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MINISTRY OF HEALTH

# Bio-Behavioral Survey Among Key Populations Kenya 2024

*Final Report*



**December 2025**

# Bio-Behavioral Survey Among Key Populations Kenya 2024

## COLLABORATING INSTITUTIONS

- National AIDS and STI Control Programme (NASCOPI)
- National Public Health Laboratories (NPHL)
- National HIV Reference Lab (NHRL)
- Ministry of Health (MOH)
- Key Population Consortium
- The Global Fund to Fight AIDS, Tuberculosis and Malaria (GF)
- University of Manitoba
- The Kenya Sex Workers Alliance (KESWA)
- Kenya Network of People Who Use Drugs (KeNPUD)
- Kenya Humanitarian Resilience Network (KHRN)
- GMT HIV Prevention Network (GHPN)
- Empowering Marginalized Groups for Climate Justice and Sustainable Growth (EMAC)
- Nyanza Rift Valley and Western Kenya Network (NYARWEK)
- Men for Positive Living Support (MOPLS)

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# List of Abbreviations

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<b>AIDS</b>	Acquired Immunodeficiency Syndrome
<b>ANC</b>	Antenatal Care
<b>ART</b>	Antiretroviral Therapy
<b>AUDIT</b>	Alcohol Use Disorders Identification Test
<b>BBS</b>	Bio-Behavioral Survey
<b>CBO</b>	Community-Based Organization
<b>CASCO</b>	County AIDS and STI Coordinator
<b>CI</b>	Confidence Interval
<b>DICE</b>	Drop-In Centre
<b>FBO</b>	Faith-Based Organization
<b>FSW</b>	Female Sex Worker
<b>GBV</b>	Gender-Based Violence
<b>HBV</b>	Hepatitis B Virus
<b>HCV</b>	Hepatitis C Virus
<b>HIV</b>	Human Immunodeficiency Virus
<b>HPV</b>	Human Papillomavirus
<b>IBBS</b>	Integrated Bio-Behavioral Survey
<b>IEC</b>	Information, Education, and Communication
<b>IQR</b>	Interquartile Range
<b>KP</b>	Key Population
<b>MAT</b>	Medically Assisted Therapy
<b>MSM</b>	Men Who Have Sex with Men
<b>NASCOP</b>	National AIDS and STI Control Programme
<b>NGO</b>	Non-Governmental Organization
<b>NHRL</b>	National HIV Reference Laboratory
<b>OAT</b>	Opioid Agonist Therapy
<b>PEP</b>	Post-Exposure Prophylaxis
<b>PHQ-9</b>	Patient Health Questionnaire-9
<b>PLHIV</b>	People Living with HIV
<b>PMTCT</b>	Prevention of Mother-to-Child Transmission
<b>PrEP</b>	Pre-Exposure Prophylaxis
<b>PSE</b>	Population Size Estimate
<b>PWID</b>	People Who Inject Drugs
<b>RDS</b>	Respondent-Driven Sampling
<b>SRH</b>	Sexual and Reproductive Health
<b>SS-PSE</b>	Successive Sampling Population Size Estimation
<b>STI</b>	Sexually Transmitted Infection
<b>TB</b>	Tuberculosis
<b>TG</b>	Transgender persons
<b>UNAIDS</b>	Joint United Nations Programme on HIV/AIDS
<b>VL</b>	Viral Load
<b>VLS</b>	Viral Load Suppression
<b>WHO</b>	World Health Organization

# Foreword

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The 2024 Kenya Bio-Behavioral Survey (BBS) among Key Populations marks a significant milestone in our ongoing efforts to understand and address the HIV epidemic among those most affected. Conducted by the Ministry of Health through the National AIDS and STI Control Programme (NASCOP), this survey provides critical, updated evidence on HIV prevalence, prevention, treatment, and the broader structural determinants of health among Female Sex Workers, Men Who Have Sex with Men, People Who Inject Drugs, and Transgender persons.

Kenya has made commendable strides toward the UNAIDS 95-95-95 targets, with high levels of diagnosis and treatment coverage across all key populations. The report illuminates persistent disparities, particularly in viral suppression among younger and coastal populations, and underscores the profound impact of stigma, discrimination, mental health distress, and socioeconomic marginalization on health outcomes.

The findings presented here are more than data; they are a call to action. They remind us that achieving epidemic control requires not only medical interventions but also a steadfast commitment to human rights, social justice, and integrated, person-centered care. This report is intended to guide policymakers, program implementers, health providers, and community leaders in refining strategies, allocating resources effectively, and ensuring that no one is left behind in Kenya's HIV response.

We extend our sincere gratitude to all who contributed to this survey from the participants who shared their experiences to the partners who provided technical and financial support. Together, we can translate these insights into impactful action and move closer to a future free from AIDS.

A handwritten signature in blue ink, appearing to read 'Patrick Amoth'.

Dr. Patrick Amoth, CBS  
Director General for Health

# Acknowledgements

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This 2024 Kenya Bio-Behavioral Survey (BBS) among Key Populations was made possible through the collective effort and commitment of numerous individuals and organizations.

First and foremost, we express our deep appreciation to the survey participants across nine counties who generously shared their time and personal experiences. Your voices are the foundation of this report and are essential to shaping a more effective and equitable HIV response.

The survey was implemented by the Ministry of Health, Kenya, through the National AIDS and STI Control Programme (NAS COP), in collaboration with the National HIV Reference Laboratory (NHRL). We acknowledge the dedicated NAS COP team, county health teams, and all field staff for their professionalism and tireless work in data collection, biomarker testing, and participant engagement.

Generous funding and strategic support were provided by The Global Fund to Fight AIDS, Tuberculosis and Malaria whose partnership remains crucial to Kenya's public health achievements.

We also recognize the vital contributions of community-based organizations, peer educators, and key population-led networks for their role in mobilization, advocacy, and ensuring the survey was conducted with cultural sensitivity and ethical integrity.

Finally, we acknowledge all stakeholders including: County Health Directors, County AIDS and STI coordinators, healthcare providers, and civil society partners, whose insights and collaboration continue to strengthen Kenya's commitment to health for all.

A handwritten signature in blue ink, consisting of a stylized name followed by a horizontal line extending to the right.

Dr. Andrew Mulwa  
Head, National AIDS and STI Control Programme

# Executive Summary

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## Top Findings

- ▶ HIV prevalence remains highest among FSW (26.8%) and TG (22.5%), followed by MSM (19.9%) and PWID (8.8%).
- ▶ Viral suppression exceeded 70% in all groups but lagged among PWID in coastal counties.
- ▶ Knowledge of HIV prevention and testing coverage exceeded 90% in all groups.
- ▶ Mental-health distress and alcohol/drug use were highly prevalent, particularly among PWID and MSM.
- ▶ Stigma, discrimination, and violence persist across typologies, impeding service access.
- ▶ Progress toward the 95-95-95 targets is strong for diagnosis and ART coverage but sub-optimal for viral suppression in some populations and locations.

## Survey Background

The 2024 Kenya Bio-Behavioral Survey (BBS) among Key Populations was conducted to provide updated evidence on HIV prevalence, incidence, behavioral risks, and access to prevention and treatment services among Female Sex Workers (FSW), Men Who Have Sex with Men (MSM), People Who Inject Drugs (PWID), and Transgender (TG) persons.

The survey was implemented by the Ministry of Health with funding from the Global Fund. Data were collected between March and June 2024 in nine counties (Kajiado, Kiambu, Kilifi, Kisii, Kisumu, Machakos, Mombasa, Nairobi, and Nakuru) using respondent-driven and time-location sampling methods. The survey aimed to monitor progress toward the UNAIDS 95-95-95 targets and inform national and county-level HIV programming.

## Topline Findings in Focus

1. HIV burden and viral suppression: HIV remains concentrated among key populations, but Kenya has achieved high awareness and ART coverage. Viral suppression above 80% was achieved by MSM and FSW, while PWID and TG showed notable regional variation.
2. Prevention and treatment uptake: Condom and PrEP awareness are high, though consistent use is uneven. PWID show high clean-needle access but ongoing sharing behaviors. Drop-in centers remain the main entry point to services.
3. Sociobehavioral and structural vulnerabilities: TG-based violence, stigma, and criminalization continue to drive HIV risk. Mental-health symptoms and alcohol or drug dependence are widespread but under-addressed.

## Sociodemographic Characteristics

- ▶ Across all typologies, participants were predominantly young adults.
- ▶ FSW: Median age 33 years; most (56%) had primary education; 96% relied on sex work as main income.
- ▶ MSM: Median age 26 years; 46.6% secondary education; 68% single; 25.9% had children.
- ▶ PWID: Median age 34 years; 86% male; 55% primary education; most (63%) in informal work.
- ▶ TG: Median age 26 years; >75% secondary/post-secondary education; predominantly single (78%).

Socioeconomic vulnerability and mobility (especially among FSW and PWID) were pronounced.

## HIV Prevalence

HIV prevalence remains highest among FSW (26.8%) and TG (22.5%), followed by MSM (19.9%) and PWID (8.8%).

Prevalence increases with age and lower education. Women who inject drugs (24%) carry disproportionate risk. Urban and coastal counties such as Mombasa and Machakos show the highest burdens.

## Population-Level Viral Suppression

At VL < 50 copies/mL:

- ▶ FSW = 70.6% (83.8% at <1000 copies/mL)
- ▶ MSM = 68.3% (80.8% at <1000 copies/mL)
- ▶ PWID = 72.5% (83–95% across thresholds)
- ▶ TG = 72.3% (86.9% at <1000 copies/mL)

Suppression improves with older age, higher education, and stable ART use, but is lowest in younger clients and in Mombasa.

## UNAIDS 95-95-95 Cascade

Population	Aware of Status	On ART (among aware)	Virally Suppressed (<1000 copies/mL)
FSW	93.9%	99.2%	91.6%
MSM	87.3%	97.6%	93.7%
PWID	95.4%	91.8%	89.0%
TG	92.7%	98.9%	95.1%

Kenya has nearly achieved the first two targets but requires enhanced support to sustain viral suppression in coastal and younger subgroups.

## HIV and STI Knowledge and Attitudes

Knowledge of HIV prevention is very high (>95%) across all groups. Condom use is recognized as the most effective method, though fewer mention PrEP (25–50%) or PEP (20–25%). Awareness of mother-to-child transmission and hepatitis is lower. Self-perceived HIV risk is moderate (40–70%), indicating persistent misperception of vulnerability.

## STI, Hepatitis B, and Hepatitis C Biomarkers

- ▶ Active syphilis ranges from 0.5% (PWID) to 5.6% (TG).
- ▶ Chlamydia (8–9%) and gonorrhea (5–7%) remain common among FSW and MSM.
- ▶ Hepatitis B infection is highest among PWID (14%) and FSW (6.7%); TG 3.5%.
- ▶ Hepatitis C is notably elevated among PWID (7.4%), especially in coastal counties.

These data highlight the need for expanded viral hepatitis screening and vaccination.

## Sexual Behavior

- ▶ FSW: Early entry into sex work (median 24 years); high condom use with clients (>75%) but low with main partners (~35%).
- ▶ MSM: Median 2–3 partners per 6 months; condom use highest with casual partners but inconsistent overall.
- ▶ PWID: 13.7% exchange sex for drugs or money; low condom use (44% last sex).
- ▶ TG: High engagement in sex work and multiple partners; rising online solicitation.

Transactional sex, substance use during sex, and low condom use in intimate relationships sustain HIV risk.

## Uptake of Prevention and Treatment Services

- ▶ Condoms: Access >80%, but consistent use <60%.
- ▶ Lubricants: High among MSM (77%), low among PWID (9%).
- ▶ PrEP awareness: ≥85%; uptake ranges 20–58% (highest FSW and MSM).
- ▶ PEP awareness: 60–80%; use ≈20–40%.
- ▶ HIV testing: >94% ever tested across all groups; self-testing growing.
- ▶ ART coverage: >97% among HIV-positive individuals; mainly from public clinics and DICEs.
- ▶ TB screening: Universal among PLHIV but diagnostic follow-up variable.

Peer educators and community drop-in centers remain crucial for linkage to services and violence response.

## Reproductive Health

Reproductive health service use is high among FSW and female PWID, with >90% ANC attendance and HIV testing in pregnancy. However, family planning coverage is suboptimal (44–74%), and syphilis testing in ANC is under-integrated. Among TG and MSM, SRH services remain limited and often not TG-affirming.

## Stigma and Discrimination

All typologies face significant stigma and violence:

- ▶ FSW: 31% verbal harassment, 18% forced sex, 18% recent arrest linked to sex work.
- ▶ PWID: 46% verbal harassment, 27% blackmail, 18% arrest.
- ▶ MSM: 12% verbal harassment, 8% blackmail, 1% arrest.
- ▶ TG: High social rejection and service avoidance.

Fear of disclosure and criminalization remain major barriers to care and mental well-being.

## Alcohol and Drug Use

Hazardous drinking is common: 20–30% of FSW and MSM and >20% of PWID screened in AUDIT Zone IV (suggestive dependence).

Injection drug use is prevalent among PWID (>98% heroin use), with 28% still sharing needles. Polydrug use (cannabis, tranquilizers) and sex-for-drugs transactions are frequent among female PWID. Alcohol use among MSM is especially heavy in Nairobi and Kisumu.

## Mental Health

Depressive symptoms are common across populations:

- FSW: 25% moderate-to-severe depression.
- PWID: >70% some depressive symptoms; 9% suicidal thoughts.
- MSM: ~10% moderate depression, 15% any suicidal ideation.
- TG: Emerging evidence of depression linked to stigma and violence.

Integrated psychosocial support and substance-use treatment remain urgent needs.

## Conclusion

Kenya has made major strides toward achieving the UNAIDS 95-95-95 targets among key populations. However, inequities persist in viral suppression, mental health, and structural barriers. To sustain epidemic control, programs must scale up harm reduction, mental-health care, rights-based approaches, and peer-led outreach to ensure that no population is left behind in Kenya's HIV response.

# **Gaps and Unmet Needs**

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## **Sociodemographic Characteristics**

Key populations remain socioeconomically marginalized, with high unemployment, unstable income, and low educational attainment—especially among FSW and PWID. Younger MSM and TG individuals experience social isolation, housing insecurity, and limited access to education or vocational training. These structural inequities reinforce vulnerability to HIV and restrict engagement with prevention and treatment services.

## **HIV Prevalence**

Despite declining national HIV prevalence, infection rates among FSW and TG persons remain substantially higher than the general population. Localized hotspots persist in coastal and urban areas (notably Mombasa, Nairobi, and Machakos). Inconsistent outreach to hidden subgroups—such as street-based FSW, young MSM, and female PWID—has limited progress in reaching those most affected.

## **Population-Level Viral Suppression**

Although awareness and ART uptake approach the 95-95 targets, viral suppression lags in several counties and specific populations. Younger individuals (especially MSM aged 18–24 years and PWID under 30) demonstrate lower adherence, frequent treatment interruptions, and inconsistent viral load monitoring. Limited access to differentiated care, stigma within facilities, and mental health comorbidities further constrain sustained viral suppression.

## **UNAIDS 95-95-95 Cascade**

The national program has achieved strong performance on HIV diagnosis and ART initiation but falls short on the third 95 (viral suppression). Data integration gaps, under-resourced viral load testing systems, and limited data feedback to programs hinder cascade optimization. Age- and geography-specific interventions remain underdeveloped.

## **HIV and STI Knowledge and Attitudes**

While HIV awareness is near universal, misconceptions about risk and biomedical prevention persist—particularly regarding PrEP, PEP, and vertical transmission. STI education and partner notification support are inconsistent, especially among PWID and TG populations. Comprehensive sexuality education remains limited for young KPs.

## Sexual Behavior

Condom use remains inconsistent—particularly with main or intimate partners—and lubricant access is uneven outside MSM programs. TG-based and transactional vulnerabilities increase risk exposure, with insufficient programming for partner negotiation skills and TG-based violence prevention. Sexual risk among PWID remains largely unaddressed in harm-reduction models.

## Uptake of Prevention and Treatment Services

While coverage of HIV testing and ART is high, prevention service uptake—particularly PrEP, PEP, and harm reduction—remains suboptimal.

- PrEP continuation is weak due to pill fatigue, low risk perception, and limited adherence counseling.
- PEP availability outside urban centers is limited.
- Harm-reduction services (OAT, NSP, naloxone) are uneven, with substantial geographic disparities and gaps in overdose response.
- Drop-in centers are overstretched and often underfunded, limiting access to integrated mental health, reproductive health, and STI care.

## Reproductive Health

Access to reproductive health services for key populations—especially female PWID and TG individuals—is inconsistent. Family planning and syphilis screening coverage are low, and integration with HIV and harm-reduction services remains weak. TG persons face additional barriers due to lack of TG-affirming healthcare and contraceptive counseling.

## Stigma and Discrimination

Stigma, criminalization, and social exclusion remain major barriers across all populations.

- Fear of disclosure and judgment deters health-seeking.
- TG-based and police violence remain pervasive among FSW and PWID.
- MSM and TG individuals face blackmail, verbal abuse, and denial of services. Existing anti-stigma programs are fragmented, underfunded, and lack robust legal protection mechanisms.

## Alcohol and Drug Use

Substance use continues to undermine adherence and prevention. Alcohol dependence (20–30%) and injection drug use among PWID (98% heroin) remain high. Needle sharing persists among 28% of injectors, and OAT coverage is limited. There is a critical shortage of integrated substance-use counseling and rehabilitation within HIV and harm-reduction clinics.

## Mental Health

Mental health remains one of the most neglected areas across all key populations. Depression, anxiety, and suicidality are widespread but rarely screened or managed. No standardized mental-health screening protocol exists within KP programs. Linkages to psychosocial and psychiatric care are minimal, and staff lack training in trauma-informed, nonjudgmental support. Integration of mental health into routine HIV services is an urgent unmet need.

## Overall Summary of Unmet Needs

Across typologies, the survey highlights three overarching unmet needs:

1. Integrated, person-centered service delivery combining HIV, STI, reproductive, mental health, and substance-use services.
2. Structural and rights-based reforms to reduce stigma, violence, and criminalization that impede access to healthcare.
3. Enhanced community-led engagement for differentiated service models tailored to young, female, and TGkey populations.

Sustained investment in these areas is critical to achieving equitable epidemic control and ensuring no key population is left behind.

# Chapter 1: Introduction

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## 1.1 Background and Rationale

Kenya's HIV epidemic remains concentrated among key populations (KPs), including Female Sex Workers (FSW), Men Who Have Sex with Men (MSM), People Who Inject Drugs (PWID), and Transgender Persons (TG). The 2024 Bio-Behavioral Survey (BBS) was undertaken to assess HIV burden, service coverage, and progress toward the 95-95-95 targets among these populations.

## 1.2 Objectives of the Survey

1. Estimate HIV prevalence among each key population.
2. Estimate the proportion of PLHIV who are aware of their status, on ART, and virally suppressed.
3. Assess uptake of HIV prevention, care, and treatment services.
4. Identify behavioral and structural factors influencing HIV risk.
5. Update population size estimates (PSEs) for program planning.

## 1.3 Survey Scope and Counties Covered

The BBS was conducted from March to June 2024 in nine counties: Kajiado, Kiambu, Kilifi, Kisii, Kisumu, Machakos, Mombasa, Nairobi, and Nakuru. Each county hosted one or more key population typologies based on epidemiological data and existing program coverage.

## 1.4 Ethical Considerations

The survey protocol was reviewed and approved by the Kenyatta National Hospital-University of Nairobi Ethics Research Committee. Written informed consent was secured, ensuring confidentiality and voluntary participation.

## 1.5 Organization of the Report

The report includes common background and methodology sections followed by population-specific results chapters and a consolidated discussion.

## Chapter 2: Survey Methodology

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### 2.1 Enrollment and Sampling Method

The BBS used respondent-driven sampling (RDS) to identify potential participants. Seeds were identified by community stakeholders and survey investigators. The seeds were members of the key population communities who met the eligibility criteria for the survey and represented the population based on sub-county, socio-demographic characteristics, and HIV status. They were invited by the study team to initiate the survey and to invite their peers to enroll in the survey. Each seed was given three peer enrollment coupons and instructed to give them to persons in their social network who belonged to the same target population and lived in the same county.

These peers who received the coupons were then screened for eligibility at the survey sites, and those eligible were invited to participate in the survey. Participants were also given (three to five) coupons to refer peers in their network who matched the criteria to participate in the survey. Enrollment continued until the sample size was met.

## Chapter 3: Eligibility and Recruitment

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All potential participants had to be 18 years of age or older, reside in the survey area, be able to communicate in Kiswahili or English, and have a valid peer enrollment coupon. Additionally, the specific eligibility criteria were:

- ▶ **FSW:** females, who received money or gifts in exchange for sex at least once in the three months prior to the interview.
- ▶ **MSM:** males, who report at least one anal or oral sex act with a male in the six months prior to the interview.
- ▶ **PWID:** males and females who had at least one drug injecting episode for non-medical purposes in the three months prior to the interview.
- ▶ **TG:** people aged 18 years or older whose gender identity and expression at the time of the interview does not conform to the sex assigned to them at birth

### 3.1 Interviewing

Potential participants who met the eligibility criteria and consented to participate in the survey were interviewed. The interview questionnaire included socio-demographic characteristics, HIV-risk behaviors, knowledge and symptoms of HIV/STIs, attitudes, practices, stigma, perceptions, and questions related to mental health or other health-related domains.

## 3.2 Biomarker Testing Procedures

All participants were offered rapid HIV testing using the Kenya National Algorithm for HIV Testing, as well as syphilis testing at the survey site. The test results were mostly immediately provided to the participants, and those who tested positive were linked to appropriate treatment. Testing for *Chlamydia trachomatis*, *Neisseria gonorrhoeae* and hepatitis B was conducted at NHRL. The results for these tests were made available to the participants during follow-up visits to the survey sites, and those with positive test results were linked to treatment accordingly.

## 3.3 Data Analysis and Weighting

Descriptive analyses were conducted to calculate proportions and confidence intervals using weighted data. RDS weights, were generated based on personal network size using the RDS R package, and the analysis was conducted using Gile's sequential sampling estimator<sup>1,2</sup>. Participants lacking reported network sizes were addressed through quantile imputation, where missing values were substituted with the median network size specific to each location and key population. This method ensures that the imputed values reflect the underlying distribution of the data within each location and key population group. The frequency of missing network size in each location and key population group was minimal. The impact on the overall analysis was therefore expected to be negligible.

The weighting process also assigned an inverse probability weight to each respondent to adjust for the likelihood that a person with a larger network is overrepresented.

For hepatitis B, testing was done for all participants with HIV and 5% of those who tested HIV negative. To ensure representativeness in the population, RDS-adjusted weights were calculated for each participant. These weights were derived by multiplying the main RDS weights with the inverse of the probability of inclusion based on the sub-sampling design. HIV prevalence was computed using all individuals with a valid HIV test result as the denominator and those with an HIV-positive result as the numerator. All individuals who tested HIV positive had a viral load test done. Overall HIV viral load suppression, for the HIV cascade, was computed using individuals who had <200 copies of HIV RNA per milliliter of blood (in accordance with the Kenya HIV Prevention and Treatment Guidelines, 2022<sup>3</sup>) as the numerator and those who had a valid viral load test result as the denominator.

Population size estimates were computed using service multiplier and successive sampling methods<sup>4,5,6</sup>. For the service multiplier method, the facilities named by the survey participants were contacted to provide a de-duplicated count of the number of individuals who sought HIV or STI prevention services and/or clinical services (e.g. HIV care and treatment) in the 2023 calendar year. The anchored multiplier method<sup>7</sup> was then applied to synthesize the estimates from these two methods.

The survey protocol was reviewed and approved by the Kenyatta National Hospital-University of Nairobi Ethics Research Committee.

## **Chapter 4: Female Sex Workers**

# Chapter 4: Female Sex Workers

## 4.1: Sociodemographic Characteristics

The median age of female sex workers was 33 years (IQR 27–38), with most aged 25–34 years (42%), followed by those aged 35–44 years (34%). The majority had attained primary education (56%), while 27% had secondary and 7% had post-secondary education. Most participants were divorced or separated (66%), and 94% reported having biological children. Sex work was the main source of income for 96% of participants, and about 40% had sold sex outside their county of residence in the past 12 months.

Table 4.1: Sociodemographic Characteristics of Female Sex Workers By Location, BBS, Kenya, 2024

	Overall Estimate (N=3722)		Kajiado (N=368)		Kiambu (N=425)		Kilifi (N=391)		Kisii (N=377)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Median age, years (IQR)</b>	3722	33 (27 - 38)	368	35 (29 - 40)	425	34 (28 - 39)	391	32 (27 - 39)	377	30 (26 - 35)
<b>Age (years)</b>										
18-24	522	15.5 (13.0 - 18.0)	33	11.2 (6.2 - 16.2)	46	14.6 (9.0 - 20.1)	49	14.4 (9.7 - 19.0)	68	17.4 (12.4 - 22.4)
25-34	1500	41.6 (37.6 - 45.6)	134	36.8 (30.6 - 42.9)	146	36.3 (30.2 - 42.4)	166	43.8 (37.9 - 49.7)	198	54.3 (48.2 - 60.3)
35-44	1334	33.7 (30.2 - 37.3)	149	36.2 (30.2 - 42.3)	180	37.9 (31.6 - 44.3)	136	32.4 (26.5 - 38.3)	90	23.3 (17.6 - 29.0)
45+	366	9.2 (6.9 - 11.4)	52	15.9 (10.1 - 21.3)	53	11.2 (7.9 - 14.6)	40	9.5 (5.8 - 13.1)	21	5.0 (2.6 - 7.4)
<b>Highest level of education<sup>a</sup></b>										
Never attended school	82	1.9 (1.0 - 2.7)	4	2.0 (1.1 - 2.9)	5	1.1 (0.0 - 2.5)	19	3.6 (1.8 - 5.5)	2	0.3 (0.0 - 0.7)
Nursery/pre-school	294	7.8 (5.5 - 10.2)	41	10.9 (8.4 - 13.5)	50	12.8 (8.8 - 16.8)	24	6.0 (3.1 - 8.9)	15	4.1 (1.7 - 6.6)
Primary school	2003	56.0 (53.2 - 58.8)	216	55.4 (50.2 - 60.6)	253	61.5 (55.5 - 67.5)	209	61.0 (54.7 - 67.3)	186	53.0 (45.9 - 60.0)
Secondary school	1037	26.9 (23.5 - 30.4)	79	22.6 (16.9 - 28.2)	87	18.0 (13.2 - 22.8)	112	23.1 (18.1 - 28.1)	115	29.8 (24.1 - 35.5)
Post-secondary <sup>b</sup>	305	7.4 (6.3 - 8.5)	27	9.1 (4.7 - 13.6)	30	6.5 (3.4 - 9.7)	27	6.3 (3.6 - 8.9)	59	12.8 (8.2 - 17.3)
<b>Current marital status<sup>a</sup></b>										
Single/never married	990	26.7 (22.3 - 31.2)	65	19.1 (15.1 - 23.0)	112	27.1 (23.2 - 31.1)	90	23.3 (18.2 - 28.4)	101	25.0 (19.5 - 30.6)
Married/cohabiting	56	1.1 (0.6 - 1.5)	6	2.4 (0.4 - 4.3)	4	0.8 (0.0 - 1.6)	5	1.1 (0.0 - 2.4)	13	3.5 (1.2 - 5.8)
Divorced/separated	2437	66.4 (62.1 - 70.6)	270	70.0 (64.0 - 76.0)	276	65.6 (60.2 - 71.0)	283	72.3 (67.0 - 77.7)	250	68.4 (62.7 - 74.0)
Widowed	234	5.8 (4.3 - 7.3)	25	8.6 (3.7 - 13.4)	30	6.5 (2.9 - 10.1)	13	3.2 (0.9 - 5.5)	13	3.1 (1.0 - 5.2)
<b>Has biological children<sup>a</sup></b>										
Yes	3478	93.6 (92.0 - 95.3)	344	92.3 (88.1 - 96.5)	407	95.8 (93.4 - 98.3)	359	93.2 (90.5 - 95.9)	335	89.2 (85.3 - 93.2)
No	243	6.4 (4.7 - 8.0)	24	7.7 (3.5 - 11.9)	18	4.2 (1.7 - 6.6)	32	6.8 (4.1 - 9.5)	42	10.8 (6.8 - 14.7)
<b>Sold sex outside the county of residence in the last 12 months<sup>a</sup></b>										
Yes	1562	39.5 (32.4 - 46.5)	198	51.2 (44.7 - 57.7)	162	34.1 (28.0 - 40.3)	175	44.0 (39.6 - 48.3)	171	40.0 (35.2 - 44.9)
No	2158	60.5 (53.5 - 67.6)	170	48.8 (42.3 - 55.3)	263	65.9 (59.7 - 72.0)	215	56.0 (51.7 - 60.4)	205	60.0 (55.1 - 64.8)
<b>Main source of income</b>										
Formal employment	22	0.2 (0.0 - 0.4)	1	0.1 (0.0 - 0.4)	0	0.0 (0.0 - 0.0)	6	1.1 (0.0 - 2.3)	1	0.2 (0.0 - 0.5)
Informal work	48	1.1 (0.4 - 1.8)	0	0.0 (0.0 - 0.0)	5	0.8 (0.0 - 1.5)	13	4.2 (1.3 - 7.0)	9	2.5 (0.9 - 4.1)
Self-employment <sup>c</sup>	92	2.4 (1.3 - 3.6)	12	3.9 (1.3 - 6.4)	1	1.3 (0.0 - 4.0)	21	5.3 (2.6 - 8.0)	12	3.8 (1.5 - 6.2)
Sex work	3555	96.0 (93.9 - 98.0)	355	96.0 (93.4 - 98.6)	419	97.9 (95.2 - 100.0)	348	88.6 (84.3 - 92.9)	354	93.4 (90.7 - 96.2)
None	5	0.3 (0.0 - 0.7)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	3	0.8 (0.0 - 1.6)	1	0.1 (0.0 - 0.2)
<b>Monthly income (KSh.)<sup>a</sup></b>										
<5000	308	9.0 (6.3 - 11.7)	10	3.7 (1.1 - 6.4)	53	14.9 (10.4 - 19.3)	22	5.6 (2.8 - 8.4)	74	22.8 (16.0 - 29.6)
5000 to <20000	2175	62.0 (53.8 - 70.1)	227	64.2 (58.1 - 70.3)	249	61.2 (55.6 - 66.8)	238	61.5 (55.4 - 67.7)	207	52.4 (45.5 - 59.3)
20000 to <50000	1008	25.7 (18.9 - 32.5)	119	30.3 (24.7 - 35.9)	112	21.6 (16.8 - 26.5)	118	29.2 (23.7 - 34.7)	78	21.4 (15.5 - 27.2)
50000 and above	134	3.4 (2.2 - 4.6)	10	1.8 (0.4 - 3.1)	10	2.3 (0.6 - 4.0)	12	3.6 (0.8 - 6.5)	17	3.5 (1.4 - 5.6)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

Table 4.1 cont.: Sociodemographic Characteristics of Female Sex Workers By Location, BBS, Kenya, 2024

	Kisumu (N=427)		Machakos (N=462)		Mombasa (N=414)		Nairobi (N=461)		Nakuru (N=397)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Median age, years (IQR)</b>	427	32 (27 - 37)	462	33 (28 - 38)	414	33 (26 - 40)	461	32 (25 - 39)	397	35 (30 - 39)
<b>Age (years)</b>										
18-24	62	13.9 (8.1 - 19.8)	56	14.7 (10.6 - 18.9)	72	18.8 (13.5 - 24.0)	104	24.6 (18.3 - 30.9)	32	11.4 (6.7 - 16.1)
25-34	202	47.2 (40.6 - 53.9)	192	41.6 (36.3 - 47.0)	145	36.7 (30.7 - 42.8)	159	37.3 (31.2 - 43.4)	158	38.4 (32.1 - 44.6)
35-44	144	34.0 (28.0 - 40.1)	167	36.0 (30.7 - 41.2)	140	30.0 (24.6 - 35.4)	153	30.4 (24.4 - 36.5)	175	42.8 (36.1 - 49.4)
45+	19	4.8 (0.0 - 11.9)	47	7.7 (5.2 - 10.2)	57	14.5 (10.0 - 19.1)	45	7.7 (2.9 - 12.4)	32	7.5 (4.5 - 10.4)
<b>Highest level of education<sup>a</sup></b>										
Never attended school	10	2.9 (0.9 - 4.8)	3	0.7 (0.0 - 1.4)	17	4.8 (2.0 - 7.6)	6	1.0 (0.0 - 2.1)	16	3.7 (1.8 - 5.5)
Nursery/pre-school	43	11.3 (7.8 - 14.8)	22	4.2 (2.4 - 5.9)	20	3.6 (1.9 - 5.4)	38	7.8 (4.9 - 10.8)	41	11.4 (6.9 - 15.9)
Primary school	201	46.8 (39.6 - 53.9)	252	54.8 (49.2 - 60.4)	236	57.0 (51.2 - 62.7)	227	51.9 (45.4 - 58.4)	223	54.5 (48.1 - 60.9)
Secondary school	138	30.2 (24.6 - 35.8)	145	32.0 (26.9 - 37.2)	118	29.4 (24.1 - 34.8)	153	32.0 (24.5 - 39.4)	90	23.8 (17.9 - 29.6)
Post-secondary <sup>b</sup>	35	8.9 (4.7 - 13.0)	40	8.3 (4.8 - 11.8)	23	5.2 (2.4 - 8.0)	37	7.3 (4.3 - 10.3)	27	6.7 (3.7 - 9.6)
<b>Current marital status<sup>a</sup></b>										
Single/never married	100	21.7 (16.1 - 27.3)	134	30.8 (25.1 - 36.5)	151	40.8 (34.6 - 47.1)	160	33.6 (27.5 - 39.7)	77	18.7 (13.7 - 23.7)
Married/cohabiting	4	0.9 (0.0 - 1.9)	8	1.6 (0.3 - 3.0)	3	0.8 (0.0 - 1.6)	10	2.5 (0.1 - 5.0)	3	0.5 (0.0 - 1.0)
Divorced/separated	285	68.3 (62.0 - 74.6)	297	62.3 (56.4 - 68.1)	240	54.2 (48.4 - 60.1)	250	56.9 (50.2 - 63.6)	286	72.4 (66.6 - 78.2)
Widowed	38	9.1 (5.9 - 12.3)	23	5.3 (3.0 - 7.6)	20	4.1 (2.2 - 6.0)	41	7.0 (4.4 - 9.6)	31	8.4 (5.0 - 11.8)
<b>Has biological children<sup>a</sup></b>										
Yes	395	93.2 (87.0 - 99.3)	441	94.1 (91.2 - 97.0)	383	91.5 (87.6 - 95.5)	426	92.9 (90.3 - 95.4)	388	97.9 (95.2 - 100.0)
No	32	6.8 (0.7 - 13.0)	21	5.9 (3.0 - 8.8)	31	8.4 (4.4 - 12.4)	35	7.1 (4.6 - 9.7)	8	2.1 (0.0 - 4.8)
<b>Sold sex outside the county of residence in the last 12 months<sup>a</sup></b>										
Yes	262	62.1 (55.2 - 68.9)	149	32.1 (26.6 - 37.6)	116	23.2 (18.1 - 28.4)	162	31.1 (24.9 - 37.3)	167	38.3 (32.3 - 44.3)
No	165	37.9 (31.1 - 44.8)	313	67.9 (62.4 - 73.4)	298	76.8 (71.6 - 81.9)	299	68.9 (62.7 - 75.1)	230	61.7 (55.7 - 67.7)
<b>Main source of income</b>										
Formal employment	4	1.0 (0.0 - 2.6)	5	1.9 (0.0 - 3.9)	0	0.0 (0.0 - 0.0)	1	0.1 (0.0 - 0.2)	4	0.6 (0.0 - 1.6)
Informal work	1	0.2 (0.0 - 0.5)	15	3.6 (1.6 - 5.6)	0	0.0 (0.0 - 0.0)	2	0.6 (0.0 - 1.3)	3	0.5 (0.0 - 1.2)
Self-employment <sup>c</sup>	11	2.2 (0.0 - 6.7)	21	3.8 (2.1 - 5.6)	4	0.6 (0.0 - 1.4)	5	1.3 (0.2 - 2.4)	5	1.8 (0.0 - 3.5)
Sex work	411	96.5 (91.9 - 100.0)	420	90.2 (87.0 - 93.5)	410	99.4 (98.6 - 100.0)	453	98.1 (96.7 - 99.4)	385	97.1 (94.8 - 99.3)
None	0	0.0 (0.0 - 0.0)	1	0.4 (0.0 - 1.2)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
<b>Monthly income (KSh.)<sup>a</sup></b>										
<5000	22	6.1 (3.4 - 8.7)	25	6.3 (3.7 - 9.0)	30	8.0 (5.0 - 11.0)	50	12.4 (8.1 - 16.6)	22	7.3 (4.0 - 10.6)
5000 to <20000	255	62.5 (55.4 - 69.6)	280	63.7 (57.7 - 69.7)	330	83.6 (79.6 - 87.6)	216	49.4 (42.3 - 56.4)	173	52.6 (45.4 - 59.8)
20000 to <50000	129	27.2 (19.4 - 34.9)	142	28.1 (22.2 - 34.0)	52	8.3 (5.3 - 11.4)	149	31.6 (25.7 - 37.5)	109	32.5 (26.0 - 39.1)
50000 and above	18	4.3 (2.0 - 6.5)	15	1.9 (0.9 - 2.8)	0	0.0 (0.0 - 0.0)	29	6.6 (3.5 - 9.8)	23	7.5 (3.7 - 11.4)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

## 4.2: HIV Prevalence

The overall prevalence of HIV among female sex workers was 26.8% (95% CI: 23.3–30.3). Prevalence ranged across counties, with the highest observed in Machakos (44.1%) and the lowest in Kiambu (21.0%).

HIV prevalence increased with age, from 8.4% among those aged 18–24 years to 49.2% among those aged 45 years and above. By education level, prevalence was 30.7% among those with primary education, 19.9% among those with secondary education, and 10.3% among those with post-secondary education. Among marital groups, the highest prevalence was observed among the widowed (49.1%), followed by those divorced or separated (28.1%).

HIV prevalence increased with lower income levels, from 34.2% among those earning less than KSh. 5,000 to 18.9% among those earning KSh. 50,000 and above. Among those ever pregnant, prevalence was 27.7%, while those never pregnant had 15.8%.

