus PSE[3] median (95% CI)	PSE as a proportion of women aged 15-49 years of Unguja general population[4] % (95% CI)
FSW/SEG	21.1 (17.2, 25.0)	3.2 (2.7, 3.8)	5787 (3488, 8701)	1.6 (0.9, 2.4)

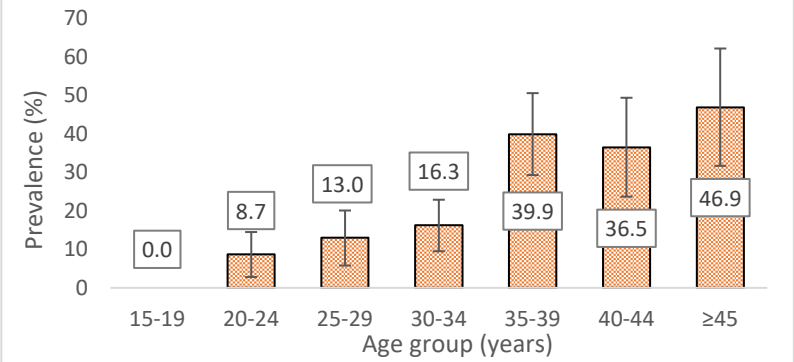
Notes:
* CI: Confidence interval (except for population size estimate: credible interval)
** HIV incidence was estimated using the Osmond method where the risk behavior was defined as onset of commercial sex work.

[2] 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*.
[3] Population Size Estimate (PSE) was calculated using Anchored Multiplier, based on 3-source capture-recapture and sequential sampling-PSE.
[4] Ministry of Finance and Planning, Tanzania National Bureau of Statistics and President's Office - Finance and Planning, Office of the Chief Government Statistician, Zanzibar. (2022). *The 2022 Population and Housing Census: Age and Sex Distribution Report*. Tanzania Zanzibar. Females aged 15–49 years = 367,684.

HIV PREVALENCE, BY AGE

HIV prevalence was 21.1% (95% CI: 17.2, 25.0) among FSW/SEG. Overall, prevalence of HIV among FSW/SEG increased with age. Prevalence was highest among FSW/SEG aged 45 years and above (46.9%; 95% CI: 31.7, 62.2), and lowest among FSW/SEG aged 20–24 years (8.7%; 95% CI: 2.8, 14.5). There were no FSW/SEG aged 15–19 years living with HIV.

Figure 1: HIV prevalence among female sex workers/sexually exploited girls by age, Unguja, Zanzibar, 2023



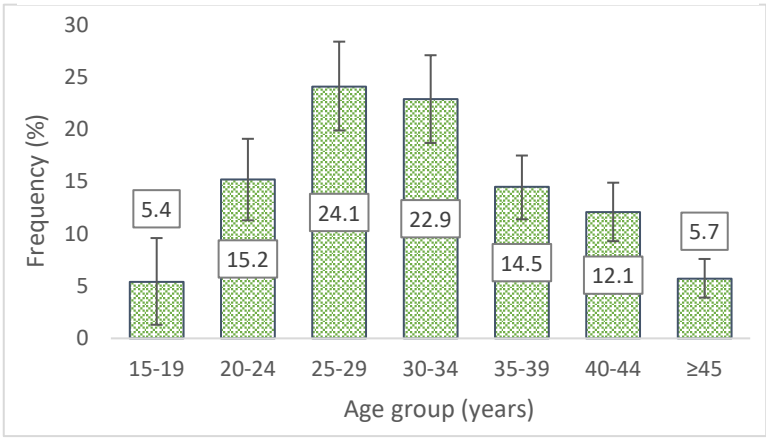
DEMOGRAPHICS

A total of 598 FSW/SEG consented to participate in the survey. The median age of FSW/SEG was 31.5 years (interquartile range [IQR]: 27, 38 years).

Just over half (54.3%; 95% CI: 49.5, 59.0) of FSW/SEG did not go beyond primary school, while 3.6% (95% CI: 2.0, 5.1) had no formal education.

