BIOBEHAVIORAL SURVEY AND POPULATION SIZE ESTIMATION FOR MEN WHO HAVE SEX WITH MEN IN UNGUJA, ZANZIBAR, 2023

INTRODUCTION

The 2023 Integrated Bio-behavioral Survey (IBBS) among men who have sex with men (MSM) 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 MSM in Unguja. The survey included a total of 485 MSM 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 AIM & OBJECTIVES

Primary Objectives

Among MSM 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 MSM 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) engaged in anal sex with other males in the past 3 months;
b) biological male 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.

[1] https://www.unaids.org/sites/default/files/2025-AIDS-Targets_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.

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 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; there were no new seeds introduced during data collection. The seed with the longest chain in this survey had 14 waves and 204 participants, including the seed. This was also the chain with the greatest number of participants. The two shortest chains had 5 waves with 21 and 27 participants, respectively. Convergence and equilibrium were achieved for key variables including HIV prevalence.

HIV PREVALENCE AND POPULATION SIZE ESTIMATE

The HIV prevalence was 11.4% (95% CI: 8.3, 14.5) among MSM in Unguja, Zanzibar. The population size estimate (PSE) for MSM in Unguja was 3,254 (1550, 5629)[4]. This represents 1.1% of men 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 men aged 15-49 years of Unguja general population[5] % (95% CI)
MSM	11.4 (8.3, 14.5)	1.1 (0.8, 1.4)	3254 (1550, 5629)	1.1 (0.5, 1.9)

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 age when first engaged in sex with men.

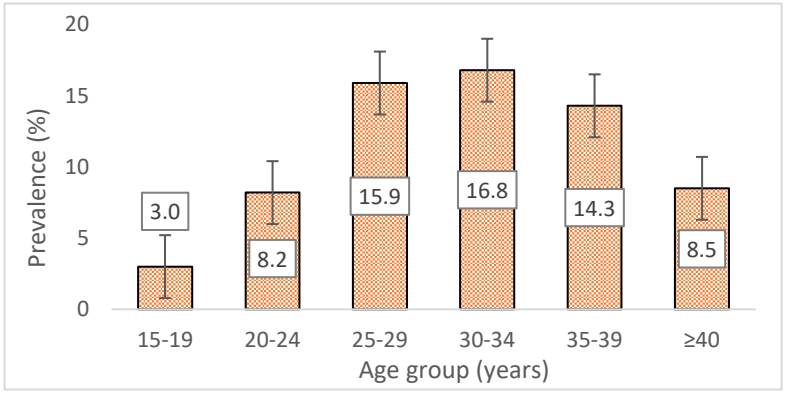
[3] Zanzibar Integrated HIV, Hepatitis TB and Leprosy Programme of the Ministry of Health, Social Welfare, Elderly, Gender, and Children. (2020). *Zanzibar National Guidelines for the Prevention and Treatment of HIV and AIDS*.
[4] Population Size Estimate (PSE) was calculated using Anchored Multiplier, 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. Males aged 15-49 years = 300,080. 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)

HIV PREVALENCE, BY AGE AND SEXUAL ROLE

HIV prevalence was 11.4% (95% CI: 8.3, 14.5) among MSM. Prevalence of HIV among MSM peaked at 16.8% (95% CI: 6.9, 26.7) among those in the 30-34-year-old age group. Prevalence was lowest among MSM aged 15-19 years (3.0%; 95% CI: 0, 7.1).

HIV prevalence was higher among men who engaged in both receptive and insertive sex (18.5%; 95% CI: 11.2, 25.8) and receptive MSM (17.2%; 95% CI: 9.3, 24.9) compared to insertive MSM (5.6%; 95% CI: 2.4, 8.8).