Table 4.2: Prevalence Of HIV Among Female Sex Workers By Location, BBS, Kenya, 2024

	Overall Estimate		Kajiado		Kiambu		Kilifi		Kisii	
	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)
<b>Overall</b>	998/3685	27.3 (22.6 - 32.0)	91/368	26.2 (20.7 - 31.5)	85/425	20.9 (16.3 - 25.6)	121/388	27.5 (22.7 - 32.4)	102/374	30.1 (25.2 - 34.9)
<b>Age (years)</b>										
18-24	43/517	8.4 (5.6 - 11.3)	3/33	12.9 (0.0 - 27.5)	2/46	6.3 (0.0 - 14.7)	5/49	8.7 (1.2 - 16.3)	7/68	8.5 (0.0 - 17.1)
25-34	296/1482	19.3 (14.1 - 24.6)	14/134	9.5 (3.1 - 15.9)	16/146	14.2 (7.1 - 21.2)	39/165	21.9 (15.5 - 28.3)	48/197	28.5 (23.7 - 33.4)
35-44	473/1323	38.1 (29.5 - 46.7)	43/149	32.6 (23.8 - 41.4)	46/180	25.7 (17.7 - 33.9)	52/135	37.2 (28.5 - 46.0)	37/89	46.9 (37.2 - 56.6)
45+	186/363	49.1 (43.3 - 54.9)	31/52	58.5 (42.2 - 73.7)	21/53	45.3 (30.0 - 61.4)	25/39	49.2 (28.7 - 69.4)	10/20	41.6 (15.7 - 69.3)
<b>Highest level of education</b>										
Never attended school <sup>c</sup>	24/73	36.7 (14.2 - 59.1)	2/4	44.4 (0.0 - 94.0)	0/5	0.0 (0.0 - 5.4)	9/18	47.0 (23.0 - 70.4)	0/2	0.0 (0.0 - 12.8)
Nursery/pre-school	111/292	37.8 (28.2 - 47.3)	15/41	41.3 (25.9 - 57.8)	16/50	31.2 (17.6 - 44.5)	11/24	35.5 (13.8 - 57.3)	9/15	66.9 (46.0 - 87.6)
Primary school	612/1990	30.7 (25.6 - 35.8)	59/216	30.8 (23.3 - 38.2)	53/253	20.5 (14.4 - 26.4)	70/207	31.1 (25.2 - 37.0)	61/184	36.2 (30.3 - 42.1)
Secondary school	211/1025	19.9 (15.8 - 23.9)	10/79	9.8 (2.0 - 17.3)	13/87	18.2 (6.9 - 29.4)	27/112	19.0 (10.4 - 27.7)	26/114	22.5 (14.2 - 30.9)
Post-secondary <sup>b</sup>	40/297	10.3 (6.6 - 14.0)	5/27	16.6 (2.1 - 31.1)	3/30	16.5 (0.0 - 36.5)	4/27	5.5 (0.0 - 12.0)	6/59	11.5 (3.5 - 19.4)
<b>Current marital status</b>										
Single/never married	176/980	18.9 (14.6 - 23.2)	6/65	7.3 (1.1 - 13.5)	21/112	21.8 (12.9 - 30.8)	22/90	28.4 (17.6 - 39.4)	20/100	23.2 (15.5 - 31.0)
Married/cohabiting	11/53	10.1 (2.9 - 17.3)	1/6	18.7 (0.0 - 51.3)	1/4	36.0 (0.0 - 85.5)	1/4	27.1 (0.0 - 73.1)	1/12	7.6 (0.0 - 21.0)
Divorced/separated	689/2417	28.3 (22.4 - 34.2)	70/270	28.8 (22.4 - 35.3)	50/276	18.2 (12.6 - 23.8)	88/281	25.0 (19.3 - 30.6)	75/249	33.7 (29.1 - 38.3)
Widowed	120/230	49.1 (39.0 - 59.2)	13/25	47.7 (25.2 - 70.4)	12/30	41.4 (23.5 - 59.5)	10/13	77.9 (51.4 - 100.0)	6/13	30.1 (2.5 - 58.0)
<b>Main source of income</b>										
Formal employment <sup>c</sup>	15/46	45.2 (0.9 - 89.6)	-	-	2/5	39.2 (0.0 - 85.1)	5/13	17.3 (0.0 - 37.7)	4/9	51.9 (18.7 - 85.6)
Informal work	955/3522	27.3 (23.2 - 31.5)	87/355	25.4 (19.8 - 31.1)	83/419	21.0 (16.4 - 25.8)	109/345	28.9 (23.9 - 33.9)	95/351	30.2 (25.4 - 35.0)
Self-employment <sup>b,c</sup>	25/90	26.0 (10.7 - 41.3)	4/12	46.4 (12.0 - 80.2)	0/1	0.0 (0.0 - 4.5)	5/21	17.9 (0.7 - 35.4)	3/12	15.0 (0.0 - 32.7)
Sex work <sup>c</sup>	2/10	18.0 (0.0 - 58.6)	0/1	0.0 (0.0 - 28.5)	-	-	1/6	4.6 (0.0 - 14.8)	0/1	0.0 (0.0 - 24.7)
None <sup>c</sup>	1/3	22.6 (0.0 - 67.9)	-	-	-	-	1/3	24.8 (0.0 - 71.5)	0/1	0.0 (0.0 - 41.0)
<b>Monthly income (KSh.)</b>										
<5000	97/309	34.3 (26.7 - 41.9)	2/10	23.5 (0.0 - 52.2)	14/53	29.6 (15.2 - 44.0)	10/23	51.9 (29.2 - 75.6)	26/74	36.4 (21.5 - 51.5)
5000 to <20000	618/2157	29.3 (24.4 - 34.2)	62/227	28.4 (21.6 - 35.2)	52/249	20.6 (14.7 - 26.4)	85/237	32.7 (27.3 - 38.2)	56/204	29.2 (23.2 - 35.1)
20000 to <50000	230/991	21.0 (16.4 - 25.5)	27/119	23.3 (13.0 - 33.6)	19/112	18.6 (9.1 - 27.8)	23/116	13.6 (6.6 - 20.6)	15/78	22.9 (11.1 - 34.6)
50000 and above <sup>c</sup>	27/112	20.5 (10.4 - 30.7)	0/10	0.0 (0.0 - 1.7)	0/10	0.0 (0.0 - 2.6)	3/12	13.1 (0.0 - 32.1)	5/17	48.6 (16.9 - 80.5)
<b>Ever pregnant</b>										
Yes	977/3518	27.9 (22.7 - 33.2)	91/350	27.6 (21.7 - 33.4)	84/411	21.3 (16.5 - 26.2)	115/368	27.6 (22.7 - 32.6)	97/340	30.4 (25.7 - 35.0)
No	21/124	15.6 (8.3 - 22.8)	0/18	0.0 (0.0 - 0.7)	1/14	8.0 (0.0 - 22.3)	6/20	26.0 (4.8 - 47.5)	5/34	27.0 (6.8 - 48.4)
<b>Currently pregnant</b>										
Yes	10/49	27.5 (10.1 - 45.0)	1/6	17.4 (0.0 - 47.7)	1/10	16.7 (0.0 - 46.3)	2/5	27.2 (0.0 - 67.5)	1/7	7.7 (0.0 - 24.3)
No	967/3467	28.0 (22.8 - 33.3)	90/344	27.9 (21.9 - 33.7)	83/401	21.4 (16.6 - 26.2)	113/363	27.6 (22.7 - 32.5)	96/333	30.9 (25.9 - 35.9)
<b>ANC visit during last live birth</b>										
Yes	157/905	18.3 (12.8 - 23.8)	15/89	17.3 (8.1 - 26.3)	8/86	14.0 (3.6 - 24.8)	23/98	22.6 (13.9 - 31.5)	20/94	24.7 (14.2 - 35.2)
No <sup>c</sup>	5/10	74.8 (49.1 - 100.0)	0/1	0.0 (0.0 - 13.2)	0/4	0.0 (0.0 - 2.3)	0/1	0.0 (0.0 - 18.5)	1/2	57.5 (0.0 - 100.0)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Post-secondary education includes vocational or technician training, college, university, graduate and above.

<sup>b</sup> Self-employment includes businesses and selling drugs

<sup>c</sup> Estimates with a sample numerator of zero were calculated using binomial approximation. Meta analysis for overall estimates were restricted to include estimates with a non-zero sample numerator.

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; KSh., Kenya shillings

Table 4.2 cont.: Prevalence Of HIV Among Female Sex Workers By Location, BBS, Kenya, 2024

	Kisumu		Machakos		Mombasa		Nairobi		Nakuru	
	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)
<b>Overall</b>	184/426	44.1 (39.3 - 49.0)	117/442	25.5 (20.8 - 30.2)	95/413	21.9 (16.9 - 26.9)	103/456	22.6 (16.2 - 29.0)	100/393	26.8 (21.4 - 32.2)
<b>Age (years)</b>										
18-24	3/62	6.9 (0.0 - 14.5)	9/52	20.8 (7.6 - 34.0)	8/72	9.9 (2.7 - 17.3)	4/103	5.4 (0.0 - 11.4)	2/32	14.0 (0.0 - 33.5)
25-34	74/202	35.6 (27.5 - 43.7)	32/180	19.8 (14.1 - 25.6)	21/144	10.7 (4.6 - 16.8)	25/157	15.1 (8.8 - 21.3)	27/157	19.5 (12.7 - 26.3)
35-44	93/143	67.6 (59.7 - 75.4)	59/163	32.2 (24.2 - 40.3)	39/140	28.6 (19.1 - 38.1)	48/152	38.5 (30.7 - 46.1)	56/172	33.6 (26.2 - 41.2)
45+	14/19	70.1 (46.5 - 93.8)	17/47	32.5 (17.1 - 48.0)	27/57	52.1 (38.5 - 65.7)	26/44	52.0 (36.4 - 68.0)	15/32	45.8 (24.9 - 66.6)
<b>Highest level of education</b>										
Never attended school <sup>c</sup>	7/10	70.9 (38.1 - 100.0)	1/2	44.2 (0.0 - 100.0)	3/17	27.2 (0.0 - 58.4)	1/6	31.7 (0.0 - 79.8)	1/16	6.1 (0.0 - 17.8)
Nursery/pre-school	24/43	58.1 (43.4 - 72.5)	6/22	29.2 (9.2 - 49.6)	4/20	19.9 (0.4 - 39.2)	12/38	25.2 (11.0 - 39.8)	14/39	34.0 (18.8 - 49.4)
Primary school	104/201	51.8 (43.6 - 59.9)	82/248	31.3 (25.7 - 37.0)	66/235	26.0 (20.4 - 31.4)	56/224	24.3 (18.4 - 30.2)	61/222	26.8 (20.7 - 33.0)
Secondary school	43/138	33.1 (23.2 - 43.0)	26/137	18.6 (12.0 - 25.3)	20/118	16.2 (7.9 - 24.6)	29/151	20.7 (13.1 - 28.4)	17/89	25.2 (13.4 - 37.3)
Post-secondary <sup>a</sup>	6/34	15.3 (2.0 - 28.7)	2/33	5.3 (0.0 - 17.4)	2/23	7.6 (0.0 - 19.7)	5/37	14.5 (1.1 - 28.0)	7/27	32.7 (11.6 - 55.0)
<b>Current marital status</b>										
Single/never married	18/100	19.7 (11.2 - 28.2)	26/127	19.0 (10.2 - 27.8)	29/151	19.4 (11.4 - 27.5)	21/158	14.9 (7.8 - 21.9)	13/77	22.5 (11.3 - 33.2)
Married/cohabiting	1/4	38.5 (0.0 - 90.6)	3/8	56.6 (15.6 - 96.9)	1/3	9.5 (0.0 - 43.6)	1/9	4.2 (0.0 - 14.2)	1/3	34.9 (0.0 - 92.6)
Divorced/separated	136/284	48.3 (43.1 - 53.3)	80/287	26.8 (21.4 - 32.3)	57/239	22.8 (17.7 - 27.8)	62/248	25.0 (19.5 - 30.5)	71/283	25.8 (19.7 - 31.8)
Widowed	29/38	72.6 (55.3 - 89.6)	8/20	39.2 (14.8 - 63.2)	8/20	38.3 (14.9 - 60.7)	19/41	46.3 (28.3 - 64.5)	15/30	45.1 (23.9 - 65.9)
<b>Main source of income</b>										
Formal employment <sup>c</sup>	1/1	100.0 (73.5 - 100.0)	2/15	17.8 (0.0 - 40.9)	-	-	0/2	0.0 (0.0 - 1.8)	1/3	42.0 (0.0 - 100.0)
Informal work	178/411	44.4 (38.2 - 50.7)	111/400	26.5 (21.3 - 31.6)	94/410	22.0 (17.2 - 26.7)	102/449	22.7 (16.5 - 28.8)	96/382	25.9 (20.7 - 31.1)
Self-employment <sup>b,c</sup>	4/11	23.2 (0.0 - 50.9)	4/21	27.1 (5.0 - 48.4)	1/4	2.6 (0.0 - 5.6)	1/4	30.9 (0.0 - 79.2)	3/5	79.4 (46.2 - 100.0)
Sex work <sup>c</sup>	1/4	52.3 (0.0 - 100.0)	0/5	0.0 (0.0 - 3.8)	-	-	0/1	0.0 (0.0 - 10.0)	0/4	0.0 (0.0 - 4.0)
None <sup>c</sup>	-	-	0/1	0.0 (0.0 - 16.1)	-	-	-	-	-	-
<b>Monthly income (KSh.)</b>										
<5000	13/22	60.0 (38.6 - 81.9)	5/25	24.6 (1.6 - 47.4)	7/30	22.9 (7.8 - 38.2)	15/50	33.7 (16.8 - 50.3)	5/22	31.7 (8.6 - 54.6)
5000 to <20000	116/255	47.2 (39.7 - 54.8)	74/270	27.0 (21.4 - 32.5)	73/329	21.7 (16.5 - 26.9)	50/216	23.7 (16.1 - 31.3)	50/170	34.8 (27.1 - 42.6)
20000 to <50000	49/128	36.7 (27.2 - 46.3)	34/133	21.4 (13.5 - 29.4)	15/52	24.2 (9.4 - 38.7)	26/145	14.7 (7.7 - 21.7)	22/108	19.2 (11.0 - 27.0)
50000 and above <sup>c</sup>	4/18	23.2 (0.0 - 47.2)	4/14	37.6 (9.0 - 65.6)	0/0	-	8/28	18.5 (0.7 - 35.6)	3/23	9.7 (0.0 - 25.3)
<b>Ever pregnant</b>										
Yes	181/407	45.6 (41.4 - 49.9)	115/429	25.8 (21.1 - 30.6)	92/394	22.2 (17.0 - 27.4)	103/431	23.7 (18.6 - 28.9)	99/388	26.7 (21.6 - 31.9)
No	3/19	9.6 (0.0 - 25.2)	2/13	17.5 (0.0 - 37.8)	3/19	16.3 (0.0 - 36.0)	0/25	0.0 (0.0 - 0.2)	1/5	29.0 (0.0 - 81.8)
<b>Currently pregnant</b>										
Yes	1/2	50.0 (33.4 - 66.6)	2/6	53.8 (8.8 - 99.2)	1/11	1.6 (0.0 - 4.9)	0/2	0.0 (0.0 - 0.8)	1/2	50.0 (37.8 - 61.0)
No	180/405	45.6 (41.3 - 49.9)	114/423	25.3 (20.6 - 30.1)	91/383	22.8 (17.7 - 27.8)	103/429	23.8 (18.6 - 29.0)	98/386	26.6 (21.5 - 31.8)
<b>ANC visit during last live birth</b>										
Yes	35/105	35.4 (24.5 - 46.6)	14/93	16.9 (7.3 - 26.6)	12/112	7.9 (3.8 - 12.1)	19/148	14.2 (8.0 - 20.4)	11/80	18.2 (6.2 - 30.7)
No <sup>c</sup>	2/3	89.3 (55.5 - 100.0)	1/3	52.7 (0.0 - 100.0)	1/2	56.6 (0.0 - 100.0)	0/2	0.0 (0.0 - 1.1)	0/0	-

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Post-secondary education includes vocational or technician training, college, university, graduate and above.

<sup>b</sup> Self-employment includes businesses and selling drugs

<sup>c</sup> Estimates with a sample numerator of zero were calculated using binomial approximation. Meta analysis for overall estimates were restricted to include estimates with a non-zero sample numerator.

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; KSh., Kenya shillings

### 4.3: Population-level Viral Suppression

For VL <50 copies/ml, overall viral suppression was 70.6% (95% CI: 65.5–75.8). County estimates were: Kajiado 77.1%, Kiambu 62.9%, Kilifi 68.1%, Kisii 75.8%, Kisumu 80.4%, Machakos 64.6%, Mombasa 72.8%, Nairobi 57.5%, and Nakuru 76.2%. By age: 18–24 76.1%, 25–34 62.8%, 35–44 74.6%, and 45+ 79.4%.

For VL <200 copies/ml, overall viral suppression was 79.6% (95% CI: 75.7–83.5). County estimates were: Kajiado 85.4%, Kiambu 73.8%, Kilifi 76.5%, Kisii 86.5%, Kisumu 86.1%, Machakos 76.5%, Mombasa 76.9%, Nairobi 71.2%, and Nakuru 81.9%. By age: 18–24 99.2%, 25–34 69.6%, 35–44 85.0%, and 45+ 94.9%.

For VL <1000 copies/ml, overall viral suppression was 83.8% (95% CI: 80.5–87.0). County estimates were: Kajiado 89.1%, Kiambu 78.5%, Kilifi 78.9%, Kisii 87.8%, Kisumu 89.8%, Machakos 79.8%, Mombasa 80.6%, Nairobi 80.5%, and Nakuru 85.8%. By age: 18–24 99.8%, 25–34 76.1%, 35–44 89.1%, and 45+ 94.9%.

Table 4.3: Viral Load Suppression (VL<50 copies/ml) Among Female Sex Workers By Location, BBS, Kenya, 2024

	Overall Estimate (N=990)		Kajiado (N=91)		Kiambu (N=85)		Kilifi (N=118)		Kisii (N=102)		Kisumu (N=182)		Machakos (n=116)		Mombasa (N=95)		Nairobi (N=102)		Nakuru (N=99)	
	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)
<b>Overall</b>	698/990	70.6 (65.4, 75.8)	65/91	77.0 (66.6, 87.7)	55/85	62.9 (52.6, 73.2)	80/118	68.1 (58.1, 78.0)	78/102	75.8 (66.2, 85.3)	139/182	80.4 (72.0, 89.0)	73/116	64.6 (55.0, 74.3)	68/95	72.8 (62.3, 83.3)	66/102	57.6 (47.9, 67.0)	74/99	76.2 (65.4, 86.9)
<b>Age (years)</b>																				
18-24	28/43	76.0 (60.0, 92.0)	2/3	76.8 (31.7 - 100.0)	1/2	28.9 (0.0 - 100.0)	3/5	61.1 (17.6 - 100.0)	5/7	92.9 (72.9 - 100.0)	2/3	63.9 (32.4 - 94.9)	6/9	68.3 (33.8 - 100.0)	4/8	50.0 (9.5 - 89.8)	3/4	75.6 (41.0 - 100.0)	2/2	100.0 (98.4 - 100.0)
25-34	192/293	62.9 (52.9, 72.8)	10/14	73.4 (48.2 - 98.8)	9/16	50.2 (25.8 - 74.4)	19/38	42.5 (27.9 - 56.9)	33/48	66.8 (52.6 - 81.1)	54/73	78.9 (66.5 - 91.7)	22/31	80.1 (65.6 - 95.4)	13/21	45.0 (28.0 - 61.0)	15/25	59.8 (39.7 - 79.9)	17/27	65.5 (49.4 - 81.6)
35-44	339/469	74.6 (68.2, 81.0)	30/43	73.4 (60.3 - 86.8)	30/46	70.1 (55.3 - 85.1)	38/50	85.0 (74.0 - 96.2)	31/37	83.9 (73.8 - 93.9)	70/92	79.3 (69.9 - 88.9)	37/59	58.4 (43.5 - 73.0)	29/39	77.9 (63.4 - 92.2)	30/48	53.5 (36.4 - 70.8)	44/55	77.8 (65.0 - 90.5)
45+	139/185	79.6 (67.9, 91.4)	23/31	83.3 (67.0 - 99.4)	15/21	68.2 (45.8 - 90.2)	20/25	77.9 (53.7 - 100.0)	9/10	87.4 (62.6 - 100.0)	13/14	99.5 (99.5 - 99.7)	8/17	40.7 (5.5 - 76.1)	22/27	87.0 (73.6 - 100.0)	18/25	59.1 (34.3 - 84.1)	11/15	81.8 (62.2 - 100.0)
<b>Highest level of education</b>																				
Never attended school	17/24	85.4 (65.5, 100.0)	1/2	50.0 (37.0 - 61.6)	0/0	-	5/9	58.7 (24.1 - 92.9)	0/0	-	6/7	94.4 (83.4 - 100.0)	1/1	100.0 (66.4 - 100.0)	2/3	89.4 (24.5 - 100.0)	1/1	100.0 (96.8 - 100.0)	1/1	100.0 (90.7 - 100.0)
Nursery/pre-school	77/111	74.8 (60.6, 88.9)	11/15	67.5 (41.2 - 93.4)	10/16	72.7 (50.4 - 95.9)	6/11	69.6 (39.8 - 99.9)	5/9	55.9 (20.5 - 91.4)	19/24	85.7 (72.4 - 99.2)	4/6	69.0 (30.1 - 100.0)	4/4	100.0 (94.1 - 100.0)	7/12	48.8 (18.0 - 79.5)	11/14	75.3 (49.1 - 100.0)
Primary school	429/607	71.0 (64.7, 77.2)	44/59	84.4 (72.3 - 96.7)	33/53	58.6 (46.8 - 70.2)	47/68	67.3 (54.2 - 80.5)	47/61	77.3 (65.0 - 89.7)	78/103	77.1 (66.6 - 87.8)	51/82	66.1 (53.1 - 79.8)	48/66	72.0 (62.3 - 81.5)	35/55	54.2 (40.2 - 68.0)	46/60	80.0 (66.4 - 93.4)
Secondary school	146/208	73.2 (64.4, 80.0)	6/10	62.4 (29.3 - 96.2)	9/13	55.6 (18.9 - 91.2)	19/26	77.2 (58.0 - 96.5)	22/26	84.1 (69.3 - 98.9)	31/42	81.3 (67.4 - 95.9)	16/25	56.3 (36.3 - 75.4)	12/20	64.8 (38.7 - 90.7)	18/29	57.1 (33.6 - 80.8)	13/17	78.1 (55.1 - 100.0)
Post-secondary <sup>a</sup>	29/40	99.2 (96.6, 100.0)	3/5	61.1 (14.7 - 100.0)	3/3	100.0 (94.6 - 100.0)	3/4	44.8 (0.0 - 100.0)	4/6	56.0 (10.7 - 100.0)	5/6	84.1 (46.4 - 100.0)	1/2	84.8 (40.8 - 100.0)	2/2	100.0 (89.7 - 100.0)	5/5	100.0 (99.0 - 100.0)	3/7	45.7 (7.2 - 84.6)
<b>Current marital status</b>																				
Single/never married	116/175	65.6 (47.6, 83.6)	1/6	23.9 (0.0 - 63.3)	12/21	55.0 (32.3 - 77.6)	17/22	65.0 (40.4 - 89.0)	14/20	68.3 (47.3 - 89.3)	14/17	86.1 (71.3 - 100.0)	15/26	58.4 (35.7 - 81.7)	17/29	62.5 (43.3 - 81.8)	13/21	51.2 (30.6 - 71.7)	13/13	100.0 (99.4 - 100.0)
Married/cohabitating <sup>c</sup>	4/6	99.8 (97.5, 100.0)	1/1	100.0 (89.7 - 100.0)	1/1	100.0 (80.5 - 100.0)	0/1	0.0 (0.0 - 14.2)	0/1	0.0 (0.0 - 16.1)	0/1	0.0 (0.0 - 17.6)	1/3	24.9 (0.0 - 67.2)	0/1	0.0 (0.0 - 45.9)	0/1	0.0 (0.0 - 10.0)	1/1	100.0 (85.8 - 100.0)
Divorced/separated	484/684	72.2 (67.3, 77.1)	53/70	79.9 (68.2 - 91.7)	32/50	63.5 (49.2 - 77.6)	55/86	67.7 (55.8 - 79.7)	59/75	78.7 (67.1 - 90.1)	100/136	77.1 (68.3 - 86.2)	53/79	70.6 (59.7 - 81.7)	44/57	78.3 (66.4 - 90.1)	37/61	56.5 (43.0 - 69.8)	51/70	71.3 (58.2 - 84.3)
Widowed	92/118	80.9 (69.5, 92.3)	9/13	78.4 (52.9 - 100.0)	9/12	70.3 (38.3 - 100.0)	8/9	87.6 (62.6 - 100.0)	5/6	72.0 (29.2 - 100.0)	25/28	97.3 (94.0 - 100.0)	4/8	53.1 (13.2 - 91.5)	7/8	86.0 (60.1 - 100.0)	16/19	73.8 (48.4 - 98.9)	9/15	72.7 (47.4 - 97.0)
<b>Main source of income</b>																				
Formal employment	2/2	100.0 (98.6 - 100.0)	0/0	-	0/0	-	1/1	100.0 (39.8 - 100.0)	0/0	-	1/1	100.0 (87.7 - 100.0)	0/0	-	0/0	-	0/0	-	0/0	-
Informal work <sup>c</sup>	8/13	99.6 (96.2 - 100.0)	0/0	-	2/2	100.0 (81.5 - 100.0)	2/5	38.7 (0.0 - 92.0)	2/4	59.8 (12.8 - 100.0)	0/1	0.0 (0.0 - 26.5)	2/2	100.0 (89.1 - 100.0)	0/0	-	0/0	-	0/1	0.0 (0.0 - 9.3)
Self-employment <sup>b</sup>	19/24	99.9 (98.4 - 100.0)	4/4	100.0 (97.2 - 100.0)	0/0	-	3/5	42.4 (0.0 - 83.6)	3/3	100.0 (92.5 - 100.0)	2/4	92.5 (71.6 - 100.0)	4/4	100.0 (93.0 - 100.0)	1/1	100.0 (2.5 - 100.0)	0/1	0.0 (0.0 - 3.2)	2/3	50.3 (0.0 - 100.0)
Sex work	668/947	70.7 (65.3, 76.2)	61/87	75.5 (64.8 - 86.5)	53/83	62.4 (51.9 - 72.8)	73/106	69.6 (59.5 - 79.9)	73/95	76.0 (65.9 - 86.0)	136/176	80.4 (73.3 - 87.5)	67/110	61.9 (51.7 - 72.2)	67/94	72.8 (62.3 - 83.4)	66/101	58.2 (48.5 - 68.1)	72/95	78.3 (67.5 - 89.1)
None	1/1	100.0 (78.2 - 100.0)	0/0	-	0/0	-	1/1	100.0 (78.2 - 100.0)	0/0	-	0/0	-	0/0	-	0/0	-	0/0	-	0/0	-
<b>Monthly income (KSh.)</b>																				
<5000	68/97	91.4 (85.2 - 97.6)	2/2	100.0 (94.8 - 100.0)	6/14	47.2 (16.0 - 77.5)	7/10	68.8 (38.1 - 99.8)	18/26	66.0 (42.3 - 89.5)	12/13	90.3 (72.6 - 100.0)	4/5	85.8 (51.5 - 100.0)	7/7	100.0 (97.6 - 100.0)	11/15	60.8 (28.4 - 93.2)	1/5	35.4 (0.0 - 84.6)
5000 to <20000	442/614	72.4 (65.8 - 79.0)	45/62	76.3 (63.5 - 89.4)	32/52	59.6 (47.7 - 71.1)	59/83	68.9 (57.8 - 79.9)	46/56	83.2 (70.1 - 96.6)	91/115	82.9 (74.4 - 91.7)	45/73	60.6 (48.2 - 72.9)	50/73	71.6 (59.9 - 83.6)	32/50	63.0 (48.2 - 77.8)	42/50	84.8 (70.3 - 99.3)
20000 to <50000	154/228	71.2 (65.0 - 77.3)	18/27	76.3 (57.1 - 96.0)	17/19	91.0 (75.5 - 100.0)	13/22	68.5 (42.6 - 95.1)	10/15	67.0 (41.8 - 92.2)	33/49	71.5 (56.0 - 87.5)	21/34	66.8 (51.9 - 82.2)	11/15	58.2 (26.7 - 88.8)	17/25	62.5 (46.3 - 78.7)	14/22	64.0 (45.8 - 82.4)
50000 and above	16/27	62.1 (29.9 - 94.3)	0/0	-	0/0	-	1/3	28.6 (0.0 - 82.1)	4/5	83.7 (46.9 - 100.0)	2/4	57.2 (0.0 - 100.0)	3/4	95.4 (88.0 - 100.0)	0/0	-	4/8	18.4 (0.0 - 54.6)	2/3	77.2 (7.9 - 100.0)
<b>Ever pregnant</b>																				
Yes	684/969	71.0 (65.4 - 76.5)	65/91	77.0 (66.4 - 87.8)	54/84	62.5 (52.1 - 72.7)	76/112	68.1 (57.9 - 78.3)	75/97	77.9 (68.2 - 87.6)	137/179	80.2 (73.1 - 87.5)	71/114	63.5 (53.7 - 73.4)	67/92	75.0 (64.4 - 85.6)	66/102	57.5 (47.7 - 67.2)	73/98	75.7 (65.0 - 86.5)
No	14/21	98.3 (95.4 - 100.0)	0/0	-	1/1	100.0 (80.5 - 100.0)	4/6	69.7 (23.5 - 100.0)	3/5	52.1 (2.4 - 100.0)	2/3	95.4 (96.5 - 100.0)	2/2	100.0 (90.0 - 100.0)	1/3	14.8 (0.0 - 60.0)	0/0	-	1/1	100.0 (94.3 - 100.0)
<b>Currently pregnant</b>																				
Yes <sup>c</sup>	7/8	100.0 (99.1 - 100.0)	1/1	100.0 (89.7 - 100.0)	0/1	0.0 (0.0 - 19.5)	1/2	44.4 (0.0 - 100.0)	1/1	100.0 (75.3 - 100.0)	0/1	0.0 (0.0 - 17.6)	2/2	100.0 (91.6 - 100.0)	1/1	100.0 (100.0 - 100.0)	0/0	-	1/1	100.0 (90.7 - 100.0)
No	677/959	70.9 (65.3 - 76.6)	64/90	76.7 (66.2 - 87.4)	54/83	63.2 (52.8 - 73.7)	75/110	68.5 (58.1 - 78.9)	74/96	77.7 (67.8 - 87.7)	137/178	80.9 (73.8 - 88.2)	69/112	62.1 (52.3 - 71.9)	66/91	74.9 (64.5 - 85.3)	66/102	57.5 (47.6 - 67.3)	72/97	75.5 (64.9 - 86.2)
<b>ANC visit during last live birth</b>																				
Yes	109/156	71.3 (58.4, 84.2)	12/15	77.4 (56.0 - 98.9)	5/8	59.4 (19.9 - 98.6)	11/23	41.6 (24.6 - 58.7)	14/20	67.8 (43.9 - 91.7)	27/34	85.3 (72.9 - 98.1)	9/14	69.7 (45.9 - 94.3)	6/12	46.1 (13.4 - 78.8)	15/19	79.9 (61.4 - 98.5)	10/11	94.3 (81.8 - 100.0)
No <sup>c</sup>	3/4	100.0 (98.6 - 100.0)	0/0	-	0/0	-	0/0	-	0/1	0.0 (0.0 - 16.1)	1/2	57.9 (0.0 - 100.0)	1/1	100.0 (76.8 - 100.0)	1/1	100.0 (88.4 - 100.0)	0/0	-	0/0	-

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Post-secondary education includes vocational or technician training, college, university, graduate and above.

<sup>b</sup> Self-employment includes businesses and selling drugs

<sup>c</sup> Estimates with a sample numerator of zero were calculated using binomial approximation. Meta analysis for overall estimates were restricted to include estimates with a non-zero sample numerator.

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; KSh., Kenya shillings; ml, milliliter.

Table 4.3B: Viral Load Suppression (VL < 200 copies/ml) Among Female Sex Workers By Location, BBS, Kenya, 2024

	Overall Estimate (N=990)		Kajiado (N=91)		Kiambu (N=85)		Kilifi (N=118)		Kisii (N=102)		Kisumu (N=182)		Machakos (N=116)		Mombasa (N=95)		Nairobi (N=102)		Nakuru (N=99)	
	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)
<b>Overall</b>	797/990	79.6 (75.7 - 83.5)	79/91	85.4 (74.9 - 96.0)	65/85	73.8 (63.3 - 84.1)	90/118	76.5 (67.2 - 85.9)	88/102	86.5 (76.9 - 96.1)	154/182	86.1 (79.0 - 93.3)	87/116	76.5 (66.9 - 86.3)	73/95	76.9 (66.7 - 87.3)	81/102	71.2 (62.0 - 80.2)	80/99	81.9 (71.3 - 92.5)
<b>Age (years)</b>																				
18-24	34/43	99.2 (97.1 - 100.0)	3/3	100.0 (96.7 - 100.0)	2/2	100.0 (93.7 - 100.0)	4/5	85.2 (57.1 - 100.0)	6/7	98.6 (95.5 - 100.0)	2/3	63.6 (32.7 - 94.6)	8/9	93.7 (80.0 - 100.0)	4/8	49.7 (9.7 - 89.6)	3/4	75.4 (41.0 - 100.0)	2/2	100.0 (98.4 - 100.0)
25-34	214/293	69.6 (59.8 - 79.4)	12/14	74.3 (55.2 - 92.6)	9/16	50.3 (26.0 - 74.1)	23/38	53.5 (38.0 - 69.0)	39/48	81.9 (68.8 - 95.1)	56/73	80.3 (68.1 - 92.7)	25/31	86.4 (73.4 - 99.9)	13/21	45.1 (28.1 - 60.9)	19/25	74.1 (55.3 - 93.0)	18/27	71.4 (56.1 - 87.0)
35-44	392/469	85.0 (81.3 - 88.7)	35/43	82.0 (70.3 - 93.4)	38/46	84.2 (71.2 - 97.0)	41/50	88.9 (78.7 - 99.4)	33/37	88.7 (79.7 - 97.9)	82/92	89.3 (81.3 - 97.2)	45/59	71.8 (56.7 - 86.4)	33/39	84.2 (71.3 - 97.0)	36/48	64.8 (46.5 - 83.2)	49/55	85.4 (73.8 - 97.0)
45+	157/185	94.9 (90.6 - 99.2)	29/31	91.6 (77.2 - 100.0)	16/21	73.4 (50.4 - 95.7)	22/25	88.4 (69.0 - 100.0)	10/10	100.0 (97.8 - 100.0)	14/14	100.0 (98.0 - 100.0)	9/17	48.1 (12.2 - 83.7)	23/27	91.7 (81.2 - 100.0)	23/25	83.6 (63.7 - 100.0)	11/15	81.9 (63.4 - 100.0)
<b>Highest level of education</b>																				
Never attended school	19/24	88.3 (70.5 - 100.0)	1/2	50.0 (37.0 - 61.6)	0/0	-	6/9	76.9 (49.9 - 100.0)	0/0	-	7/7	100.0 (96.7 - 100.0)	1/1	100.0 (66.4 - 100.0)	2/3	88.6 (24.4 - 100.0)	1/1	100.0 (96.8 - 100.0)	1/1	100.0 (90.7 - 100.0)
Nursery/pre-school	87/111	83.8 (73.5 - 94.0)	12/15	77.1 (53.6 - 100.0)	11/16	79.2 (58.6 - 99.3)	8/11	83.8 (60.7 - 100.0)	6/9	69.7 (40.5 - 98.9)	20/24	86.6 (73.8 - 99.5)	5/6	76.6 (37.9 - 100.0)	4/4	100.0 (94.1 - 100.0)	10/12	78.6 (51.3 - 100.0)	11/14	75.0 (49.2 - 100.0)
Primary school	495/607	80.4 (75.1 - 85.7)	55/59	92.8 (83.5 - 100.0)	41/53	69.5 (58.5 - 79.7)	52/68	74.1 (62.0 - 86.1)	53/61	87.4 (77.5 - 97.3)	87/103	83.3 (73.7 - 92.7)	61/82	77.7 (65.3 - 90.4)	51/66	77.3 (67.8 - 86.9)	45/55	71.4 (58.7 - 84.1)	50/60	86.1 (74.0 - 98.2)
Secondary school	164/208	81.9 (76.0 - 87.8)	8/10	76.5 (45.4 - 100.0)	10/13	76.0 (49.4 - 99.3)	21/26	86.2 (69.2 - 100.0)	23/26	88.0 (74.5 - 100.0)	35/42	90.1 (79.2 - 100.0)	19/25	71.3 (54.0 - 87.8)	14/20	67.0 (41.5 - 92.0)	20/29	62.4 (40.3 - 84.4)	14/17	83.8 (61.4 - 100.0)
Post-secondary <sup>a</sup>	32/40	99.9 (98.5 - 100.0)	3/5	61.4 (14.7 - 100.0)	3/3	100.0 (94.6 - 100.0)	3/4	43.8 (0.0 - 100.0)	6/6	100.0 (97.0 - 100.0)	5/6	84.3 (47.0 - 100.0)	1/2	84.8 (40.3 - 100.0)	2/2	100.0 (89.7 - 100.0)	5/5	100.0 (99.0 - 100.0)	4/7	58.2 (19.9 - 96.4)
<b>Current marital status</b>																				
Single/never married	135/175	85.4 (78.8 - 92.1)	4/6	70.7 (27.4 - 100.0)	14/21	67.0 (47.1 - 88.2)	17/22	65.1 (39.9 - 88.9)	18/20	88.8 (74.1 - 100.0)	17/17	100.0 (98.4 - 100.0)	19/26	73.3 (49.8 - 97.4)	19/29	65.2 (47.9 - 82.5)	14/21	56.0 (35.2 - 76.8)	13/13	100.0 (99.4 - 100.0)
Married/cohabiting	9/10	100.0 (99.3 - 100.0)	1/1	100.0 (89.7 - 100.0)	1/1	100.0 (80.5 - 100.0)	1/1	100.0 (85.8 - 100.0)	1/1	100.0 (83.9 - 100.0)	1/1	100.0 (82.4 - 100.0)	2/3	55.1 (0.0 - 100.0)	0/1	0.0 (0.0 - 45.9)	1/1	100.0 (90.0 - 100.0)	1/1	100.0 (85.8 - 100.0)
Divorced/separated	548/684	80.7 (77.1 - 84.2)	61/70	85.3 (74.4 - 96.0)	38/50	72.8 (59.4 - 86.3)	64/86	78.8 (68.2 - 89.5)	64/75	86.3 (76.4 - 96.4)	110/136	81.7 (73.5 - 90.0)	61/79	80.9 (71.2 - 91.2)	47/57	83.8 (72.9 - 94.7)	48/61	72.0 (60.1 - 84.0)	55/70	77.3 (64.3 - 90.2)
Widowed	103/118	90.0 (82.3 - 97.7)	12/13	89.3 (68.7 - 100.0)	11/12	87.7 (68.4 - 100.0)	8/9	87.7 (62.0 - 100.0)	5/6	72.2 (29.7 - 100.0)	26/28	99.0 (98.0 - 100.0)	5/8	58.5 (19.7 - 96.9)	7/8	85.8 (59.7 - 100.0)	18/19	89.9 (70.7 - 100.0)	11/15	83.3 (63.7 - 100.0)
<b>Main source of income</b>																				
Formal employment	2/2	100.0 (98.6 - 100.0)	0/0	-	0/0	-	1/1	100.0 (39.8 - 100.0)	0/0	-	1/1	100.0 (87.7 - 100.0)	0/0	-	0/0	-	0/0	-	0/0	-
Informal work <sup>c</sup>	12/14	99.9 (98.8 - 100.0)	0/0	-	2/2	100.0 (81.5 - 100.0)	4/5	96.6 (87.6 - 100.0)	3/4	80.2 (44.3 - 100.0)	1/1	100.0 (73.5 - 100.0)	2/2	100.0 (89.1 - 100.0)	0/0	-	0/0	-	0/1	0.0 (0.0 - 9.3)
Self-employment <sup>b</sup>	21/25	99.9 (98.8 - 100.0)	4/4	100.0 (97.2 - 100.0)	0/0	-	3/5	43.0 (0.5 - 84.6)	3/3	100.0 (92.5 - 100.0)	3/4	95.7 (73.4 - 100.0)	4/4	100.0 (93.0 - 100.0)	1/1	100.0 (2.5 - 100.0)	1/1	100.0 (96.8 - 100.0)	2/3	48.8 (0.0 - 100.0)
Sex work	761/947	79.5 (75.5 - 83.6)	75/87	84.4 (74.9 - 93.9)	63/83	73.5 (63.0 - 83.6)	81/106	77.0 (67.3 - 86.7)	82/95	86.5 (76.7 - 96.4)	149/176	85.8 (78.7 - 93.0)	81/110	74.7 (64.4 - 85.0)	72/94	76.8 (66.5 - 87.2)	80/101	70.6 (61.7 - 79.7)	78/95	84.4 (73.7 - 95.1)
None	1/1	100.0 (78.2 - 100.0)	0/0	-	0/0	-	1/1	100.0 (78.2 - 100.0)	0/0	-	0/0	-	0/0	-	0/0	-	0/0	-	0/0	-
<b>Monthly income (KSh.)</b>																				
<5000	79/97	98.6 (95.8 - 100.0)	2/2	100.0 (94.8 - 100.0)	10/14	75.1 (50.1 - 100.0)	8/10	75.0 (46.0 - 100.0)	20/26	72.2 (50.4 - 93.9)	13/13	100.0 (98.2 - 100.0)	4/5	85.5 (48.2 - 100.0)	7/7	100.0 (97.6 - 100.0)	13/15	74.6 (40.7 - 100.0)	2/5	52.8 (5.9 - 100.0)
5000 to <20000	496/614	80.5 (75.0 - 86.0)	53/62	83.3 (72.4 - 94.1)	37/52	66.7 (56.0 - 77.3)	67/83	79.2 (69.0 - 89.9)	51/56	94.1 (83.2 - 100.0)	97/115	86.7 (78.4 - 95.1)	56/73	76.7 (64.1 - 89.2)	54/73	76.4 (65.0 - 87.5)	38/50	73.8 (61.4 - 86.1)	43/50	86.7 (72.2 - 100.0)
20000 to <50000	186/228	82.5 (77.5 - 87.6)	24/27	89.2 (76.0 - 100.0)	18/19	94.5 (80.6 - 100.0)	14/22	69.8 (43.6 - 96.5)	13/15	88.7 (71.3 - 100.0)	41/49	82.2 (68.0 - 96.4)	24/34	70.9 (56.9 - 84.9)	12/15	60.7 (29.5 - 89.8)	22/25	80.6 (68.9 - 92.0)	18/22	81.6 (67.4 - 95.9)
50000 and above <sup>c</sup>	18/27	75.4 (53.5 - 97.4)	0/0	-	0/0	-	1/3	28.9 (0.0 - 80.0)	4/5	83.6 (45.9 - 100.0)	2/4	55.8 (0.0 - 100.0)	3/4	95.7 (87.7 - 100.0)	0/0	-	6/8	63.9 (17.2 - 100.0)	2/3	77.4 (7.4 - 100.0)
<b>Ever pregnant</b>																				
Yes	781/969	80.1 (75.8 - 84.3)	79/91	85.5 (75.5 - 95.2)	64/84	73.4 (63.2 - 83.7)	85/112	76.1 (66.7 - 85.5)	85/97	89.5 (80.6 - 98.7)	151/179	86.0 (79.0 - 93.2)	85/114	75.7 (66.0 - 85.7)	72/92	79.2 (68.8 - 89.7)	81/102	71.2 (61.9 - 80.4)	79/98	81.6 (70.9 - 92.3)
No	16/21	99.7 (97.5 - 100.0)	0/0	-	1/1	100.0 (80.5 - 100.0)	5/6	85.7 (56.2 - 100.0)	3/5	52.1 (3.2 - 100.0)	3/3	100.0 (84.6 - 100.0)	2/2	100.0 (90.0 - 100.0)	1/3	14.4 (0.0 - 60.6)	0/0	-	1/1	100.0 (94.3 - 100.0)
<b>Currently pregnant</b>																				
Yes <sup>c</sup>	7/8	100.0 (99.1 - 100.0)	1/1	100.0 (89.7 - 100.0)	0/1	0.0 (0.0 - 19.5)	1/2	45.5 (0.0 - 100.0)	1/1	100.0 (75.3 - 100.0)	0/1	0.0 (0.0 - 17.6)	2/2	100.0 (91.6 - 100.0)	1/1	100.0 (39.8 - 100.0)	0/0	-	1/1	100.0 (90.7 - 100.0)
No	774/959	80.2 (75.9 - 84.5)	78/90	85.2 (75.3 - 94.8)	64/83	74.4 (64.3 - 84.3)	84/110	76.7 (67.0 - 86.3)	84/96	89.5 (80.6 - 98.4)	151/178	86.7 (79.5 - 94.0)	83/112	74.8 (64.8 - 84.9)	71/91	79.2 (68.8 - 89.6)	81/102	71.2 (61.9 - 80.4)	78/97	81.4 (70.8 - 92.1)
<b>ANC visit during last live birth</b>																				
Yes	121/156	80.8 (72.4 - 89.2)	12/15	77.2 (56.3 - 98.6)	7/8	84.7 (58.4 - 100.0)	15/23	62.0 (42.2 - 80.9)	17/20	90.3 (77.8 - 100.0)	29/34	87.4 (75.1 - 99.8)	9/14	69.9 (45.7 - 93.8)	6/12	46.1 (13.7 - 78.5)	16/19	81.8 (64.9 - 98.7)	10/11	94.4 (81.9 - 100.0)
No <sup>c</sup>	3/4	100.0 (98.6 - 100.0)	0/0	-	0/0	-	0/0	-	0/1	0.0 (0.0 - 16.1)	1/2	56.5 (0.0 - 100.0)	1/1	100.0 (76.8 - 100.0)	1/1	100.0 (88.4 - 100.0)	0/0	-	0/0	-

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Post-secondary education includes vocational or technician training, college, university, graduate and above.