Almost two-thirds of FSW/SEG (63.8%; 95% CI: 59.4, 68.3) were either separated, divorced or widowed, 34.6% (95% CI: 30.2, 39.0) had never been married, and 0.9% (95% CI: 0.2, 1.6) and 0.6% (95% CI: 0.0, 1.2) were currently living with a partner or married, respectively.

Figure 2: Age distribution of female sex workers/sexually exploited girls, Unguja, Zanzibar, 2023



SEX WORK AND SEXUAL EXPLOITATION

SEX WORK / SEXUAL EXPLOITATION HISTORY

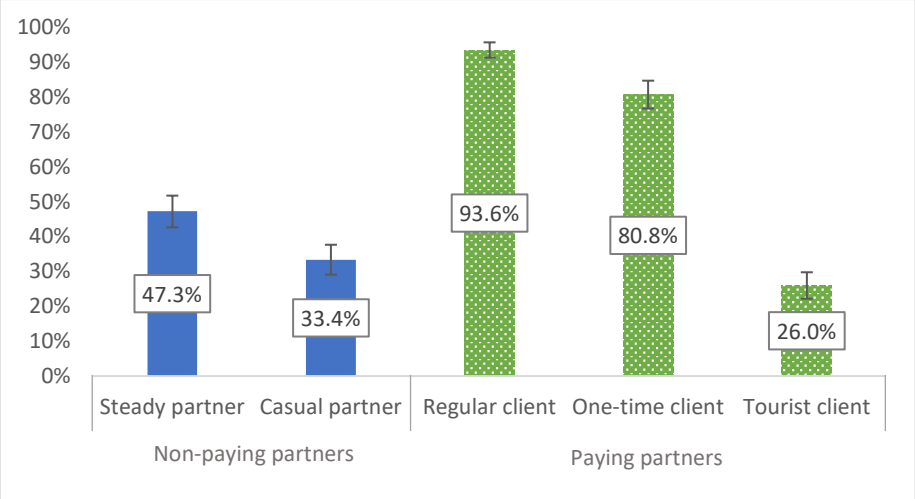
The median age at first selling of sex was 23 years (IQR: 20–28 years). FSW had been selling sex (FSW ≥18 years) or sexually exploited (SEG <18 years) for a median of 7 years (IQR: 3–12 years).

For 91.5% (89.1, 94.0) of FSW/SEG, sex work was their main source of income. For the majority of FSW/SEG, the main reasons for entering into sex work were needing money to pay debts or support their family (54.6.0%; 95% CI: 50.1, 59.0), abandonment by their husbands (17.5%; 95 CI: 13.8, 21.1), or because it provides added income (11.5%; 95% CI: 8.5, 14.5).

HIV SEXUAL RISK BEHAVIORS

Recent partner types varied among FSW/SEG and included both non-paying and paying partners. Less than half of FSW/SEG (47.3%; 95% CI: 42.7, 51.8) had sex with a steady, non-paying partner in the past month, while fewer (33.4%; 95% CI: 29.1, 37.7) had sex with a casual, non-paying partner in the past month. The majority of FSW/SEG had sex with a regular, paying client and a one-time client in the past month (93.6%; 95% CI: 91.4, 95.8 and 80.8%; 95% CI: 76.8, 84.8, respectively). Just over one-quarter of FSW/SEG (26.0%; 95% CI: 22.2, 29.8) had sex with a paying tourist client in the past month.

Figure 3: Non-paying and paying partner types in the past month among female sex workers and sexually exploited girls, Unguja, Zanzibar, 2023



Condom use at last sex varied by partner type but was lowest with non-paying partners. Among FSW/SEG who had sex with a steady partner in the past month, 28.6% (95% CI: 21.9, 35.2) used a condom with their non-paying steady partner at last sex. Nearly half (48.5%; 95% CI: 41.1, 55.9) of FSW/SEG who had sex with a casual partner in the past month used a condom at last sex with a casual partner. Condom use was higher with paying clients. Among those who had paying clients in the past month, 75.5% (95% CI: 72.2, 78.9) of FSW/SEG used a condom with a regular client, 82.7% (95% CI: 78.8, 86.7) with a one-time client, and 75.6% (95% CI: 70.3, 81.2) with a tourist client at last sex.