Figure 1: HIV prevalence among men who have sex with men by age group, Unguja, Zanzibar, 2023

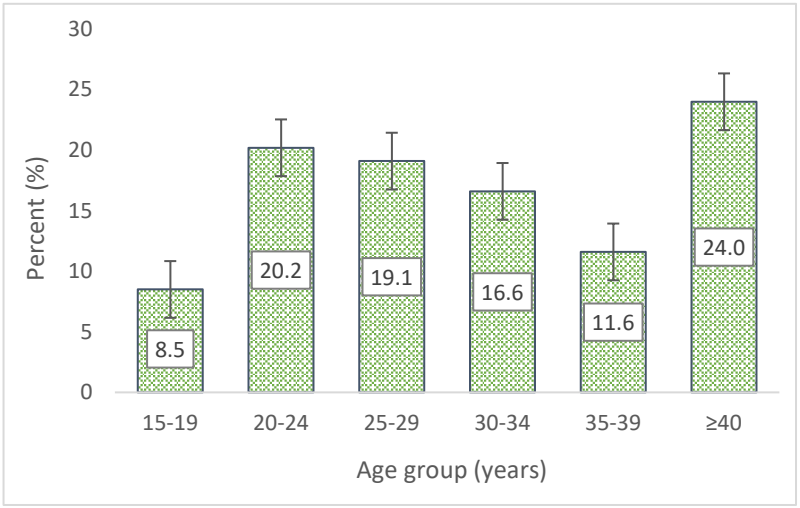


DEMOGRAPHICS

A total of 485 MSM consented to participate in the survey. The median age of MSM was 30 years (interquartile range [IQR]: 24, 39 years). Two-thirds (66.1%; 95% CI: 61.4, 70.8) had either partially or fully completed secondary education, and 5.0% (95% CI: 3.2, 6.8) had gone beyond secondary education.

More than half (58.8% (95% CI: 53.4, 64.2) of MSM had never been married, 23.9% (95% CI: 19.2, 28.6) were either separated, divorced, or widowed, and 15.1% (95% CI: 11.1, 19.2) were currently married or living with a female partner. A small proportion (1.7%; 95% CI: 0.6, 2.8) were living with a male partner, and 0.5% (95% CI: 0.1, 0.9) were living with both male and female partners.

Figure 2: Age distribution of men who have sex with men, Unguja, Zanzibar, 2023



SEXUAL EXPERIENCES AND HIV RISK BEHAVIORS

FIRST SEXUAL EXPERIENCES

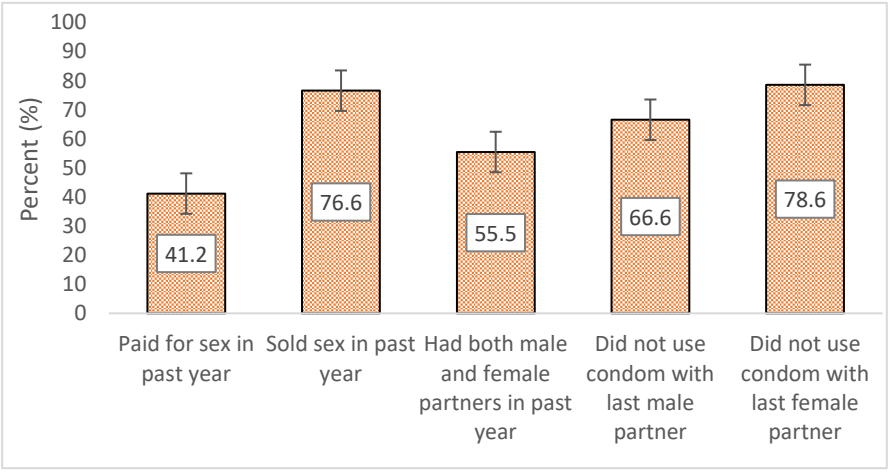
Median age at first sex with a male partner was 18 years (IQR: 15, 23 years). One in five (21.6%; 95% CI: 17.2, 25.9) did not consent the first time they had sex with a male partner. More than half (58.3%; 95% CI: 53.2, 63.5) received payment or goods from their first male partner in exchange for sex.

The majority (82.3%; 95% CI: 78.1, 86.6) of MSM had sex with a woman at least once in their lifetime. Among these, the median age at first sex with a female partner was 20 years (IQR: 17, 23 years).