<sup>b</sup> Self-employment includes businesses and selling drugs

<sup>c</sup> Estimates with a sample numerator of zero were calculated using binomial approximation. Meta analysis for overall estimates were restricted to include estimates with a non-zero sample numerator.

Abbreviations: BBS, biobehavioral survey; ml, milliliter; N, sample denominator; n, sample numerator; CI, confidence interval; KSh., Kenya shillings

Table 4.3C: Viral Load Suppression (VL<1000 copies/ml) Among Female Sex Workers By Location, BBS, Kenya, 2024

	Overall Estimate (N=990)		Kajiado(N=91)		Kiambu (N=85)		Kilifi (N=118)		Kisii (N=102)		Kisumu (N=182)		Machakos (n=116)		Mombasa (N=95)		Nairobi (N=102)		Nakuru (N=99)	
	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)
<b>Overall</b>	837/990	83.8 (80.5 - 87.0)	82/91	89.1 (77.7 - 100.0)	68/85	78.5 (68.0 - 89.1)	95/118	78.9 (69.7 - 88.0)	89/102	87.8 (78.2 - 97.5)	162/182	89.8 (82.4 - 97.3)	95/116	79.8 (70.1 - 89.3)	76/95	80.6 (69.9 - 91.1)	87/102	80.5 (70.7 - 90.1)	83/99	85.8 (74.8 - 96.7)
<b>Age (years)</b>																				
18-24	36/43	99.8 (98.9 - 100.0)	3/3	100.0 (96.7 - 100.0)	2/2	100.0 (93.7 - 100.0)	4/5	85.1 (57.4 - 100.0)	6/7	98.7 (95.5 - 100.0)	3/3	100.0 (93.3 - 100.0)	8/9	93.9 (79.9 - 100.0)	5/8	57.0 (15.3 - 97.1)	3/4	75.7 (40.5 - 100.0)	2/2	100.0 (98.4 - 100.0)
25-34	227/293	76.1 (67.9 - 84.3)	13/14	87.1 (70.5 - 100.0)	10/16	56.6 (32.4 - 80.6)	26/38	59.0 (43.8 - 73.3)	39/48	81.9 (68.8 - 95.2)	60/73	83.5 (71.6 - 95.5)	27/31	90.2 (79.1 - 100.0)	14/21	59.0 (39.8 - 77.5)	20/25	82.7 (65.8 - 99.7)	18/27	71.5 (56.2 - 86.8)
35-44	413/469	89.1 (85.6 - 92.5)	37/43	86.3 (75.8 - 96.9)	40/46	90.9 (79.4 - 100.0)	43/50	90.0 (80.5 - 99.8)	34/37	92.3 (83.6 - 100.0)	85/92	92.5 (84.7 - 100.0)	48/59	74.1 (59.4 - 88.1)	34/39	85.7 (73.5 - 98.4)	41/48	78.7 (62.1 - 95.4)	51/55	91.8 (82.5 - 100.0)
45+	161/185	94.9 (90.7 - 99.1)	29/31	91.6 (77.4 - 100.0)	16/21	73.3 (51.2 - 95.6)	22/25	88.4 (69.0 - 100.0)	10/10	100.0 (97.8 - 100.0)	14/14	100.0 (98.0 - 100.0)	12/17	57.9 (30.3 - 85.5)	23/27	91.7 (81.4 - 100.0)	23/25	83.8 (63.7 - 100.0)	12/15	85.9 (67.8 - 100.0)
<b>Highest level of education</b>																				
Never attended school <sup>f</sup>	20/24	90.1 (74.6 - 100.0)	1/2	50.0 (37.0 - 61.6)	0/0	-	6/9	76.5 (50.3 - 100.0)	0/0	-	7/7	100.0 (96.7 - 100.0)	1/1	100.0 (66.4 - 100.0)	3/3	100.0 (96.5 - 100.0)	1/1	100.0 (96.8 - 100.0)	1/1	100.0 (90.7 - 100.0)
Nursery/pre-school	90/111	87.0 (78.5 - 95.5)	12/15	77.0 (53.9 - 100.0)	11/16	79.3 (59.3 - 99.6)	8/11	83.5 (63.0 - 100.0)	6/9	69.8 (40.0 - 99.5)	22/24	93.9 (85.2 - 100.0)	5/6	76.6 (37.9 - 100.0)	4/4	100.0 (94.1 - 100.0)	11/12	83.7 (56.6 - 100.0)	11/14	75.2 (49.2 - 100.0)
Primary school	520/607	84.1 (79.6 - 88.6)	56/59	95.5 (85.8 - 100.0)	43/53	74.7 (63.2 - 85.9)	56/68	77.3 (67.0 - 87.5)	54/61	89.4 (79.5 - 99.4)	92/103	87.1 (77.8 - 96.4)	67/82	81.1 (68.8 - 93.3)	53/66	81.9 (72.6 - 91.1)	47/55	77.9 (64.6 - 91.1)	52/60	88.4 (76.4 - 100.0)
Secondary school	174/208	88.5 (81.2 - 95.8)	10/10	100.0 (97.8 - 100.0)	11/13	85.7 (64.1 - 100.0)	22/26	87.4 (69.8 - 100.0)	23/26	87.9 (74.2 - 100.0)	36/42	92.3 (81.6 - 100.0)	20/25	74.4 (56.0 - 92.5)	14/20	66.7 (41.5 - 92.0)	23/29	80.3 (62.3 - 98.1)	15/17	94.9 (84.5 - 100.0)
Post-secondary <sup>g</sup>	33/40	99.9 (99.1 - 100.0)	3/5	61.3 (14.3 - 100.0)	3/3	100.0 (94.6 - 100.0)	3/4	45.0 (0.0 - 100.0)	6/6	100.0 (97.0 - 100.0)	5/6	84.7 (49.7 - 100.0)	2/2	100.0 (80.5 - 100.0)	2/2	100.0 (89.7 - 100.0)	5/5	100.0 (99.0 - 100.0)	4/7	58.1 (19.9 - 96.4)
<b>Current marital status</b>																				
Single/never married	139/175	86.9 (80.6 - 93.2)	4/6	71.0 (27.7 - 100.0)	14/21	67.4 (46.9 - 88.0)	17/22	65.2 (40.0 - 89.1)	18/20	88.7 (74.2 - 100.0)	17/17	100.0 (98.4 - 100.0)	21/26	74.3 (53.1 - 95.0)	20/29	71.9 (55.4 - 88.7)	15/21	59.9 (39.3 - 80.5)	13/13	100.0 (99.4 - 100.0)
Married/cohabiting <sup>c</sup>	9/10	100.0 (99.3 - 100.0)	1/1	100.0 (89.7 - 100.0)	1/1	100.0 (80.5 - 100.0)	1/1	100.0 (89.7 - 100.0)	1/1	100.0 (83.9 - 100.0)	1/1	100.0 (82.4 - 100.0)	2/3	53.2 (0.0 - 100.0)	0/1	0.0 (0.0 - 45.9)	1/1	100.0 (90.0 - 100.0)	1/1	100.0 (85.8 - 100.0)
Divorced/separated	582/684	85.3 (81.9 - 88.8)	63/70	87.9 (77.2 - 98.5)	40/50	78.4 (64.6 - 92.1)	69/86	82.5 (72.5 - 92.7)	65/75	88.1 (78.0 - 98.1)	118/136	86.7 (78.6 - 94.8)	67/79	85.7 (76.4 - 95.0)	49/57	85.9 (75.2 - 96.4)	3/3	85.3 (75.0 - 95.7)	58/70	82.8 (69.8 - 95.9)
Widowed	105/118	99.2 (97.5 - 100.0)	13/13	100.0 (98.8 - 100.0)	12/12	100.0 (97.8 - 100.0)	8/9	87.8 (61.4 - 100.0)	5/6	72.4 (28.2 - 100.0)	26/28	99.0 (98.0 - 100.0)	5/8	58.7 (18.8 - 96.1)	7/8	86.0 (59.0 - 100.0)	18/19	90.0 (71.0 - 100.0)	11/15	82.9 (63.3 - 100.0)
<b>Main source of income</b>																				
Formal employment	2/2	100.0 (98.6 - 100.0)	0/0	-	0/0	-	1/1	100.0 (39.8 - 100.0)	0/0	-	1/1	100.0 (87.7 - 100.0)	0/0	-	0/0	-	0/0	-	0/0	-
Informal work <sup>c</sup>	12/14	99.9 (98.8 - 100.0)	0/0	-	2/2	100.0 (81.5 - 100.0)	4/5	96.6 (89.2 - 100.0)	3/4	79.5 (41.1 - 100.0)	1/1	100.0 (73.5 - 100.0)	2/2	100.0 (89.1 - 100.0)	0/0	-	0/0	-	0/1	0.0 (0.0 - 9.3)
Self-employment <sup>d</sup>	22/25	100.0 (99.2 - 100.0)	4/4	100.0 (97.2 - 100.0)	0/0	-	3/5	42.0 (1.6 - 85.8)	3/3	100.0 (92.5 - 100.0)	3/4	95.5 (74.9 - 100.0)	4/4	100.0 (93.0 - 100.0)	1/1	100.0 (2.5 - 100.0)	1/1	100.0 (96.8 - 100.0)	3/3	100.0 (98.2 - 100.0)
Sex work	800/947	83.7 (80.5 - 86.9)	78/87	88.4 (78.7 - 98.0)	66/83	78.3 (67.8 - 88.8)	86/106	79.5 (70.2 - 88.9)	83/95	87.9 (77.9 - 97.8)	157/176	89.6 (82.2 - 97.0)	89/110	78.3 (67.9 - 88.3)	75/94	80.5 (70.1 - 91.1)	86/101	80.2 (70.5 - 89.7)	80/95	85.7 (74.5 - 97.0)
None	1/1	100.0 (78.2 - 100.0)	0/0	-	0/0	-	1/1	100.0 (78.2 - 100.0)	0/0	-	0/0	-	0/0	-	0/0	-	0/0	-	0/0	-
<b>Monthly income (KSh.)</b>																				
<5000	82/97	99.5 (97.8 - 100.0)	2/2	100.0 (94.8 - 100.0)	10/14	75.6 (50.2 - 100.0)	8/10	75.1 (45.2 - 100.0)	21/26	76.9 (55.5 - 97.8)	13/13	100.0 (98.2 - 100.0)	4/5	86.1 (48.3 - 100.0)	7/7	100.0 (97.6 - 100.0)	15/15	100.0 (99.7 - 100.0)	2/5	53.1 (5.4 - 100.0)
5000 to <20000	522/614	84.9 (80.5 - 89.2)	56/62	88.6 (77.8 - 99.3)	40/52	74.7 (64.0 - 85.1)	70/83	82.0 (71.7 - 92.4)	51/56	94.1 (83.3 - 100.0)	102/115	90.6 (82.1 - 99.1)	61/73	79.8 (68.0 - 91.2)	57/73	80.8 (69.8 - 91.8)	41/50	80.6 (69.0 - 92.3)	44/50	91.3 (78.7 - 100.0)
20000 to <50000	196/228	85.5 (80.9 - 90.2)	24/27	89.2 (75.9 - 100.0)	18/19	94.4 (81.1 - 100.0)	16/22	73.3 (50.7 - 95.8)	13/15	88.6 (71.3 - 100.0)	44/49	87.2 (75.5 - 98.7)	27/34	75.8 (62.9 - 87.9)	12/15	60.9 (30.8 - 90.5)	23/25	88.0 (77.3 - 98.7)	19/22	85.5 (72.0 - 98.9)
50000 and above <sup>e</sup>	19/27	91.0 (79.6 - 100.0)	0/0	-	0/0	-	1/3	28.6 (0.0 - 80.1)	4/5	82.8 (46.5 - 100.0)	2/4	57.0 (0.0 - 100.0)	3/4	95.6 (88.0 - 100.0)	0/0	-	6/8	65.4 (17.6 - 100.0)	3/3	100.0 (95.8 - 100.0)
<b>Ever pregnant</b>																				
Yes	821/969	84.4 (81.2 - 87.6)	82/91	89.1 (78.5 - 99.6)	67/84	78.3 (67.7 - 88.8)	90/112	78.6 (69.3 - 87.8)	86/97	90.9 (82.1 - 100.0)	159/179	89.7 (82.5 - 97.1)	93/114	79.1 (69.2 - 88.8)	75/92	83.0 (72.6 - 93.5)	87/102	80.5 (70.7 - 90.2)	82/98	85.5 (74.6 - 96.4)
No	16/21	99.7 (97.5 - 100.0)	0/0	-	1/1	100.0 (80.5 - 100.0)	5/6	85.6 (54.9 - 100.0)	3/5	52.1 (3.3 - 100.0)	3/3	100.0 (84.6 - 100.0)	2/2	100.0 (90.0 - 100.0)	1/3	14.1 (0.0 - 60.2)	0/0	-	1/1	100.0 (94.3 - 100.0)
<b>Currently pregnant</b>																				
Yes <sup>c</sup>	8/8	100.0 (99.2 - 100.0)	1/1	100.0 (89.7 - 100.0)	0/1	0.0 (0.0 - 19.5)	2/2	100.0 (89.1 - 100.0)	1/1	100.0 (75.3 - 100.0)	0/1	0.0 (0.0 - 17.6)	2/2	100.0 (91.6 - 100.0)	1/1	100.0 (39.8 - 100.0)	0/0	-	1/1	100.0 (90.7 - 100.0)
No	813/959	84.5 (81.4 - 87.6)	81/90	89.0 (78.6 - 99.2)	67/83	79.3 (69.0 - 89.7)	88/110	78.3 (68.8 - 87.5)	85/96	90.9 (82.2 - 99.6)	159/178	90.5 (83.1 - 97.9)	91/112	78.4 (68.5 - 87.9)	74/91	83.0 (72.7 - 93.2)	87/102	80.4 (70.8 - 90.0)	81/97	85.3 (74.6 - 96.2)
<b>ANC visit during last live birth</b>																				
Yes	126/156	84.6 (76.9 - 92.3)	12/15	77.4 (55.8 - 99.1)	7/8	84.5 (58.9 - 100.0)	16/23	64.9 (45.8 - 84.2)	17/20	90.3 (77.7 - 100.0)	31/34	94.0 (84.8 - 100.0)	9/14	70.2 (45.5 - 94.3)	7/12	52.0 (19.0 - 84.5)	17/19	91.3 (79.8 - 100.0)	10/11	94.3 (81.8 - 100.0)
No <sup>c</sup>	3/4	100.0 (98.6 - 100.0)	0/0	-	0/0	-	0/0	-	0/1	0.0 (0.0 - 16.1)	1/2	56.0 (0.0 - 100.0)	1/1	100.0 (76.8 - 100.0)	1/1	100.0 (88.4 - 100.0)	0/0	-	0/0	-

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Post-secondary education includes vocational or technician training, college, university, graduate and above.

<sup>b</sup> Self-employment includes businesses and selling drugs

<sup>c</sup> Estimates with a sample numerator of zero were calculated using binomial approximation. Meta analysis for overall estimates were restricted to include estimates with a non-zero sample numerator.

Abbreviations: BBS, biobehavioral survey; ml, milliliter; n, sample denominator; n, sample numerator; CI, confidence interval; KSh., Kenya shillings

## 4.4: HIV Incidence

Testing is underway and will be added to this report as an addendum.

## 4.5: UNAIDS 95-95-95 Cascade

### **Conditional:**

For VL < 50 copies/mL, awareness of HIV status among female sex workers was 93.9% (95% CI: 91.1–96.8), and 99.2% of those aware were on ART. Among those on ART, 77.9% were virally suppressed. Across counties, viral suppression ranged from 63.0% (Nairobi) to 83.8% (Nakuru). Among those aged 18–34 years, awareness was 96.0%, ART coverage among the aware was 100%, and viral suppression was 74.8%. For those aged ≥35 years, awareness was 99.9%, ART coverage 100%, and viral suppression 81.0%.

For VL < 200 copies/mL, awareness remained 93.9%, ART coverage among the aware was 99.2%, and viral suppression was 88.2%. County suppression ranged between 77.8% (Nakuru) and 92.4% (Kajiado). Among those aged 18–34 years, suppression was 85.6%, while among those aged ≥35 years it was 90.6%.

For VL < 1000 copies/mL, awareness of HIV status was 93.9%, with 99.2% of those aware on ART and 91.6% virally suppressed. Viral suppression ranged from 86.7% (Kiambu) to 96.3% (Kajiado). Among those aged 18–34 years, suppression was 89.0%, while among those aged ≥35 years it was 93.2%.

### **Unconditional:**

For VL <50 copies/mL, awareness of HIV status among female sex workers was 93.9% (95% CI: 91.1–96.8); 92.5% (89.1–95.8) were on ART; and 71.1% (66.0–76.2) were virally suppressed. Among those aged 18–34 years, awareness of HIV status was 96.0%, 91.1% were on ART, and 65.3% were virally suppressed. Among those aged ≥35 years, awareness was 99.9%, 96.4% were on ART, and 75.7% were virally suppressed.

For VL <200 copies/mL, awareness was 93.9% (91.1–96.8); 92.5% (89.1–95.8) were on ART; and 80.7% (77.0–84.4) were virally suppressed. Among those aged 18–34 years, 75.9% were virally suppressed; among those aged ≥35 years, 85.1% were virally suppressed.

For VL <1000 copies/mL, awareness was 93.9% (91.1–96.8); 92.5% (89.1–95.8) were on ART; and 84.8% (81.6–88.1) were virally suppressed. Among those aged 18–34 years, 80.9% were virally suppressed; among those aged ≥35 years, 89.0% were virally suppressed.

Table 4.5.1: Conditional UNAIDS 95-95-95 Cascade Among Female Sex Workers By Location and Age, BBS, Kenya, 2024

	Overall Estimate (N=3722)		Kajiado (N=368)		Kiambu (N=425)		Kilifi (N=391)		Kisii (N=377)	
	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)
<b>VL &lt;50 copies/mL</b>										
Aware of HIV status	926/989	93.9 (91.1 - 96.8)	86/91	94.5 (93.3 - 95.6)	77/85	90.7 (80.3 - 100.0)	108/118	88.6 (81.6 - 95.6)	98/101	96.4 (93.6 - 99.2)
On ART among those aware	914/926	99.2 (98.9 - 99.5)	85/86	98.2 (97.7 - 98.7)	74/77	93.9 (92.1 - 95.7)	106/108	98.7 (98.3 - 99.1)	98/98	100.0 (100.0 - 100.0)
Virally suppressed among those on ART	697/914	77.9 (74.6 - 81.1)	65/85	81.5 (74.4 - 89.0)	55/74	73.9 (58.9 - 88.9)	80/106	77.9 (68.7 - 87.3)	77/98	78.2 (67.7 - 88.6)
<b>18-34 years</b>										
Aware of HIV status	306/335	96.0 (93.5 - 98.6)	17/17	100.0 (100.0 - 100.0)	16/18	90.9 (78.4 - 100.0)	37/43	75.4 (57.2 - 93.0)	51/54	93.6 (86.1 - 100.0)
On ART among those aware	302/306	100.0 (100.0 - 100.0)	16/17	91.8 (79.1 - 100.0)	14/16	80.2 (54.6 - 100.0)	37/37	100.0 (100.0 - 100.0)	51/51	100.0 (100.0 - 100.0)
Virally suppressed among those on ART	219/302	74.8 (70.0 - 79.5)	12/16	73.5 (50.5 - 96.3)	10/14	64.5 (33.4 - 95.2)	22/37	59.6 (44.9 - 74.2)	37/51	73.1 (61.9 - 84.4)
<b>35 years and above</b>										
Aware of HIV status	620/654	99.9 (99.6 - 100.0)	69/74	93.0 (88.4 - 97.6)	61/67	90.7 (80.7 - 100.0)	71/75	97.1 (93.9 - 100.0)	47/47	100.0 (100.0 - 100.0)
On ART among those aware	612/620	100.0 (99.9 - 100.0)	69/69	100.0 (100.0 - 100.0)	60/61	99.5 (98.9 - 100.0)	69/71	98.0 (96.1 - 99.9)	47/47	100.0 (100.0 - 100.0)
Virally suppressed among those on ART	478/612	81.0 (76.3 - 85.7)	53/69	83.5 (75.2 - 92.1)	45/60	77.0 (63.6 - 90.5)	58/69	87.2 (78.3 - 96.1)	40/47	84.5 (75.1 - 93.9)
<b>VL &lt;200 copies/mL</b>										
Aware of HIV status	926/989	93.9 (91.1 - 96.8)	86/91	94.5 (93.3 - 95.6)	77/85	90.7 (80.3 - 100.0)	108/118	88.6 (81.6 - 95.6)	98/101	96.4 (93.6 - 99.2)
On ART among those aware	914/926	99.2 (98.9 - 99.5)	85/86	98.2 (97.7 - 98.7)	74/77	93.9 (92.1 - 95.7)	106/108	98.7 (98.3 - 99.1)	98/98	100.0 (100.0 - 100.0)
Virally suppressed among those on ART	796/914	88.2 (85.8 - 90.6)	79/85	92.4 (86.6 - 98.2)	65/74	86.7 (78.6 - 94.9)	90/106	87.5 (79.9 - 95.1)	87/98	89.3 (82.4 - 96.1)
<b>18-34 years</b>										
Aware of HIV status	306/335	96.0 (93.5 - 98.6)	17/17	100.0 (100.0 - 100.0)	16/18	90.9 (78.4 - 100.0)	37/43	75.4 (57.2 - 93.0)	51/54	93.6 (86.1 - 100.0)
On ART among those aware	302/306	100.0 (100.0 - 100.0)	16/17	91.8 (79.1 - 100.0)	14/16	80.2 (54.6 - 100.0)	37/37	100.0 (100.0 - 100.0)	51/51	100.0 (100.0 - 100.0)
Virally suppressed among those on ART	247/302	85.6 (81.8 - 89.4)	15/16	91.0 (77.5 - 100.0)	11/14	79.3 (54.5 - 100.0)	27/37	76.0 (63.6 - 88.7)	44/51	88.3 (80.0 - 96.7)
<b>35 years and above</b>										
Aware of HIV status	620/654	99.9 (99.6 - 100.0)	69/74	93.0 (88.4 - 97.6)	61/67	90.7 (80.7 - 100.0)	71/75	97.1 (93.9 - 100.0)	47/47	100.0 (100.0 - 100.0)
On ART among those aware	612/620	100.0 (99.9 - 100.0)	69/69	100.0 (100.0 - 100.0)	60/61	99.5 (98.9 - 100.0)	69/71	98.0 (96.1 - 99.9)	47/47	100.0 (100.0 - 100.0)
Virally suppressed among those on ART	549/612	90.6 (88.1 - 93.0)	64/69	92.7 (86.0 - 99.5)	54/60	89.1 (80.5 - 97.7)	63/69	93.2 (86.7 - 99.9)	43/47	90.5 (82.7 - 98.3)
<b>VL &lt;1000 copies/mL</b>										
Aware of HIV status	926/989	93.9 (91.1 - 96.8)	86/91	94.5 (93.3 - 95.6)	77/85	90.7 (80.3 - 100.0)	108/118	88.6 (81.6 - 95.6)	98/101	96.4 (93.6 - 99.2)
On ART among those aware	914/926	99.2 (98.9 - 99.5)	85/86	98.2 (97.7 - 98.7)	74/77	93.9 (92.1 - 95.7)	106/108	98.7 (98.3 - 99.1)	98/98	100.0 (100.0 - 100.0)
Virally suppressed among those on ART	827/914	91.6 (89.6 - 93.6)	82/85	96.3 (92.2 - 100.0)	65/74	86.7 (78.9 - 94.5)	94/106	89.8 (83.5 - 96.2)	88/98	90.6 (84.2 - 97.2)
<b>18-34 years</b>										
Aware of HIV status	306/335	96.0 (93.5 - 98.6)	17/17	100.0 (100.0 - 100.0)	16/18	90.9 (78.4 - 100.0)	37/43	75.4 (57.2 - 93.0)	51/54	93.6 (86.1 - 100.0)
On ART among those aware	302/306	100.0 (100.0 - 100.0)	16/17	91.8 (79.1 - 100.0)	14/16	80.2 (54.6 - 100.0)	37/37	100.0 (100.0 - 100.0)	51/51	100.0 (100.0 - 100.0)
Virally suppressed among those on ART	258/302	89.0 (82.4 - 95.7)	16/16	100.0 (100.0 - 100.0)	11/14	79.3 (54.6 - 100.0)	30/37	82.5 (70.7 - 94.4)	44/51	88.3 (80.0 - 96.8)
<b>35 years and above</b>										
Aware of HIV status	620/654	99.9 (99.6 - 100.0)	69/74	93.0 (88.4 - 97.6)	61/67	90.7 (80.7 - 100.0)	71/75	97.1 (93.9 - 100.0)	47/47	100.0 (100.0 - 100.0)
On ART among those aware	612/620	100.0 (99.9 - 100.0)	69/69	100.0 (100.0 - 100.0)	60/61	99.5 (98.9 - 100.0)	69/71	98.0 (96.1 - 99.9)	47/47	100.0 (100.0 - 100.0)
Virally suppressed among those on ART	569/612	93.2 (91.1 - 95.3)	66/69	95.3 (90.2 - 100.0)	54/60	89.1 (80.6 - 97.6)	64/69	93.5 (86.8 - 100.0)	44/47	93.5 (87.7 - 99.3)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; mL, milliliters; VL, viral load, ART, antiretroviral therapy.

Table 4.5.1 cont.: Conditional UNAIDS 95-95-95 Cascade Among Female Sex Workers By Location and Age, BBS, Kenya, 2024

	Kisumu (N=427)		Machakos (N=462)		Mombasa (N=414)		Nairobi (N=461)		Nakuru (N=397)	
	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)
<b>VL&lt;50 copies/mL</b>										
Aware of HIV status	180/182	99.6 (99.0 - 100.0)	104/116	88.4 (79.1 - 97.6)	85/95	86.8 (78.4 - 94.9)	96/102	94.3 (91.7 - 96.9)	92/99	94.0 (90.0 - 98.0)
On ART among those aware	179/180	99.6 (99.1 - 100.0)	103/104	98.6 (95.1 - 100.0)	85/85	100.0 (100.0 - 100.0)	94/96	97.4 (94.3 - 100.0)	90/92	98.8 (97.3 - 100.0)
Virally suppressed among those on ART	139/179	81.0 (72.0 - 90.3)	73/103	74.3 (66.7 - 82.3)	68/85	83.8 (72.1 - 95.6)	66/94	63.0 (51.5 - 74.5)	74/90	82.4 (71.6 - 93.2)
<b>18-34 years</b>										
Aware of HIV status	74/76	98.9 (97.6 - 100.0)	37/40	95.5 (90.5 - 100.0)	22/29	62.5 (35.3 - 88.9)	27/29	92.6 (84.8 - 100.0)	25/29	89.5 (81.4 - 97.6)
On ART among those aware	74/74	100.0 (100.0 - 100.0)	37/37	100.0 (100.0 - 100.0)	22/22	100.0 (100.0 - 100.0)	26/27	96.2 (85.7 - 100.0)	25/25	100.0 (100.0 - 100.0)
Virally suppressed among those on ART	56/74	78.9 (70.6 - 87.7)	28/37	80.8 (68.1 - 93.9)	17/22	74.5 (39.7 - 100.0)	18/26	70.5 (54.8 - 86.2)	19/25	79.4 (64.8 - 94.0)
<b>35 years and above</b>										
Aware of HIV status	106/106	100.0 (100.0 - 100.0)	67/76	82.9 (68.8 - 96.8)	63/66	95.4 (89.0 - 100.0)	69/73	95.0 (91.4 - 98.7)	67/70	96.3 (92.1 - 100.0)
On ART among those aware	105/106	99.3 (98.3 - 100.0)	66/67	97.4 (91.0 - 100.0)	63/63	100.0 (100.0 - 100.0)	68/69	97.8 (95.2 - 100.0)	65/67	98.2 (95.7 - 100.0)
Virally suppressed among those on ART	83/105	82.4 (74.3 - 90.6)	45/66	68.3 (55.1 - 81.5)	51/63	86.1 (79.5 - 92.8)	48/68	59.9 (45.0 - 74.5)	55/65	83.9 (74.1 - 93.6)
<b>VL &lt;200 copies/mL</b>										
Aware of HIV status	180/182	99.6 (99.0 - 100.0)	104/116	88.4 (79.1 - 97.6)	85/95	86.8 (78.4 - 94.9)	96/102	94.3 (91.7 - 96.9)	92/99	94.0 (90.0 - 98.0)
On ART among those aware	179/180	99.6 (99.1 - 100.0)	103/104	98.6 (95.1 - 100.0)	85/85	100.0 (100.0 - 100.0)	94/96	97.4 (94.3 - 100.0)	90/92	98.8 (97.3 - 100.0)
Virally suppressed among those on ART	154/179	86.9 (80.6 - 93.1)	87/103	87.8 (82.4 - 93.5)	73/85	88.6 (76.9 - 100.0)	81/94	77.8 (66.2 - 89.4)	80/90	88.3 (81.0 - 95.6)
<b>18-34 years</b>										
Aware of HIV status	74/76	98.9 (97.6 - 100.0)	37/40	95.5 (90.5 - 100.0)	22/29	62.5 (35.3 - 88.9)	27/29	92.6 (84.8 - 100.0)	25/29	89.5 (81.4 - 97.6)
On ART among those aware	74/74	100.0 (100.0 - 100.0)	37/37	100.0 (100.0 - 100.0)	22/22	100.0 (100.0 - 100.0)	26/27	96.2 (85.7 - 100.0)	25/25	100.0 (100.0 - 100.0)
Virally suppressed among those on ART	58/74	80.2 (71.6 - 89.1)	33/37	92.7 (84.4 - 100.0)	17/22	74.5 (39.8 - 100.0)	22/26	83.5 (69.0 - 98.0)	20/25	84.8 (73.8 - 95.9)
<b>35 years and above</b>										
Aware of HIV status	106/106	100.0 (100.0 - 100.0)	67/76	82.9 (68.8 - 96.8)	63/66	95.4 (89.0 - 100.0)	69/73	95.0 (91.4 - 98.7)	67/70	96.3 (92.1 - 100.0)
On ART among those aware	105/106	99.3 (98.3 - 100.0)	66/67	97.4 (91.0 - 100.0)	63/63	100.0 (100.0 - 100.0)	68/69	97.8 (95.2 - 100.0)	65/67	98.2 (95.7 - 100.0)
Virally suppressed among those on ART	96/105	91.3 (85.7 - 96.8)	54/66	83.3 (73.8 - 93.1)	56/63	91.9 (86.2 - 97.6)	59/68	75.5 (60.6 - 90.1)	60/65	90.0 (80.3 - 99.7)
<b>VL &lt;1000 copies/mL</b>										
Aware of HIV status	180/182	99.6 (99.0 - 100.0)	104/116	88.4 (79.1 - 97.6)	85/95	86.8 (78.4 - 94.9)	96/102	94.3 (91.7 - 96.9)	92/99	94.0 (90.0 - 98.0)
On ART among those aware	179/180	99.6 (99.1 - 100.0)	103/104	98.6 (95.1 - 100.0)	85/85	100.0 (100.0 - 100.0)	94/96	97.4 (94.3 - 100.0)	90/92	98.8 (97.3 - 100.0)
Virally suppressed among those on ART	162/179	90.6 (85.7 - 95.4)	93/103	90.2 (84.8 - 95.6)	75/85	90.0 (79.4 - 100.0)	86/94	87.7 (77.7 - 97.7)	82/90	91.8 (86.4 - 97.2)
<b>18-34 years</b>										
Aware of HIV status	74/76	98.9 (97.6 - 100.0)	37/40	95.5 (90.5 - 100.0)	22/29	62.5 (35.3 - 88.9)	27/29	92.6 (84.8 - 100.0)	25/29	89.5 (81.4 - 97.6)
On ART among those aware	74/74	100.0 (100.0 - 100.0)	37/37	100.0 (100.0 - 100.0)	22/22	100.0 (100.0 - 100.0)	26/27	96.2 (85.7 - 100.0)	25/25	100.0 (100.0 - 100.0)
Virally suppressed among those on ART	63/74	85.3 (76.8 - 93.9)	33/37	92.7 (84.5 - 100.0)	18/22	77.9 (44.0 - 100.0)	23/26	91.3 (81.7 - 100.0)	20/25	84.8 (73.8 - 96.0)
<b>35 years and above</b>										
Aware of HIV status	106/106	100.0 (100.0 - 100.0)	67/76	82.9 (68.8 - 96.8)	63/66	95.4 (89.0 - 100.0)	69/73	95.0 (91.4 - 98.7)	67/70	96.3 (92.1 - 100.0)
On ART among those aware	105/106	99.3 (98.3 - 100.0)	66/67	97.4 (91.0 - 100.0)	63/63	100.0 (100.0 - 100.0)	68/69	97.8 (95.2 - 100.0)	65/67	98.2 (95.7 - 100.0)
Virally suppressed among those on ART	99/105	94.1 (89.1 - 99.1)	60/66	87.9 (79.5 - 95.9)	57/63	92.8 (87.1 - 98.6)	63/68	86.2 (73.0 - 99.4)	62/65	95.2 (89.5 - 100.0)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; mL, milliliters; VL, viral load, ART, antiretroviral therapy.