Among FSW/SEG who did not use a condom with their last client on the last day they worked, the most commonly cited reasons for not using a condom were that the client paid more for sex without a condom (19.7%; 95% CI: 14.1, 25.4), the client objected to using a condom (19.1%; 95% CI: 13.4, 24.5), or the client was someone they trusted (18.1%; 95% CI: 12.7, 23.9).

Most FSW/SEG (90.3%; 95% CI: 87.4, 93.3) had ever used alcohol before sex or had a sexual partner who used alcohol before sex, while 32.1% (95% CI: 27.7, 36.8) had ever used drugs before sex or had a sexual partner who used drugs before sex.

PROGRESS TOWARD THE 95-95-95 TARGETS

95-95-95 UNAIDS Target Definition[5]: 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 viral load (HIV viral load <1,000 copies/mL). In Unguja among FSW/SEG living with HIV, 92.0% (95% CI: 84.4, 99.6) 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 suppressed viral load. Among FSW/SEG living with HIV who knew their HIV status, 97.7% (95% CI: 77.7, 100) were on ART.

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

[5] 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

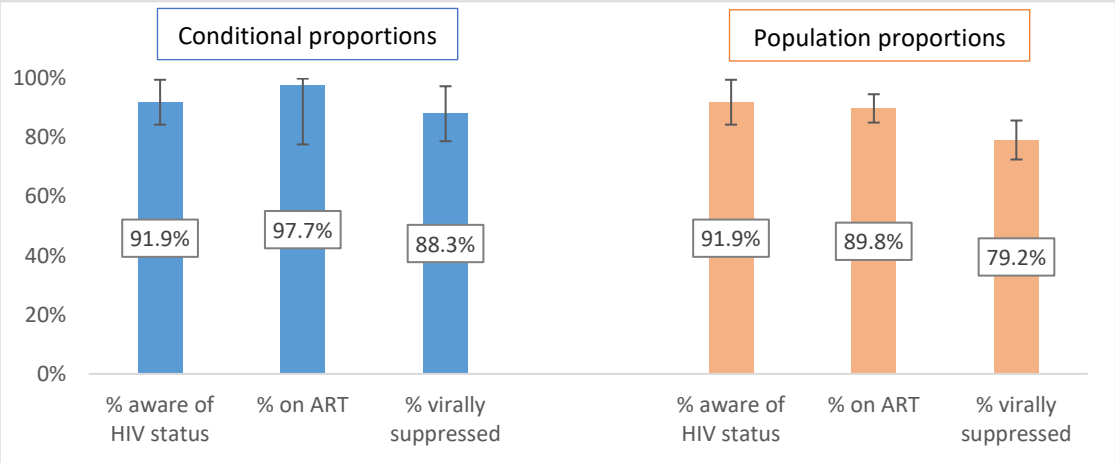
Viral suppression is defined as an HIV viral load <1,000 copies/mL. Of FSW/SEG living with HIV who knew their HIV status and were on ART, 88.3% (95% CI: 78.8, 97.4) were virally suppressed.

An undetectable HIV viral load is defined as an HIV viral load <50 copies/mL. Among FSW/SEG living with HIV who knew their status and were on ART, 76.4% (95% CI: 65.4, 86.3) had an undetectable viral load, 11.8% (95% CI: 6.7, 16.9) had low level viremia (50-999 copies/mL), and 11.8% (95% CI: 2.6, 21.1) were unsuppressed (>1,000 copies/mL).

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 FSW living with HIV, 89.8% (95% CI: 85.1, 94.7) were on ART and 79.2% (95% CI: 72.6, 85.8) were virally suppressed.

Figure 4: Progress towards 95-95-95 targets among female sex workers/sexually exploited girls, 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 Treponemal antibody prevalence % (95% CI)	HIV-syphilis co-infection % (95% CI)
1.2% (0.3,2.1)	0.4% (0,0.8)	2.5% (1.1,4.0)	1.7% (0.6,2.7)	0.9% (0.2,1.5)	2.6% (1.3,4.0)	1.1% (0.3,1.8)

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

HEPATITIS B

Prevalence of chronic hepatitis B among FSW/SEG was 1.2% (95% CI: 0.3, 2.1).