SEXUAL HIV RISK BEHAVIORS

Four in ten MSM (41.2%; 95% CI: 36.6, 46.0) paid someone else for sex in the past year. More than three-quarters (76.6%; 95% CI: 72.3, 80.9) sold sex in the past year. Two-thirds (66.6%; 95% CI: 61.8, 71.3) did not use a condom at last sex with a male partner whereas 78.6% (95% CI: 74.0, 83.3) did not use a condom at last sex with a female partner. More than half (55.5%; 95% CI: 50.4, 60.7) had sex with both male and female partners in the past year.

Figure 3: HIV risk behaviors among men who have sex with men, Unguja, Zanzibar, 2023



Two-thirds (66.4%; 95% CI: 59.3, 69.2) had ever used alcohol before sex or ever had a sexual partner who used alcohol before sex, and 35.9% (95% CI: 32.4, 44.0) had ever used drugs before sex or ever had a sexual partner who used drugs before sex.

One-third (33.2%; 95% CI: 27.9, 38.5) reported ever having group sex. Of those, 59.6% (95% CI: 51.2, 68.5) had engaged in group sex in the past month. Among those who engaged in group sex in the past month, 13.0% (95% CI: 5.9, 19.9) had an experience where all partners in the group used a condom the last time they had group sex.

ALCOHOL AND DRUG USE

Almost six in ten MSM (58.6%; 95% CI: 53.4, 63.9) had consumed alcohol in the past month. Among MSM who consumed alcohol, one in ten (31.6%; 95% CI: 26.2, 36.8) consumed alcohol four or more times per week. Almost the same proportion (29.9%; 95% CI: 23.6, 36.4) consumed alcohol two to three times per week. One-quarter of MSM who consumed alcohol (24.8%; 95% CI: 19.0, 30.7) had six or more drinks[6] on one occasion either daily or almost daily.

Four in ten MSM (41.3%; 95% CI: 39.5, 46.9) smoked, inhaled, swallowed, or snorted drugs in the past 3 months for non-medical reasons. Among these, the most common use of non-injection drugs was smoking hashish or marijuana (87.3%; 95% CI: 79.1, 95.4), followed by the use of heroin through non-injection means (33.2%; 95% CI: 25.0, 41.5).

Overall, 13.7% (95% CI: 9.9, 17.6) of MSM had ever injected drugs. Among those who ever injected drugs, 26.4% (95% CI: 13.1, 38.7) injected drugs in the past 3 months and all injected heroin.

[6] One drink was defined as one beer, one glass of wine, one shot of hard liquor, or one cup of local alcohol.

PROGRESS TOWARD THE 95-95-95 TARGETS

95-95-95 UNAIDS Target Definition[7]: 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 is defined as people living with HIV who disclosed a prior HIV diagnosis and/or had a suppressed viral load (<1,000 copies/mL). In Unguja among MSM living with HIV, 69.4% (95% CI: 57.8, 82.0) 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 and/or had suppressed viral load. Among MSM living with HIV who knew their HIV status, 97.6% (95% CI: 80.6, 100) were on ART.