Table 4.5.2: Unconditional UNAIDS 95-95-95 Cascade Among Female Sex Workers By Location And Age, BBS, Kenya, 2024

	Overall Estimate (N=3722)		Kajiado (N=368)		Kiambu (N=425)		Kilifi (N=391)		Kisii (N=377)	
	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)
<b>VL&lt;50 copies/mL</b>										
Aware of HIV status	926/989	93.9 (91.1 - 96.8)	86/91	94.5 (93.3 - 95.6)	77/85	90.7 (80.3 - 100.0)	108/118	88.6 (81.6 - 95.6)	98/101	96.4 (93.6 - 99.2)
On ART	914/989	92.5 (89.1 - 95.8)	85/91	92.8 (91.0 - 94.5)	74/85	85.2 (70.5 - 99.7)	106/118	87.4 (80.6 - 94.3)	98/101	96.4 (93.5 - 99.3)
Virally suppressed	697/989	71.1 (66.0 - 76.2)	65/91	75.6 (67.7 - 83.7)	55/85	62.9 (48.6 - 77.3)	80/118	68.1 (58.4 - 77.9)	77/101	75.4 (64.0 - 86.7)
<b>18-34 years</b>										
Aware of HIV status	306/335	96.0 (93.5 - 98.6)	17/17	100.0 (100.0 - 100.0)	16/18	90.9 (78.4 - 100.0)	37/43	75.4 (57.2 - 93.0)	51/54	93.6 (86.1 - 100.0)
On ART	302/335	91.1 (86.0 - 96.2)	16/17	91.8 (79.0 - 100.0)	14/18	72.9 (48.1 - 97.4)	37/43	75.3 (57.1 - 93.1)	51/54	93.6 (86.2 - 100.0)
Virally suppressed	219/335	65.3 (56.7 - 74.0)	12/17	67.4 (41.4 - 93.2)	10/18	47.0 (20.7 - 72.8)	22/43	44.8 (29.4 - 60.0)	37/54	68.4 (55.0 - 81.8)
<b>35 years and above</b>										
Aware of HIV status	620/654	99.9 (99.6 - 100.0)	69/74	93.0 (88.4 - 97.6)	61/67	90.7 (80.7 - 100.0)	71/75	97.1 (93.9 - 100.0)	47/47	100.0 (100.0 - 100.0)
On ART	612/654	96.4 (94.5 - 98.4)	69/74	93.0 (88.4 - 97.6)	60/67	90.2 (80.3 - 100.0)	69/75	95.1 (91.3 - 99.1)	47/47	100.0 (100.0 - 100.0)
Virally suppressed	478/654	75.7 (69.5 - 81.9)	53/74	77.7 (69.1 - 86.4)	45/67	69.4 (55.6 - 83.2)	58/75	83.0 (74.0 - 92.2)	40/47	84.5 (75.0 - 93.9)
<b>VL &lt;200 copies/mL</b>										
Aware of HIV status	926/989	93.9 (91.1 - 96.8)	86/91	94.5 (93.3 - 95.6)	77/85	90.7 (80.3 - 100.0)	108/118	88.6 (81.6 - 95.6)	98/101	96.4 (93.6 - 99.2)
On ART	914/989	92.5 (89.1 - 95.8)	85/91	92.8 (91.0 - 94.5)	74/85	85.2 (70.5 - 99.7)	106/118	87.4 (80.6 - 94.3)	98/101	96.4 (93.5 - 99.3)
Virally suppressed	796/989	80.7 (77.0 - 84.4)	79/91	85.7 (78.9 - 92.5)	65/85	73.9 (61.9 - 85.7)	90/118	76.5 (67.3 - 85.9)	87/101	86.0 (77.4 - 94.7)
<b>18-34 years</b>										
Aware of HIV status	306/335	96.0 (93.5 - 98.6)	17/17	100.0 (100.0 - 100.0)	16/18	90.9 (78.4 - 100.0)	37/43	75.4 (57.2 - 93.0)	51/54	93.6 (86.1 - 100.0)
On ART	302/335	91.1 (86.0 - 96.2)	16/17	91.8 (79.0 - 100.0)	14/18	72.9 (48.1 - 97.4)	37/43	75.3 (57.1 - 93.1)	51/54	93.6 (86.2 - 100.0)
Virally suppressed	247/335	75.9 (68.6 - 83.2)	15/17	83.6 (64.7 - 100.0)	11/18	57.8 (31.2 - 84.1)	27/43	57.3 (41.1 - 73.2)	44/54	82.6 (71.1 - 94.3)
<b>35 years and above</b>										
Aware of HIV status	620/654	99.9 (99.6 - 100.0)	69/74	93.0 (88.4 - 97.6)	61/67	90.7 (80.7 - 100.0)	71/75	97.1 (93.9 - 100.0)	47/47	100.0 (100.0 - 100.0)
On ART	612/654	96.4 (94.5 - 98.4)	69/74	93.0 (88.4 - 97.6)	60/67	90.2 (80.3 - 100.0)	69/75	95.1 (91.3 - 99.1)	47/47	100.0 (100.0 - 100.0)
Virally suppressed	549/654	85.1 (80.8 - 89.4)	64/74	86.3 (78.4 - 94.1)	54/67	80.4 (68.9 - 91.9)	63/75	88.7 (82.0 - 95.7)	43/47	90.5 (82.6 - 98.3)
<b>VL &lt;1000 copies/mL</b>										
Aware of HIV status	926/989	93.9 (91.1 - 96.8)	86/91	94.5 (93.3 - 95.6)	77/85	90.7 (80.3 - 100.0)	108/118	88.6 (81.6 - 95.6)	98/101	96.4 (93.6 - 99.2)
On ART	914/989	92.5 (89.1 - 95.8)	85/91	92.8 (91.0 - 94.5)	74/85	85.2 (70.5 - 99.7)	106/118	87.4 (80.6 - 94.3)	98/101	96.4 (93.5 - 99.3)
Virally suppressed	836/989	84.8 (81.6 - 88.1)	82/91	89.3 (85.2 - 93.4)	68/85	78.6 (69.7 - 87.4)	95/118	78.9 (70.4 - 87.4)	88/101	87.3 (78.8 - 95.9)
<b>18-34 years</b>										
Aware of HIV status	306/335	96.0 (93.5 - 98.6)	17/17	100.0 (100.0 - 100.0)	16/18	90.9 (78.4 - 100.0)	37/43	75.4 (57.2 - 93.0)	51/54	93.6 (86.1 - 100.0)
On ART	302/335	91.1 (86.0 - 96.2)	16/17	91.8 (79.0 - 100.0)	14/18	72.9 (48.1 - 97.4)	37/43	75.3 (57.1 - 93.1)	51/54	93.6 (86.2 - 100.0)
Virally suppressed	262/335	80.9 (74.3 - 87.6)	16/17	91.8 (79.0 - 100.0)	12/18	63.2 (36.9 - 89.3)	30/43	62.2 (45.5 - 78.5)	44/54	82.6 (71.0 - 94.3)
<b>35 years and above</b>										
Aware of HIV status	620/654	99.9 (99.6 - 100.0)	69/74	93.0 (88.4 - 97.6)	61/67	90.7 (80.7 - 100.0)	71/75	97.1 (93.9 - 100.0)	47/47	100.0 (100.0 - 100.0)
On ART	612/654	96.4 (94.5 - 98.4)	69/74	93.0 (88.4 - 97.6)	60/67	90.2 (80.3 - 100.0)	69/75	95.1 (91.3 - 99.1)	47/47	100.0 (100.0 - 100.0)
Virally suppressed	574/654	89.0 (85.8 - 92.3)	66/74	88.7 (82.6 - 94.8)	56/67	84.9 (76.3 - 93.5)	65/75	89.5 (82.7 - 96.5)	44/47	93.5 (87.7 - 99.3)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; mL, milliliters; VL, viral load, ART, antiretroviral therapy.

Table 4.5.2 cont.: Unconditional UNAIDS 95-95-95 Cascade Among Female Sex Workers By Location And Age, BBS, Kenya, 2024

	Kisumu (N=427)		Machakos (N=462)		Mombasa (N=414)		Nairobi (N=461)		Nakuru (N=397)	
	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)
<b>VL &lt;50 copies/mL</b>										
Aware of HIV status	180/182	99.6 (99.0 - 100.0)	104/116	88.4 (79.1 - 97.6)	85/95	86.8 (78.4 - 94.9)	96/102	94.3 (91.7 - 96.9)	92/99	94.0 (90.0 - 98.0)
On ART	179/182	99.2 (98.3 - 100.0)	103/116	87.3 (77.9 - 96.5)	85/95	86.8 (78.5 - 94.9)	94/102	91.8 (88.0 - 95.6)	90/99	92.8 (88.3 - 97.5)
Virally suppressed	139/182	80.4 (72.6 - 88.3)	73/116	64.8 (54.0 - 75.9)	68/95	72.8 (57.8 - 87.6)	66/102	57.9 (47.0 - 68.6)	74/99	76.5 (65.9 - 87.2)
<b>18-34 years</b>										
Aware of HIV status	74/76	98.9 (97.6 - 100.0)	37/40	95.5 (90.5 - 100.0)	22/29	62.5 (35.3 - 88.9)	27/29	92.6 (84.8 - 100.0)	25/29	89.5 (81.4 - 97.6)
On ART	74/76	98.9 (97.5 - 100.0)	37/40	95.5 (90.6 - 100.0)	22/29	62.5 (35.3 - 88.8)	26/29	89.1 (77.3 - 100.0)	25/29	89.5 (81.5 - 97.5)
Virally suppressed	56/76	78.1 (70.0 - 86.6)	28/40	77.2 (64.8 - 89.9)	17/29	46.6 (12.0 - 80.3)	18/29	62.8 (47.3 - 78.3)	19/29	71.0 (54.7 - 87.5)
<b>35 years and above</b>										
Aware of HIV status	106/106	100.0 (100.0 - 100.0)	67/76	82.9 (68.8 - 96.8)	63/66	95.4 (89.0 - 100.0)	69/73	95.0 (91.4 - 98.7)	67/70	96.3 (92.1 - 100.0)
On ART	105/106	99.3 (98.2 - 100.0)	66/76	80.9 (66.2 - 94.9)	63/66	95.4 (89.1 - 100.0)	68/73	93.0 (88.3 - 97.6)	65/70	94.6 (89.3 - 100.0)
Virally suppressed	83/106	81.9 (74.0 - 89.9)	45/76	55.2 (40.1 - 69.6)	51/66	82.1 (71.1 - 93.3)	48/73	55.5 (41.6 - 69.6)	55/70	79.4 (69.5 - 89.2)
<b>VL &lt;200 copies/mL</b>										
Aware of HIV status	180/182	99.6 (99.0 - 100.0)	104/116	88.4 (79.1 - 97.6)	85/95	86.8 (78.4 - 94.9)	96/102	94.3 (91.7 - 96.9)	92/99	94.0 (90.0 - 98.0)
On ART	179/182	99.2 (98.3 - 100.0)	103/116	87.3 (77.9 - 96.5)	85/95	86.8 (78.5 - 94.9)	94/102	91.8 (88.0 - 95.6)	90/99	92.8 (88.3 - 97.5)
Virally suppressed	154/182	86.1 (80.1 - 92.3)	87/116	76.6 (66.4 - 87.0)	73/95	76.9 (64.4 - 89.0)	81/102	71.5 (61.0 - 81.7)	80/99	82.0 (73.6 - 90.5)
<b>18-34 years</b>										
Aware of HIV status	74/76	98.9 (97.6 - 100.0)	37/40	95.5 (90.5 - 100.0)	22/29	62.5 (35.3 - 88.9)	27/29	92.6 (84.8 - 100.0)	25/29	89.5 (81.4 - 97.6)
On ART	74/76	98.9 (97.5 - 100.0)	37/40	95.5 (90.6 - 100.0)	22/29	62.5 (35.3 - 88.8)	26/29	89.1 (77.3 - 100.0)	25/29	89.5 (81.5 - 97.5)
Virally suppressed	58/76	79.4 (70.9 - 88.1)	33/40	88.5 (79.5 - 98.0)	17/29	46.5 (11.8 - 80.5)	22/29	74.4 (58.4 - 90.4)	20/29	75.9 (62.1 - 89.8)
<b>35 years and above</b>										
Aware of HIV status	106/106	100.0 (100.0 - 100.0)	67/76	82.9 (68.8 - 96.8)	63/66	95.4 (89.0 - 100.0)	69/73	95.0 (91.4 - 98.7)	67/70	96.3 (92.1 - 100.0)
On ART	105/106	99.3 (98.2 - 100.0)	66/76	80.9 (66.2 - 94.9)	63/66	95.4 (89.1 - 100.0)	68/73	93.0 (88.3 - 97.6)	65/70	94.6 (89.3 - 100.0)
Virally suppressed	96/106	90.6 (85.1 - 96.2)	54/76	67.4 (52.8 - 81.7)	56/66	87.7 (79.7 - 95.8)	59/73	70.1 (56.6 - 83.4)	60/70	85.2 (75.5 - 94.9)
<b>VL &lt;1000 copies/mL</b>										
Aware of HIV status	180/182	99.6 (99.0 - 100.0)	104/116	88.4 (79.1 - 97.6)	85/95	86.8 (78.4 - 94.9)	96/102	94.3 (91.7 - 96.9)	92/99	94.0 (90.0 - 98.0)
On ART	179/182	99.2 (98.3 - 100.0)	103/116	87.3 (77.9 - 96.5)	85/95	86.8 (78.5 - 94.9)	94/102	91.8 (88.0 - 95.6)	90/99	92.8 (88.3 - 97.5)
Virally suppressed	162/182	89.8 (85.1 - 94.6)	95/116	79.9 (68.2 - 91.5)	76/95	80.5 (69.3 - 91.7)	87/102	80.6 (71.2 - 90.0)	83/99	85.7 (77.9 - 93.6)
<b>18-34 years</b>										
Aware of HIV status	74/76	98.9 (97.6 - 100.0)	37/40	95.5 (90.5 - 100.0)	22/29	62.5 (35.3 - 88.9)	27/29	92.6 (84.8 - 100.0)	25/29	89.5 (81.4 - 97.6)
On ART	74/76	98.9 (97.5 - 100.0)	37/40	95.5 (90.6 - 100.0)	22/29	62.5 (35.3 - 88.8)	26/29	89.1 (77.3 - 100.0)	25/29	89.5 (81.5 - 97.5)
Virally suppressed	63/76	84.4 (75.9 - 93.0)	35/40	91.3 (83.5 - 99.4)	19/29	58.1 (23.6 - 92.0)	23/29	81.3 (67.4 - 95.3)	20/29	75.9 (62.3 - 89.7)
<b>35 years and above</b>										
Aware of HIV status	106/106	100.0 (100.0 - 100.0)	67/76	82.9 (68.8 - 96.8)	63/66	95.4 (89.0 - 100.0)	69/73	95.0 (91.4 - 98.7)	67/70	96.3 (92.1 - 100.0)
On ART	105/106	99.3 (98.2 - 100.0)	66/76	80.9 (66.2 - 94.9)	63/66	95.4 (89.1 - 100.0)	68/73	93.0 (88.3 - 97.6)	65/70	94.6 (89.3 - 100.0)
Virally suppressed	99/106	93.4 (88.5 - 98.4)	60/76	71.0 (55.2 - 86.1)	57/66	88.6 (80.5 - 96.7)	64/73	80.3 (68.5 - 92.0)	63/70	90.8 (83.6 - 98.1)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; mL, milliliters; VL, viral load, ART, antiretroviral therapy.

## 4.6: HIV and STI Knowledge and Attitudes

### **HIV:**

Nearly all female sex workers (96.0%) knew that consistent condom use reduces the risk of HIV infection, while 88.3% understood that having one uninfected, mutually monogamous partner also lowers risk. Knowledge of transmission routes was high, with 98.9% identifying unprotected sex and 64.3% mentioning sharing of needles as risks. Other recognized routes included blood transfusion (35.6%), breastfeeding by an HIV-positive mother (14.3%), and delivery by an HIV-positive mother (12.5%). Awareness of prevention methods was greatest for condoms (98.2%), followed by PrEP (49.3%), safe needles (33.9%), and PEP (22.1%). Fewer participants mentioned abstinence (19.4%) or faithfulness to one partner (14.4%), and very few were aware of PMTCT (0.3%) or ART for prevention (0.1%). About 70.8% reported feelings personally at risk of HIV infection.

### **STI:**

Awareness of sexually transmitted infections was very high at 96.7%. In the past 12 months, 64.1% reported experiencing symptoms of an STI such as abnormal vaginal discharge, genital sores, or pain during urination. Among those with symptoms, 80.4% sought treatment, and 20.7% were told by a healthcare provider that they had an STI. Half (50.3%) informed their sexual partners about their infection, and 58.9% reported stopping sexual activity during that period. Condom use during the last STI episode was reported by 77.5% of respondents.

Only 2.6% of female sex workers had ever received an HPV vaccination

Table 4.6: HIV Knowledge And Attitudes Among Female Sex Workers By Location, BBS, Kenya, 2024

	Overall Estimate		Kajiado (N=368)		Kiambu (N=425)		Kilifi (N=391)		Kisii (N=377)		Kisumu (N=427)		Machakos (N=462)		Mombasa (N=414)		Nairobi (N=461)		Nakuru (N=397)			
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)		
<b>Can reduce the risk of getting HIV by using a condom every time<sup>a</sup></b>																						
Yes	3564	96.0 (95.2 - 96.8)	356	96.5 (93.5 - 99.4)	401	95.1 (92.5 - 97.7)	373	94.7 (91.8 - 97.5)	374	99.7 (99.2 - 100.0)	396	92.6 (89.4 - 95.8)	440	95.9 (93.9 - 97.8)	405	98.0 (96.5 - 99.4)	436	94.4 (91.6 - 97.2)	383	96.1 (93.8 - 98.3)		
No	143	4.0 (3.2 - 4.8)	12	3.5 (0.6 - 6.5)	21	4.9 (2.3 - 7.5)	18	5.3 (2.5 - 8.2)	1	0.3 (0.0 - 0.8)	31	7.4 (4.2 - 10.6)	17	4.1 (2.2 - 6.1)	8	2.0 (0.6 - 3.5)	22	5.6 (2.8 - 8.4)	13	3.9 (1.7 - 6.2)		
<b>Can reduce their chance of getting HIV by ha<sup>a</sup></b>																						
Yes	3218	88.3 (87.2 - 89.5)	292	80.8 (75.8 - 85.8)	372	87.0 (82.9 - 91.1)	333	84.7 (80.7 - 88.7)	372	99.6 (99.0 - 100.0)	377	90.0 (86.5 - 93.5)	411	89.1 (85.7 - 92.5)	356	90.7 (88.0 - 93.4)	359	80.6 (76.2 - 85.0)	346	87.8 (84.1 - 91.6)		
No	488	11.7 (10.5 - 12.8)	75	19.2 (14.2 - 24.2)	52	13.0 (8.9 - 17.1)	56	15.3 (11.3 - 19.3)	3	0.4 (0.0 - 1.0)	48	10.0 (6.5 - 13.5)	50	10.9 (7.5 - 14.3)	57	9.3 (6.6 - 12.0)	97	19.4 (15.0 - 23.8)	50	12.2 (8.4 - 15.9)		
<b>Routes of HIV transmission<sup>b</sup></b>																						
Blood and body fluids	762	24.1 (11.8 - 36.5)	99	30.0 (23.9 - 36.0)	161	39.5 (33.5 - 45.5)	70	19.1 (13.8 - 24.4)	0	0.0 (0.0 - 0.0)	166	36.5 (29.1 - 44.0)	50	14.9 (10.2 - 19.6)	6	1.1 (0.1 - 2.2)	166	39.5 (33.3 - 45.6)	44	13.7 (9.1 - 18.4)		
Blood transfusion	1399	35.6 (25.4 - 45.7)	91	23.1 (17.6 - 28.8)	93	22.0 (16.8 - 27.2)	177	36.5 (29.9 - 43.0)	110	22.6 (18.4 - 26.9)	171	42.6 (36.0 - 49.2)	253	54.3 (49.0 - 59.6)	237	60.0 (54.4 - 65.6)	105	19.1 (14.8 - 23.5)	162	40.4 (34.0 - 46.7)		
Breast feeding by HIV+ mothers	641	14.3 (9.6 - 18.9)	42	7.5 (4.8 - 10.2)	32	7.7 (3.6 - 11.8)	142	28.9 (23.9 - 34.0)	45	7.3 (4.9 - 9.7)	56	11.1 (7.4 - 14.8)	131	26.1 (20.4 - 31.7)	73	18.0 (13.5 - 22.5)	59	10.1 (5.1 - 15.0)	61	13.8 (9.2 - 18.3)		
During delivery by HIV+ mothers	570	12.5 (8.5 - 16.4)	62	15.6 (11.4 - 19.8)	16	3.4 (1.1 - 5.6)	107	22.5 (17.6 - 27.4)	55	9.1 (6.5 - 11.6)	52	9.2 (6.0 - 12.4)	113	22.3 (16.8 - 27.8)	32	7.1 (4.3 - 9.8)	63	10.2 (5.7 - 14.6)	70	16.0 (11.4 - 20.6)		
Sharing of needles	2436	64.3 (56.6 - 72.0)	225	58.9 (52.7 - 65.0)	193	42.5 (37.0 - 48.1)	271	68.7 (63.2 - 74.2)	229	60.3 (54.2 - 66.3)	346	80.3 (75.7 - 84.9)	310	67.1 (62.1 - 72.1)	307	76.5 (71.5 - 81.6)	278	56.7 (50.1 - 63.3)	277	67.3 (61.2 - 73.4)		
Unprotected anal sex	273	4.8 (2.8 - 6.7)	7	1.5 (0.3 - 2.7)	21	5.8 (3.1 - 8.6)	21	3.0 (1.3 - 4.6)	5	0.9 (0.1 - 1.7)	5	0.5 (0.0 - 0.9)	145	26.0 (21.2 - 30.8)	7	1.3 (0.0 - 2.9)	28	5.5 (3.1 - 7.9)	34	8.9 (5.0 - 12.9)		
Unprotected sex	3297	98.9 (98.2 - 99.5)	362	97.9 (96.0 - 99.8)	419	98.6 (97.5 - 99.8)	386	98.8 (97.6 - 100.0)	0	0.0 (0.0 - 0.0)	421	98.5 (97.0 - 99.9)	459	99.5 (98.8 - 100.0)	413	99.8 (99.5 - 100.0)	449	94.9 (90.7 - 99.2)	388	97.7 (95.8 - 99.6)		
Other	2	0.4 (0.0 - 0.9)	1	0.4 (0.0 - 1.1)	1	0.4 (0.0 - 1.1)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)		
<b>HIV prevention methods<sup>b</sup></b>																						
Abstinence	732	19.4 (13.5 - 25.2)	41	12.2 (8.2 - 16.2)	46	10.5 (7.1 - 13.9)	93	20.7 (15.8 - 25.5)	62	13.9 (10.0 - 17.8)	150	37.0 (31.2 - 42.8)	132	29.2 (23.8 - 34.6)	101	29.4 (24.2 - 34.7)	51	9.8 (6.2 - 13.3)	56	13.6 (8.9 - 18.3)		
ART For HIV Prevention	10	0.1 (0.0 - 0.1)	1	0.1 (0.0 - 0.3)	1	0.1 (0.0 - 0.2)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	0.1 (0.0 - 0.2)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	6	1.3 (0.1 - 2.5)	1	0.0 (0.0 - 0.0)		
Being faithful to one partner	587	14.4 (12.3 - 16.5)	51	14.0 (9.6 - 18.4)	47	8.9 (5.2 - 12.6)	78	16.8 (12.4 - 21.1)	63	12.9 (9.2 - 16.6)	73	15.4 (11.0 - 19.7)	89	18.4 (13.9 - 23.0)	65	16.2 (11.5 - 21.0)	53	11.8 (7.8 - 15.7)	68	17.3 (12.4 - 22.1)		
Condoms	2855	98.2 (97.4 - 99.0)	361	98.3 (96.8 - 99.7)	420	98.9 (97.8 - 100.0)	0	0.0 (0.0 - 0.0)	373	98.4 (96.7 - 100.0)	412	96.6 (94.0 - 99.2)	456	98.8 (97.9 - 99.8)	0	0.0 (0.0 - 0.0)	442	93.7 (90.6 - 96.8)	391	98.5 (97.2 - 99.8)		
PEP	904	22.1 (16.6 - 27.6)	99	24.9 (19.6 - 30.1)	42	12.3 (7.7 - 17.0)	94	19.3 (14.5 - 24.0)	65	14.1 (9.8 - 18.5)	57	15.3 (10.5 - 20.1)	187	35.0 (29.3 - 40.6)	114	29.5 (23.9 - 35.1)	85	16.3 (11.0 - 21.6)	161	33.4 (27.8 - 39.1)		
PMTCT	40	0.3 (0.0 - 0.5)	3	0.2 (0.0 - 0.4)	1	0.1 (0.0 - 0.2)	11	3.2 (1.3 - 5.1)	0	0.0 (0.0 - 0.0)	11	2.2 (0.7 - 3.8)	0	0.0 (0.0 - 0.0)	1	0.0 (0.0 - 0.0)	6	0.7 (0.1 - 1.4)	7	1.3 (0.2 - 2.4)		
PrEP	1990	49.3 (43.3 - 55.3)	174	44.7 (38.7 - 50.7)	185	42.9 (36.5 - 49.4)	240	53.9 (47.0 - 60.8)	187	44.0 (37.5 - 50.5)	194	43.8 (37.1 - 50.5)	294	57.7 (52.0 - 63.4)	284	67.1 (61.1 - 73.0)	246	49.9 (43.5 - 56.2)	186	39.4 (33.2 - 45.6)		
Safe needles	1269	33.9 (24.9 - 42.9)	70	18.4 (13.6 - 23.1)	66	15.3 (10.9 - 19.7)	195	49.8 (44.1 - 55.6)	112	28.4 (22.9 - 33.9)	212	51.5 (45.2 - 57.8)	181	39.4 (34.1 - 44.7)	164	41.7 (36.1 - 47.3)	108	22.1 (16.9 - 27.3)	161	39.5 (33.0 - 45.9)		
<b>Feel at risk of being infected with HIV<sup>a</sup></b>																						
Yes	2225	70.8 (66.4 - 75.3)	227	72.5 (66.9 - 78.1)	239	60.6 (55.4 - 65.8)	241	73.7 (67.8 - 79.6)	229	76.9 (71.1 - 82.7)	205	75.4 (68.9 - 81.8)	256	62.7 (57.3 - 68.1)	281	79.3 (74.3 - 84.3)	282	66.3 (59.8 - 72.9)	265	70.3 (64.2 - 76.4)		
No	867	29.2 (24.7 - 33.6)	88	27.5 (21.9 - 33.1)	152	39.4 (34.2 - 44.6)	75	26.3 (20.4 - 32.2)	65	23.1 (17.3 - 28.9)	62	24.6 (18.2 - 31.1)	128	37.3 (31.9 - 42.7)	77	20.7 (15.7 - 25.7)	127	33.7 (27.1 - 40.2)	93	29.7 (23.6 - 35.8)		

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sum of sample numerator is higher than the sample denominator as multiple responses could be selected

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; ART, antiretroviral therapy; PEP, post-exposure prophylaxis; PMTCT, prevention of mother to child transmission of HIV; PrEP, Pre-exposure prophylaxis

Table 4.6B: Sexually Transmitted Infection Knowledge And Attitudes Among Female Sex Workers By Location, BBS, Kenya, 2024

	Overall Estimate		Kajiado (N=368)		Kiambu (N=425)		Kilifi (N=391)		Kisii (N=377)		Kisumu (N=427)		Machakos (N=462)		Mombasa (N=414)		Nairobi (N=461)		Nakuru (N=397)			
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)		
<b>Heard of diseases that can be transmitted sexually<sup>a</sup></b>																						
Yes	3608	96.7 (95.4 - 98.1)	366	99.5 (98.8 - 100.0)	397	91.7 (88.2 - 95.2)	387	99.2 (98.3 - 100.0)	361	94.3 (91.2 - 97.4)	406	95.3 (92.5 - 98.0)	448	96.7 (94.7 - 98.8)	403	96.8 (94.8 - 98.8)	453	97.3 (95.0 - 99.5)	387	95.6 (92.1 - 99.1)		
No	112	3.3 (1.9 - 4.6)	2	0.5 (0.0 - 1.2)	28	8.3 (4.8 - 11.8)	4	0.8 (0.0 - 1.7)	16	5.7 (2.6 - 8.8)	19	4.7 (2.0 - 7.5)	14	3.3 (1.2 - 5.3)	11	3.2 (1.2 - 5.2)	8	2.7 (0.5 - 5.0)	10	4.4 (0.9 - 7.9)		
<b>Had symptoms of STI (abnormal vaginal discl</b>																						
Yes	2431	64.1 (57.1 - 71.1)	262	72.7 (68.3 - 77.0)	312	73.8 (68.3 - 79.3)	278	69.2 (63.5 - 75.0)	219	56.2 (51.6 - 60.8)	311	72.4 (66.7 - 78.1)	231	49.6 (44.1 - 55.0)	221	46.9 (40.9 - 52.8)	345	73.0 (66.3 - 79.6)	252	63.1 (56.5 - 69.7)		
No	1286	35.9 (28.9 - 42.9)	104	27.4 (23.0 - 31.7)	113	26.2 (20.7 - 31.7)	113	30.8 (25.0 - 36.5)	155	43.8 (39.2 - 48.4)	116	27.6 (21.9 - 33.3)	231	50.4 (45.0 - 55.9)	193	53.1 (47.2 - 59.1)	116	27.1 (20.4 - 33.7)	145	36.9 (30.3 - 43.5)		
<b>Sought treatment for any of these symptoms<sup>b</sup></b>																						
Yes	2021	80.4 (76.9 - 83.8)	224	83.9 (77.5 - 90.3)	242	72.5 (66.2 - 78.8)	221	80.0 (74.0 - 85.9)	179	81.9 (75.4 - 88.3)	265	83.9 (78.5 - 89.4)	199	83.7 (76.0 - 91.4)	171	71.7 (65.4 - 78.0)	304	86.5 (80.9 - 92.2)	216	78.9 (72.3 - 85.4)		
No	410	19.6 (16.2 - 23.1)	38	16.1 (9.7 - 22.5)	70	27.5 (21.2 - 33.8)	57	20.0 (14.1 - 26.0)	40	18.1 (11.7 - 24.6)	46	16.1 (10.6 - 21.5)	32	16.3 (8.6 - 24.0)	50	28.3 (22.0 - 34.6)	41	13.5 (7.8 - 19.1)	36	21.1 (14.6 - 27.7)		
<b>Told by health provider had STI in the last 12 months</b>																						
Yes	818	20.7 (14.4 - 27.1)	84	20.0 (14.4 - 25.5)	85	19.7 (14.2 - 25.2)	114	30.4 (25.9 - 35.0)	64	15.1 (10.8 - 19.4)	161	40.0 (33.3 - 46.6)	126	27.0 (22.4 - 31.7)	75	13.5 (10.0 - 17.0)	67	14.4 (7.8 - 21.1)	42	7.7 (4.6 - 10.9)		
No	2885	79.3 (72.9 - 85.6)	270	80.0 (74.5 - 85.6)	339	80.3 (74.8 - 85.8)	275	69.5 (65.0 - 74.1)	313	85.0 (80.6 - 89.2)	266	60.0 (53.4 - 66.7)	335	73.0 (68.3 - 77.6)	339	86.5 (83.0 - 90.0)	393	85.6 (78.9 - 92.2)	355	92.3 (89.1 - 95.4)		
<b>Informed sexual partner last time had an STI<sup>a,b</sup></b>																						
Yes	383	50.3 (43.4 - 57.2)	29	38.0 (26.2 - 49.9)	54	61.2 (50.5 - 72.0)	48	43.1 (34.4 - 51.8)	39	68.1 (55.9 - 80.2)	62	41.0 (32.8 - 49.2)	71	56.7 (47.4 - 66.0)	36	54.8 (43.3 - 66.3)	23	39.8 (26.4 - 53.1)	21	51.3 (33.7 - 68.8)		
No	421	49.7 (42.8 - 56.6)	49	62.0 (50.1 - 73.8)	28	38.8 (28.1 - 49.5)	65	56.9 (48.2 - 65.6)	24	31.9 (19.8 - 44.1)	99	59.0 (50.8 - 67.2)	55	43.3 (34.0 - 52.6)	38	45.2 (33.7 - 56.7)	44	60.2 (46.9 - 73.5)	19	48.7 (31.2 - 66.3)		
<b>Stopped having vaginal or anal sex during that last time had STI<sup>b</sup></b>																						
Yes	460	58.9 (50.0 - 67.9)	43	50.6 (38.5 - 62.8)	54	61.0 (51.3 - 70.7)	58	49.6 (40.2 - 59.0)	39	65.9 (52.9 - 78.9)	57	34.8 (26.8 - 42.8)	85	68.0 (59.2 - 76.8)	48	63.0 (52.2 - 73.7)	41	64.3 (52.4 - 76.2)	35	81.5 (61.8 - 100.0)		
No	358	41.1 (32.1 - 50.0)	41	49.4 (37.2 - 61.5)	31	39.0 (29.4 - 48.7)	56	50.4 (41.0 - 59.8)	25	34.1 (21.1 - 47.1)	104	65.2 (57.2 - 73.2)	41	32.0 (23.2 - 40.8)	27	37.0 (26.3 - 47.8)	26	35.7 (23.8 - 47.6)	7	18.5 (0.0 - 38.2)		
<b>Used condoms last time had STI<sup>a,b</sup></b>																						
Yes	290	77.5 (71.2 - 83.9)	37	87.5 (69.8 - 100.0)	23	71.1 (55.7 - 86.6)	44	78.5 (66.6 - 90.4)	19	68.0 (53.0 - 82.9)	83	78.1 (69.0 - 87.2)	36	93.4 (75.2 - 100.0)	22	85.0 (63.9 - 100.0)	20	82.0 (61.2 - 100.0)	6	52.6 (30.3 - 74.9)		
No	66	22.5 (16.1 - 28.8)	4	12.5 (0.0 - 30.2)	7	28.9 (13.4 - 44.3)	12	21.5 (9.6 - 33.4)	6	32.0 (17.1 - 47.0)	21	21.9 (12.8 - 31.0)	4	6.6 (0.0 - 24.8)	5	15.0 (0.0 - 36.1)	6	18.0 (0.0 - 38.8)	1	47.4 (25.1 - 69.7)		
<b>Received HPV vaccination<sup>a</sup></b>																						
Yes	131	2.6 (1.1 - 4.1)	18	4.5 (0.0 - 13.9)	27	8.0 (1.1 - 15.0)	29	6.2 (3.4 - 9.1)	5	1.7 (0.0 - 5.9)	10	1.9 (0.5 - 3.3)	16	4.1 (0.0 - 10.1)	3	0.5 (0.0 - 1.2)	17	4.3 (0.0 - 12.1)	6	2.0 (0.2 - 3.7)		
No	3565	97.4 (95.9 - 98.9)	346	95.5 (86.1 - 100.0)	394	92.0 (85.0 - 98.9)	362	93.8 (90.9 - 96.6)	370	98.3 (94.1 - 100.0)	413	98.1 (96.7 - 99.5)	440	95.9 (89.9 - 100.0)	411	99.5 (98.8 - 100.0)	438	95.7 (88.0 - 100.0)	391	98.0 (96.3 - 99.8)		

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sample denominator is based on the previous question

Abbreviations: N, sample denominator; n, sample numerator; CI, confidence interval; HPV, humanpapillomavirus; STI, sexually transmitted infections

### 4.7: STI, hepatitis B, and hepatitis C Biomarkers

The overall prevalence of active syphilis among female sex workers was 1.1% (95% CI: 0.7–1.6), with county-level estimates ranging from 0.0% in Kilifi and Nakuru to 2.6% in Kisumu.

For active hepatitis B infection, the overall prevalence was 6.7% (95% CI: 4.0–9.4). Prevalence varied across counties, ranging from 1.9% in Nakuru to 24.3% in Mombasa.

The prevalence of chlamydia was 9.4% (95% CI: 7.8–11.1), with higher levels observed in Kisii (16.7%) and Nakuru (11.7%), while the lowest was in Kajiado (6.4%).

For gonorrhoea, overall prevalence was 6.5% (95% CI: 5.1–7.8), ranging from 4.0% in Nairobi to 11.2% in Kiambu.

Table 4.7: Prevalence Of STI, Hepatitis B And Hepatitis C Among Female Sex Workers By Location, BBS, Kenya, 2024

	Overall Estimate		Kajiado		Kiambu		Kilifi		Kisii	
	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)
Active hepatitis B	69/1181	6.7 (4.0 - 9.4)	12/340	5.7 (1.7 - 12.8)	2/100	2.3 (0.01 - 7.0)	4/147	6.5 (0.1 - 19.1)	6/122	5.9 (0.6 - 15.1)
Active syphilis	30/3683	1.1 (0.7 - 1.6)	5/368	1.0 (0.1 - 2.2)	2/425	0.4 (0.0 - 1.1)	0/389	0.0 (0.0 - 0.0)	2/371	0.6 (0.0 - 1.7)
Chlamydia	245/2875	9.4 (7.8 - 11.1)	20/341	6.4 (3.1 - 10.5)	27/324	9.8 (5.2 - 15.4)	37/273	16.7 (10.8 - 23.4)	23/293	7.3 (4.4 - 10.7)
Gonorrhoea	171/2873	6.5 (5.1 - 7.8)	12/340	4.7 (1.9 - 8.5)	29/326	11.2 (6.3 - 16.4)	16/272	4.6 (2.4 - 7.1)	21/291	7.3 (4.1 - 10.8)

*All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent - Driven Sampling package in R, applying Gile's Sequential Sampling estimator*

*Abbreviations: N, sample denominator; n, sample numerator; CI, confidence interval; STI, sexually transmitted infections*

	Kisumu		Machakos		Mombasa		Nairobi		Nakuru	
	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)
Active hepatitis B	13/190	5.0 (2.1 - 9.8)	12/154	24.2 (6.3 - 41.7)	5/120	6.7 (0.2 - 16.1)	10/129	2.0 (0.6 - 3.9)	8/120	1.8 (0.6 - 4.0)
Active syphilis	8/427	2.5 (0.8 - 4.6)	2/440	0.6 (0.0 - 1.8)	8/414	2.0 (0.7 - 3.6)	0/455	0.0 (0.0 - 0.0)	3/394	0.9 (0.0 - 1.9)
Chlamydia	34/399	7.8 (5.2 - 10.9)	15/210	9.0 (4.1 - 14.5)	34/386	9.6 (5.5 - 13.9)	29/431	6.9 (4.3 - 10.0)	26/218	11.6 (7.0 - 17.1)
Gonorrhoea	26/396	7.2 (4.4 - 10.4)	14/213	6.2 (2.8 - 10.2)	17/386	4.9 (2.3 - 8.5)	17/429	4.0 (2.0 - 6.2)	19/220	8.4 (4.8 - 12.6)

*All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent - Driven Sampling package in R, applying Gile's Sequential Sampling estimator*

*Abbreviations: N, sample denominator; n, sample numerator; CI, confidence interval; STI, sexually transmitted infections*

## 4.8: Sexual Behavior

Female sex workers began sex work at a median age of 24 years and had been engaged for a median duration of six years. The majority (82%) started sex work for financial reasons, with smaller proportions citing marital issues (10%) or peer influence (4%).

The main venues for finding clients were bars and restaurants (73%) and streets (63%), while about 62% used WhatsApp and 51% used Facebook for client contact.

Most reported having sex with clients in lodging attached to bars (89%).

About one-third of FSW engaged in sex work ten or more times per week.

Earnings per sex act were modest—over half (56%) earned KSh 100–500, and only 15% earned KSh 1,000–5,000.

A majority (59%) reported never using drugs during sex work, though about one in ten used them regularly.

### **Partner Type:**

With regular clients, the median number of sex acts in the previous week was two, and 84% used a condom during their last encounter. Over the past three months, 59% reported always using condoms with regular clients. For one-time clients, the median number of encounters was four, and 77% reported consistent condom use, the highest among all partner types. Among main (non-paying) partners, condom use was substantially lower—35% used a condom at last sex, and 46% reported never using condoms in the past three months. Vaginal sex predominated across all partner types, though oral sex was more frequent with main partners (11%) and regular clients (9%).