Prevalence of chronic hepatitis B and HIV co-infection was 0.4% (95% CI: 0, 0.8).

HEPATITIS C AND EXPOSURE TO INJECTION DRUG USE

Prevalence of hepatitis C among FSW/SEG was 1.7% (95% CI: 0.6, 2.7). Prevalence of hepatitis C and HIV co-infection was 0.9% (95% CI: 0.2, 1.5).

Among FSW/SEG who screened positive for HCV antibody (N=15):

- 65.4% (95% CI: 44.2, 86.4) had a current infection (i.e., detectable HCV viral load)
- 68.1% (95% CI: 46.4, 90.0) had ever injected drugs
- 44.8% (95% CI: 18.4, 72.0) had a sexual partner who they suspected injected drugs

Overall, 4.2% (95% CI: 2.4, 6.1) of FSW/SEG had ever injected drugs.

SYPHILIS AND SEXUALLY TRANSMITTED INFECTIONS

Syphilis Treponemal antibody prevalence among FSW/SEG overall was 2.6% (95% CI: 1.3, 4.0) and prevalence of co-infection with HIV was 1.1% (95% CI: 0.3, 1.8).

Nearly half of FSW/SEG (45.8%; 95% CI: 41.5, 50.0) experienced at least one STI symptom in the past 6 months. Among those, 82.2% (95% CI: 76.3, 87.9) sought treatment because of their symptoms; however, nearly one-third of FSW/SEG (31.2%; 95% CI: 25.3, 37.3) who experienced at least one STI symptom in the past 6 months waited more than a month from the onset of symptoms before seeking treatment.

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

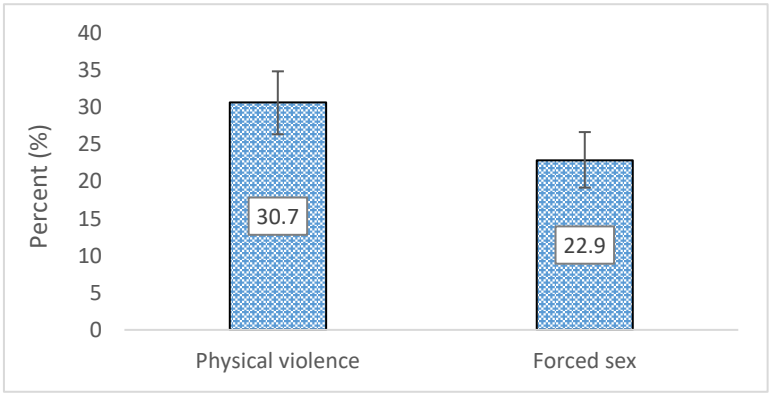
The 2023 Global AIDS Monitoring (GAM) report includes indicators and questions designed for use by national AIDS programs and partners to assess the state of a country's HIV and AIDS response and to measure progress towards achieving national HIV targets. The UNAIDS 10-10-10 targets aim to remove social and legal impediments to accessing or using HIV services[6]. Several 10-10-10 targets relevant to key populations were measured in this survey.

[6] 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

EXPERIENCED PHYSICAL VIOLENCE AND/OR FORCED SEX IN THE LAST 12 MONTHS[7]

Experiences of violence varied among FSW/SEG in Unguja. Of FSW/SEG, 30.7% (95% CI: 26.4, 34.9) experienced physical violence in the last 12 months, while 22.9% (95% CI: 19.2, 26.7) were forced to have sex in the last 12 months.

Figure 5: Experiences of physical and forced sex in the last 12 months among female sex workers/sexually exploited girls, Unguja, Zanzibar, 2023



Among those who experienced physical violence, 17.8% (95% CI: 11.2, 24.3) reported the violence to an authority, while among those who were forced to have sex, 5.7% (95% CI: 0.3, 10.9) reported the violence to an authority.