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

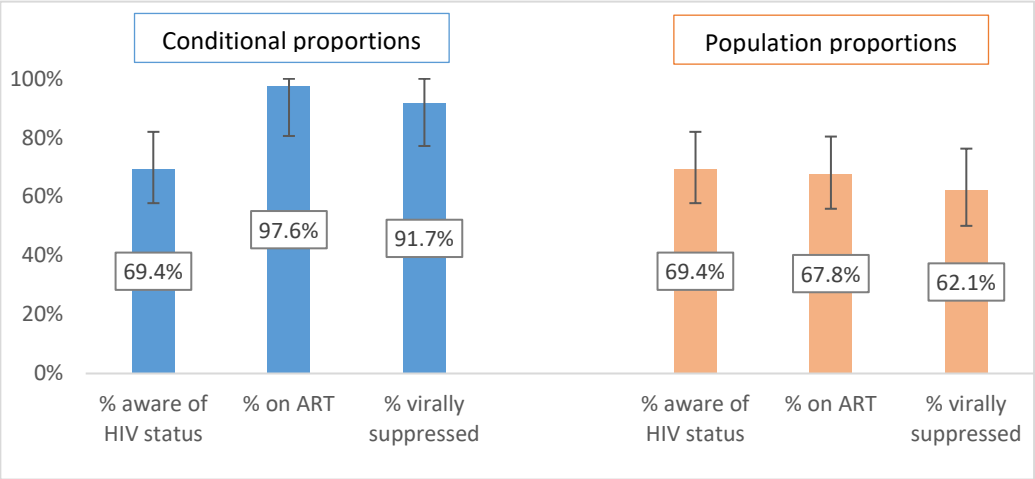
Viral suppression is defined as an HIV viral load of <1,000 copies/mL. Of MSM living with HIV who knew their HIV status and were on ART, 91.7% (95% CI: 77.2, 100) were virally suppressed.

An undetectable HIV viral load is defined as an HIV viral load of <50 copies/mL. Among MSM living with HIV who knew their status and were on ART, 82.9% (95% CI: 75.6, 91.9) had an undetectable viral load, 8.8% (95% CI: 2.6, 14.8) had low level viremia (50-999 copies/mL), and 8.3% (95% CI: 1.3, 13.8) 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 MSM living with HIV, 67.8% (95% CI: 55.9, 80.4) were on ART and 62.1% (95% CI: 50.1, 76.3) were virally suppressed.

Figure 4: Progress towards 95-95-95 targets among men who have sex with men, Unguja, Zanzibar, 2023



[7] 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

HEPATITIS B, HEPATITIS C, SYPHILIS, AND CO-INFECTION PREVALENCE (N=485)

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)
1.9% (0.2,3.4)	0.9% (0,2.3)	7.7% (4.1,11.2)	6.7% (3.4,10.0)	0.6% (0.1,1.1)	3.9% (1.7,5.9)	1.9% (0.3,3.5)

**All participants 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 infection among MSM was 1.9% (95% CI: 0.2, 3.4). Prevalence of co-infection with HIV 0.9% (0, 2.3)

HEPATITIS C AND INJECTION DRUG USE

Prevalence of active hepatitis C infection among MSM was 6.7% (95% CI: 3.4, 10.0). Prevalence of active hepatitis C co-infection with HIV was 0.6% (0.1, 1.1).

Among MSM who screened positive for HCV (N=31):

- 87.3% (95% CI: 70.6, 100) had a detectable HCV viral load
- 48.0% (95% CI: 27.9, 66.2) had ever injected drugs

SEXUALLY TRANSMITTED INFECTIONS

The majority (81.6%; 95% CI: 77.3, 85.9) of MSM had ever heard of STIs. Nearly one in three (29.1%; 95% CI: 24.5, 33.7) experienced STI symptoms in the past 6 months. Among those who experienced STI symptoms, 72.7% (95% CI: 64.5, 81.2) sought treatment because of those symptoms. Among those who sought treatment for STI symptoms, 43.1% (31.7, 54.9) had symptoms for more than a month prior to seeking treatment.

Syphilis antibody prevalence was 3.9% (95% CI: 1.7, 5.9) with 1.9% (95% CI: 0.3, 3.5) of MSM co-infected with both HIV and syphilis.

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[8]. Several 10-10-10 targets relevant to key populations were measured in this survey.