Table 4.8.1: Sexual Behavior Characteristics Among Female Sex Workers By Location, BBS, Kenya, 2024

	Overall Estimate (N=3722)		Kajiado (N=368)		Kiambu (N=425)		Kilifi (N=391)		Kisii (N=377)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Median age started selling sex, years (IQR)<sup>a</sup></b>	2525	24 (20 - 29)	253	26 (22 - 30)	381	25 (21 - 31)	290	25 (20 - 28)	221	23 (20 - 27)
<b>Median time selling sex, years (IQR)<sup>a</sup></b>	3699	6 (3 - 11)	363	6 (3 - 13)	423	6 (3 - 10)	391	6 (3 - 11)	377	5 (3 - 10)
<b>Main reason started selling sex<sup>a</sup></b>										
Forced/pressured/coerced	58	1.5 (0.6 - 2.5)	17	4.9 (2.2 - 7.6)	10	2.3 (0.8 - 3.9)	5	1.3 (0.1 - 2.5)	10	2.1 (0.4 - 3.8)
Friends/family doing it	178	4.2 (2.1 - 6.3)	23	4.5 (2.3 - 6.8)	8	2.3 (0.6 - 4.1)	15	3.0 (1.3 - 4.8)	11	3.4 (1.2 - 5.6)
Like to/pleasure/self-esteem	82	2.1 (1.4 - 2.8)	9	2.1 (0.5 - 3.8)	13	2.5 (0.9 - 4.0)	3	0.8 (0.0 - 1.8)	9	2.5 (0.8 - 4.2)
Marital issues	348	10.0 (8.0 - 12.0)	34	9.3 (5.5 - 13.0)	41	9.3 (5.4 - 13.0)	56	13.7 (9.6 - 17.8)	39	11.8 (7.8 - 15.9)
Money/food for self/family	3047	82.1 (79.0 - 85.2)	285	79.2 (74.2 - 84.2)	353	83.6 (79.2 - 88.1)	311	81.1 (76.8 - 85.5)	308	80.2 (75.1 - 85.3)
Other	4	0.03 (0.0 - 0.07)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
<b>Places to look for clients<sup>b</sup></b>										
Bar/restaurant	2693	72.7 (63.5 - 81.8)	193	52.8 (45.9 - 59.8)	393	93.4 (89.1 - 97.7)	249	63.8 (57.9 - 69.6)	231	55.8 (49.5 - 62.1)
Brothel/massage parlour/salon/barbershop	210	5.6 (2.1 - 9.1)	20	4.3 (1.8 - 6.8)	13	2.7 (0.2 - 5.1)	54	17.2 (11.3 - 23.0)	43	11.8 (7.6 - 15.9)
Highways	415	10.2 (5.4 - 15.1)	87	23.6 (18.8 - 28.7)	25	5.6 (3.0 - 8.2)	61	13.3 (9.4 - 17.2)	9	1.3 (0.3 - 2.4)
Mangweni/changaa den	267	6.9 (0.0 - 15.1)	14	3.3 (1.1 - 5.5)	6	0.6 (0.02 - 1.2)	69	15.1 (10.6 - 19.7)	3	0.2 (0.0 - 0.5)
Networking	15	0.5 (0.2 - 0.8)	3	0.2 (0.0 - 0.5)	2	1.3 (0.0 - 3.2)	1	0.2 (0.0 - 0.4)	1	0.8 (0.4 - 1.1)
Parks/beach/bush/laga	160	4.0 (1.4 - 6.7)	4	1.1 (0.0 - 2.3)	10	1.4 (0.3 - 2.4)	48	10.6 (6.7 - 14.5)	8	2.1 (0.6 - 3.6)
Phone call	215	5.7 (2.8 - 8.6)	30	10.5 (5.6 - 15.4)	7	1.9 (0.5 - 3.4)	17	3.9 (1.9 - 5.9)	3	0.9 (0.0 - 1.8)
Sex den	589	15.0 (8.0 - 22.0)	105	27.0 (21.3 - 32.6)	51	12.8 (7.5 - 17.9)	43	11.4 (7.5 - 15.3)	133	36.4 (30.1 - 42.7)
Street	2283	62.6 (54.7 - 70.5)	276	76.1 (70.6 - 81.7)	260	59.3 (52.7 - 66.0)	246	60.9 (54.4 - 67.5)	239	62.6 (56.9 - 68.4)
Strip clubs	106	2.2 (0.8 - 3.7)	7	2.0 (0.4 - 3.6)	4	0.7 (0.0 - 1.7)	20	2.9 (1.4 - 4.3)	0	0.0 (0.0 - 0.0)
Social events	24	0.6 (0.1 - 1.1)	0	0.0 (0.0 - 0.0)	10	2.4 (0.6 - 4.2)	5	1.1 (0.0 - 2.7)	0	0.0 (0.0 - 0.0)
Other	34	0.7 (0.3 - 1.0)	6	1.7 (0.06 - 3.3)	7	0.6 (0.08 - 1.2)	2	0.09 (0.0 - 0.2)	1	0.08 (0.0 - 0.2)
<b>Online platforms used to meet or find clients<sup>a</sup></b>										
Dating apps	362	24.5 (15.2 - 33.8)	48	32.6 (21.7 - 43.4)	49	32.1 (21.4 - 42.4)	69	36.3 (26.9 - 45.7)	24	12.4 (6.5 - 18.2)
Facebook	764	51.2 (41.6 - 60.8)	77	57.5 (44.9 - 70.2)	70	54.0 (41.9 - 65.7)	77	44.1 (35.4 - 52.8)	96	59.7 (48.9 - 70.5)
Social media apps	109	7.7 (5.2 - 10.3)	8	9.5 (1.7 - 17.2)	11	6.3 (1.8 - 10.8)	14	7.7 (3.4 - 12.0)	6	4.9 (0.5 - 9.2)
Website	53	3.2 (1.4 - 5.0)	9	4.1 (0.9 - 7.5)	1	0.3 (0.0 - 0.7)	7	3.3 (0.4 - 6.2)	2	2.5 (0.0 - 7.2)
WhatsApp	943	62.1 (50.0 - 74.1)	54	36.0 (25.5 - 46.7)	59	47.5 (36.0 - 59.4)	120	69.3 (60.5 - 78.1)	129	80.3 (71.9 - 88.8)
<b>Places usually have sex with clients<sup>b</sup></b>										
Bar/restaurant with lodging	3297	88.9 (84.5 - 93.4)	324	87.6 (83.1 - 92.1)	395	92.6 (89.2 - 95.9)	313	78.6 (73.3 - 83.9)	342	90.4 (86.5 - 94.2)
Brothel/massage parlour/saloon/barbershop	152	4.1 (1.2 - 6.9)	33	8.0 (4.6 - 11.3)	10	1.5 (0.5 - 2.5)	15	5.0 (2.1 - 7.9)	46	13.7 (9.3 - 18.2)
Highways	48	1.0 (0.5 - 1.5)	4	1.1 (0.2 - 1.9)	10	1.7 (0.5 - 3.0)	2	0.3 (0.0 - 0.9)	3	0.3 (0.0 - 0.6)
Mangweni/changaa den	74	2.1 (0.0 - 4.5)	5	1.6 (0.0 - 3.3)	2	0.6 (0.0 - 1.5)	4	1.8 (0.0 - 3.8)	1	0.2 (0.0 - 0.5)
My home or another home	879	23.5 (17.1 - 29.9)	85	21.8 (16.8 - 26.9)	137	33.5 (27.7 - 39.2)	80	20.7 (15.6 - 25.8)	74	15.0 (11.1 - 18.9)
Parks/beach/bush/laga	217	5.4 (1.7 - 9.0)	26	5.4 (2.7 - 8.1)	76	17.1 (12.0 - 22.3)	14	3.5 (1.6 - 5.5)	1	0.4 (0.0 - 0.9)
Sex worker's home	811	20.8 (14.2 - 27.5)	93	28.3 (21.8 - 34.9)	143	32.7 (27.1 - 38.3)	83	20.1 (15.6 - 24.5)	98	21.2 (16.4 - 26.0)
Sex den	568	14.2 (9.6 - 18.8)	92	20.3 (15.4 - 25.1)	72	14.3 (9.9 - 18.7)	72	23.1 (17.4 - 28.8)	67	18.4 (13.8 - 23.0)
Other	422	10.2 (4.5 - 15.9)	17	3.0 (1.3 - 4.7)	49	10.9 (6.8 - 14.9)	84	18.2 (13.3 - 23.0)	2	0.2 (0.0 - 0.4)
<b>Times sold sex in the last 7 days<sup>a</sup></b>										
None	123	3.7 (2.3 - 5.0)	12	5.3 (2.0 - 8.5)	13	3.9 (1.5 - 6.3)	28	7.9 (4.8 - 10.9)	7	2.3 (0.1 - 4.5)
1-4 times	1272	36.7 (30.2 - 43.3)	120	36.8 (30.1 - 43.6)	149	36.8 (30.9 - 42.8)	134	32.1 (26.4 - 37.8)	184	49.3 (43.3 - 55.3)
5-9 times	1060	29.5 (24.9 - 34.2)	100	28.6 (23.4 - 33.9)	107	26.1 (20.9 - 31.5)	109	29.6 (23.7 - 35.6)	69	17.3 (13.1 - 21.6)
10 or more times	1223	30.1 (23.7 - 36.4)	135	29.3 (23.8 - 34.7)	156	33.2 (27.0 - 39.1)	120	30.4 (24.5 - 36.3)	116	31.0 (24.7 - 37.3)
<b>Approximate amount earned per sex act (Ksh.)<sup>a</sup></b>										
<100	10	0.2 (0.02 - 0.4)	0	0.0 (0.0 - 0.0)	2	0.4 (0.0 - 1.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
100-500	2028	56.1 (50.7 - 61.6)	208	60.0 (53.1 - 66.9)	285	67.0 (60.6 - 73.4)	183	52.7 (46.7 - 58.8)	216	61.6 (55.2 - 68.0)
500-1000	1064	28.0 (25.1 - 30.9)	86	23.4 (18.2 - 28.6)	99	22.5 (17.2 - 27.7)	123	27.2 (21.9 - 32.6)	112	27.6 (22.3 - 32.8)
1000-5000	582	15.0 (10.0 - 20.0)	72	16.4 (11.2 - 21.7)	36	9.3 (5.7 - 12.9)	75	18.0 (13.6 - 22.3)	44	10.2 (6.4 - 14.0)
>5000	28	0.6 (0.2 - 1.0)	2	0.2 (0.0 - 0.4)	3	0.9 (0.0 - 2.0)	10	2.1 (0.7 - 3.4)	5	0.7 (0.1 - 1.3)
<b>Frequency of using drugs while engaging in sex work<sup>a</sup></b>										
Always	476	11.3 (6.2 - 16.4)	53	14.3 (9.8 - 18.7)	59	13.1 (9.1 - 17.1)	28	5.5 (2.7 - 8.3)	12	3.8 (1.4 - 6.2)
Most of the time	305	8.7 (5.9 - 11.4)	58	18.8 (13.5 - 24.2)	34	7.5 (4.5 - 10.5)	23	6.4 (3.5 - 9.4)	17	3.7 (1.8 - 5.6)
Sometimes	552	14.4 (10.6 - 18.2)	89	24.7 (19.3 - 30.1)	42	10.6 (6.9 - 14.3)	55	11.5 (7.9 - 15.1)	39	8.9 (6.0 - 11.8)
Rarely	246	6.9 (3.5 - 10.3)	32	7.4 (4.4 - 10.3)	19	5.7 (2.3 - 9.1)	18	4.1 (1.6 - 6.5)	68	17.7 (13.2 - 22.2)
Never	2140	58.8 (48.5 - 69.1)	136	34.9 (28.8 - 40.9)	270	63.1 (56.8 - 69.3)	267	72.5 (66.8 - 78.1)	241	66.0 (60.1 - 71.8)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R - applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sum of sample numerator is higher than the sample denominator, as multiple responses could be selected

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; IQR, interquartile range

Table 4.8.1 cont.: Sexual Behavior Characteristics Among Female Sex Workers By Location, BBS, Kenya, 2024

	Kisumu (N=427)		Machakos (N=462)		Mombasa (N=414)		Nairobi (N=461)		Nakuru (N=397)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Median age started selling sex, years (IQR)<sup>a</sup></b>	278	24 (20 - 28)	219	25 (21 - 30)	289	22 (20 - 27)	252	24 (20 - 29)	342	25 (21 - 30)
<b>Median time selling sex, years (IQR)<sup>a</sup></b>	427	7 (4 - 13)	462	5 (3 - 10)	411	8 (4 - 14)	453	5 (3 - 10)	392	6 (3 - 12)
<b>Main reason started selling sex<sup>a</sup></b>										
Forced/pressured/coerced	6	1.6 (0.3 - 2.9)	5	1.1 (0.1 - 2.1)	1	0.2 (0.0 - 0.6)	3	0.3 (0.0 - 2.3)	1	0.2 (0.0 - 0.5)
Friends/family doing it	19	3.5 (1.7 - 5.3)	32	5.1 (2.8 - 7.3)	9	1.5 (0.4 - 2.7)	12	2.0 (0.7 - 3.9)	49	12.1 (8.5 - 15.8)
Like to/pleasure/self-esteem	11	2.2 (0.7 - 3.6)	15	4.5 (1.8 - 7.3)	7	2.0 (0.6 - 3.5)	9	1.0 (0.0 - 3.9)	6	1.5 (0.1 - 2.8)
Marital issues	42	9.4 (5.9 - 12.8)	50	12.0 (8.5 - 15.6)	14	3.6 (1.0 - 6.2)	36	12.6 (7.6 - 17.6)	36	8.5 (5.1 - 11.9)
Money/food for self/family	349	83.4 (79.0 - 87.7)	359	77.1 (72.1 - 82.1)	382	92.6 (89.3 - 95.9)	400	84.1 (75.9 - 92.2)	300	77.5 (72.9 - 82.2)
Other	0	0.0 (0.0 - 0.0)	1	0.1 (0.0 - 0.4)	1	0.06 (0.0 - 0.2)	1	0.02 (0.0 - 0.06)	1	0.1 (0.0 - 0.4)
<b>Places to look for clients<sup>b</sup></b>										
Bar/restaurant	346	81.8 (77.0 - 86.6)	320	72.8 (65.2 - 80.4)	327	84.2 (80.3 - 88.0)	374	83.5 (78.5 - 88.6)	260	65.9 (59.5 - 72.2)
Brothel/massage parlour/salon/barbershop	10	1.4 (0.4 - 2.5)	13	2.2 (0.8 - 3.6)	17	4.4 (1.4 - 7.4)	31	5.2 (2.8 - 7.5)	9	1.4 (0.2 - 2.5)
Highways	38	8.1 (4.8 - 11.4)	13	1.5 (0.6 - 2.4)	44	7.0 (4.3 - 9.7)	71	16.4 (11.7 - 21.2)	67	15.2 (10.7 - 19.8)
Mangweni/changaa den	9	1.9 (0.5 - 3.3)	1	0.04 (0.0 - 0.09)	144	38.1 (31.7 - 44.5)	10	1.1 (0.3 - 1.9)	11	1.8 (0.1 - 3.4)
Networking	3	1.0 (0.06 - 1.9)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	4	0.8 (0.0 - 1.7)	1	0.3 (0.0 - 1.0)
Parks/beach/bush/laga	40	8.9 (2.3 - 15.3)	10	2.3 (0.3 - 4.2)	33	8.8 (5.2 - 12.4)	1	0.2 (0.0 - 0.7)	6	1.1 (0.06 - 2.1)
Phone call	20	5.6 (0.0 - 13.5)	11	3.7 (1.2 - 6.2)	31	6.9 (4.0 - 9.8)	79	14.8 (10.6 - 19.0)	17	3.2 (1.2 - 5.3)
Sex den	46	9.6 (2.8 - 16.4)	113	18.8 (13.7 - 23.9)	15	1.7 (0.5 - 2.9)	35	6.5 (2.5 - 10.5)	48	10.8 (7.1 - 14.5)
Street	333	82.3 (77.0 - 87.6)	228	47.1 (40.3 - 53.7)	226	65.4 (59.7 - 71.0)	214	44.4 (36.9 - 51.9)	261	65.0 (58.7 - 71.4)
Strip clubs	36	7.1 (4.4 - 9.8)	3	0.6 (0.0 - 1.2)	2	0.4 (0.0 - 1.1)	16	2.4 (0.9 - 3.8)	18	4.3 (1.8 - 6.7)
Social events	1	0.03 (0.0 - 0.7)	1	0.4 (0.0 - 1.3)	0	0.0 (0.0 - 0.0)	5	0.8 (0.0 - 1.8)	2	1.0 (0.0 - 2.4)
Other	4	0.7 (0.0 - 1.5)	4	1.1 (0.02 - 2.1)	1	0.1 (0.0 - 0.3)	6	0.9 (0.07 - 1.8)	3	0.7 (0.0 - 1.6)
<b>Online platforms used to meet or find clients<sup>a</sup></b>										
Dating apps	35	15.0 (9.0 - 21.1)	15	11.9 (5.5 - 18.2)	24	7.1 (3.4 - 10.9)	61	22.7 (15.6 - 30.0)	37	50.2 (36.9 - 63.6)
Facebook	100	61.8 (52.5 - 71.0)	135	75.1 (67.3 - 83.3)	77	25.0 (18.7 - 31.2)	88	40.7 (30.8 - 50.6)	44	43.2 (29.8 - 56.7)
Social media apps	11	6.0 (1.9 - 10.2)	15	7.7 (2.9 - 12.5)	6	1.1 (0.0 - 2.2)	27	13.0 (6.8 - 19.2)	11	13.4 (3.4 - 23.3)
Website	16	7.2 (2.7 - 11.7)	2	0.7 (0.0 - 1.4)	0	0.0 (0.0 - 0.0)	8	3.2 (0.2 - 6.3)	8	7.6 (2.4 - 12.9)
WhatsApp	85	49.4 (41.3 - 57.4)	128	75.0 (67.9 - 82.0)	210	90.8 (86.3 - 95.3)	116	65.0 (56.4 - 73.3)	42	44.9 (31.2 - 58.7)
<b>Places usually have sex with clients<sup>b</sup></b>										
Bar/restaurant with lodging	409	95.4 (92.8 - 98.0)	333	76.8 (70.7 - 82.9)	388	95.6 (93.6 - 97.6)	423	90.6 (86.8 - 94.5)	370	92.5 (89.1 - 95.9)
Brothel/massage parlour/saloon/barbershop	6	1.1 (0.0 - 2.2)	4	0.2 (0.03 - 0.4)	11	2.1 (0.8 - 3.4)	20	3.4 (1.5 - 5.4)	/	1.6 (0.2 - 3.1)
Highways	10	2.5 (0.5 - 4.4)	2	0.4 (0.0 - 1.0)	6	0.9 (0.05 - 1.7)	7	1.4 (0.2 - 2.5)	4	0.6 (0.03 - 1.2)
Mangweni/changaa den	4	0.8 (0.09 - 1.5)	0	0.0 (0.0 - 0.0)	47	12.0 (7.9 - 16.1)	5	0.4 (0.0 - 0.8)	6	1.2 (0.05 - 2.4)
My home or another home	86	18.1 (12.7 - 23.4)	90	19.4 (14.8 - 24.0)	156	45.0 (39.1 - 50.8)	109	23.2 (18.0 - 28.3)	62	14.7 (10.0 - 19.4)
Parks/beach/bush/laga	6	1.5 (0.2 - 2.7)	54	12.0 (8.5 - 15.4)	10	3.3 (1.2 - 5.4)	5	0.9 (0.0 - 2.0)	25	4.4 (2.2 - 6.7)
Sex worker's home	22	5.0 (2.4 - 7.7)	156	36.5 (31.2 - 41.9)	77	15.5 (11.2 - 19.9)	54	11.4 (7.7 - 15.0)	85	17.0 (12.4 - 21.8)
Sex den	65	17.1 (8.5 - 25.7)	115	17.2 (11.7 - 22.5)	13	1.3 (0.4 - 2.3)	39	7.4 (3.9 - 11.0)	33	8.9 (5.3 - 12.4)
Other	54	11.9 (7.5 - 16.4)	21	5.6 (2.9 - 8.2)	16	4.1 (1.3 - 7.0)	133	28.6 (22.8 - 34.3)	46	9.5 (6.2 - 12.8)
<b>Times sold sex in the last 7 days<sup>a</sup></b>										
None	6	1.2 (0.1 - 2.4)	11	2.6 (0.7 - 4.5)	12	2.0 (0.7 - 3.3)	18	3.3 (0.0 - 6.9)	16	4.5 (2.1 - 6.9)
1-4 times	68	17.7 (12.9 - 22.5)	197	47.6 (40.3 - 55.0)	182	46.7 (40.8 - 52.6)	154	33.6 (25.6 - 41.5)	84	30.0 (23.9 - 36.2)
5-9 times	164	36.6 (29.1 - 43.9)	111	25.3 (20.4 - 30.3)	165	42.4 (36.7 - 48.0)	133	32.3 (26.1 - 38.6)	102	27.5 (22.1 - 32.9)
10 or more times	189	44.5 (37.8 - 51.3)	143	24.5 (18.6 - 30.3)	54	8.9 (5.8 - 12.0)	149	30.8 (24.7 - 36.9)	161	37.9 (31.8 - 44.1)
<b>Approximate amount earned per sex act (Ksh.)<sup>a</sup></b>										
<100	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	3	0.4 (0.0 - 0.8)	3	0.9 (0.0 - 1.9)	2	0.4 (0.0 - 0.8)
100-500	238	58.1 (49.2 - 66.9)	286	57.7 (49.6 - 65.7)	204	52.3 (46.4 - 58.3)	165	37.2 (29.0 - 45.4)	243	58.6 (51.2 - 65.9)
500-1000	136	30.5 (22.1 - 38.9)	121	28.8 (23.1 - 34.6)	154	37.7 (32.3 - 43.1)	130	27.6 (21.0 - 34.1)	103	26.9 (21.2 - 32.6)
1000-5000	53	11.4 (7.4 - 15.5)	51	12.5 (8.0 - 17.1)	51	9.3 (6.1 - 12.4)	153	33.8 (26.4 - 41.2)	47	14.1 (8.9 - 19.3)
>5000	0	0.0 (0.0 - 0.0)	4	0.9 (0.0 - 1.9)	1	0.4 (0.0 - 1.1)	3	0.5 (0.03 - 1.0)	0	0.0 (0.0 - 0.0)
<b>Frequency of using drugs while engaging in sex work<sup>a</sup></b>										
Always	23	4.3 (2.2 - 6.4)	45	9.0 (6.2 - 11.7)	70	12.6 (8.9 - 16.2)	141	29.3 (23.2 - 35.3)	45	9.7 (6.2 - 13.3)
Most of the time	23	6.7 (3.7 - 9.8)	45	10.3 (6.4 - 14.3)	44	9.2 (6.1 - 12.3)	40	8.7 (3.3 - 14.1)	21	6.6 (2.8 - 10.5)
Sometimes	42	8.6 (5.7 - 11.4)	71	14.2 (10.4 - 17.9)	51	11.9 (8.2 - 15.5)	81	17.2 (11.2 - 23.2)	82	22.1 (16.9 - 27.3)
Rarely	11	2.5 (0.8 - 4.1)	21	4.5 (2.0 - 7.0)	12	2.8 (1.1 - 4.6)	52	13.5 (9.2 - 17.8)	13	4.0 (1.6 - 6.4)
Never	328	77.9 (73.0 - 83.0)	280	62.1 (56.5 - 67.6)	237	63.6 (58.0 - 69.2)	145	31.4 (24.7 - 38.0)	236	57.6 (51.5 - 63.6)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R - applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sum of sample numerator is higher than the sample denominator, as multiple responses could be selected

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; IQR, interquartile range

Table 4.8.1B: Sexual Behavior Characteristics Among Female Sex Workers By Location and Partner Type, BBS, Kenya, 2024

	Overall Estimate (N=3722)		Kajiado (N=368)		Kiambu (N=425)		Kilifi (N=391)		Kisii (N=377)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Median number of times sold sex in the last 7 days to regular clients (IQR)<sup>a</sup></b>	3621	2 (1 - 3)	361	2 (1 - 3)	418	2 (1 - 4)	376	2 (1 - 4)	372	2 (1 - 3)
<b>Type of sex at last time with regular client</b>										
Vaginal	3592	98.7 (98.1 - 99.4)	353	98.0 (96.6 - 99.5)	410	97.9 (96.5 - 99.3)	377	99.4 (98.8 - 100.0)	371	99.7 (99.2 - 100.0)
Anal	119	3.2 (1.6 - 4.8)	12	2.8 (0.9 - 4.7)	17	4.2 (2.0 - 6.3)	12	3.6 (1.2 - 6.1)	6	1.4 (0.3 - 2.5)
Oral	345	8.9 (3.7 - 14.1)	18	4.8 (1.6 - 7.9)	20	4.6 (2.1 - 7.2)	104	27.8 (22.0 - 33.5)	8	1.4 (0.4 - 2.4)
<b>Used condom with regular client in the last sexual encounter<sup>a</sup></b>										
Yes	3078	84.4 (81.1 - 87.6)	315	85.9 (81.4 - 90.4)	374	89.4 (85.6 - 93.1)	318	82.7 (77.6 - 87.8)	312	84.0 (79.9 - 88.1)
No	538	15.7 (12.4 - 18.9)	45	14.1 (9.3 - 18.8)	43	10.6 (6.7 - 14.5)	59	17.3 (12.2 - 22.3)	59	16.0 (11.4 - 20.6)
<b>Frequency of condom use with regular client in the last 3 months<sup>b</sup></b>										
Always	2206	59.0 (51.0 - 67.1)	241	64.1 (57.4 - 70.7)	277	62.6 (56.3 - 69.0)	238	60.0 (54.0 - 66.1)	241	66.9 (61.2 - 72.6)
Most of the time	616	17.8 (11.5 - 24.1)	53	16.3 (11.5 - 21.2)	82	21.9 (16.6 - 27.2)	51	12.7 (9.2 - 16.3)	29	6.1 (3.6 - 8.5)
Sometimes	624	17.8 (14.1 - 21.5)	56	15.5 (10.7 - 20.2)	46	13.3 (8.5 - 18.0)	75	23.6 (18.0 - 29.1)	84	21.5 (16.8 - 26.1)
Rarely	106	2.7 (2.0 - 3.4)	10	3.2 (0.5 - 5.9)	6	0.8 (0.0 - 1.9)	10	2.3 (0.5 - 4.2)	13	3.0 (1.3 - 4.7)
Never	88	2.7 (1.8 - 3.7)	3	0.9 (0.0 - 1.9)	7	1.3 (0.09 - 2.6)	7	1.4 (0.3 - 2.4)	5	2.6 (0.8 - 4.4)
<b>Median number of times sold sex in the last 7 days to one-time clients (IQR)<sup>a</sup></b>	3354	4 (2 - 7)	346	4 (2 - 6)	380	4 (2 - 7)	330	4 (2 - 10)	332	3 (2 - 6)
<b>Frequency of condom use with one-time client in the last 3 months<sup>b</sup></b>										
Always	2675	77.2 (69.6 - 84.9)	287	81.6 (76.5 - 86.9)	302	74.2 (68.2 - 80.1)	266	78.0 (71.9 - 84.0)	298	91.4 (88.3 - 94.7)
Most of the time	379	12.1 (6.1 - 18.1)	29	8.5 (5.1 - 11.8)	42	13.5 (8.4 - 18.6)	30	9.5 (5.8 - 13.2)	13	2.9 (1.0 - 4.8)
Sometimes	259	8.4 (6.1 - 10.7)	25	8.2 (4.4 - 12.0)	30	11.3 (8.5 - 16.2)	34	12.0 (7.2 - 16.8)	11	3.0 (0.9 - 5.1)
Rarely	30	0.9 (0.5 - 1.2)	3	0.4 (0.0 - 1.0)	3	0.8 (0.0 - 1.7)	1	0.5 (0.2 - 0.9)	4	1.2 (0.0 - 2.6)
Never	36	1.4 (0.5 - 2.4)	4	1.3 (0.0 - 2.6)	2	0.3 (0.0 - 0.5)	0	0.0 (0.0 - 0.0)	3	1.4 (0.0 - 3.0)
<b>Median number of main partners in the last 3 m</b>	2451	1 (1 - 2)	203	1 (1 - 2)	292	1 (1 - 2)	261	2 (1 - 3)	289	1 (1 - 2)
<b>Type of sex at last time with main partner</b>										
Vaginal	2389	98.0 (96.8 - 99.1)	200	99.1 (97.9 - 100.0)	286	98.3 (96.2 - 100.0)	260	98.0 (96.2 - 99.8)	284	97.4 (94.8 - 99.9)
Anal	74	2.7 (1.6 - 3.8)	3	2.1 (0.0 - 4.2)	7	2.1 (0.4 - 3.8)	12	4.8 (2.0 - 7.5)	11	2.7 (0.8 - 4.7)
Oral	289	10.8 (3.3 - 18.4)	12	4.1 (1.5 - 6.8)	15	4.5 (2.1 - 6.9)	106	39.7 (32.3 - 47.2)	14	4.5 (1.8 - 7.2)
<b>Used condom with main partner in the last sexu</b>										
Yes	832	34.9 (29.3 - 40.4)	76	36.8 (28.6 - 45.0)	100	33.7 (27.1 - 40.5)	138	54.7 (47.8 - 61.5)	114	37.6 (31.1 - 44.1)
No	1570	65.2 (59.7 - 70.7)	125	63.2 (55.0 - 71.4)	189	66.3 (59.7 - 72.8)	121	45.3 (38.3 - 52.3)	171	62.4 (55.8 - 69.0)
<b>Frequency of condom use with main partner in the last 3 months<sup>b</sup></b>										
Always	502	20.7 (16.0 - 25.5)	42	19.8 (13.4 - 26.1)	65	20.7 (15.1 - 26.2)	89	37.2 (29.9 - 44.5)	79	24.8 (18.8 - 30.7)
Most of the time	176	7.9 (5.5 - 10.3)	18	8.8 (3.8 - 13.7)	24	10.5 (6.2 - 14.9)	39	13.6 (9.4 - 17.8)	12	3.8 (1.1 - 6.5)
Sometimes	330	14.3 (10.8 - 17.8)	50	24.1 (17.3 - 31.0)	25	10.8 (5.8 - 15.8)	48	21.0 (14.5 - 27.5)	42	14.6 (9.4 - 19.9)
Rarely	290	10.8 (5.8 - 15.9)	32	14.0 (8.7 - 19.3)	12	4.1 (1.9 - 6.4)	29	10.1 (5.6 - 14.6)	38	11.4 (7.6 - 15.1)
Never	1112	46.2 (37.2 - 55.3)	59	33.3 (25.5 - 41.2)	163	53.9 (46.7 - 61.1)	57	18.1 (12.9 - 23.2)	115	45.4 (38.2 - 52.7)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; IQR, interquartile range

Table 4.8.1B cont: Sexual Behavior Characteristics Among Female Sex Workers By Location and Partner Type, BBS, Kenya, 2024

	Kisumu (N=427)		Machakos (N=462)		Mombasa (N=414)		Nairobi (N=461)		Nakuru (N=397)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Median number of times sold sex in the last 7 days to regular clients (IQR)<sup>a</sup></b>	420	2 (1 - 4)	438	2 (1 - 3)	410	2 (1 - 3)	447	2 (1 - 3)	379	2 (1 - 3)
<b>Type of sex at last time with regular client</b>										
Vaginal	416	99.6 (98.9 - 100.0)	437	98.9 (97.9 - 100.0)	407	99.2 (98.5 - 99.9)	440	96.8 (94.1 - 99.4)	381	99.0 (98.0 - 100.0)
Anal	18	4.0 (1.9 - 6.1)	7	1.8 (0.5 - 3.0)	35	8.9 (5.5 - 12.3)	7	1.3 (0.0 - 2.6)	5	0.9 (0.0 - 2.1)
Oral	29	7.0 (4.1 - 9.9)	29	6.1 (3.9 - 8.3)	70	15.3 (11.1 - 19.5)	44	8.2 (5.1 - 11.3)	23	5.1 (2.8 - 7.3)
<b>Used condom with regular client in the last sexual encounter<sup>a</sup></b>										
Yes	364	86.5 (81.8 - 91.1)	353	80.6 (75.8 - 85.4)	323	75.1 (69.4 - 81.0)	372	82.9 (78.3 - 87.5)	347	92.0 (88.9 - 95.1)
No	55	13.5 (9.0 - 18.1)	86	19.4 (14.7 - 24.1)	86	24.9 (18.9 - 30.8)	70	17.1 (12.5 - 21.6)	35	8.0 (4.9 - 11.1)
<b>Frequency of condom use with regular client in the last 3 months<sup>b</sup></b>										
Always	212	46.2 (39.1 - 53.2)	270	60.5 (53.8 - 67.1)	167	34.2 (29.0 - 39.4)	270	59.4 (52.6 - 66.2)	290	77.2 (71.6 - 82.7)
Most of the time	116	30.6 (25.0 - 36.2)	56	12.9 (8.9 - 17.0)	127	35.4 (29.5 - 41.3)	52	13.2 (8.9 - 17.5)	50	11.1 (7.2 - 15.1)
Sometimes	60	14.9 (10.2 - 19.6)	80	19.6 (14.9 - 24.4)	98	24.6 (19.8 - 29.4)	94	20.2 (14.8 - 25.6)	31	7.1 (4.1 - 10.0)
Rarely	15	3.5 (1.4 - 5.6)	12	2.4 (1.0 - 3.8)	10	1.7 (0.6 - 2.9)	23	4.5 (2.4 - 6.5)	7	2.5 (0.0 - 5.5)
Never	16	4.8 (2.4 - 7.3)	23	4.6 (2.5 - 6.6)	9	4.1 (1.3 - 6.8)	10	2.7 (0.4 - 4.9)	8	2.1 (0.6 - 3.7)
<b>Median number of times sold sex in the last 7 days to one-time clients (IQR)<sup>a</sup></b>	421	5 (3 - 10)	384	3 (2 - 6)	399	4 (2 - 6)	422	3 (2 - 5)	340	5 (3 - 10)
<b>Frequency of condom use with one-time client in the last 3 months<sup>b</sup></b>										
Always	255	58.5 (52.9 - 63.9)	312	79.9 (74.2 - 85.6)	276	59.4 (53.3 - 65.6)	355	81.4 (75.7 - 87.1)	324	90.4 (86.8 - 94.0)
Most of the time	104	27.1 (22.3 - 31.8)	21	5.5 (2.9 - 8.1)	86	28.1 (22.5 - 33.6)	28	7.7 (4.3 - 11.0)	26	6.3 (3.4 - 9.2)
Sometimes	41	11.3 (7.7 - 14.9)	34	8.8 (5.3 - 12.2)	30	9.0 (5.3 - 12.7)	45	9.6 (4.4 - 14.7)	9	2.2 (0.6 - 3.7)
Rarely	9	1.8 (0.5 - 3.2)	5	1.4 (0.0 - 3.0)	1	0.2 (0.0 - 0.7)	3	1.1 (0.09 - 2.1)	1	0.4 (0.0 - 1.2)
Never	4	1.4 (0.0 - 2.8)	15	4.4 (1.5 - 7.3)	6	3.3 (0.5 - 6.1)	1	0.3 (0.0 - 0.8)	1	0.8 (0.0 - 2.3)
<b>Median number of main partners in the last 3 months</b>	366	1 (1 - 2)	264	1 (1 - 2)	228	1 (1 - 1)	328	1 (1 - 2)	220	1 (1 - 1)
<b>Type of sex at last time with main partner</b>										
Vaginal	338	93.3 (90.6 - 96.1)	261	99.3 (98.7 - 100.0)	226	99.2 (98.1 - 100.0)	320	98.1 (96.0 - 100.0)	214	98.6 (97.1 - 100.0)
Anal	11	2.7 (1.0 - 4.4)	4	1.5 (0.0 - 3.0)	16	5.9 (2.6 - 9.1)	7	1.9 (0.4 - 3.4)	3	0.3 (0.0 - 0.8)
Oral	36	11.0 (7.3 - 14.6)	20	7.3 (3.2 - 11.4)	42	15.5 (10.6 - 20.4)	32	7.5 (4.4 - 10.5)	12	3.6 (1.5 - 5.8)
<b>Used condom with main partner in the last sexual encounter<sup>a</sup></b>										
Yes	116	32.2 (26.3 - 38.1)	80	35.5 (27.9 - 43.1)	68	28.0 (21.1 - 34.9)	91	28.6 (22.6 - 34.5)	49	26.5 (18.4 - 34.7)
No	224	67.8 (61.6 - 74.0)	183	64.5 (56.9 - 72.1)	158	72.0 (65.0 - 79.0)	231	71.4 (65.3 - 77.7)	168	73.5 (65.9 - 81.0)
<b>Frequency of condom use with main partner in the last 3 months<sup>b</sup></b>										
Always	52	14.7 (10.5 - 18.9)	55	22.5 (16.2 - 28.8)	35	12.3 (7.5 - 17.1)	52	17.6 (12.2 - 23.0)	33	17.4 (10.2 - 24.6)
Most of the time	30	9.2 (4.9 - 13.4)	17	9.0 (4.6 - 13.4)	19	8.3 (4.2 - 12.5)	4	1.4 (0.0 - 2.8)	13	6.4 (2.7 - 10.1)
Sometimes	49	12.5 (8.4 - 16.6)	25	8.4 (4.4 - 12.5)	33	16.3 (10.4 - 22.1)	39	12.5 (8.2 - 16.7)	19	8.8 (4.5 - 13.2)
Rarely	24	6.7 (3.7 - 9.7)	16	5.2 (2.6 - 7.8)	27	10.5 (5.6 - 15.5)	100	29.4 (23.6 - 35.2)	12	5.9 (2.4 - 9.4)
Never	186	57.0 (50.6 - 63.3)	151	54.9 (47.3 - 62.4)	114	52.6 (44.6 - 60.6)	129	39.2 (32.7 - 45.6)	138	61.6 (53.2 - 69.8)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on a personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; IQR, interquartile range

## 4.9: Uptake of Prevention and Treatment Services

### **Condoms:**

Most female sex workers reported obtaining condoms from drop-in centers (63%) and clinics or hospitals (36%), with smaller proportions citing supermarkets or pharmacies (31%) and peer educators (18%) as sources. Nearly all respondents (91%) had received free condoms in the past 12 months, with coverage highest in Nakuru (98%) and Kisumu (96%). About 62% reported never experiencing condom shortages, while 35% sometimes faced difficulty obtaining condoms when needed. The ability to negotiate condom use with clients varied—41% reported being able to do so always, 24% most of the time, and 22% sometimes, with the lowest negotiation capacity observed in Nakuru (4%) and the highest in Kajiado (69%).

### **Lubricants:**

Half of female sex workers (50.6%) reported using lubricants, with higher usage observed in Kisii (59.7%), Kisumu (58.8%), and Nakuru (55.5%). The most commonly used types were government-provided or “Sure” lubricants (40.4%) and KY Jelly (34.1%), while 20% reported using oil-based products, and a small proportion used other water-based lubricants (2.3%).

Drop-in centers (47.6%) and supermarkets or pharmacies (46.1%) were the main sources of lubricants, followed by peer educators (10.1%) and clinics or hospitals (8.6%). Use of drop-in centers was particularly high in Kisumu (69.1%) and Machakos (69.1%), while obtaining lubricants from pharmacies was most common in Mombasa (78.4%). Only a few participants (<1%) reported receiving lubricants from clients, friends, or sex venues.