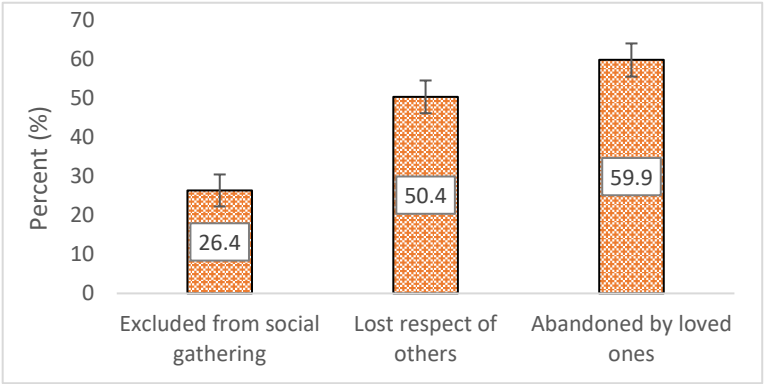
The most cited reasons for not reporting experiences of physical violence to the authorities were fear of retaliation (57.4%; 95% CI: 48.1, 67.1), fear of discrimination from one's family or community (13.3%; 95% CI: 8.0, 18.6), and fear of being stigmatized (10.4%; 95% CI: 2.6, 18.5). The most cited reasons for not reporting experiences of forced sex to the authorities were fear of retaliation (53.1%; 95% CI: 44.8, 61.3), fear of discrimination from one's family or community (18.4%; 95% CI: 12.1, 24.9), and feeling ashamed or embarrassed (12.5%; 95% CI: 7.9, 16.9).

More than four in ten (44.8%; 95% CI: 40.0, 49.7) FSW/SEG in Unguja had been arrested in the past 12 months.

EXPERIENCED STIGMA AND/OR DISCRIMINATION IN THE PAST 6 MONTHS[8]

Being the target of stigma and/or discrimination because of selling sex or being sexually exploited was common. Based on experiences from the last 6 months, 26.4% (95% CI: 22.3, 30.5) of FSW/SEG had been excluded from a social gathering, 50.4% (95% CI: 46.2, 54.6) reported that others had lost respect for them, and 59.9% (95% CI: 55.6, 64.1) were abandoned by their loved ones.

Figure 6: Experiences of stigma and discrimination in the last 6 months among female sex workers/sexually exploited girls, Unguja, Zanzibar, 2023



[7] 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

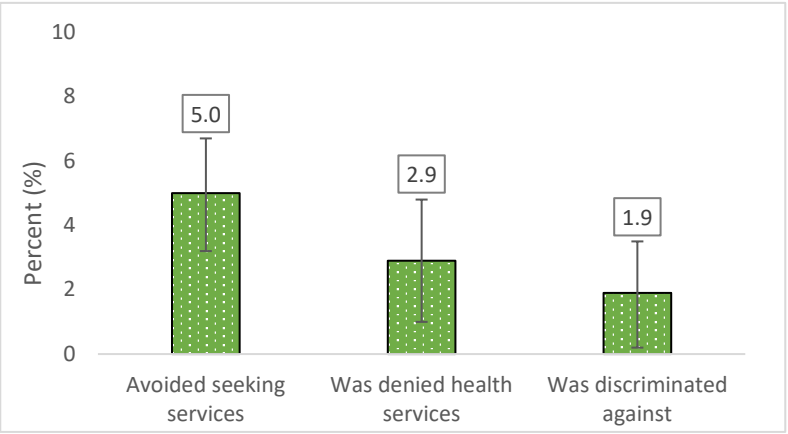
[8] GAM indicator 6.5: felt excluded from family activities because sell sex, scolded because sell sex, blackmailed because sell sex

AVOIDANCE OF AND EXPERIENCES OF DISCRIMINATION IN HEALTHCARE IN THE PAST 12 MONTHS[9]

In the last 12 months, 5.0% (95% CI: 3.2, 6.7) of FSW/SEG avoided seeking health or social services due to fear of being discriminated against because they sell sex or are being sexually exploited, 2.9% (95% CI: 1.0, 4.8) of FSW/SEG were denied health services in the last 12 months because they are an FSW/SEG, and 1.9% (95% CI: 0.2, 3.5) of FSW/SEG were discriminated against by a healthcare provider in the last 12 months because they sell sex or are being sexually exploited.