[8] 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

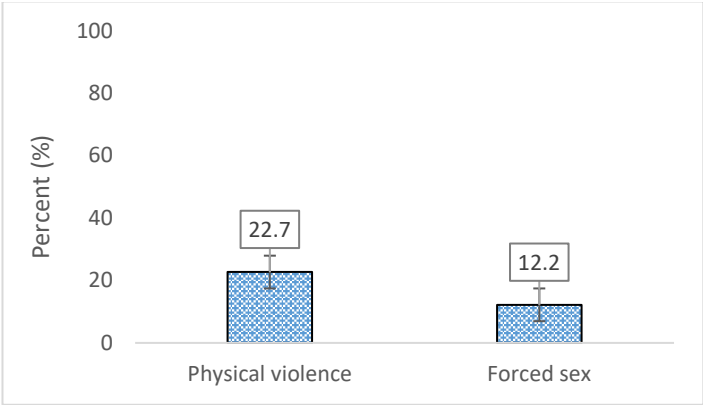
EXPERIENCED PHYSICAL VIOLENCE AND/OR FORCED SEX IN THE LAST 12 MONTHS[9]

Experiences of violence varied among MSM in Unguja. More than one in five (22.7%; 95% CI: 18.6, 26.8) experienced physical violence in the last 12 months, while 12.2% (95% CI: 8.9, 15.5) were forced to have sex in the last 12 months.

Among those who experienced physical violence, 13.5% (95% CI: 5.3, 21.0) 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 (31.0%; 95% CI: 21.4, 41.0), feeling ashamed or embarrassed (25.9%; 95% CI: 18.8, 32.0), and fear of retaliation (17.6%; 95% CI: 10.2, 24.9).

Among those who were forced to have sex, 1.1% (95% CI: 0.6,1.3) reported the violence to an authority, and 5.0% (95% CI: 0, 13.0) sought medical attention after the incident. The most cited reasons for not reporting were feeling ashamed or embarrassed (55.5%; 95% CI: 41.2, 70.4) and not knowing where to go or that they should report (21.7%; 95% CI: 10.4, 33.1).

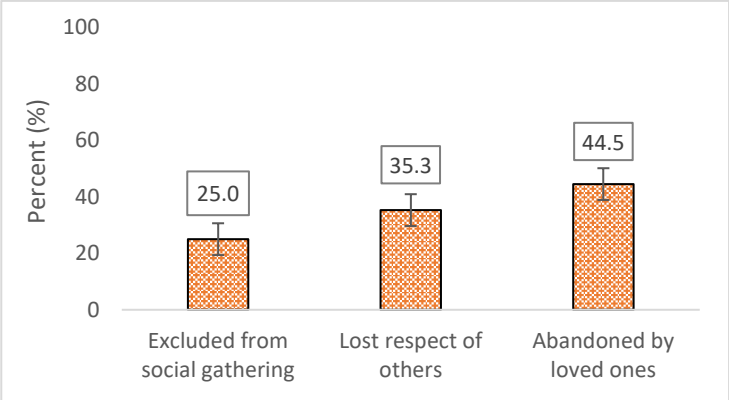
Figure 5: Experiences of physical violence and forced sex in the last 12 months among men who have sex with men, Unguja, Zanzibar, 2023



EXPERIENCED STIGMA AND/OR DISCRIMINATION IN THE PAST 6 MONTHS[10]

Being the target of stigma and/or discrimination as an MSM was common in Unguja. Based on experiences from the past 6 months, 25.0% (95% CI: 20.2, 29.9) of MSM had been excluded from a social gathering, 35.3% (95% CI: 30.4, 40.3) reported that others had lost respect for them, and 44.5% (95% CI: 39.2, 49.7) were abandoned by their loved ones because they had sex with men.

Figure 6: Experiences of stigma and discrimination in the past 6 months among men who have sex with men, Unguja, Zanzibar, 2023



[9] 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.