Table 4.9.1: Condom Accessibility and Use Among Female Sex Workers By Location, BBS, Kenya, 2024

	Overall Estimate (N=3722)		Kajiado (N=368)		Kiambu (N=425)		Kilifi (N=391)		Kisii (N=377)		Kisumu (N=427)		Machakos (N=462)		Mombasa (N=414)		Nairobi (N=461)		Nakuru (N=397)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Places usually get condoms<sup>a</sup></b>																				
Bars/clubs	49	1.1 (0.0 - 2.3)	3	0.9 (0.0 - 1.9)	19	4.2 (1.8 - 6.6)	2	0.3 (0.0 - 0.7)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	24	4.2 (2.5 - 5.9)	0	0.0 (0.0 - 0.0)	1	0.5 (0.0 - 1.2)	0	0.0 (0.0 - 0.0)
Clients	18	0.5 (0.1 - 0.8)	1	0.01 (0.0 - 0.03)	3	1.1 (0.0 - 2.6)	4	1.1 (0.0 - 2.1)	0	0.0 (0.0 - 0.0)	7	1.5 (0.4 - 2.6)	1	0.3 (0.0 - 0.7)	1	0.2 (0.0 - 0.6)	0	0.0 (0.0 - 0.0)	1	0.1 (0.0 - 0.4)
Clinic/hospital	1344	36.0 (30.8 - 41.1)	142	41.4 (35.2 - 47.7)	170	39.6 (33.4 - 45.8)	162	45.2 (38.9 - 51.6)	147	34.8 (29.2 - 40.2)	149	34.5 (28.1 - 40.9)	163	38.1 (32.1 - 44.2)	147	28.7 (23.8 - 33.8)	92	19.3 (12.1 - 26.5)	172	42.0 (35.7 - 48.3)
Condom dispensers	362	9.8 (5.9 - 13.7)	28	8.5 (4.8 - 12.2)	69	16.8 (12.4 - 21.3)	55	16.3 (11.1 - 21.5)	29	5.4 (3.1 - 7.7)	15	3.9 (1.9 - 6.0)	76	17.7 (13.4 - 22.0)	18	3.4 (1.6 - 5.3)	21	4.3 (2.2 - 6.4)	51	11.7 (7.9 - 15.6)
Drop-in centre	2456	63.2 (54.7 - 71.6)	262	67.0 (60.1 - 74.1)	235	50.2 (42.6 - 57.6)	236	55.8 (48.5 - 63.0)	303	78.0 (72.2 - 83.8)	316	72.4 (65.9 - 78.9)	216	37.5 (26.5 - 48.5)	276	70.6 (64.8 - 76.2)	345	72.1 (64.2 - 80.0)	267	64.7 (58.6 - 70.8)
Friend/peer	26	0.8 (0.09 - 1.5)	7	3.4 (1.1 - 5.6)	6	0.9 (0.08 - 1.6)	2	0.6 (0.0 - 1.6)	0	0.0 (0.0 - 0.0)	2	0.2 (0.0 - 0.5)	1	0.2 (0.0 - 0.4)	2	0.4 (0.0 - 1.1)	6	1.3 (0.2 - 2.4)	0	0.0 (0.0 - 0.0)
Peer educators	687	17.5 (13.4 - 21.6)	54	14.0 (8.7 - 19.3)	72	16.8 (12.4 - 21.1)	110	30.1 (23.7 - 36.6)	58	13.5 (9.0 - 18.2)	63	12.1 (8.7 - 15.5)	95	20.8 (16.3 - 25.3)	92	18.7 (14.0 - 23.5)	53	9.4 (6.0 - 12.8)	90	22.2 (17.2 - 27.1)
Sex venues	490	11.9 (6.8 - 16.9)	26	5.3 (2.7 - 8.0)	89	20.9 (15.7 - 26.2)	73	20.0 (15.0 - 25.0)	11	1.7 (0.7 - 2.8)	85	18.0 (13.3 - 22.7)	40	8.8 (5.6 - 12.1)	108	20.0 (15.6 - 24.7)	32	6.5 (3.9 - 9.2)	26	5.5 (3.2 - 7.8)
Supermarket/pharmacy/kiosk	1150	30.9 (22.3 - 39.5)	85	23.1 (17.7 - 28.6)	221	53.3 (46.7 - 60.0)	159	43.5 (36.6 - 50.4)	58	11.7 (8.2 - 15.2)	110	26.0 (20.1 - 32.0)	186	42.7 (36.7 - 48.6)	96	21.6 (16.7 - 26.5)	136	32.7 (26.5 - 38.9)	99	23.5 (18.4 - 28.6)
Never obtained condoms	11	0.3 (0.0 - 0.7)	0	0.0 (0.0 - 0.0)	1	0.4 (0.0 - 1.3)	1	0.3 (0.0 - 0.7)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	9	2.1 (0.7 - 3.4)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Other	10	0.2 (0.05 - 0.4)	4	0.5 (0.0 - 1.0)	2	0.6 (0.0 - 1.2)	1	0.5 (0.0 - 1.1)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	0.3 (0.0 - 0.7)	0	0.0 (0.0 - 0.0)	2	0.1 (0.0 - 0.2)	0	0.0 (0.0 - 0.0)
<b>Received free condoms in the last 12 months<sup>b</sup></b>																				
Yes	3427	91.3 (88.5 - 94.1)	352	95.4 (92.8 - 98.0)	390	92.4 (89.3 - 95.5)	351	88.8 (85.0 - 92.7)	369	95.7 (92.7 - 98.8)	381	88.9 (85.2 - 92.5)	401	84.8 (79.7 - 89.8)	376	88.7 (84.6 - 92.8)	416	88.8 (84.3 - 93.3)	391	97.7 (95.5 - 99.9)
No	287	8.7 (6.0 - 11.5)	16	4.6 (2.0 - 7.3)	33	7.6 (4.6 - 10.6)	40	11.2 (7.2 - 15.1)	8	4.3 (1.2 - 7.4)	45	11.1 (7.4 - 14.9)	57	15.2 (10.3 - 20.2)	37	11.3 (7.1 - 15.4)	45	11.2 (6.8 - 15.5)	6	2.3 (0.1 - 4.5)
<b>Unable to get condoms when needed in the last 12 months<sup>b</sup></b>																				
Always	122	2.8 (1.6 - 4.1)	23	6.1 (3.1 - 9.1)	26	5.5 (2.9 - 8.1)	23	3.8 (2.0 - 5.6)	9	1.5 (0.4 - 2.6)	10	2.1 (0.6 - 3.6)	13	2.2 (0.9 - 3.5)	4	0.6 (0.0 - 2.0)	7	1.6 (0.2 - 3.1)	7	2.2 (0.3 - 4.1)
Sometimes	1349	35.0 (24.2 - 45.7)	166	43.5 (37.3 - 49.6)	157	38.0 (31.2 - 44.7)	158	39.3 (33.2 - 45.3)	31	7.6 (4.6 - 10.5)	198	47.9 (40.8 - 55.1)	151	27.7 (22.4 - 32.9)	65	11.2 (7.9 - 14.7)	199	43.2 (35.7 - 50.7)	224	56.3 (49.7 - 62.8)
Never	2213	62.2 (50.9 - 73.5)	175	50.5 (44.2 - 56.7)	236	56.5 (49.8 - 63.3)	206	56.9 (50.7 - 63.1)	331	90.9 (87.8 - 94.0)	219	50.0 (42.8 - 57.1)	296	70.1 (65.0 - 75.3)	337	88.1 (84.4 - 91.8)	248	55.2 (47.4 - 62.9)	165	41.5 (34.8 - 48.2)
<b>Able to negotiate condom use with clients in last 3 months<sup>b</sup></b>																				
Always	1580	40.7 (29.4 - 52.0)	245	69.0 (63.1 - 75.0)	211	44.2 (37.6 - 50.8)	215	47.6 (41.2 - 53.9)	196	49.9 (43.7 - 56.1)	170	37.3 (30.0 - 44.6)	198	41.5 (35.5 - 47.4)	126	31.7 (26.0 - 37.3)	201	40.8 (33.8 - 48.0)	18	4.0 (1.9 - 6.1)
Most of the time	863	24.0 (16.5 - 31.5)	69	16.2 (11.6 - 20.9)	74	19.2 (14.1 - 24.1)	110	34.5 (28.4 - 40.7)	36	8.2 (5.3 - 11.1)	145	35.2 (29.4 - 41.0)	80	18.8 (14.2 - 23.5)	178	44.2 (37.7 - 50.6)	74	17.4 (12.7 - 22.2)	97	22.4 (17.7 - 27.2)
Sometimes	804	21.8 (13.7 - 29.9)	47	13.3 (8.6 - 17.9)	56	14.3 (10.1 - 18.5)	59	16.0 (11.2 - 20.7)	50	14.2 (10.0 - 18.4)	69	16.2 (11.5 - 20.8)	98	21.9 (17.4 - 26.3)	101	21.5 (16.7 - 26.3)	115	25.7 (19.1 - 32.2)	209	52.9 (47.1 - 58.6)
Rarely	209	6.2 (2.6 - 9.8)	3	0.7 (0.0 - 1.8)	13	4.8 (1.1 - 8.3)	5	1.7 (0.2 - 3.2)	59	16.7 (12.3 - 21.1)	33	8.5 (5.2 - 11.8)	16	2.7 (1.2 - 4.2)	3	0.5 (0.0 - 1.2)	36	9.5 (5.4 - 13.6)	41	10.4 (6.6 - 14.3)
Never	264	7.4 (3.2 - 11.6)	4	0.7 (0.0 - 1.5)	71	17.6 (12.5 - 22.8)	2	0.2 (0.0 - 0.6)	36	10.9 (7.1 - 14.8)	10	2.8 (0.7 - 4.9)	70	15.0 (10.9 - 19.2)	6	2.2 (0.0 - 4.5)	33	6.6 (4.0 - 9.2)	32	10.3 (5.7 - 14.9)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent - Driven Sampling package in R applying Gile's Sequential Sampling estimator.

<sup>a</sup> Sum of sample numerator is higher than the sample denominator as multiple responses could be selected

<sup>b</sup> Non-responses and missing data were excluded from the analysis.

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval.

Table 4.9.2: Lubricant Use Among Female Sex Workers By Location, BBS, Kenya, 2024

	Overall Estimate (N=3722)		Kajiado (N=368)		Kiambu (N=425)		Kilifi (N=391)		Kisii (N=377)		Kisumu (N=427)		Machakos (N=462)		Mombasa (N=414)		Nairobi (N=461)		Nakuru (N=397)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Use lubricant<sup>a</sup></b>																				
Yes	2034	50.6 (46.0 - 55.2)	203	50.0 (43.3 - 56.7)	194	42.0 (35.7 - 48.3)	201	50.5 (44.1 - 56.8)	234	59.7 (53.5 - 65.9)	266	58.8 (51.4 - 66.3)	237	42.8 (35.8 - 49.8)	179	41.9 (36.0 - 47.8)	283	54.4 (45.7 - 63.2)	237	55.5 (49.5 - 61.5)
No	1687	49.4 (44.8 - 54.0)	165	50.0 (43.6 - 56.5)	231	58.0 (51.9 - 64.2)	190	49.5 (43.1 - 56.0)	143	40.3 (34.3 - 46.4)	161	41.2 (33.6 - 48.8)	225	57.2 (50.4 - 64.0)	235	58.1 (51.9 - 64.2)	177	45.6 (37.0 - 54.2)	160	44.5 (38.3 - 50.7)
<b>Type of lubricant used<sup>a,b</sup></b>																				
KY jelly	712	34.1 (27.2 - 41.0)	55	26.9 (18.9 - 35.0)	67	35.1 (26.6 - 43.7)	76	40.6 (32.8 - 48.6)	102	45.6 (36.4 - 54.6)	84	28.6 (22.5 - 34.6)	102	43.7 (35.6 - 51.8)	23	11.7 (6.1 - 17.4)	134	40.4 (33.8 - 47.1)	69	34.6 (25.4 - 43.7)
Sure lube/govt. lube	856	40.4 (29.8 - 50.9)	73	33.6 (25.6 - 41.6)	77	34.2 (25.7 - 42.7)	87	39.8 (31.3 - 48.2)	122	50.6 (42.3 - 59.1)	140	54.0 (46.8 - 61.2)	39	12.0 (7.6 - 16.3)	127	67.5 (59.8 - 75.3)	75	27.3 (21.0 - 33.6)	116	44.2 (35.4 - 52.9)
Other oil-based products	346	19.9 (11.8 - 28.0)	63	34.5 (26.2 - 42.7)	30	22.2 (12.9 - 31.4)	29	13.8 (7.6 - 20.0)	0	0.0 (0.0 - 0.0)	30	12.3 (7.9 - 16.7)	89	42.1 (34.5 - 49.9)	29	20.8 (13.1 - 28.3)	41	19.5 (13.0 - 25.9)	35	14.0 (8.9 - 19.3)
Other water-based products	55	2.3 (1.1 - 3.4)	9	1.8 (0.5 - 3.1)	5	1.1 (0.0 - 3.2)	9	5.7 (0.0 - 11.5)	8	3.2 (0.5 - 5.8)	9	2.8 (0.7 - 4.9)	5	1.5 (0.0 - 3.1)	0	0.0 (0.0 - 0.0)	9	3.9 (0.6 - 7.2)	1	0.4 (0.0 - 1.1)
Don't know	60	3.3 (1.1 - 5.6)	3	3.2 (0.0 - 8.1)	15	7.4 (4.0 - 10.8)	0	0.0 (0.0 - 0.0)	1	0.7 (0.0 - 1.7)	3	2.3 (0.2 - 4.5)	1	0.7 (0.0 - 1.8)	0	0.0 (0.0 - 0.0)	23	8.9 (4.3 - 13.6)	14	6.8 (3.0 - 10.6)
<b>Places usually get lubricant<sup>a,b</sup></b>																				
Clients	5	0.3 (0.0 - 0.7)	1	0.5 (0.0 - 1.2)	0	0.0 (0.0 - 0.0)	2	1.0 (0.0 - 2.1)	0	0.0 (0.0 - 0.0)	2	1.5 (0.5 - 2.5)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Clinic/hospital	160	8.6 (6.6 - 10.6)	16	9.4 (4.7 - 14.0)	19	12.0 (6.4 - 17.6)	21	11.7 (5.4 - 18.0)	12	4.9 (1.4 - 8.3)	20	8.9 (5.0 - 12.7)	14	7.0 (2.1 - 12.0)	21	10.9 (5.6 - 15.9)	8	3.2 (0.0 - 6.9)	29	9.7 (5.3 - 14.0)
Drop-in centre	1054	47.6 (37.4 - 57.8)	95	38.7 (30.4 - 46.9)	101	45.6 (35.8 - 55.2)	90	39.9 (30.9 - 49.0)	174	69.1 (61.0 - 77.4)	183	69.1 (62.4 - 75.8)	58	19.0 (13.2 - 24.7)	105	55.6 (47.1 - 64.3)	133	44.3 (37.3 - 51.3)	115	47.2 (38.5 - 56.0)
Friends/peers	36	2.4 (1.2 - 3.6)	2	3.2 (0.0 - 8.3)	8	5.3 (0.9 - 9.9)	7	4.4 (0.8 - 8.0)	1	0.4 (0.0 - 1.4)	3	0.8 (0.0 - 1.8)	3	1.2 (0.0 - 2.9)	1	0.5 (0.0 - 1.2)	8	3.5 (1.1 - 6.0)	3	2.3 (0.0 - 5.1)
Partners	2	0.1 (0.0 - 0.2)	0	0.0 (0.0 - 0.0)	1	0.6 (0.0 - 1.9)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	0.5 (0.0 - 1.7)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Peer educators	199	10.1 (6.9 - 13.4)	1	0.3 (0.0 - 0.7)	26	12.8 (6.9 - 18.8)	26	14.7 (8.5 - 20.9)	24	10.3 (4.9 - 15.7)	28	10.6 (6.8 - 14.3)	14	7.4 (2.5 - 12.2)	27	11.3 (5.8 - 16.7)	20	6.7 (2.4 - 11.0)	33	17.2 (10.4 - 24.1)
Sex venues	54	2.2 (0.8 - 3.5)	2	0.4 (0.0 - 1.1)	8	3.0 (0.9 - 5.2)	3	1.1 (0.0 - 2.7)	1	0.2 (0.01 - 0.3)	16	6.4 (3.4 - 9.3)	7	3.7 (0.5 - 6.8)	4	1.2 (0.0 - 2.5)	2	0.3 (0.0 - 0.6)	11	3.5 (0.9 - 6.1)
Supermarket/pharmacy/chemist /kiosk	911	46.1 (35.3 - 56.9)	106	57.0 (48.1 - 65.9)	69	41.8 (31.9 - 51.6)	105	53.8 (44.4 - 63.1)	64	28.9 (20.7 - 36.9)	80	28.9 (22.7 - 35.1)	182	78.4 (71.4 - 85.4)	55	33.0 (24.6 - 41.3)	154	55.7 (47.9 - 63.5)	96	37.1 (28.9 - 45.4)
Other	1	0.01 (0.0 - 0.05)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	0.3 (0.0 - 0.7)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sample denominator is based on the previous question

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval.

## **PrEP:**

Awareness of PrEP was very high overall—92.9% had heard of it—with the highest awareness in Nakuru (98.5%) and the lowest in Mombasa (83.7%). More than half had ever taken PrEP (58.3%), but uptake varied: it was highest in Machakos (75.6%), Kisumu (66.9%), and Nairobi (65.3%), and lowest in Nakuru (45.9%) and Mombasa (46.9%).

Among those not on PrEP, the leading barriers were not wanting a daily pill (38.4%) and perceiving low risk (31.2%); smaller shares cited not knowing where to go (10.5%) or distrust/reluctance (4.9%). These patterns were especially pronounced in Nairobi, where reluctance to take a daily pill reached 69.5%, and in Kiambu, where “don’t feel at risk” was common (38.0%).

Continuation was strong among FSW who had ever used PrEP 74.5% had taken PrEP in the last six months, led by Machakos (87.2%) and Kisumu (83.8%). Most current users reported taking PrEP daily as prescribed (87.0%), peaking in Nairobi (98.7%) and remaining above four in five in most other sites.

Motivations for taking PrEP reflected occupational and exposure risks. The most cited reasons were being a sex worker (34.1%), unprotected sex (24.3%), fear of condom failure (21.0%), and having multiple partners (10.0%); smaller proportions mentioned not trusting partners (5.1%). Notably, Kisii had a very high share citing occupation (71.2%), while Nairobi reported particularly high mentions of unprotected sex (54.2%).

Among those who stopped PrEP, the top reasons were side effects or fear of them (34.6%), no longer feeling at risk (16.4%), and pill fatigue/too many pills (10.6%); adherence issues (7.4%) and access/eligibility problems (4.2%) were less common.

## **PEP:**

Awareness of PEP was high, with 81.1% of female sex workers reporting they had heard of it, ranging from 59.5% in Mombasa to over 90% in Nakuru and Kisii. About 39.1% reported having ever taken PEP, with the highest proportions in Nakuru (55.6%), Kajiado (50.6%), and Kisumu (49.9%), and the lowest in Nairobi (18.2%).

Among those who had ever used PEP, 40.4% had taken it within the past six months, with consistent use across counties (36–50%). The main reason for taking PEP was condom burst or slippage (62%), followed by unprotected sex (33.9%), while very few cited rape or assault (2.4%) or human bites (1.6%).

These findings indicate that while knowledge of PEP is widespread and uptake moderate, recent use remains limited, and the primary drivers of PEP initiation are condom-related failures and unprotected sexual encounters.

Table 4.9.3: Pre-Exposure Prophylaxis (PrEP) Among Female Sex Workers By Location, BBS, Kenya, 2024

	Overall Estimate		Kajiado		Kiambu		Kilifi		Kisii	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Ever heard of PrEP<sup>a</sup></b>										
Yes	2682	92.9 (90.2 - 95.5)	269	91.4 (86.5 - 96.3)	330	91.4 (87.3 - 95.7)	278	95.0 (92.0 - 98.0)	268	95.0 (92.1 - 98.0)
No	173	7.1 (4.5 - 9.8)	17	8.6 (3.9 - 13.4)	26	8.6 (4.3 - 12.7)	14	5.0 (2.0 - 8.0)	11	5.0 (2.0 - 7.9)
<b>Ever taken PrEP<sup>a,b</sup></b>										
Yes	1624	58.3 (52.1 - 64.6)	164	56.4 (48.3 - 64.4)	188	55.3 (48.6 - 61.9)	161	58.2 (49.4 - 66.9)	185	66.9 (59.0 - 74.8)
No	1057	41.7 (35.4 - 48.0)	105	43.6 (35.8 - 51.4)	142	44.7 (37.9 - 51.5)	117	41.8 (33.5 - 50.3)	83	33.1 (25.3 - 40.9)
<b>Main reason not taking PrEP<sup>a,b</sup></b>										
Don't feel at risk	304	31.2 (22.7 - 39.7)	27	25.8 (14.9 - 37.1)	50	38.0 (27.8 - 47.6)	28	27.1 (16.9 - 37.3)	27	43.9 (29.3 - 58.4)
Don't know where to go	112	10.5 (6.6 - 14.3)	11	11.1 (2.5 - 19.8)	25	19.3 (10.4 - 28.7)	13	12.5 (5.7 - 19.3)	1	1.1 (0.0 - 2.8)
Don't want to/don't trust it	47	4.9 (1.4 - 8.5)	16	16.6 (8.6 - 24.5)	1	0.4 (0.0 - 1.1)	2	1.6 (0.0 - 3.5)	0	0.0 (0.0 - 0.0)
Don't want others to know	8	0.5 (0.07 - 1.0)	2	2.5 (0.0 - 5.7)	1	0.4 (0.0 - 1.4)	1	0.3 (0.0 - 1.0)	1	0.5 (0.0 - 1.4)
Don't want to take pill every day	352	38.4 (28.2 - 48.6)	18	18.9 (9.1 - 28.7)	41	30.4 (20.6 - 40.6)	53	49.1 (37.8 - 60.4)	33	48.4 (34.7 - 62.1)
Don't qualify/healthcare worker won't prescribe	25	3.9 (0.0 - 8.0)	8	13.1 (3.1 - 22.5)	3	2.9 (0.0 - 6.2)	4	2.0 (0.0 - 4.2)	0	0.0 (0.0 - 0.0)
Fear of side effects	28	2.3 (1.2 - 3.4)	3	3.1 (0.0 - 6.1)	0	0.0 (0.0 - 0.0)	5	3.8 (0.6 - 6.9)	3	3.3 (0.0 - 7.4)
Lack of information on PrEP	47	4.3 (2.1 - 6.5)	7	6.2 (1.6 - 10.8)	4	2.7 (0.0 - 6.7)	4	2.7 (0.0 - 5.7)	0	0.0 (0.0 - 0.0)
Lack permission from spouse/partner	3	0.2 (0.0 - 0.4)	2	1.2 (0.0 - 2.9)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Stigma/discrimination by HCW for selling sex	5	0.6 (0.0 - 1.3)	0	0.0 (0.0 - 0.0)	2	2.8 (0.0 - 6.4)	1	0.6 (0.0 - 1.8)	0	0.0 (0.0 - 0.0)
Tested HIV-positive	1	0.0 (0.0 - 0.01)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	0.08 (0.0 - 0.2)	0	0.0 (0.0 - 0.0)
Too many HIV tests/appointments	8	1.0 (0.3 - 1.7)	0	0.0 (0.0 - 0.0)	2	1.3 (0.0 - 3.3)	0	0.0 (0.0 - 0.0)	1	0.7 (0.0 - 1.8)
Trust partners	20	1.6 (1.0 - 2.3)	1	1.7 (0.0 - 4.7)	3	1.6 (0.0 - 3.7)	1	0.2 (0.0 - 0.6)	2	1.3 (0.0 - 2.9)
Plan to start PrEP	3	0.0 (0.0 - 0.01)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	0.9 (0.0 - 2.4)
<b>Taken PrEP in the last 6 months<sup>a,b</sup></b>										
Yes	1202	74.5 (69.0 - 80.0)	118	72.5 (63.9 - 81.2)	111	60.1 (50.7 - 69.3)	106	65.5 (55.4 - 75.7)	148	83.8 (77.9 - 89.7)
No	421	25.5 (20.0 - 31.0)	46	27.5 (18.9 - 36.1)	77	39.9 (30.4 - 49.7)	55	34.5 (24.8 - 44.2)	37	16.2 (10.4 - 22.1)
<b>Main reason for taking PrEP<sup>a,b</sup></b>										
Am a sex worker	408	34.1 (22.0 - 46.2)	20	17.6 (9.9 - 25.5)	43	33.2 (23.0 - 43.7)	71	71.2 (61.3 - 81.3)	49	29.6 (21.1 - 38.1)
At risk of infection	36	3.0 (0.0 - 6.1)	6	5.0 (0.0 - 10.3)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Benefits of PrEP	21	1.7 (0.3 - 3.1)	6	5.1 (0.3 - 10.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Don't trust partners	61	5.1 (3.3 - 6.9)	5	4.3 (0.3 - 8.3)	5	3.6 (0.0 - 7.4)	9	8.2 (1.8 - 14.7)	6	4.4 (0.7 - 8.1)
Fear of condom burst/slippage/breakage	259	21.0 (15.6 - 26.4)	39	31.6 (21.0 - 42.0)	31	25.8 (16.0 - 35.8)	15	8.9 (3.5 - 14.3)	26	20.8 (12.4 - 29.1)
Have multiple sex partners	145	10.0 (3.2 - 16.8)	14	11.1 (4.9 - 17.5)	3	3.4 (0.0 - 8.0)	5	4.4 (0.4 - 8.4)	52	35.5 (26.8 - 44.4)
Sexual partner has HIV	9	0.8 (0.0 - 1.7)	0	0.0 (0.0 - 0.0)	5	4.8 (0.0 - 9.6)	1	1.1 (0.0 - 3.0)	2	1.1 (0.0 - 2.8)
Unprotected sex	256	24.3 (12.6 - 36.0)	27	25.3 (14.0 - 36.5)	23	29.3 (16.0 - 41.8)	5	6.1 (0.0 - 13.3)	12	8.5 (2.2 - 14.8)
<b>Currently taking PrEP daily as prescribed<sup>a,b</sup></b>										
Yes	1049	87.0 (83.2 - 90.8)	100	82.6 (73.2 - 92.0)	90	82.0 (73.7 - 90.4)	88	85.0 (78.1 - 91.8)	123	81.4 (73.3 - 89.5)
No	152	13.1 (9.3 - 16.9)	18	17.4 (8.5 - 26.3)	21	18.0 (9.6 - 26.3)	18	15.0 (7.8 - 22.3)	25	18.6 (10.5 - 26.7)
<b>Reasons for stopping PrEP<sup>a,b</sup></b>										
Adherence issues	11	7.4 (1.8 - 13.0)	2	5.5 (0.0 - 13.7)	1	3.5 (0.0 - 10.5)	1	5.2 (0.0 - 15.8)	1	2.2 (0.0 - 6.1)
Can't get PrEP anymore/don't qualify	8	4.2 (0.0 - 8.6)	2	13.4 (0.0 - 32.5)	4	18.7 (0.0 - 39.1)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Drug fatigue/too many pills	25	10.6 (5.4 - 15.8)	3	14.6 (0.0 - 32.7)	4	18.0 (0.0 - 38.3)	4	16.0 (0.0 - 34.6)	5	15.9 (0.0 - 33.4)
Fear of/had side effects	53	34.6 (21.1 - 48.2)	6	35.3 (7.6 - 62.3)	4	11.1 (0.0 - 24.7)	6	30.0 (6.3 - 54.3)	11	62.8 (41.0 - 84.2)
Fear of stigma/don't want others to know	3	2.4 (0.0 - 5.7)	1	13.1 (0.0 - 35.1)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Not at risk anymore	28	16.4 (9.1 - 23.8)	3	11.0 (0.0 - 23.8)	6	31.4 (5.9 - 58.0)	4	20.1 (0.2 - 40.8)	2	8.8 (0.0 - 21.0)
Not refilled	6	3.7 (0.0 - 8.3)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	2.2 (0.0 - 6.4)	0	0.0 (0.0 - 0.0)
Trust partners	6	4.5 (1.5 - 7.4)	1	7.1 (0.0 - 19.2)	1	10.2 (0.0 - 26.8)	1	5.2 (0.0 - 15.8)	2	7.1 (0.0 - 16.7)
Using condoms	9	16.3 (0.0 - 37.1)	0	0.0 (0.0 - 0.0)	1	7.2 (0.0 - 21.3)	1	21.2 (0.0 - 50.2)	1	3.3 (0.0 - 11.5)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sample denominator is based on the previous question

Abbreviations: N, sample denominator; n, sample numerator; CI, confidence interval; PrEP, pre-exposure prophylaxis

Table 4.9.3 cont.: Pre-Exposure Prophylaxis (PrEP) Among Female Sex Workers By Location, BBS, Kenya, 2024

	Kisumu		Machakos		Mombasa		Nairobi		Nakuru	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Ever heard of PrEP<sup>a</sup></b>										
Yes	236	93.1 (89.3 - 96.9)	320	83.7 (78.4 - 89.0)	318	94.4 (90.9 - 98.0)	363	98.5 (97.4 - 99.7)	300	93.1 (89.6 - 96.6)
No	11	6.9 (3.0 - 10.8)	51	16.3 (11.2 - 21.5)	19	5.6 (2.0 - 9.1)	7	1.5 (0.4 - 2.6)	17	6.9 (3.3 - 10.5)
<b>Ever taken PrEP<sup>a,b</sup></b>										
Yes	184	75.6 (68.9 - 82.4)	161	46.9 (40.2 - 53.8)	218	65.3 (58.9 - 71.7)	215	54.3 (47.8 - 60.9)	148	45.9 (38.2 - 53.4)
No	52	24.4 (17.7 - 31.0)	159	53.1 (46.2 - 59.8)	100	34.7 (28.3 - 41.1)	148	45.7 (39.4 - 52.0)	151	54.1 (46.7 - 61.8)
<b>Main reason not taking PrEP<sup>a,b</sup></b>										
Don't feel at risk	12	21.1 (8.6 - 33.7)	60	43.2 (32.9 - 53.5)	4	4.2 (0.2 - 8.0)	45	36.8 (26.7 - 46.7)	51	40.9 (31.1 - 50.9)
Don't know where to go	4	6.0 (0.0 - 13.7)	21	18.2 (9.2 - 27.1)	9	7.5 (1.8 - 13.1)	9	6.4 (2.0 - 10.8)	19	12.2 (6.6 - 17.8)
Don't want to/don't trust it	5	9.4 (1.2 - 17.5)	2	0.5 (0.0 - 1.0)	5	3.4 (0.0 - 6.8)	10	5.4 (1.6 - 9.3)	6	7.3 (0.0 - 14.8)
Don't want others to know	0	0.0 (0.0 - 0.0)	2	0.9 (0.0 - 2.2)	1	0.4 (0.0 - 1.2)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Don't want to take pill every day	17	37.5 (20.7 - 54.1)	32	21.8 (13.4 - 30.1)	58	69.5 (58.6 - 80.6)	50	38.2 (28.4 - 47.9)	50	31.6 (23.1 - 40.1)
Don't qualify/healthcare worker won't prescribe	8	16.8 (5.1 - 28.7)	1	0.3 (0.0 - 0.8)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	0.6 (0.0 - 1.5)
Fear of side effects	2	1.0 (0.0 - 2.5)	4	4.9 (0.3 - 9.5)	0	0.0 (0.0 - 0.0)	5	2.3 (0.07 - 4.4)	6	2.5 (0.0 - 5.2)
Lack of information on PrEP	1	1.7 (0.0 - 4.7)	10	6.5 (3.2 - 9.9)	7	10.2 (1.3 - 19.0)	10	7.2 (2.4 - 12.0)	4	1.5 (0.0 - 3.1)
Lack permission from spouse/partner	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	0.6 (0.0 - 1.9)
Stigma/discrimination by HCW for selling sex	1	2.0 (0.0 - 6.1)	1	0.6 (0.0 - 1.8)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Tested HIV-positive	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Too many HIV tests/appointments	2	4.4 (0.0 - 10.0)	1	0.7 (0.0 - 1.8)	1	1.4 (0.0 - 4.6)	1	1.4 (0.0 - 4.8)	0	0.0 (0.0 - 0.0)
Trust partners	0	0.0 (0.0 - 0.0)	4	2.4 (0.0 - 5.5)	2	2.3 (0.0 - 6.2)	3	2.4 (0.0 - 5.0)	4	2.7 (0.0 - 5.4)
Plan to start PrEP	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	2	1.0 (0.0 - 2.5)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
<b>Taken PrEP in the last 6 months<sup>a,b</sup></b>										
Yes	165	87.2 (80.8 - 93.1)	114	72.2 (64.1 - 80.6)	166	78.6 (71.2 - 86.0)	154	74.3 (67.2 - 81.5)	120	76.1 (67.6 - 84.6)
No	19	12.8 (6.7 - 19.4)	47	27.8 (19.4 - 36.0)	52	21.4 (13.8 - 29.0)	60	25.7 (18.2 - 33.1)	28	23.9 (15.1 - 32.7)
<b>Main reason for taking PrEP<sup>a,b</sup></b>										
Am a sex worker	83	54.1 (44.9 - 63.3)	27	20.3 (12.6 - 28.0)	23	12.3 (6.7 - 17.9)	60	34.1 (24.9 - 43.1)	32	34.2 (22.3 - 46.1)
At risk of infection	15	9.0 (4.3 - 13.8)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	12	12.5 (5.0 - 19.9)	3	0.5 (0.0 - 1.2)
Benefits of PrEP	8	4.6 (1.5 - 7.6)	2	2.0 (0.0 - 4.8)	0	0.0 (0.0 - 0.0)	4	3.2 (0.0 - 6.9)	1	0.5 (0.0 - 1.6)
Don't trust partners	9	6.9 (2.2 - 11.7)	4	4.4 (0.4 - 8.4)	5	3.0 (0.02 - 6.0)	5	1.2 (0.0 - 2.8)	13	10.1 (3.6 - 16.5)
Fear of condom burst/slippage/breakage	14	8.3 (3.9 - 12.8)	18	17.3 (9.8 - 24.9)	53	25.5 (17.7 - 33.1)	26	20.9 (11.2 - 30.7)	37	29.7 (19.1 - 40.1)
Have multiple sex partners	12	4.1 (0.9 - 7.3)	6	4.2 (0.4 - 8.1)	14	4.9 (1.5 - 8.3)	26	16.4 (8.2 - 24.6)	13	6.1 (2.0 - 10.0)
Sexual partner has HIV	1	0.3 (0.0 - 0.6)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Unprotected sex	23	12.7 (6.3 - 19.0)	55	51.7 (41.8 - 61.4)	71	54.2 (45.3 - 63.4)	19	11.8 (5.7 - 17.8)	21	18.9 (9.4 - 28.6)
<b>Currently taking PrEP daily as prescribed<sup>a,b</sup></b>										
Yes	144	88.3 (82.5 - 94.2)	105	92.1 (87.2 - 97.0)	165	98.7 (96.1 - 100.0)	134	89.5 (84.1 - 95.1)	100	82.7 (73.8 - 91.6)
No	21	11.7 (5.4 - 17.9)	8	7.9 (2.9 - 12.9)	1	1.3 (0.0 - 3.9)	20	10.5 (4.9 - 15.9)	20	17.3 (9.1 - 25.6)
<b>Reasons for stopping PrEP<sup>a,b</sup></b>										
Adherence issues	1	8.7 (0.0 - 24.4)	1	14.2 (0.0 - 37.9)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	4	27.1 (1.1 - 53.5)
Can't get PrEP anymore/don't qualify	1	1.5 (0.0 - 4.1)	1	4.6 (0.0 - 13.6)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Drug fatigue/too many pills	2	11.5 (0.0 - 27.7)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	6	17.8 (0.0 - 40.3)	1	0.7 (0.0 - 2.0)
Fear of/had side effects	6	38.2 (13.4 - 63.0)	5	58.6 (25.7 - 92.8)	0	0.0 (0.0 - 0.0)	7	49.2 (20.1 - 78.7)	8	26.0 (4.3 - 47.0)
Fear of stigma/don't want others to know	2	9.6 (0.0 - 23.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Not at risk anymore	5	17.0 (0.8 - 33.1)	1	14.2 (0.0 - 37.9)	0	0.0 (0.0 - 0.0)	2	8.7 (0.0 - 22.1)	5	35.6 (7.9 - 63.6)
Not refilled	3	12.9 (0.0 - 29.7)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	2	18.5 (0.0 - 41.8)	0	0.0 (0.0 - 0.0)
Trust partners	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	10.2 (0.0 - 30.0)
Using condoms	1	0.6 (0.04 - 1.2)	1	8.5 (0.0 - 25.1)	1	100.0 (83.9 - 100.0)	2	5.8 (0.0 - 15.4)	1	0.4 (0.0 - 1.0)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sample denominator is based on the previous question

Abbreviations: N, sample denominator; n, sample numerator; CI, confidence interval; PrEP, pre-exposure prophylaxis

Table 4.9.3B: Post-Exposure Prophylaxis (PEP) Among Female Sex Workers By Location, BBS, Kenya, 2024

	Overall Estimate		Kajiado		Kiambu		Kilifi		Kisii	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Ever heard of PEP</b>										
Yes	2363	81.1 (73.2 - 89.0)	258	87.0 (81.8 - 92.3)	300	83.5 (79.0 - 88.0)	255	87.1 (82.4 - 91.7)	251	89.9 (86.0 - 93.7)
No	489	18.9 (11.0 - 26.8)	28	13.0 (7.9 - 18.0)	57	16.5 (11.9 - 21.1)	36	12.9 (8.3 - 17.5)	28	10.1 (6.5 - 13.8)
<b>Ever taken PEP<sup>a,b</sup></b>										
Yes	990	39.1 (31.6 - 46.5)	142	50.6 (42.9 - 58.2)	116	37.5 (30.3 - 44.5)	86	34.0 (26.5 - 41.4)	126	49.9 (42.2 - 57.6)
No	1372	60.9 (53.5 - 68.4)	116	49.4 (41.6 - 57.3)	184	62.5 (55.4 - 69.7)	169	66.0 (58.6 - 73.4)	125	50.1 (42.5 - 57.8)
<b>Taken PEP in the last 6 months<sup>b</sup></b>										
Yes	376	40.4 (37.8 - 42.9)	50	39.5 (28.8 - 50.5)	47	41.4 (31.7 - 51.3)	30	37.0 (23.1 - 50.9)	48	38.8 (28.8 - 48.9)
No	614	59.7 (57.2 - 62.2)	92	60.5 (48.8 - 71.8)	69	58.6 (47.9 - 69.1)	56	63.0 (49.2 - 76.8)	78	61.2 (51.1 - 71.1)
<b>Reasons for taking PEP<sup>a,b</sup></b>										
Condom burst/slippage/breakage	255	62.0 (51.0 - 73.0)	41	83.1 (71.7 - 94.5)	31	60.0 (43.6 - 75.6)	23	71.3 (51.2 - 91.5)	32	66.3 (50.9 - 81.2)
Human bite	6	1.6 (0.0 - 3.3)	1	0.6 (0.0 - 1.5)	1	2.5 (0.0 - 7.1)	0	0.0 (0.0 - 0.0)	2	7.7 (0.0 - 18.5)
Rape/sexual assault	10	2.4 (0.5 - 4.2)	0	0.0 (0.0 - 0.0)	1	3.2 (0.0 - 8.4)	0	0.0 (0.0 - 0.0)	2	2.3 (0.0 - 5.5)
Unprotected sex	102	33.9 (21.5 - 46.2)	7	14.3 (3.3 - 25.4)	13	34.3 (18.4 - 51.1)	7	28.7 (9.1 - 48.3)	12	23.7 (11.5 - 36.6)
Other	1	0.0 (0.0 - 0.0)	1	2.0 (0.0 - 5.7)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sample denominator is based on the previous question

Abbreviations: N, sample denominator; n, sample numerator; CI, confidence interval; PEP, post-exposure prophylaxis

Table 4.9.3B cont.: Post-Exposure Prophylaxis (PEP) Among Female Sex Workers By Location, BBS, Kenya, 2024

	Kisumu		Machakos		Mombasa		Nairobi		Kisii (N=377)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Ever heard of PEP</b>										
Yes	202	79.5 (73.3 - 85.7)	240	59.5 (52.8 - 66.2)	217	62.1 (55.4 - 68.8)	342	89.7 (85.5 - 93.8)	298	91.6 (87.0 - 96.2)
No	43	20.5 (14.3 - 26.7)	131	40.5 (34.0 - 47.1)	119	37.9 (31.4 - 44.4)	28	10.3 (6.2 - 14.5)	19	8.4 (3.7 - 13.2)
<b>Ever taken PEP<sup>a,b</sup></b>										
Yes	67	36.6 (28.0 - 44.8)	83	32.6 (25.1 - 40.0)	48	18.2 (12.7 - 23.7)	148	36.6 (30.6 - 42.6)	174	55.6 (47.7 - 63.3)
No	135	63.4 (55.4 - 71.8)	157	67.4 (60.3 - 74.5)	168	81.8 (76.1 - 87.5)	194	63.4 (57.4 - 69.3)	124	44.4 (36.9 - 52.2)
<b>Taken PEP in the last 6 months<sup>b</sup></b>										
Yes	26	42.0 (26.4 - 57.5)	36	50.0 (37.5 - 62.2)	17	35.8 (20.5 - 51.0)	55	41.5 (31.6 - 51.4)	67	38.0 (28.7 - 47.3)
No	41	58.0 (42.2 - 73.9)	47	50.0 (38.2 - 62.1)	31	64.2 (48.9 - 79.6)	93	58.5 (48.7 - 68.3)	107	62.0 (52.7 - 71.3)
<b>Reasons for taking PEP<sup>a,b</sup></b>										
Condom burst/slippage/breakage	13	50.1 (24.7 - 75.6)	29	77.8 (62.6 - 93.6)	8	39.7 (14.6 - 64.3)	28	35.7 (21.1 - 50.1)	50	72.7 (60.3 - 85.3)
Human bite	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	2	4.0 (0.0 - 9.6)
Rape/sexual assault	0	0.0 (0.0 - 0.0)	1	5.7 (0.0 - 15.6)	0	0.0 (0.0 - 0.0)	2	2.9 (0.0 - 6.9)	4	7.9 (0.0 - 15.5)
Unprotected sex	13	49.9 (24.5 - 75.1)	5	16.6 (3.1 - 29.6)	9	60.3 (36.1 - 85.0)	25	61.4 (46.4 - 76.5)	11	15.4 (5.4 - 25.5)
Other	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sample denominator is based on the previous question

Abbreviations: N, sample denominator; n, sample numerator; CI, confidence interval; PEP, post-exposure prophylaxis

## **Peer Educator/Outreach Workers:**

Just over half of female sex workers (FSW) reported ever engaging with a peer educator or outreach worker (56%). Contact was highest in Kilifi (71%), Kisumu (68%), Nairobi (64%), and Nakuru (60%), but substantially lower in Kiambu (36%) and Machakos (45%). Among those ever reached, 78% had been contacted within the past three months—exceeding 90% in Kisumu and remaining high in Kajiado (89%) and Kiambu (83%), though lower in Nairobi (63%).

The most common outreach services included condom distribution (73%) and health education or IEC (71%). Lubricant provision showed greater disparity, with particularly high coverage in Kisumu (58%) but minimal levels in several counties (e.g., Kajiado 4%, Nakuru 6%). Referrals were less frequent, including for HIV testing (16%) and STI treatment (11%), though with notable county differences (e.g., STI treatment referrals in Kisumu 30% and Mombasa 22%). A smaller proportion received support related to violence (11%), highest in Kajiado (24%) and Nakuru (34%), highlighting the role of outreach as a critical entry point for safety and protection services

## **Clinics/ DICEs:**

In the past year, 70% of FSW visited a clinic/DICE providing KP services, with especially high attendance in Nairobi (85%), Nakuru (78%), Kisii (76%), and Kajiado (73%), but lower in Machakos (57%) and Kiambu (61%). During the most recent visit, the most frequently received services were condoms (81%), HIV testing and counselling (37%), and information on STI/HIV prevention (24%). Provision of lubricants (23%) varied sharply—again highest in Kisumu (59%) and Kilifi (35%), but minimal in several counties (e.g., Kajiado 3%, Nakuru 3%). PrEP was received by 11% overall at the last visit, with higher uptake in Kajiado (22%), Nairobi (20%), and Nakuru (17%), while PEP receipt at last visit was rare (<1% overall). Services related to medically assisted therapy (12%) and sexual and reproductive health (20%) were available, though uneven—MAT was concentrated in Nakuru (48%) and Kisumu (24%), while SRH services were more commonly reported in Kilifi (36%) and Kiambu (35%) than in Nairobi (3%).