One in four FSW/SEG (25.0%; 95% CI: 21.0, 28.9) know where to report discrimination experienced during health services.

Figure 7: Avoidance of and experiences of discrimination in healthcare in the last 12 months among female sex workers/sexually exploited girls, Unguja, Zanzibar, 2023



KEY POPULATION PREVENTION INDICATORS

ENGAGEMENT WITH PEER EDUCATORS AND KEY POPULATION-FRIENDLY CLINICS

Less than half of FSW/SEG (45.5%; 95% CI: 40.7, 50.3) engaged with a peer educator in the last 12 months. Of those, over one-third (35.2%; 95% CI: 30.4,40.1) interacted with a peer educator only once during that period. The most commonly provided services were information about HIV transmission and prevention (76.2%; 95% CI: 70.9, 81.3), linkage to HIV testing (56.2%; 95% CI: 50.5, 62.1), and condoms (40.3%; 95% CI: 34.6, 45.9).

Fewer than one in five (18.3%; 95% CI: 0.9, 35.6) FSW/SEG sought HIV services from a clinic providing FSW/SEG-friendly services in the past 12 months. The most commonly received services were HIV testing (67.8%; 95% CI: 59.1, 77.1), information about HIV transmission and prevention (56.3%; 95% CI: 47.7, 64.7), and condoms (48.6%; 95% CI: 40.5, 55.8).

PERCEIVED HIV RISK AND HIV TESTING

Excluding FSW/SEG known to be living with HIV, half of FSW/SEG in Unguja (53.3%; 95% CI: 48.6, 58.0) perceived themselves to be at high risk for HIV infection and an additional 19.5% (95% CI: 15.8, 23.1) perceived themselves to be at medium risk for HIV infection. Commonly cited reasons for feeling at risk of HIV infection were often changing sexual partners (72.5%; 95% CI: 67.8, 77.4) having multiple concurrent sexual partners (57.3%; 95% CI: 52.8, 62.5), drinking alcohol (41.1%; 95% CI: 36.2, 46.1), and inconsistent condom use (29.3%; 95% CI: 24.5, 34.0).

Of FSW/SEG, 96.0% (95% CI: 93.3, 98.0) had been tested for HIV at least once in their lifetime. Of those and excluding FSW/SEG known to be living with HIV, almost half (46.5%; 95% CI: 41.9, 51.1) had an HIV test within the last 3 months, 18.3% (95% CI: 14.3, 22.3) had an HIV test in the past 3 to 6 months, 9.0% (95% CI: 5.7, 12.5) had an HIV test in the past 6 to 12 months, and 23.8% (95% CI: 20.7, 26.9) had an HIV test longer than a year before the survey. Nearly one in three (32.0%; 95% CI: 27.4, 36.6) FSW/SEG, excluding FSW/SEG known to be living with HIV, test for HIV at least every 3 months.

Among FSW/SEG who have never been tested for HIV (4.0%; 95% CI: 2.3, 6.5), reasons for not testing included fear of knowing one's status (25.1%; 95% CI: 11.9, 37.8), not seeing the importance of testing for HIV (33.4%; 95% CI: 16.8, 50.3), not knowing where to go for testing (19.5%; 95% CI: 0, 45.7), and not feeling that they are at risk (18.6%; 95% CI: 6.8, 30.0).

Fewer than half (46.3%; 95% CI: 42.9, 49.8) of FSW/SEG had ever heard of an HIV self-test. Among those, 31.0% (95% CI: 25.1, 36.6) had ever used a self-test. Among those who had never used an HIV self-test, 70.1% (95% CI: 66.2, 75.1) would use one if recommended to them.

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

PRE-EXPOSURE PROPHYLAXIS (PrEP) UPTAKE

More than a third (35.1%; 95% CI: 31.5, 38.7) of FSW/SEG had ever heard of pre-exposure prophylaxis (PrEP). Among those who had heard of PrEP, 18.8% (95% CI: 12.4, 25.4) had ever used PrEP. Among those who had ever used PrEP, 70.0% (95% CI: 56.6, 82.8) had used PrEP in the last 6 months.