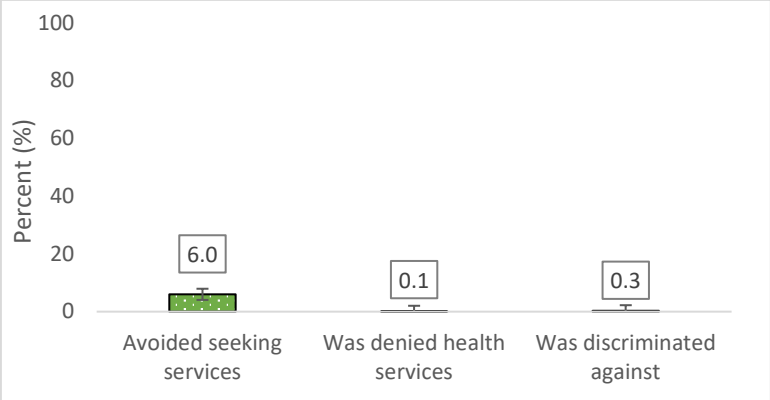
[10] GAM indicator 6.5: felt excluded from family activities because MSM, scolded because MSM, blackmailed because MSM.

AVOIDANCE OF AND EXPERIENCES OF DISCRIMINATION IN HEALTHCARE IN THE PAST 12 MONTHS[11]

In the last 12 months, 6.0% (95% CI: 3.3, 8.7) of MSM avoided seeking health or social services due to fear of being discriminated against, 0.1% (95% CI: 0.0, 0.2) were denied health services, and 0.3% (95% CI: 0.1, 0.6) were discriminated against by a healthcare provider because they were an MSM.

Fewer than one in five (17.2%; 95% CI: 13.8, 20.6) knew where to report discrimination experienced during health services.

Figure 7: Avoidance of and experiences of discrimination in healthcare in the past 12 months among men who have sex with men, Unguja, Zanzibar, 2023



KEY POPULATION PREVENTION INDICATORS

ENGAGEMENT WITH PEER EDUCATORS AND KEY POPULATION-FRIENDLY CLINICS

One in ten MSM (30.3%; 95% CI: 25.7, 34.8) engaged with a peer educator in the last 12 months. Of those, the majority interacted with a peer educator only once (27.9%; 95% CI: 19.9, 36.5) or twice (43.3%; 95% CI: 34.9, 52.0) during that period. The most commonly provided services were information about HIV transmission and prevention (78.2%; 95% CI: 70.3, 86.0), linkage to HIV testing (43.1%; 95% CI: 34.7, 51.6), general counseling from a peer counselor (41.4%; 95% CI: 31.3, 51.7), condoms (32.3%; 95% CI: 24.1, 40.2), and counseling from a professional or voluntary counseling and testing counselor (32.2%; 95% CI: 21.4, 43.3).

Of MSM, 11.7% (95% CI: 9.0, 14.5) sought HIV services from a clinic providing MSM-friendly services. Among those, the most common services received were HIV testing (48.4%; 95% CI: 38.0, 58.3), information about HIV transmission and prevention (40.4%; 95% CI: 28.3, 53.0), and condoms (27.9%; 95% CI: 18.5, 36.5).

PERCEIVED HIV RISK AND HIV TESTING

Half (51.0%; 95% CI: 45.9, 56.2) of MSM, excluding those known to be living with HIV, perceived themselves to be at high risk for HIV infection. The most cited reasons for feeling at risk were having anal sex (63.9%; 95% CI: 58.0, 70.0), inconsistent condom use (56.4%; 95% CI: 50.0, 62.9), having multiple concurrent sexual partners (44.1%; 95% CI: 38.1, 50.1), and frequently changing sexual partners (40.5%; 95% CI: 34.6, 46.3).

The majority (87.9%; 95% CI: 84.3, 91.6) of MSM had been tested for HIV at least once in their lifetime. Of those who had been tested at least once and excluding MSM known to be living with HIV, four in ten (41.2%; 95% CI: 35.5, 46.8) had an HIV test within the last 3 months, 15.8% (95% CI: 11.9, 19.6) had an HIV test in the past 3 to6 months, 8.0% (95% CI: 4.9, 11.1) had an HIV test in the past 6 to 12 months, and 30.1% (95% CI: 24.4, 35.9) had an HIV test longer than a year before the survey. Excluding MSM known to be living with HIV, 7.2% (95% CI: 4.2, 10.1) and 11.5% (8.3, 14.4) routinely test for HIV every month and every 3 months, respectively.