Table 4.9.4: Service Uptake Through Peer Educators/ Outreach Workers Among Female Sex Workers By Location, BBS, Kenya, 2024

	Overall Estimate (N=3722)		Kajiado (N=368)		Kiambu (N=425)		Kilifi (N=391)		Kisii (N=377)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Ever had contact with a peer educator/outreach worker in the community</b>										
Yes	2277	56.4 (48.9 - 63.8)	217	53.6 (47.2 - 60.0)	172	35.7 (29.9 - 41.5)	281	71.2 (65.9 - 76.6)	224	51.0 (44.0 - 58.0)
No	1445	43.6 (36.2 - 51.1)	151	46.4 (40.0 - 52.8)	253	64.3 (58.3 - 70.3)	110	28.8 (23.4 - 34.1)	153	49.0 (42.2 - 55.8)
<b>Contact with a peer educator/ outreach worker in the last 3 months<sup>a</sup></b>										
Yes	1865	78.3 (72.5 - 84.1)	197	88.7 (83.4 - 94.1)	147	82.8 (73.9 - 91.2)	234	76.6 (69.3 - 84.1)	179	72.2 (65.7 - 78.9)
No	412	21.7 (16.0 - 27.5)	20	11.3 (5.8 - 16.6)	25	17.2 (8.6 - 26.2)	47	23.4 (16.3 - 30.3)	45	27.8 (21.2 - 34.2)
<b>Services or information received from peer educator/outreach worker<sup>a,b</sup></b>										
Condoms	1379	73.3 (63.1 - 83.5)	114	57.2 (48.8 - 65.6)	111	79.4 (72.1 - 86.8)	200	84.7 (79.3 - 90.2)	138	72.0 (64.2 - 80.0)
Health education/IECs	1311	71.1 (59.2 - 83.1)	177	93.0 (88.8 - 97.2)	84	49.6 (39.8 - 59.3)	195	85.7 (81.0 - 90.3)	156	88.7 (83.3 - 94.3)
Lubricant	385	19.8 (8.5 - 31.1)	11	4.2 (1.0 - 7.3)	37	25.8 (16.9 - 34.8)	75	32.8 (25.4 - 40.2)	39	18.9 (13.0 - 24.9)
MAT Information	36	1.9 (0.0 - 3.8)	1	0.06 (0.0 - 0.2)	12	7.5 (1.2 - 13.7)	0	0.0 (0.0 - 0.0)	13	6.5 (2.3 - 10.7)
Needle/syringe exchange	10	0.5 (0.0 - 0.9)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	2	0.8 (0.0 - 1.9)	4	1.5 (0.0 - 3.3)
Referral for ART	60	3.1 (1.1 - 5.1)	14	9.0 (3.8 - 14.0)	0	0.0 (0.0 - 0.0)	15	5.3 (2.1 - 8.5)	5	2.6 (0.0 - 5.3)
Referral for drug treatment	60	3.4 (1.4 - 5.4)	7	2.3 (0.2 - 4.4)	10	9.1 (2.9 - 15.4)	6	2.9 (0.6 - 5.4)	7	4.8 (0.7 - 8.9)
Referral for HIV testing	308	16.4 (10.5 - 22.4)	27	12.6 (7.4 - 17.8)	38	28.4 (19.1 - 37.8)	66	23.4 (16.7 - 30.0)	21	11.7 (5.7 - 17.7)
Referral for STI treatment	218	11.0 (4.6 - 17.4)	10	4.6 (1.3 - 7.9)	18	13.1 (6.1 - 20.2)	37	12.9 (8.0 - 17.8)	21	10.4 (5.0 - 15.7)
Referral for Tambua Afya	24	1.0 (0.0 - 2.3)	0	0.0 (0.0 - 0.0)	1	0.5 (0.0 - 1.4)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Violence support	235	11.0 (3.7 - 18.3)	53	23.5 (16.3 - 30.6)	9	4.6 (0.7 - 8.4)	44	14.4 (9.6 - 19.3)	13	6.2 (2.1 - 10.4)
Other	33	1.8 (0.7 - 3.0)	11	5.3 (1.2 - 9.4)	3	3.1 (0.0 - 6.8)	5	1.7 (0.0 - 3.4)	0	0.0 (0.0 - 0.0)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the respondent driven sampling package in R, using Gile's sequential sampling estimator.

<sup>a</sup> Sample denominator is based on the previous question

<sup>b</sup> Sum of sample numerator is higher than the sample denominator, as multiple responses could be selected

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, 95% confidence interval; ART, anti-retroviral treatment; IEC, information, education, and communication materials; STI, sexually transmitted infection

Table 4.9.4 cont: Service Uptake Through Peer Educators/ Outreach Workers Among Female Sex Workers By Location, BBS, Kenya, 2024

	Kisumu (N=427)		Machakos (N=462)		Mombasa (N=414)		Nairobi (N=461)		Nakuru (N=397)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Ever had contact with a peer educator/outreach worker in the community</b>										
Yes	297	67.8 (61.6 - 74.1)	235	44.6 (37.9 - 51.3)	286	64.1 (58.2 - 70.0)	300	59.3 (51.1 - 67.6)	265	59.8 (53.2 - 66.4)
No	130	32.2 (25.9 - 38.4)	227	55.4 (48.8 - 62.1)	128	35.9 (30.1 - 41.7)	161	40.7 (32.9 - 48.4)	132	40.2 (33.6 - 46.8)
<b>Contact with a peer educator/ outreach worker in the last 3 months<sup>a</sup></b>										
Yes	273	91.2 (87.8 - 94.6)	178	76.9 (70.9 - 83.0)	204	62.8 (54.9 - 70.8)	227	72.2 (64.8 - 79.8)	226	80.9 (74.8 - 87.0)
No	24	8.8 (5.4 - 12.2)	57	23.1 (17.1 - 29.1)	82	37.2 (29.4 - 44.9)	73	27.8 (20.4 - 35.0)	39	19.1 (13.3 - 24.8)
<b>Services or information received from peer educator/outreach worker<sup>a,b</sup></b>										
Condoms	213	80.2 (74.3 - 86.1)	144	81.3 (75.0 - 87.9)	192	93.2 (89.1 - 97.5)	106	42.0 (33.4 - 50.7)	161	69.4 (61.6 - 77.0)
Health education/IECs	142	52.3 (44.8 - 59.9)	114	65.4 (56.9 - 73.7)	144	77.7 (70.9 - 84.5)	184	82.0 (75.6 - 88.5)	115	45.4 (37.0 - 53.5)
Lubricant	137	57.5 (50.4 - 64.5)	13	5.8 (0.7 - 10.8)	40	19.8 (13.1 - 26.4)	13	6.3 (2.1 - 10.5)	20	7.5 (3.7 - 11.3)
MAT Information	1	0.07 (0.0 - 0.2)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	5	1.5 (0.0 - 3.4)	4	1.5 (0.0 - 3.2)
Needle/syringe exchange	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	0.1 (0.0 - 0.3)	3	1.7 (0.0 - 3.5)
Referral for ART	4	0.9 (0.0 - 1.9)	12	6.2 (2.8 - 9.6)	3	1.0 (0.0 - 3.0)	5	2.4 (0.0 - 4.8)	2	0.6 (0.0 - 1.9)
Referral for drug treatment	7	3.0 (0.8 - 5.1)	2	1.4 (0.0 - 3.3)	1	0.05 (0.0 - 0.09)	3	0.2 (0.0 - 0.4)	17	6.9 (2.9 - 11.0)
Referral for HIV testing	72	24.2 (18.4 - 30.1)	41	26.4 (17.3 - 35.4)	10	3.8 (0.7 - 6.9)	15	8.6 (3.3 - 13.8)	18	9.0 (4.3 - 13.6)
Referral for STI treatment	78	29.9 (23.4 - 36.4)	32	22.3 (13.9 - 30.6)	8	2.3 (0.3 - 4.4)	5	1.5 (0.2 - 2.7)	9	2.4 (0.6 - 4.2)
Referral for Tambua Afya	10	2.6 (0.7 - 4.4)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	12	5.7 (1.6 - 9.7)	1	0.6 (0.0 - 1.7)
Violence support	4	1.1 (0.0 - 2.4)	3	2.4 (0.0 - 4.9)	22	10.4 (5.5 - 15.3)	8	2.4 (0.1 - 4.7)	79	33.9 (26.0 - 41.9)
Other	3	0.5 (0.0 - 1.1)	1	0.8 (0.0 - 2.4)	0	0.0 (0.0 - 0.0)	7	3.1 (0.2 - 6.0)	3	2.0 (0.0 - 4.4)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the respondent driven sampling package in R, using Gile's sequential sampling estimator.

<sup>a</sup> Sample denominator is based on the previous question

<sup>b</sup> Sum of sample numerator is higher than the sample denominator, as multiple responses could be selected

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, 95% confidence interval; ART, anti-retroviral treatment; IEC, information, education, and communication materials; STI, sexually transmitted infection

Table 4.9.4B: Service Uptake At Clinics/Drop-In Centres Among Female Sex Workers By Location, BBS, Kenya, 2024

	Overall Estimate (N=3722)		Kajiado (N=368)		Kiambu (N=425)		Kilifi (N=391)		Kisii (N=377)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Visited clinic/DICE that provides KP information or services in the last 12 months</b>										
Yes	2757	69.9 (63.9 - 75.9)	287	73.4 (67.2 - 79.6)	280	60.7 (54.2 - 67.1)	259	63.1 (56.9 - 69.4)	302	76.2 (69.3 - 83.1)
No	965	30.1 (24.1 - 36.1)	81	26.6 (20.4 - 32.8)	145	39.3 (32.9 - 45.8)	132	36.9 (30.9 - 42.8)	75	23.8 (16.9 - 30.8)
<b>Services received when last visited clinic/DICE<sup>a,b</sup></b>										
Addition counseling	54	2.5 (0.0 - 5.2)	2	0.2 (0.0 - 0.6)	24	12.7 (6.6 - 18.6)	15	5.1 (1.9 - 8.4)	2	0.3 (0.0 - 0.8)
General treatment	117	4.6 (2.1 - 7.1)	23	7.7 (3.3 - 12.1)	28	10.6 (6.2 - 15.1)	5	3.4 (1.5 - 5.4)	0	0.0 (0.0 - 0.0)
Hepatitis B/C test	6	0.1 (0.0 - 0.3)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	0.3 (0.0 - 0.7)
Hepatitis B vaccination	3	0.2 (0.0 - 0.4)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	0.9 (0.0 - 2.6)	1	0.3 (0.0 - 0.7)
HIV testing & counseling	788	36.6 (28.1 - 45.1)	97	42.1 (34.1 - 50.1)	102	48.3 (39.6 - 56.9)	113	54.8 (46.9 - 62.8)	106	41.9 (34.6 - 49.3)
Information on ART	304	13.6 (9.2 - 18.0)	16	6.8 (2.9 - 10.7)	20	10.9 (5.5 - 16.3)	56	21.8 (15.1 - 28.5)	48	19.3 (13.3 - 25.3)
Information on hepatitis	23	0.8 (0.0 - 2.0)	2	0.7 (0.0 - 1.7)	1	0.1 (0.0 - 0.3)	2	0.5 (0.0 - 1.3)	1	0.03 (0.0 - 0.08)
Information on MAT	43	1.6 (0.0 - 3.3)	3	1.6 (0.0 - 3.5)	5	2.2 (0.3 - 4.0)	0	0.0 (0.0 - 0.0)	10	2.3 (0.9 - 3.8)
Information on STI or HIV prevention	573	24.2 (17.2 - 31.1)	77	26.6 (19.6 - 33.6)	67	30.8 (23.5 - 38.2)	104	43.9 (35.8 - 52.0)	67	24.6 (18.6 - 30.7)
Information on TB	71	2.9 (0.0 - 6.1)	5	2.4 (0.0 - 4.8)	3	1.3 (0.0 - 3.4)	10	3.0 (0.7 - 5.3)	4	0.7 (0.0 - 1.4)
Medically assisted therapy	280	12.3 (2.2 - 22.4)	35	13.7 (7.7 - 19.8)	11	7.3 (2.3 - 12.3)	10	4.6 (1.6 - 7.6)	56	24.4 (18.2 - 30.5)
Needles/syringe exchange	17	0.6 (0.2 - 1.1)	0	0.0 (0.0 - 0.0)	4	1.7 (0.01 - 3.4)	3	0.7 (0.0 - 1.6)	3	1.5 (0.0 - 3.2)
Received condoms	1763	80.7 (71.6 - 89.7)	167	68.5 (60.6 - 76.3)	176	83.7 (77.4 - 90.0)	179	79.8 (72.1 - 87.6)	231	92.1 (88.5 - 95.6)
Received lubricants	522	23.0 (10.0 - 36.0)	13	3.1 (0.7 - 5.5)	41	15.0 (9.8 - 20.2)	77	34.6 (27.1 - 42.1)	95	39.4 (31.6 - 47.1)
Received PEP	14	0.7 (0.04 - 1.3)	4	3.0 (0.0 - 6.3)	0	0.0 (0.0 - 0.0)	1	0.1 (0.0 - 0.4)	0	0.0 (0.0 - 0.0)
Received PrEP	231	11.0 (5.5 - 16.4)	48	21.8 (14.7 - 28.9)	0	0.0 (0.0 - 0.0)	24	14.0 (7.3 - 20.7)	0	0.0 (0.0 - 0.0)
Safe injection counseling	15	0.8 (0.3 - 1.3)	2	0.8 (0.0 - 1.7)	3	1.3 (0.0 - 3.2)	1	0.9 (0.0 - 2.4)	0	0.0 (0.0 - 0.0)
Sexual reproductive health services	443	19.5 (12.6 - 26.4)	65	21.0 (15.2 - 26.8)	83	35.0 (27.3 - 42.7)	80	36.2 (28.3 - 44.1)	52	18.6 (13.1 - 24.2)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the respondent driven sampling package in R, using Gile's sequential sampling estimator.

<sup>a</sup> Sum of sample numerator is higher than the sample denominator, as multiple responses could be selected

<sup>b</sup> Sample denominator is based on the previous question

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, 95% confidence interval; ART, anti-retroviral treatment; MAT, medically assisted therapy; STI, sexually transmitted infection; TB, tuberculosis

Table 4.9.4B cont.: Service Uptake At Clinics/Drop-In Centres Among Female Sex Workers By Location, BBS, Kenya, 2024

	Kisumu (N=427)		Machakos (N=462)		Mombasa (N=414)		Nairobi (N=461)		Nakuru (N=397)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Visited clinic/DICE that provides KP information or services in the last 12 months</b>										
Yes	318	72.3 (65.6 - 78.9)	306	57.4 (50.1 - 64.5)	357	84.5 (79.7 - 89.3)	371	78.4 (70.3 - 86.4)	277	63.1 (56.4 - 69.8)
No	109	27.7 (20.8 - 34.7)	156	42.6 (35.6 - 49.8)	57	15.5 (10.8 - 20.1)	90	21.6 (13.3 - 30.0)	120	36.9 (30.0 - 43.9)
<b>Services received when last visited clinic/DICE<sup>a,b</sup></b>										
Addiction counseling	1	0.2 (0.0 - 0.5)	1	0.5 (0.0 - 1.0)	4	1.3 (0.0 - 2.6)	1	0.02 (0.0 - 0.06)	4	2.2 (0.0 - 4.6)
General treatment	16	5.2 (1.6 - 8.8)	6	1.5 (0.2 - 2.8)	1	0.5 (0.0 - 1.1)	31	9.0 (4.3 - 13.6)	7	3.7 (0.6 - 6.8)
Hepatitis B/C test	0	0.0 (0.0 - 0.0)	2	1.1 (0.3 - 1.8)	3	0.4 (0.0 - 1.1)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Hepatitis B vaccination	0	0.0 (0.0 - 0.0)	1	0.5 (0.0 - 1.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
HIV testing & counseling	60	18.7 (13.4 - 24.1)	52	25.7 (17.5 - 33.9)	127	46.8 (39.7 - 53.8)	81	29.5 (22.4 - 36.5)	50	21.5 (15.0 - 28.2)
Information on ART	61	23.2 (17.5 - 28.9)	39	16.9 (11.4 - 22.4)	30	9.4 (5.2 - 13.8)	23	6.0 (2.4 - 9.6)	11	8.0 (1.7 - 14.1)
Information on hepatitis	0	0.0 (0.0 - 0.0)	1	0.5 (0.0 - 1.3)	16	5.6 (2.3 - 8.9)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Information on MAT	0	0.0 (0.0 - 0.0)	1	0.3 (0.0 - 0.7)	0	0.0 (0.0 - 0.0)	23	8.0 (4.6 - 11.4)	1	0.2 (0.0 - 0.5)
Information on STI or HIV prevention	85	29.2 (22.6 - 35.9)	52	25.4 (16.9 - 33.6)	36	10.2 (6.3 - 14.2)	46	15.6 (10.6 - 20.5)	39	11.3 (6.5 - 16.1)
Information on TB	1	0.03 (0.0 - 0.07)	4	1.4 (0.08 - 2.8)	38	15.7 (10.1 - 21.4)	5	1.2 (0.0 - 4.0)	1	0.3 (0.0 - 1.0)
Medically assisted therapy	0	0.0 (0.0 - 0.0)	5	2.8 (0.7 - 5.0)	0	0.0 (0.0 - 0.0)	138	48.2 (40.9 - 55.5)	25	10.0 (6.1 - 13.9)
Needles/syringe exchange	0	0.0 (0.0 - 0.0)	1	0.3 (0.0 - 0.7)	4	0.5 (0.0 - 1.1)	0	0.0 (0.0 - 0.0)	2	1.1 (0.0 - 2.7)
Received condoms	236	87.3 (82.9 - 91.7)	197	89.8 (84.7 - 95.0)	258	93.6 (90.6 - 96.5)	147	49.9 (42.6 - 57.1)	172	81.4 (74.3 - 88.7)
Received lubricants	158	59.4 (52.6 - 66.2)	27	9.0 (5.1 - 13.0)	82	35.5 (28.3 - 42.6)	10	2.7 (0.9 - 4.5)	19	8.4 (4.4 - 12.3)
Received PEP	1	0.2 (0.0 - 0.6)	2	0.9 (0.0 - 2.0)	0	0.0 (0.0 - 0.0)	1	0.4 (0.0 - 1.1)	5	1.4 (0.1 - 2.6)
Received PrEP	43	14.1 (9.1 - 19.1)	5	3.0 (0.7 - 5.5)	46	20.0 (13.9 - 25.8)	48	16.6 (10.8 - 22.4)	17	9.1 (3.3 - 14.9)
Safe injection counseling	1	0.8 (0.0 - 2.1)	1	0.6 (0.0 - 1.8)	6	2.7 (0.4 - 4.9)	0	0.0 (0.0 - 0.0)	1	0.4 (0.0 - 1.0)
Sexual reproductive health services	48	17.1 (11.8 - 22.5)	34	15.4 (9.4 - 21.5)	10	3.2 (0.9 - 5.4)	24	10.6 (5.3 - 15.9)	47	18.0 (12.2 - 23.9)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the respondent driven sampling package in R, using Gile's sequential sampling estimator.

<sup>a</sup> Sum of sample numerator is higher than the sample denominator, as multiple responses could be selected

<sup>b</sup> Sample denominator is based on the previous question

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, 95% confidence interval; ART, anti-retroviral treatment; MAT; medically assisted therapy; STI, sexually transmitted infection; TB, tuberculosis

## **HIV Testing:**

Almost all female sex workers (99.2%) reported having ever been tested for HIV, indicating near-universal testing coverage across all survey counties. Testing within the past three months was reported by 62% of FSW overall, with the highest being in Kisumu (74%) and Nakuru (69%), and slightly lower levels in Kiambu and Kilifi (both 53%). At their most recent test, 23.8% reported being HIV-positive, with prevalence highest in Kisumu (42.9%) and lowest in Nairobi (16.5%). HIV self-testing had been used by 28.2% of participants, with the highest uptake in Nakuru (36.8%) and Kajiado (31.2%). Among those who had self-tested, 11.5% received a positive result, and 68% of those with a positive self-test reported confirming their result at a health facility.

All self-reported HIV-negative participants had ever been tested for HIV, and their most recent test confirmed a negative result. Recent testing was common, with 61.7% tested within the past three months, particularly in Kisumu (73%) and Nakuru (70%). HIV self-testing had been performed by 29.5% overall, with higher use in Nakuru (36%) and Kajiado (34%). Consistent with their self-reported HIV-negative status, nearly all participants in this group reported negative results at their most recent self-test.

These findings show sustained HIV testing engagement and growing adoption of self-testing among HIV-negative female sex workers across the surveyed counties

Table 4.9.5: HIV Testing Among Female Sex Workers By Location, BBS, Kenya, 2024

	Overall Estimate (N=3722)		Kajiado (N=368)		Kiambu (N=425)		Kilifi (N=391)		Kisii (N=377)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Ever tested for HIV<sup>a</sup></b>										
Yes	3703	99.2 (98.6 - 99.8)	363	97.7 (94.7 - 100.0)	425	100.0 (99.9 - 100.0)	387	99.0 (98.1 - 100.0)	374	98.6 (97.3 - 99.8)
No	18	0.8 (0.2 - 1.4)	4	2.3 (0.0 - 5.2)	0	0.0 (0.0 - 0.0)	4	1.0 (0.05 - 1.9)	3	1.4 (0.1 - 2.7)
<b>Last time tested for HIV<sup>a</sup></b>										
Less than 3 months	1766	62.0 (57.4 - 66.5)	176	59.5 (51.9 - 67.1)	190	53.4 (46.0 - 60.7)	155	53.0 (45.7 - 60.2)	198	74.0 (67.1 - 80.9)
4-6 months	481	17.2 (14.7 - 19.7)	40	16.7 (10.9 - 22.6)	80	21.8 (16.5 - 27.0)	47	17.0 (11.8 - 22.1)	44	15.2 (10.2 - 20.2)
7-12 months	287	10.6 (8.9 - 12.2)	28	11.4 (6.7 - 16.0)	47	12.9 (8.7 - 17.0)	33	13.7 (8.3 - 19.1)	22	6.0 (3.0 - 8.9)
More than 12 months	260	10.3 (7.9 - 12.7)	30	12.4 (6.9 - 17.8)	30	11.9 (7.2 - 16.8)	50	16.4 (11.0 - 21.8)	12	4.9 (1.7 - 8.0)
<b>Result of most recent HIV test</b>										
Positive	846	23.8 (18.5 - 29.2)	80	24.9 (18.9 - 30.8)	68	18.1 (13.3 - 22.9)	96	21.8 (15.8 - 27.7)	96	29.7 (21.8 - 37.5)
Negative	2737	76.2 (70.8 - 81.5)	268	75.1 (69.4 - 81.0)	344	81.9 (77.3 - 86.5)	279	78.2 (72.4 - 84.1)	267	70.3 (62.7 - 78.0)
Indeterminate	3	0.1 (0.0 - 0.3)	2	0.9 (0.2 - 1.8)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
<b>Ever self- tested for HIV</b>										
Yes	1188	28.2 (24.8 - 31.6)	140	31.2 (25.0 - 37.4)	108	26.5 (20.9 - 32.1)	115	27.4 (22.0 - 32.7)	107	22.0 (17.0 - 27.0)
No	2515	71.8 (68.4 - 75.2)	223	68.8 (62.7 - 74.9)	317	73.5 (68.0 - 79.0)	272	72.6 (67.3 - 78.0)	267	78.0 (73.1 - 82.9)
<b>Result of last HIV self-test</b>										
Positive	135	11.5 (6.5 - 16.5)	17	14.4 (6.4 - 22.2)	7	9.0 (2.2 - 15.9)	11	8.8 (2.3 - 15.4)	14	13.2 (5.5 - 21.0)
Negative	1038	88.6 (83.6 - 93.6)	118	85.6 (77.8 - 93.6)	101	91.0 (84.2 - 97.7)	104	91.2 (84.6 - 97.7)	93	86.8 (79.1 - 94.4)
<b>Confirmed HIV positive self-test result in a facility</b>										
Yes	82	67.6 (54.6 - 80.6)	13	74.4 (48.8 - 99.8)	7	100.0 (96.4 - 100.0)	7	58.6 (26.7 - 92.6)	12	90.9 (79.0 - 100.0)
No	53	32.9 (19.9 - 45.9)	4	25.6 (1.1 - 50.3)	0	0.0 (0.0 - 0.0)	4	41.4 (8.1 - 72.6)	2	9.1 (0.0 - 21.4)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval.

Table 4.9.5 cont.: HIV Testing Among Female Sex Workers By Location, BBS, Kenya, 2024

	Kisumu (N=427)		Machakos (N=462)		Mombasa (N=414)		Nairobi (N=461)		Nakuru (N=397)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Ever tested for HIV<sup>a</sup></b>										
Yes	427	100.0 (99.9 - 100.0)	460	99.6 (99.2 - 100.0)	410	98.0 (96.6 - 99.5)	461	100.0 (100.0 - 100.0)	396	99.9 (99.7 - 100.0)
No	0	0.0 (0.0 - 0.0)	2	0.4 (0.0 - 0.8)	4	2.0 (0.5 - 3.4)	0	0.0 (0.0 - 0.0)	1	0.1 (0.0 - 0.3)
<b>Last time tested for HIV<sup>a</sup></b>										
Less than 3 months	178	66.7 (59.1 - 74.1)	234	61.7 (55.5 - 67.9)	194	57.6 (51.5 - 63.8)	250	68.5 (62.2 - 74.8)	191	63.2 (56.1 - 70.2)
4-6 months	30	14.0 (8.7 - 19.4)	56	15.1 (10.6 - 19.6)	62	18.6 (14.0 - 23.3)	47	12.1 (8.0 - 16.3)	75	24.2 (18.0 - 30.4)
7-12 months	23	9.1 (4.9 - 13.3)	39	11.5 (7.6 - 15.5)	38	12.8 (8.4 - 17.1)	36	9.8 (5.8 - 13.8)	21	8.0 (4.0 - 12.0)
More than 12 months	19	10.2 (5.0 - 15.5)	43	11.7 (7.7 - 15.6)	33	10.9 (6.9 - 15.0)	30	9.6 (5.8 - 13.4)	13	4.6 (1.7 - 7.5)
<b>Result of most recent HIV test</b>										
Positive	177	42.9 (34.4 - 51.5)	86	18.1 (13.6 - 22.6)	76	16.5 (12.2 - 20.8)	89	20.2 (12.1 - 28.4)	78	22.2 (16.6 - 28.0)
Negative	245	57.1 (48.4 - 65.7)	350	81.9 (77.6 - 86.2)	330	83.5 (79.5 - 87.5)	354	79.8 (71.5 - 88.0)	300	77.8 (72.0 - 83.4)
Indeterminate	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	0.2 (0.0 - 0.6)
<b>Ever self- tested for HIV</b>										
Yes	138	25.8 (19.3 - 32.3)	133	28.6 (23.3 - 34.0)	100	21.3 (16.8 - 25.8)	187	34.3 (27.4 - 41.2)	160	36.8 (30.5 - 43.1)
No	289	74.2 (67.7 - 80.6)	327	71.4 (65.9 - 76.9)	310	78.7 (74.1 - 83.3)	274	65.7 (58.5 - 73.0)	236	63.2 (57.1 - 69.3)
<b>Result of last HIV self-test</b>										
Positive	39	29.6 (19.3 - 39.9)	13	7.0 (2.5 - 11.5)	7	2.8 (0.0 - 5.6)	13	5.9 (0.6 - 11.3)	14	12.8 (5.0 - 20.5)
Negative	97	70.4 (59.6 - 81.2)	119	93.0 (88.5 - 97.5)	93	97.2 (94.6 - 100.0)	171	94.1 (88.6 - 99.5)	142	87.2 (79.1 - 95.3)
<b>Confirmed HIV positive self-test result in a facility</b>										
Yes	17	41.3 (20.7 - 61.0)	8	66.2 (38.0 - 94.4)	5	73.6 (44.3 - 100.0)	6	56.6 (19.4 - 94.9)	7	44.9 (11.8 - 78.3)
No	22	58.7 (39.4 - 78.9)	5	33.8 (4.7 - 62.9)	2	26.4 (0.0 - 55.3)	7	43.4 (5.6 - 80.2)	7	55.1 (21.2 - 88.6)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval.

Table 4.9.5B: HIV Testing Among Self Reported HIV Negative Female Sex Workers By Location, BBS, Kenya, 2024

Table 4.9.5B: HIV Testing Among Self Reported HIV Negative Female Sex Workers By Location, BBS, Kenya, 2024										
	Overall Estimate (N=3722)		Kajiado (N=368)		Kiambu (N=425)		Kilifi (N=391)		Kisii (N=377)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Ever tested for HIV<sup>a</sup></b>										
Yes	2737	100.0 (100.0 - 100.0)	268	100.0 (99.9 - 100.0)	344	100.0 (99.9 - 100.0)	279	100.0 (99.9 - 100.0)	267	100.0 (99.9 - 100.0)
<b>Last time tested for HIV<sup>a</sup></b>										
Less than 3 months	1693	61.7 (57.0 - 66.4)	168	59.3 (52.0 - 66.7)	185	53.1 (45.8 - 60.2)	149	52.6 (44.9 - 60.3)	187	72.6 (65.5 - 79.6)
4-6 months	467	17.5 (14.9 - 20.1)	40	17.4 (11.3 - 23.5)	78	22.2 (16.7 - 27.7)	47	17.7 (12.4 - 23.0)	44	16.0 (10.5 - 21.4)
7-12 months	280	10.7 (9.2 - 12.2)	27	11.4 (6.7 - 16.1)	44	12.5 (8.4 - 16.5)	32	13.1 (7.8 - 18.3)	22	6.3 (3.2 - 9.4)
More than 12 months	248	10.1 (7.7 - 12.5)	28	11.9 (6.6 - 17.2)	30	12.3 (7.2 - 17.4)	48	16.6 (11.4 - 21.9)	12	5.1 (2.1 - 8.2)
<b>Result of most recent HIV test</b>										
Negative	2737	100.0 (100.0 - 100.0)	268	100.0 (99.9 - 100.0)	344	100.0 (99.9 - 100.0)	279	100.0 (99.9 - 100.0)	267	100.0 (99.9 - 100.0)
<b>Ever self- tested for HIV</b>										
Yes	926	29.5 (26.3 - 32.7)	108	33.5 (26.5 - 40.7)	94	28.1 (21.8 - 34.4)	93	27.3 (21.4 - 33.3)	84	23.4 (17.4 - 29.3)
No	1,811	70.5 (67.3 - 73.8)	160	66.5 (59.1 - 73.6)	250	71.9 (65.5 - 78.3)	186	72.7 (66.5 - 78.8)	183	76.6 (70.6 - 82.7)
<b>Result of last HIV self-test</b>										
Positive	2	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	0.08 (0.0 - 0.2)	0	0.0 (0.0 - 0.0)
Negative	918	100.0 (100.0 - 100.0)	107	100.0 (99.8 - 100.0)	94	100.0 (99.7 - 100.0)	92	99.9 (99.8 - 100.0)	84	100.0 (99.8 - 100.0)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.  
<sup>a</sup> Non-responses and missing data were excluded from the analysis.  
Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval.

Table 4.9.5B cont.: HIV Testing Among Self Reported HIV Negative Female Sex Workers By Location, BBS, Kenya, 2024

Table 4.9.5B: HIV Testing Among Self Reported HIV Negative Female Sex Workers By Location, BBS, Kenya, 2024										
	Kisumu (N=427)		Machakos (N=462)		Mombasa (N=414)		Nairobi (N=461)		Nakuru (N=397)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Ever tested for HIV<sup>a</sup></b>										
Yes	245	100.0 (99.9 - 100.0)	350	100.0 (99.9 - 100.0)	330	100.0 (99.9 - 100.0)	354	100.0 (100.0 - 100.0)	300	100.0 (100.0 - 100.0)
<b>Last time tested for HIV<sup>a</sup></b>										
Less than 3 months	176	68.0 (60.5 - 75.7)	216	60.0 (53.5 - 66.6)	191	57.6 (51.5 - 63.7)	242	69.9 (63.6 - 76.3)	179	62.2 (55.1 - 69.4)
4-6 months	30	14.5 (9.1 - 19.8)	53	15.7 (11.1 - 20.3)	62	18.8 (14.1 - 23.5)	41	10.9 (6.8 - 15.1)	72	24.1 (18.1 - 30.2)
7-12 months	23	9.4 (5.2 - 13.7)	38	12.2 (8.1 - 16.4)	38	12.9 (8.6 - 17.2)	35	9.9 (5.9 - 13.9)	21	8.6 (4.3 - 13.0)
More than 12 months	16	8.1 (3.2 - 12.9)	41	12.0 (8.0 - 16.1)	32	10.8 (6.8 - 14.7)	28	9.2 (5.4 - 13.0)	13	5.0 (2.1 - 7.9)
<b>Result of most recent HIV test</b>										
Negative	245	100.0 (99.9 - 100.0)	350	100.0 (99.9 - 100.0)	330	100.0 (99.9 - 100.0)	354	100.0 (100.0 - 100.0)	300	100.0 (100.0 - 100.0)
<b>Ever self- tested for HIV</b>										
Yes	86	29.0 (22.3 - 35.6)	97	26.9 (21.4 - 32.4)	89	24.2 (18.7 - 29.6)	151	37.3 (30.8 - 43.8)	124	35.5 (28.7 - 42.5)
No	159	71.0 (64.7 - 77.4)	253	73.1 (67.4 - 78.8)	241	75.8 (70.5 - 81.1)	203	62.7 (56.5 - 68.9)	176	64.5 (57.1 - 71.7)
<b>Result of last HIV self-test</b>										
Positive	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	0.06 (0.05 - 0.07)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Negative	86	100.0 (99.7 - 100.0)	97	100.0 (99.7 - 100.0)	88	99.9 (99.9 - 99.9)	148	100.0 (100.0 - 100.0)	122	100.0 (99.9 - 100.0)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.  
<sup>a</sup> Non-responses and missing data were excluded from the analysis.  
Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval.

## **ART:**

Nearly all HIV-positive female sex workers (99.6%) reported having ever been on antiretroviral therapy (ART), reflecting almost universal treatment initiation across all counties. The vast majority (98.3%) were currently on ART, with consistent coverage above 95% in every site. Most participants (58.7%) had been on treatment for over five years, while smaller proportions had started more recently—7.4% within the past six months and 6.3% within the last year.

Public health facilities were the predominant source of ART (55.8% overall), followed by drop-in centers (34.1%), with smaller numbers receiving treatment through private clinics (5%) or NGO/FBO facilities (3.5%). Most participants (82.8%) had collected ART refills within the past three months, indicating regular engagement with treatment services.

Despite strong uptake, adherence challenges remained—44% of participants reported missing one or more ART doses in the previous month, with variation across counties: missed-dose reporting ranged from 25% in Mombasa to 54% in Kisumu.

These findings highlight both the success of ART coverage among female sex workers and the ongoing need for adherence support to maintain optimal treatment outcomes.

Table 4.9.6: Uptake And Adherence To ART Among Female Sex Workers By Location, BBS, Kenya, 2024

	Overall Estimate (N=3722)		Kajiado (N=368)		Kiambu (N=425)		Kilifi (N=391)		Kisii (N=377)		Kisumu (N=427)		Machakos (N=462)		Mombasa (N=414)		Nairobi (N=461)		Nakuru (N=397)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Ever been on ART<sup>a</sup></b>																				
Yes	845	99.6 (98.9 - 100.0)	80	100.0 (99.8 - 100.0)	68	100.0 (99.6 - 100.0)	94	100.0 (99.8 - 100.0)	98	100.0 (99.8 - 100.0)	175	100.0 (99.8 - 100.0)	88	100.0 (99.6 - 100.0)	73	96.3 (90.5 - 100.0)	90	99.0 (97.5 - 100.0)	79	100.0 (99.9 - 100.0)
No	3	0.4 (0.0 - 1.1)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	2	3.7 (0.0 - 9.1)	1	1.0 (0.0 - 2.4)	0	0.0 (0.0 - 0.0)
<b>Time started taking ART<sup>a,b</sup></b>																				
<6 months	55	7.4 (4.9 - 9.9)	5	3.2 (0.1 - 6.3)	3	7.0 (0.0 - 15.6)	5	4.3 (0.0 - 8.9)	7	7.7 (2.3 - 13.1)	7	5.5 (1.4 - 9.5)	4	3.1 (0.2 - 6.0)	6	10.0 (1.7 - 18.5)	9	12.3 (3.4 - 20.9)	9	13.4 (3.1 - 23.5)
6-12 months	44	6.3 (4.6 - 8.0)	7	8.9 (2.4 - 15.4)	7	9.3 (0.007 - 18.8)	5	6.4 (1.3 - 11.5)	3	3.6 (0.0 - 7.4)	3	1.5 (0.0 - 3.3)	5	7.1 (1.4 - 12.7)	5	8.6 (0.0 - 17.5)	5	5.5 (1.2 - 9.8)	4	6.4 (0.0 - 13.1)
1-3 yrs	98	14.5 (10.4 - 18.7)	7	10.9 (2.1 - 19.5)	5	7.1 (0.0 - 14.2)	15	17.4 (8.5 - 26.4)	7	10.5 (3.1 - 17.7)	19	7.9 (3.1 - 12.7)	14	16.3 (7.8 - 24.8)	9	22.4 (6.7 - 37.3)	10	13.0 (2.4 - 23.6)	12	25.4 (9.7 - 41.2)
3-5 yrs	90	13.0 (9.6 - 16.4)	7	10.4 (3.5 - 17.2)	6	11.3 (1.3 - 21.1)	12	16.9 (8.4 - 25.0)	12	17.9 (8.5 - 27.2)	24	13.8 (7.9 - 19.7)	12	22.4 (9.3 - 35.7)	6	10.6 (2.4 - 18.8)	6	8.0 (2.6 - 13.5)	5	6.1 (1.2 - 11.1)
>5 yrs	507	58.7 (53.3 - 64.1)	47	66.6 (55.3 - 78.1)	43	65.4 (50.6 - 80.1)	54	54.9 (43.3 - 66.8)	65	60.4 (48.1 - 72.6)	119	71.3 (63.7 - 78.9)	51	51.0 (37.8 - 64.3)	33	48.4 (31.7 - 65.8)	58	61.3 (47.4 - 75.2)	37	48.7 (34.2 - 63.3)
<b>Currently on ART<sup>b</sup></b>																				
Yes	835	98.3 (96.8 - 99.8)	80	100.0 (99.8 - 100.0)	65	93.4 (85.7 - 100.0)	93	99.1 (97.8 - 100.0)	98	100.0 (99.8 - 100.0)	175	100.0 (99.8 - 100.0)	86	95.7 (89.4 - 100.0)	73	100.0 (99.8 - 100.0)	88	97.2 (94.0 - 100.0)	77	98.6 (96.5 - 100.0)
No	10	1.7 (0.2 - 3.2)	0	0.0 (0.0 - 0.0)	3	6.6 (0.0 - 14.7)	1	0.9 (0.0 - 2.2)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	2	4.3 (0.0 - 10.7)	0	0.0 (0.0 - 0.0)	2	2.8 (0.0 - 5.9)	2	1.4 (0.0 - 3.5)
<b>Places receive ART<sup>b</sup></b>																				
Community ART	13	1.6 (0.1 - 3.1)	4	6.3 (0.0 - 13.9)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	0.5 (0.0 - 1.3)	3	2.9 (0.0 - 8.9)	1	0.7 (0.0 - 2.0)	4	4.1 (0.0 - 8.6)	0	0.0 (0.0 - 0.0)
Drop-in centre	290	34.1 (23.2 - 45.1)	30	39.2 (26.8 - 51.4)	15	18.4 (5.7 - 31.2)	25	22.5 (12.5 - 32.4)	34	32.2 (20.0 - 44.4)	44	21.2 (14.3 - 27.9)	43	43.1 (30.4 - 55.7)	39	62.9 (49.9 - 76.0)	52	53.1 (39.4 - 67.4)	8	14.4 (1.0 - 28.1)
NGO/FBO facility	28	3.5 (0.0 - 7.6)	9	9.1 (2.2 - 15.9)	2	3.2 (0.0 - 7.9)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	2	0.6 (0.0 - 1.5)	0	0.0 (0.0 - 0.0)	2	0.4 (0.0 - 1.1)	13	18.1 (7.3 - 28.6)	0	0.0 (0.0 - 0.0)
Private clinic/hospital pharmacy	49	5.0 (1.6 - 8.4)	0	0.0 (0.0 - 0.0)	4	6.7 (0.5 - 12.9)	10	10.3 (3.4 - 17.4)	7	8.5 (1.5 - 15.5)	22	14.4 (7.8 - 21.0)	2	2.0 (0.0 - 5.1)	0	0.0 (0.0 - 0.0)	3	2.2 (0.0 - 5.2)	1	0.8 (0.0 - 2.3)
Public clinic/hospital pharmacy	454	55.8 (43.3 - 68.3)	37	45.4 (33.5 - 57.4)	44	71.6 (56.9 - 86.4)	57	67.2 (54.8 - 79.6)	57	59.3 (45.9 - 72.7)	106	63.3 (54.6 - 72.2)	38	51.9 (38.6 - 65.2)	31	35.9 (24.0 - 47.8)	16	22.5 (9.1 - 35.7)	68	84.8 (70.6 - 98.7)
<b>Time of last clinic visit to facility for ART refill<sup>a,b</sup></b>																				
< 3 months ago	698	82.8 (78.0 - 87.6)	67	82.6 (72.2 - 92.9)	53	80.0 (68.4 - 91.2)	70	74.6 (64.1 - 85.3)	93	95.0 (88.8 - 100.0)	150	84.3 (76.8 - 91.7)	76	90.0 (83.0 - 96.9)	56	76.6 (65.3 - 87.9)	66	73.5 (61.9 - 84.8)	67	88.2 (80.5 - 96.0)
3-5 months ago	98	12.6 (8.9 - 16.2)	9	12.3 (3.7 - 20.9)	6	12.0 (1.9 - 22.4)	15	18.7 (9.8 - 27.6)	5	5.0 (0.0 - 11.0)	22	13.0 (6.6 - 19.7)	5	7.0 (0.8 - 13.3)	10	12.0 (4.4 - 19.6)	18	23.3 (12.4 - 34.4)	8	9.6 (2.7 - 16.5)
6-11 months	29	3.3 (1.4 - 5.2)	3	3.2 (0.0 - 9.2)	3	2.4 (0.0 - 5.3)	5	4.0 (0.0 - 8.2)	0	0.0 (0.0 - 0.0)	3	2.6 (0.0 - 5.7)	4	2.5 (0.1 - 4.9)	6	10.7 (1.1 - 20.1)	4	3.3 (0.0 - 6.9)	1	1.1 (0.0 - 3.0)
1-2 years ago	3	0.4 (0.0 - 0.8)	1	1.9 (0.0 - 5.5)	0	0.0 (0.0 - 0.0)	1	0.9 (0.0 - 2.8)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	0.8 (0.0 - 2.2)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
> 2 years ago	4	0.6 (0.0 - 1.4)	0	0.0 (0.0 - 0.0)	2	4.1 (0.0 - 9.1)	2	1.7 (0.0 - 3.8)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
<b>Missed taking one or more ART pills in the last one month<sup>a,b</sup></b>																				
Yes	378	44.1 (36.7 - 51.5)	29	30.7 (19.8 - 41.6)	36	57.3 (42.7 - 72.0)	48	53.6 (42.1 - 65.2)	34	35.3 (25.3 - 45.3)	96	54.1 (45.8 - 62.3)	26	25.3 (14.7 - 35.8)	41	51.6 (38.5 - 64.5)	37	44.9 (32.3 - 57.6)	31	43.8 (30.2 - 57.5)
No	456	56.0 (48.6 - 63.4)	50	69.3 (58.4 - 80.2)	29	42.7 (28.0 - 57.3)	45	46.4 (34.5 - 58.2)	64	64.7 (54.4 - 75.0)	79	45.9 (37.6 - 54.3)	60	74.7 (64.0 - 85.4)	32	48.4 (35.0 - 62.0)	51	55.1 (42.3 - 67.8)	46	56.2 (42.8 - 69.4)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sample denominator is based on the previous question

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; ART, antiretroviral therapy; NGO, non-government organization; FBO, faith-based organization.