Among those who have never used PrEP, reasons included not knowing where to get PrEP (21.3%; 95% CI: 15.4, 27.4), not wanting PrEP (20.5%; 95% CI: 14.4, 26.5), PrEP not being available where an FSW/SEG lives (7.8%; 95% CI: 2.7, 12.9), and fear of side effects from taking PrEP (7.5%; 95% CI: 3.9, 10.8).

CONCLUSIONS AND KEY CONSIDERATIONS

For the majority of FSW/SEG in Unguja, sex work was their main source of income and they had entered into sex work due to financial hardship. Supporting economic empowerment initiatives may provide alternative means of securing income for girls and women and give them an avenue other than sex work to support themselves and their families.

FSW/SEG had several different types of sexual partners, some non-paying and some paying, with paying partners being the most common. Condom use was less common with non-paying partners than with paying partners, and reasons for not using condoms with paying partners centered around financial incentives and trust. Economic empowerment initiatives may also play a role in providing FSW/SEG with the means to accept lower prices or deny sex with a client if the client does not agree to use a condom. Increasing HIV awareness and HIV prevention education with the larger community may help to increase the proportion of clients who are willing to use a condom when paying for sex.

Nearly half of FSW/SEG experienced at least one STI symptom in the past 6 months; however, some did not seek treatment and among those who did, one-third waited more than a month from the onset of symptoms. Because STIs can increase the risk of HIV transmission, this highlights an added risk among FSW/SEG for HIV acquisition. Integrating information about STI symptoms, risks, prevention, and treatment into other HIV and health education interventions could increase knowledge about STIs among FSW/SEG and increase the proportion of FSW/SEG who seek early treatment for symptoms.

One in five FSW/SEG in Unguja was living with HIV, with HIV prevalence higher among FSW/SEG in older age groups (aged 35 years and older) compared to younger age groups. While the second 95-95-95 target has been achieved, there were still gaps in the first and third 95 targets. The largest gap was in the third 95, reaching viral suppression, with eight in ten FSW/SEG living with HIV virally suppressed. Considering the high achievement in the second 95, gaps in viral suppression may be due to poor ART adherence. Improving adherence counseling, strengthening U=U messaging, and ensuring frequent interactions between FSW/SEG who are on ART and health care workers to give ART reminders may improve adherence to treatment and subsequently, viral suppression levels.

Nearly one in three FSW/SEG experienced physical violence, and one in five were forced to have sex in the last 12 months. Reporting these incidents to the authorities was not common. Ensuring that safe and confidential channels for reporting violence are available, easily accessible, and known to FSW/SEG could increase reporting of these incidents and linkage of victims to appropriate services. Strengthening services for SEG in particular could further benefit this exploited group when they are identified by police. While FSW/SEG continue to experience stigma and discrimination from their families and community, discrimination when seeking health care services is uncommon.

Uptake of HIV testing among FSW/SEG was relatively high, with almost half testing for HIV in the last 3 months. Nearly one-third of FSW/SEG were in alignment with national HIV testing guidelines for KPs to be tested every 3 months, which means that two-thirds were not testing with the recommended frequency. Fewer than half of FSW/SEG had ever heard of an HIV self-test; however, seven in ten would use one if recommended to them. Focusing efforts to support FSW/SEG in utilizing HIV testing services every three months could help to close the remaining gap in the first 95 and bring program performance in line with national guidelines. Increasing distribution and availability of HIV self-test kits may increase utilization of HIV testing services.

PrEP awareness was low among FSW/SEG and among those who had ever heard of PrEP, use of PrEP was also low. Increasing awareness of PrEP among FSW/SEG may increase PrEP uptake and ultimately contribute to the reduction of HIV acquisition.

Fewer than half of FSW/SEG were reached by a peer educator in the last 12 months and a minority accessed HIV services from an FSW/SEG-friendly clinic. These are two means by which important HIV prevention services, such as self-testing and PrEP, as well as messaging around the importance of ART adherence, could be expanded.

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