Among MSM who have never been tested for HIV, reasons for not testing included fear of knowing one's status (40.5%; 95% CI: 28.2, 52.9), not feeling at risk of HIV (30.0%; 95% CI: 16.4, 43.6), and not seeing the importance of testing for HIV (21.1%; 95% CI: 10.1, 32.5).

One in ten (29.5%; 95% CI: 25.1, 34.0) had ever heard of an HIV self-test. Among those, 23.6% (95% CI: 15.3, 32.0) had ever taken an HIV self-test. Among those who had never used an HIV self-test, 70.4% (95% CI: 65.4, 75.3) would use one if recommended to them.

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

PRE-EXPOSURE PROPHYLAXIS (PrEP) AWARENESS AND UPTAKE

Fewer than three in ten (27.5%; 95% CI: 22.9, 32.0) MSM had ever heard of pre-exposure prophylaxis (PrEP). Among those who had heard of PrEP, 13.9% (95% CI: 2.1, 25.1) had ever used PrEP, and among those, almost half (48.3%; 95% CI: 31.0, 65.1) had used PrEP in the last 6 months. Among MSM who did not disclose that they were living with HIV and had never taken PrEP, 39.8% (95% CI: 35.5, 44.0) would take PrEP to help prevent HIV infection.

Among those who had heard of but never used PrEP, reasons for not using PrEP included not knowing where to get PrEP (37.0%; 95% CI: 28.5, 45.1) and not wanting PrEP (22.8%; 95% CI: 15.5, 30.2).

CONCLUSIONS AND KEY CONSIDERATIONS

Among MSM in Unguja, the median age was 30 years, and more than two-thirds had received at least some secondary education. Most MSM had never been married.

One in ten MSM was living with HIV, with a higher prevalence among versatile and receptive MSM compared to insertive MSM. The largest gap in the 95-95-95 targets was in the first 95, ensuring that those living with HIV are aware of their status. One-third of all MSM living with HIV were unaware of their status. This highlights a sizable gap in routinely reaching all MSM with HIV testing services. Making HIV testing services, including HIV self-test kits, consistently available at a larger number and wider variety of venues frequented by MSM could result in more MSM testing for HIV and more frequent HIV testing.

HIV sexual risk behaviors were common. More than three-quarters of MSM sold sex and four in ten paid someone else for sex in the past year. Two-thirds did not use a condom at last sex with a male partner and nearly eight in ten did not use a condom at last sex with a female partner. Despite sexual risk behaviors being common, uptake of HIV prevention and testing services was low. Routine HIV testing (e.g., monthly or quarterly) was not common. Awareness of HIV self-testing was limited although largely acceptable among MSM who had never used a self-test. In addition, a minority of MSM had ever heard of PrEP. Among those who had never taken PrEP and were not known to be living with HIV, only four in ten would take PrEP. In the past year, small proportions of MSM received services from peer educators and MSM-friendly clinics. These findings point to an opportunity to strengthen HIV prevention messages and prevention services among MSM in Unguja. Increasing efforts and finding new ways to reach more MSM with health and HIV education, including undetectable equals untransmittable (U=U), could increase uptake of prevention services and support behavior change. Providing more information and education about PrEP within the MSM community may help to increase demand for and uptake of PrEP services. Investing in peer educators and MSM-friendly service providers to reach more MSM might be one strategy to increase the uptake of HIV prevention services.

More than one in five MSM experienced physical violence in the last 12 months and among those, very few reported the violence to an authority. Experiences of stigma and discrimination from the community and from family members was also common. Providing access to safe MSM-sensitive channels to report experiences of violence as well as social services might help to mitigate the effects of the violence, stigma, and discrimination they experience.

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This activity was reviewed by CDC, deemed not research, and was conducted consistent with applicable federal law and CDC policy. See e.g., 45 C.F.R. part 46.102(l)(2), 21 C.F.R. part 56; 42 U.S.C. §241(d); 5 U.S.C. §552a; 44 U.S.C. §3501 et seq.