**TB:**

Among all female sex workers, 23.8% self-reported being HIV-positive, 75.7% were HIV-negative, and 0.5% had an indeterminate HIV status. All HIV-positive participants (100%) reported being asked about TB symptoms during their last HIV clinic visit, reflecting complete integration of TB screening into HIV care. None reported being currently on TB treatment.

In the past 12 months, 22.8% of participants experienced TB-related symptoms, while 77.2% did not. Among those with symptoms, testing coverage was limited—62.5% did not receive any TB diagnostic test, while smaller proportions reported undergoing a chest X-ray (11.8%), sputum test (14.7%), or both tests (10.9%).

Of those who had been tested, 28.4% reported a positive TB result, and all individuals with a prior TB diagnosis (100%) confirmed that they had received treatment. These results demonstrate strong TB symptom screening within HIV services but highlight gaps in diagnostic testing and follow-up for symptomatic individuals.

Table 4.9.7: Tuberculosis Screening And Treatment Among Female Sex Workers By Location, BBS, Kenya, 2024

	Overall Estimate	
	n	% (95% CI)
<b>Self-reported HIV status</b>		
Positive	852	23.8 (18.4 - 29.2)
Negative	2735	75.7 (70.3 - 81.1)
Indeterminate	3	0.5 (0.0 - 1.2)
<b>Asked about TB symptoms at last HIV clinic visit<sup>b</sup></b>		
Yes	852	100.0 (100.0 - 100.0)
No	0	0.0 (0.0 - 0.0)
Currently on TB treatment	0	0.0 (0.0 - 0.0)
<b>Experienced TB symptoms in last 12 months<sup>a,b</sup></b>		
Yes	197	22.8 (15.9 - 29.7)
No	652	77.2 (70.3 - 84.1)
<b>Received chest x-ray or sputum test in last 12 months<sup>a,b</sup></b>		
Chest x-ray and sputum test	19	10.9 (4.0 - 17.9)
Chest x-ray	19	11.8 (3.6 - 20.0)
Sputum test	32	14.7 (8.0 - 21.5)
None	126	62.5 (51.4 - 73.6)
<b>Result of last TB test<sup>a,b</sup></b>		
Positive	21	28.4 (18.2 - 38.7)
Negative	45	71.6 (61.3 - 81.8)
Did not received results	0	0.0 (0.0 - 0.0)
<b>Received treatment last time had TB<sup>b</sup></b>		
Yes	21	100.0 (100.0 - 100.0)
No	0	0.0 (0.0 - 0.0)
<p><i>All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the respondent driven sampling package in R, using Gile's sequential sampling estimator.</i></p> <p><sup>a</sup> Non-responses and missing data were excluded from the analysis.</p> <p><sup>b</sup> Sample denominator is based on the previous question</p> <p>Abbreviations: N, sample denominator; n, sample numerator; CI, 95% confidence interval; TB, tuberculosis</p>		

## 4.10: Reproductive Health

Most female sex workers (94%) had ever been pregnant, with a median of three pregnancies (IQR 2–4). About 73% had their last pregnancy more than three years ago, and nearly all (98%) reported ever giving birth. Antenatal care attendance during the most recent live-birth pregnancy was high at 97%, and 92% were offered an HIV test at the clinic. Among those with HIV during pregnancy, 93% were on ART, and most (86%) had started treatment before becoming pregnant. Current use of family planning was reported by 74% of participants, with implants (35%) and injectables (31%) being the most common methods used.

Table 4.10: Reproductive Health Among Female Sex Workers By Location, BBS, Kenya, 2024

	Overall Estimate (N=3722)		Kajiado (N=368)		Kiambu (N=425)		Kilifi (N=391)		Kisii (N=377)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Pregnancy status</b>										
Currently pregnant	51	1.5 (0.9 - 2.0)	6	2.6 (0.5 - 4.6)	10	1.6 (0.4 - 2.8)	5	1.5 (0.2 - 2.8)	7	2.1 (0.2 - 4.0)
Ever pregnant, but not currently pregnant	3500	93.9 (92.3 - 95.6)	344	92.2 (88.3 - 96.1)	401	95.1 (92.5 - 97.7)	366	94.3 (91.8 - 96.8)	336	88.9 (84.9 - 92.9)
Never been pregnant	171	4.6 (3.3 - 5.9)	18	5.2 (2.0 - 8.4)	14	3.3 (1.1 - 5.5)	20	4.2 (2.0 - 6.4)	34	9.0 (5.3 - 12.7)
<b>Median number of pregnancies (IQR)<sup>a</sup></b>	3549	3 (2 - 4)	350	3 (2 - 4)	411	3 (2 - 4)	371	3 (2 - 4)	343	2 (1 - 3)
<b>Time last pregnant among those ever pregnant<sup>a,b</sup></b>										
< 1 year	276	8.4 (6.6 - 10.3)	29	11.1 (6.7 - 15.6)	22	6.8 (3.5 - 10.0)	35	8.1 (4.6 - 11.5)	30	9.8 (6.0 - 13.8)
1-3 years	603	18.2 (16.1 - 20.4)	73	20.0 (15.2 - 24.7)	58	14.8 (9.6 - 19.9)	59	17.1 (12.5 - 21.7)	53	16.7 (12.1 - 21.3)
>3 years	2607	73.4 (69.7 - 77.1)	240	69.0 (62.5 - 75.3)	319	78.5 (72.2 - 84.8)	269	74.9 (69.2 - 80.5)	253	73.5 (68.1 - 78.8)
<b>Ever given birth, among individuals ever pregnant<sup>a,b</sup></b>										
Yes	3477	97.8 (97.2 - 98.4)	344	97.6 (95.1 - 100.0)	407	99.1 (98.1 - 100.0)	360	97.8 (96.5 - 99.2)	332	96.6 (94.4 - 98.7)
No	73	2.2 (1.6 - 2.8)	6	2.4 (0.0 - 4.8)	4	0.9 (0.0 - 2.0)	11	2.2 (0.8 - 3.5)	11	3.4 (1.2 - 5.6)
<b>Had a live birth in the last 36 months</b>										
< 1 year	409	44.9 (39.3 - 50.6)	51	63.7 (52.0 - 75.2)	40	43.7 (30.9 - 56.5)	43	38.9 (27.9 - 50.0)	38	42.3 (29.8 - 54.8)
1-2 years	230	23.6 (21.2 - 26.1)	23	21.4 (12.2 - 30.8)	21	21.2 (8.4 - 33.9)	22	20.2 (10.2 - 30.2)	22	19.2 (10.1 - 28.5)
2-3 years	294	31.5 (25.5 - 37.5)	16	14.8 (6.2 - 23.5)	29	35.1 (22.8 - 47.5)	35	40.9 (29.8 - 51.9)	36	38.4 (27.2 - 49.8)
<b>Went to an ANC clinic during last pregnancy that resulted in live birth</b>										
Yes	914	97.1 (95.0 - 99.3)	89	98.7 (95.6 - 100.0)	86	88.4 (76.9 - 99.9)	99	99.2 (97.9 - 100.0)	94	98.2 (95.8 - 100.0)
No	19	2.9 (0.8 - 5.0)	1	1.3 (0.0 - 4.3)	4	11.6 (0.0 - 23.6)	1	0.8 (0.0 - 2.2)	2	1.8 (0.0 - 4.2)
<b>Offered an HIV test at the ANC clinic last time pregnant<sup>a</sup></b>										
Yes	846	91.5 (88.6 - 94.3)	83	93.1 (86.4 - 99.8)	81	91.4 (83.2 - 99.9)	92	95.2 (91.0 - 99.3)	83	85.4 (77.0 - 93.9)
No	10	1.6 (0.3 - 2.8)	0	0.0 (0.0 - 0.0)	2	4.8 (0.0 - 11.2)	1	0.3 (0.0 - 0.9)	1	1.5 (0.0 - 4.0)
Already knew I have HIV	53	7.0 (3.8 - 10.2)	5	6.9 (0.6 - 13.2)	2	3.8 (0.0 - 9.8)	5	4.5 (0.2 - 8.8)	10	13.1 (5.4 - 20.7)
<b>Time tested for HIV during last pregnancy</b>										
First trimester	442	48.9 (40.0 - 57.7)	50	54.1 (40.9 - 67.6)	35	39.7 (27.0 - 52.2)	61	60.1 (48.3 - 72.1)	65	70.6 (58.4 - 83.1)
Second trimester	456	50.4 (44.5 - 56.4)	40	41.4 (28.8 - 53.9)	40	51.1 (37.0 - 65.0)	45	51.4 (39.7 - 63.1)	46	49.6 (36.3 - 62.8)
Third trimester	366	43.5 (34.1 - 52.9)	42	50.9 (38.9 - 63.1)	39	49.6 (35.0 - 64.0)	42	48.5 (36.1 - 60.8)	28	28.2 (18.7 - 38.2)
<b>Result of last HIV test last time pregnant</b>										
Positive	101	12.4 (7.1 - 17.8)	10	12.2 (3.9 - 20.3)	3	5.8 (0.0 - 12.9)	15	12.5 (6.4 - 18.6)	8	10.5 (2.1 - 18.9)
Negative	790	87.0 (81.7 - 92.4)	79	87.8 (79.9 - 95.9)	82	94.2 (87.2 - 100.0)	80	87.5 (81.3 - 93.7)	79	86.2 (76.8 - 95.5)
Indeterminate	1	0.06 (0.0 - 0.2)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
I did not receive results	6	0.4 (0.0 - 1.1)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	3	3.4 (0.0 - 7.0)
<b>On ART during last pregnancy, among those with HIV positive status<sup>a,b</sup></b>										
Yes	109	93.2 (87.5 - 98.8)	10	100.0 (98.4 - 100.0)	3	95.8 (80.1 - 100.0)	17	98.7 (96.3 - 100.0)	12	78.2 (49.8 - 100.0)
No	9	7.1 (1.4 - 12.9)	0	0.0 (0.0 - 0.0)	1	4.2 (0.0 - 22.4)	1	1.3 (0.0 - 3.7)	2	21.8 (0.0 - 49.5)
<b>Time started ART during last pregnancy</b>										
Prior to pregnancy	91	86.2 (77.6 - 94.7)	8	90.5 (74.5 - 100.0)	3	100.0 (92.0 - 100.0)	11	65.1 (41.6 - 88.5)	13	100.0 (98.7 - 100.0)
First trimester	8	7.4 (1.1 - 13.7)	1	7.2 (0.0 - 21.2)	0	0.0 (0.0 - 0.0)	2	10.7 (0.0 - 24.7)	0	0.0 (0.0 - 0.0)
Second trimester	3	1.6 (0.0 - 3.7)	1	2.4 (0.0 - 7.0)	0	0.0 (0.0 - 0.0)	1	2.4 (0.0 - 7.0)	0	0.0 (0.0 - 0.0)
Third trimester	8	4.6 (0.0 - 9.6)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	3	21.7 (0.0 - 43.8)	0	0.0 (0.0 - 0.0)
<b>Offered a syphilis test at the ANC clinic, last time pregnant<sup>a</sup></b>										
Yes	10	2.2 (0.7 - 3.6)	2	6.1 (0.0 - 15.2)	1	1.0 (0.0 - 3.8)	2	2.3 (0.0 - 5.5)	2	3.4 (0.0 - 7.7)
No	424	97.9 (96.5 - 99.3)	31	93.9 (84.7 - 100.0)	39	99.0 (96.3 - 100.0)	52	97.7 (94.5 - 100.0)	66	96.6 (92.3 - 100.0)
<b>Using a family planning method<sup>a</sup></b>										
Yes	2741	74.2 (68.6 - 79.8)	275	78.1 (73.2 - 82.9)	291	68.4 (62.6 - 74.1)	272	75.3 (70.5 - 80.1)	276	71.7 (66.0 - 77.4)
No	968	25.8 (20.2 - 31.5)	82	21.9 (16.9 - 27.0)	134	31.6 (25.8 - 37.5)	118	24.7 (19.9 - 29.5)	101	28.3 (22.7 - 33.9)
<b>Types of family planning methods used<sup>a,b</sup></b>										
Birth control pill	327	11.5 (8.2 - 14.9)	50	18.2 (12.6 - 23.8)	56	20.0 (13.1 - 26.7)	21	5.9 (2.8 - 9.0)	38	13.8 (8.8 - 18.9)
Female Condoms	190	5.8 (3.5 - 8.1)	19	6.8 (3.6 - 10.1)	23	7.5 (3.0 - 11.9)	8	2.4 (0.5 - 4.3)	15	3.6 (1.5 - 5.8)
Implants	931	34.9 (29.6 - 40.2)	72	25.7 (19.0 - 32.4)	89	31.8 (25.0 - 38.7)	103	36.5 (29.0 - 44.0)	76	30.7 (23.8 - 37.6)
Injections	853	31.1 (27.7 - 34.6)	79	28.2 (21.7 - 34.8)	109	34.1 (27.3 - 40.8)	97	33.7 (26.8 - 40.5)	104	37.6 (30.6 - 44.5)
IUD/copper T	118	4.0 (2.3 - 5.8)	12	4.7 (1.5 - 8.0)	10	3.6 (1.2 - 6.0)	4	1.8 (0.3 - 3.3)	13	4.4 (1.5 - 7.3)
Male condoms	845	28.5 (20.5 - 36.5)	87	30.8 (23.9 - 37.5)	69	23.6 (18.0 - 29.3)	62	26.7 (19.6 - 33.9)	78	22.3 (16.7 - 27.8)
Not having sex	2	0.09 (0.0 - 0.2)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	0.2 (0.0 - 0.6)
Rhythms/natural methods	32	1.1 (0.4 - 1.8)	3	0.9 (0.0 - 1.9)	5	1.4 (0.06 - 2.8)	0	0.0 (0.0 - 0.0)	1	0.2 (0.0 - 0.5)
Sterilization	89	3.0 (1.2 - 4.7)	4	2.0 (0.0 - 4.3)	11	3.1 (1.3 - 4.8)	3	2.1 (0.0 - 4.9)	5	2.2 (0.0 - 4.4)
Traditional methods	24	1.1 (0.2 - 2.0)	9	4.5 (0.4 - 8.6)	3	0.8 (0.0 - 2.5)	1	0.6 (0.0 - 1.4)	2	0.5 (0.0 - 1.1)
Withdrawal	11	0.3 (0.06 - 0.5)	2	0.5 (0.0 - 1.3)	1	0.5 (0.0 - 1.5)	0	0.0 (0.0 - 0.0)	1	0.1 (0.0 - 0.2)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the respondent driven sampling package in R, using Gile's sequential sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sample denominator is based on the previous question

Abbreviations: N, sample denominator; n, sample numerator; CI, 95% confidence interval; ART, anti-retroviral treatment; IUD, intrauterine device

Table 4.10 cont.: Reproductive Health Among Female Sex Workers By Location, BBS, Kenya, 2024

	Kisumu (N=427)		Machakos (N=462)		Mombasa (N=414)		Nairobi (N=461)		Nakuru (N=397)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Pregnancy status</b>										
Currently pregnant	2	0.7 (0.0 - 1.4)	6	1.6 (0.0 - 3.7)	11	2.6 (0.8 - 4.3)	2	0.3 (0.0 - 0.6)	2	0.5 (0.0 - 0.9)
Ever pregnant, but not currently pregnant	406	95.2 (89.5 - 100.0)	439	93.6 (89.9 - 97.4)	384	92.6 (89.6 - 95.6)	434	95.1 (91.0 - 99.3)	390	98.1 (96.4 - 99.7)
Never been pregnant	19	4.1 (0.0 - 9.5)	17	4.8 (2.0 - 7.6)	19	4.8 (2.2 - 7.5)	25	4.5 (2.6 - 6.5)	5	1.5 (0.0 - 3.0)
<b>Median number of pregnancies (IQR)<sup>a</sup></b>	408	3 (2 - 4)	445	2 (2 - 3)	395	3 (2 - 4)	436	3 (2 - 3)	390	3 (2 - 4)
<b>Time last pregnant among those ever pregnant<sup>a,b</sup></b>										
< 1 year	18	4.0 (2.0 - 6.0)	33	8.5 (5.5 - 11.5)	33	8.3 (5.0 - 11.5)	51	13.3 (9.1 - 17.5)	25	5.9 (3.2 - 8.6)
1-3 years	70	16.0 (11.6 - 20.4)	59	15.5 (11.4 - 19.7)	76	19.3 (14.2 - 24.4)	93	25.5 (19.6 - 31.5)	62	18.8 (13.3 - 24.2)
>3 years	317	80.0 (75.1 - 84.9)	346	76.0 (70.9 - 81.1)	275	72.4 (67.0 - 77.9)	288	61.1 (54.2 - 68.1)	300	75.2 (69.8 - 80.8)
<b>Ever given birth, among individuals ever pregnant<sup>a,b</sup></b>										
Yes	397	97.3 (95.4 - 99.2)	441	99.1 (98.2 - 100.0)	384	96.7 (94.6 - 98.7)	427	97.3 (95.5 - 99.2)	385	98.5 (97.5 - 99.4)
No	11	2.7 (0.9 - 4.5)	4	0.9 (0.0 - 1.8)	11	3.3 (1.3 - 5.4)	9	2.7 (0.9 - 4.4)	6	1.5 (0.6 - 2.5)
<b>Had a live birth in the last 36 months</b>										
<1 year	42	43.1 (31.7 - 54.1)	44	42.2 (31.4 - 53.1)	57	51.3 (41.2 - 61.3)	65	45.8 (35.3 - 56.4)	29	33.2 (20.4 - 46.0)
1-2 years	32	29.1 (19.9 - 38.5)	24	26.0 (16.2 - 35.6)	32	23.3 (15.0 - 31.5)	38	29.1 (19.8 - 38.5)	16	22.9 (9.1 - 36.9)
2-3 years	34	27.8 (19.0 - 36.7)	35	31.8 (23.0 - 40.8)	25	25.4 (16.0 - 35.0)	48	25.0 (16.8 - 33.2)	36	43.9 (30.2 - 57.5)
<b>Went to an ANC clinic during last pregnancy that resulted in live birth</b>										
Yes	105	97.3 (94.2 - 100.0)	99	96.5 (92.4 - 100.0)	112	97.8 (94.8 - 100.0)	149	97.4 (92.4 - 100.0)	81	100.0 (99.9 - 100.0)
No	3	2.7 (0.0 - 5.8)	4	3.5 (0.0 - 7.3)	2	2.2 (0.0 - 5.0)	2	2.6 (0.0 - 7.8)	0	0.0 (0.0 - 0.0)
<b>Offered an HIV test at the ANC clinic last time pregnant<sup>a</sup></b>										
Yes	90	84.6 (74.8 - 94.4)	94	94.9 (90.5 - 99.4)	106	93.0 (85.3 - 100.0)	142	96.7 (93.7 - 99.6)	75	88.2 (77.1 - 99.2)
No	1	0.7 (0.0 - 1.9)	1	0.3 (0.0 - 0.7)	2	5.1 (0.0 - 12.4)	2	1.4 (0.0 - 3.3)	0	0.0 (0.0 - 0.0)
Already knew I have HIV	14	14.7 (5.1 - 24.2)	4	4.8 (0.4 - 9.2)	4	1.8 (0.0 - 3.8)	3	1.9 (0.0 - 4.2)	6	11.8 (0.6 - 23.2)
<b>Time tested for HIV during last pregnancy</b>										
First trimester	49	44.4 (34.1 - 54.4)	44	43.0 (32.2 - 53.9)	64	61.8 (50.7 - 72.7)	41	28.8 (20.4 - 37.4)	33	37.0 (23.9 - 49.9)
Second trimester	40	38.8 (28.1 - 49.8)	47	52.3 (41.4 - 63.4)	76	70.4 (60.0 - 80.6)	81	53.7 (43.1 - 64.1)	41	44.9 (31.3 - 58.5)
Third trimester	39	36.6 (25.9 - 47.4)	32	33.6 (23.5 - 43.8)	77	65.3 (53.7 - 76.5)	26	21.4 (12.6 - 30.2)	41	57.2 (42.5 - 72.0)
<b>Result of last HIV test last time pregnant</b>										
Positive	31	32.7 (21.6 - 44.0)	9	12.4 (3.8 - 21.2)	7	3.3 (0.8 - 5.9)	12	10.4 (4.3 - 16.6)	6	12.1 (0.9 - 23.5)
Negative	72	67.2 (56.2 - 78.0)	90	86.3 (77.6 - 95.1)	105	96.7 (94.1 - 99.3)	132	89.5 (83.4 - 95.6)	71	87.3 (75.8 - 98.5)
Indeterminate	0	0.0 (0.0 - 0.0)	1	1.2 (0.0 - 3.3)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
I did not receive results	1	0.09 (0.0 - 0.2)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	0.04 (0.0 - 0.1)	1	0.6 (0.0 - 1.8)
<b>On ART during last pregnancy, among those with HIV positive status<sup>a,b</sup></b>										
Yes	32	96.2 (90.3 - 100.0)	7	78.9 (51.9 - 100.0)	7	100.0 (97.4 - 100.0)	12	87.4 (64.9 - 100.0)	9	100.0 (98.9 - 100.0)
No	2	3.8 (0.0 - 9.7)	2	21.1 (0.0 - 46.6)	0	0.0 (0.0 - 0.0)	1	12.6 (0.0 - 34.5)	0	0.0 (0.0 - 0.0)
<b>Time started ART during last pregnancy</b>										
Prior to pregnancy	27	86.0 (74.1 - 97.7)	6	82.4 (56.9 - 100.0)	5	68.9 (26.9 - 100.0)	9	78.0 (53.8 - 100.0)	9	100.0 (98.9 - 100.0)
First trimester	2	5.5 (0.0 - 13.4)	2	17.6 (0.0 - 43.6)	1	31.1 (0.0 - 72.5)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Second trimester	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	9.6 (0.0 - 26.6)	0	0.0 (0.0 - 0.0)
Third trimester	3	8.5 (0.0 - 17.4)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	2	12.4 (0.0 - 30.2)	0	0.0 (0.0 - 0.0)
<b>Offered a syphilis test at the ANC clinic, last time pregnant<sup>a</sup></b>										
Yes	1	2.3 (0.0 - 6.6)	0	0.0 (0.0 - 0.0)	2	5.1 (0.0 - 12.2)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
No	63	97.7 (93.4 - 100.0)	51	100.0 (99.3 - 100.0)	31	94.9 (87.8 - 100.0)	66	100.0 (99.9 - 100.0)	25	100.0 (99.6 - 100.0)
<b>Using a family planning method<sup>a</sup></b>										
Yes	396	91.9 (84.7 - 99.2)	314	69.3 (63.4 - 75.3)	266	62.2 (56.1 - 68.2)	353	80.3 (73.7 - 86.8)	298	70.4 (64.8 - 76.0)
No	31	8.1 (0.8 - 15.4)	147	30.7 (24.8 - 36.6)	148	37.8 (31.8 - 43.9)	108	19.7 (13.1 - 26.4)	99	29.6 (23.8 - 35.4)
<b>Types of family planning methods used<sup>a,b</sup></b>										
Birth control pill	32	8.9 (5.0 - 12.8)	39	12.1 (7.3 - 17.0)	18	4.7 (2.2 - 7.3)	44	10.6 (7.1 - 14.2)	29	9.6 (5.6 - 13.6)
Female Condoms	27	5.4 (2.9 - 7.9)	6	1.8 (0.1 - 3.5)	25	7.6 (4.5 - 10.8)	51	13.2 (8.9 - 17.4)	16	3.9 (1.6 - 6.1)
Implants	114	28.3 (23.0 - 33.7)	121	36.1 (29.8 - 42.3)	128	53.4 (46.2 - 60.6)	128	38.8 (33.0 - 44.6)	100	32.4 (26.1 - 38.9)
Injections	122	31.1 (25.8 - 36.3)	94	31.2 (25.3 - 37.0)	89	31.8 (24.9 - 38.6)	63	19.1 (13.6 - 24.6)	96	33.7 (26.3 - 41.1)
IUD/copper T	37	9.6 (5.9 - 13.4)	7	2.4 (0.2 - 4.6)	7	2.2 (0.4 - 4.0)	6	0.9 (0.03 - 1.7)	22	6.5 (2.9 - 10.1)
Male condoms	197	48.7 (42.8 - 54.6)	54	18.0 (12.6 - 23.6)	35	11.7 (7.1 - 16.3)	167	46.7 (40.2 - 53.2)	96	27.6 (21.7 - 33.4)
Not having sex	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	0.6 (0.0 - 1.9)
Rhythms/natural methods	3	0.9 (0.0 - 1.8)	10	3.1 (1.1 - 5.0)	2	0.3 (0.04 - 0.5)	3	0.8 (0.0 - 2.0)	5	2.8 (0.0 - 6.6)
Sterilization	7	2.1 (0.3 - 3.9)	6	1.4 (0.2 - 2.5)	2	0.7 (0.0 - 1.5)	40	9.9 (6.0 - 13.9)	11	3.2 (0.6 - 5.7)
Traditional methods	3	0.7 (0.08 - 1.3)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	5	2.2 (0.1 - 4.2)	1	0.6 (0.0 - 1.7)
Withdrawal	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	4	1.0 (0.0 - 2.1)	3	0.6 (0.0 - 1.4)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the respondent driven sampling package in R, using Gile's sequential sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sample denominator is based on the previous question

Abbreviations: N, sample denominator; n, sample numerator; CI, 95% confidence interval; ART, anti-retroviral treatment; IUD, intrauterine device

## 4.11: Stigma and Discrimination

About one in four female sex workers reported feeling ashamed of selling sex (12% strongly agree and 17% agree), while two in three disagreed or strongly disagreed (24% disagree; 43% strongly disagree).

Shame about disclosing selling sex among peers was uncommon, with 61% strongly disagreeing and 24% disagreeing. Similarly, when thinking about disclosure to community social or health workers, 50% strongly disagreed and 30% disagreed with feeling ashamed. Disclosure patterns varied: most had disclosed to friends/acquaintances who are sex workers (94%), about 46% to healthcare/HIV providers, 30% to family, 28% to friends who are not sex workers, and 12% to a partner/spouse. In the past six months, 14% felt excluded from family activities and 22% faced unfair comments or gossip. Verbal harassment in the past six months was reported by 31% (with another 9% earlier than six months), 19% reported blackmail in the past six months (7% earlier), and 18% reported being forced to have sex in the past six months (10% earlier). Among those reporting forced sex, 81% believed it was related to selling sex. Physical harassment or assault due to selling sex in the past six months was reported by 18% (10% earlier). After experiencing violence, 57% did not report; 17% reported to police; 11% shared with friends/family; 9% went to a drop-in center; and 5% to an NGO/CBO. Arrests related to selling sex were common: 18% in the last six months and 18% earlier, while 64% reported no arrest. Among those arrested, 48% received no help, 29% got support from their network, 14% from family/regular partners, and 5% received legal support.

Overall, most did not avoid health services due to concerns about being identified as selling sex (87% no), though 8% did so in the last six months and 5% earlier. Avoidance of HIV services due to fear of discrimination was similarly limited: 89% did not avoid, 7% did so in the last six months, and 5% earlier. Avoidance of disclosing selling sex status to HIV service providers was reported by 7% in the last six months and 4% earlier, while 89% did not avoid disclosure. Direct discrimination by HIV service providers was infrequently reported: 2% in the last six months and 2% earlier; 35% said they were not discriminated against because they hid their status, and 61% reported no discrimination even though providers knew.

Table 4.11: Stigma And Discrimination Among Female Sex Workers By Location, BBS, Kenya , 2024

	Overall Estimate (N=3722)		Kajiado (N=368)		Kiambu (N=425)		Kilifi (N=391)		Kisii (N=377)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Ashamed to sell sex<sup>a</sup></b>										
Strongly agree	434	11.8 (7.6 - 15.9)	40	13.4 (8.9 - 17.9)	30	6.5 (3.9 - 9.1)	73	20.7 (15.9 - 25.6)	41	13.0 (8.9 - 17.0)
Agree	579	16.7 (12.6 - 20.7)	47	15.1 (10.1 - 20.2)	51	13.7 (9.1 - 18.2)	61	15.2 (10.6 - 19.9)	79	20.5 (16.0 - 25.1)
Neutral	183	5.1 (2.6 - 7.6)	34	9.9 (5.2 - 14.5)	16	4.6 (1.6 - 7.6)	24	6.4 (3.4 - 9.4)	12	3.4 (1.0 - 5.9)
Disagree	907	23.7 (13.6 - 33.9)	50	10.5 (6.8 - 14.1)	188	44.8 (38.0 - 51.6)	130	33.4 (27.7 - 39.2)	71	15.2 (11.5 - 18.8)
Strongly disagree	1617	42.8 (30.8 - 54.7)	197	51.2 (44.4 - 57.9)	140	30.3 (24.6 - 36.1)	103	24.2 (19.0 - 29.3)	173	47.9 (42.0 - 53.9)
<b>Ashamed to disclose selling sex when among other sex workers<sup>a</sup></b>										
Strongly agree	160	4.6 (1.9 - 7.3)	2	0.5 (0.0 - 1.3)	14	3.2 (1.3 - 5.2)	32	9.5 (5.9 - 13.0)	3	1.6 (0.0 - 3.4)
Agree	255	7.7 (3.7 - 11.6)	16	6.1 (2.3 - 9.9)	11	3.9 (1.4 - 6.5)	22	6.9 (3.4 - 10.5)	16	4.2 (1.9 - 6.4)
Neutral	78	2.1 (1.2 - 2.9)	4	1.6 (0.05 - 3.1)	9	3.0 (0.3 - 5.7)	20	4.2 (2.2 - 6.3)	3	0.4 (0.0 - 0.9)
Disagree	902	24.4 (16.6 - 32.3)	54	13.7 (9.3 - 18.1)	153	38.1 (32.0 - 44.1)	129	33.4 (27.2 - 39.5)	85	18.2 (14.2 - 22.2)
Strongly disagree	2322	61.2 (49.3 - 73.2)	290	78.1 (72.3 - 83.9)	238	51.8 (45.9 - 57.8)	188	46.0 (39.8 - 52.3)	270	75.7 (71.0 - 80.4)
<b>Ashamed to disclose about selling sex to community social or health worker<sup>a</sup></b>										
Strongly agree	218	5.9 (2.7 - 9.1)	7	2.5 (0.0 - 5.5)	30	8.6 (5.0 - 12.1)	14	4.3 (2.0 - 6.5)	4	1.5 (0.0 - 3.2)
Agree	394	11.7 (8.4 - 14.9)	43	13.3 (9.1 - 17.5)	69	19.6 (14.1 - 25.1)	33	9.6 (5.7 - 13.5)	27	7.7 (4.3 - 11.1)
Neutral	113	2.9 (1.6 - 4.3)	7	3.0 (0.0 - 6.0)	9	2.0 (0.2 - 3.8)	27	6.2 (3.5 - 8.9)	2	0.5 (0.0 - 1.0)
Disagree	1113	30.1 (22.2 - 38.0)	56	15.8 (11.0 - 20.6)	170	38.5 (32.1 - 45.0)	133	34.9 (29.3 - 40.5)	150	37.1 (31.6 - 42.6)
Strongly disagree	1883	49.5 (38.3 - 60.7)	255	65.4 (58.8 - 72.0)	146	31.3 (25.8 - 36.8)	184	45.0 (38.6 - 51.5)	194	53.2 (47.2 - 59.1)
<b>Disclosed selling sex to the following people<sup>b</sup></b>										
Colleagues	514	14.5 (2.5 - 26.6)	83	18.4 (13.6 - 23.1)	7	1.9 (0.0 - 4.4)	38	8.7 (5.3 - 12.1)	15	2.0 (0.9 - 3.2)
Family	1127	29.8 (25.3 - 34.4)	98	24.3 (18.7 - 29.8)	142	34.9 (29.0 - 40.8)	96	24.2 (18.3 - 29.9)	101	25.9 (20.7 - 31.1)
Friends/acquaintances who are sex workers	3450	94.1 (90.3 - 97.9)	360	99.3 (98.5 - 100.0)	406	95.6 (92.5 - 98.7)	374	97.2 (95.5 - 98.8)	366	98.2 (97.0 - 99.4)
Friends/acquaintances who are not sex workers	1127	27.7 (19.4 - 36.1)	113	24.8 (19.5 - 29.9)	161	33.7 (28.4 - 39.0)	90	17.2 (12.6 - 21.9)	86	24.7 (19.6 - 29.9)
Healthcare providers/HIV care provider	1725	45.5 (33.5 - 57.5)	227	58.3 (52.3 - 64.4)	64	14.3 (10.4 - 18.2)	257	65.4 (59.1 - 71.9)	185	49.7 (43.7 - 55.7)
Partner/spouse	441	12.0 (6.2 - 17.7)	45	12.4 (7.8 - 16.8)	16	2.1 (1.0 - 3.3)	53	15.3 (9.7 - 20.9)	54	14.0 (10.0 - 18.0)
No one	5	0.06 (0.0 - 0.1)	1	0.1 (0.0 - 0.4)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Other	2	0.07 (0.0 - 0.2)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
<b>Felt excluded from family activities because of selling sex<sup>a</sup></b>										
Yes, in the last 6 months	524	13.6 (10.5 - 16.7)	44	10.7 (7.3 - 14.1)	85	21.2 (15.9 - 26.5)	37	9.6 (5.6 - 13.7)	63	16.5 (12.1 - 21.0)
Yes, but not in the last 6 months	335	8.5 (5.4 - 11.6)	53	14.1 (9.7 - 18.5)	20	4.5 (2.3 - 6.6)	34	8.4 (4.9 - 12.0)	24	6.5 (3.3 - 9.7)
No	2861	77.9 (73.7 - 82.0)	271	75.1 (70.0 - 80.4)	320	74.3 (69.0 - 79.7)	320	81.9 (77.1 - 86.7)	290	77.0 (72.1 - 81.9)
<b>Family members made unfair comments or gossiped because of selling sex<sup>a</sup></b>										
Yes, in the last 6 months	864	22.3 (18.9 - 25.8)	79	19.1 (14.0 - 24.1)	118	28.6 (23.2 - 34.0)	77	18.4 (13.3 - 23.5)	100	25.5 (20.2 - 30.7)
Yes, but not in the last 6 months	377	9.5 (6.0 - 13.0)	71	18.2 (13.6 - 22.7)	20	4.8 (1.8 - 7.7)	35	8.3 (5.1 - 11.6)	23	6.2 (3.2 - 9.2)
No	2480	68.2 (63.1 - 73.3)	218	62.7 (56.7 - 68.9)	287	66.6 (60.8 - 72.4)	279	73.3 (67.6 - 78.9)	254	68.3 (62.3 - 74.3)
<b>Ever verbally harassed/scolded<sup>a</sup></b>										
Yes, in the last 6 months	1249	30.8 (23.8 - 37.7)	160	42.2 (35.7 - 48.6)	184	40.3 (34.1 - 46.4)	81	19.9 (14.9 - 24.8)	104	24.3 (19.3 - 29.2)
Yes, but not in the last 6 months	349	9.2 (6.2 - 12.1)	59	14.7 (10.5 - 18.8)	18	4.4 (2.2 - 6.6)	40	9.7 (5.7 - 13.6)	31	8.0 (4.8 - 11.3)
No	2122	60.1 (51.0 - 69.2)	149	43.2 (37.0 - 49.4)	223	55.3 (49.0 - 61.6)	270	70.5 (64.8 - 76.2)	242	67.7 (62.1 - 73.3)
<b>Ever blackmailed<sup>a</sup></b>										
Yes, in the last 6 months	730	18.6 (14.0 - 23.2)	126	32.5 (26.4 - 38.5)	103	25.9 (20.1 - 31.6)	84	18.2 (13.9 - 22.5)	71	15.3 (11.3 - 19.2)
Yes, but not in the last 6 months	320	7.2 (4.8 - 9.7)	57	13.7 (9.6 - 17.7)	16	2.9 (1.3 - 4.6)	43	9.2 (6.0 - 12.4)	29	6.4 (3.6 - 9.1)
No	2670	74.2 (67.8 - 80.6)	185	53.9 (47.9 - 59.9)	306	71.2 (65.3 - 77.1)	264	72.6 (67.7 - 77.5)	277	78.3 (74.0 - 82.7)
<b>Ever forced to have sex<sup>a</sup></b>										
Yes, in the last 6 months	708	18.2 (13.9 - 22.4)	77	19.5 (14.7 - 24.4)	118	28.9 (23.1 - 34.5)	51	10.5 (7.1 - 14.0)	55	12.4 (8.7 - 16.1)
Yes but not in the last 6 months	410	9.6 (6.8 - 12.5)	54	13.3 (9.1 - 17.5)	32	8.4 (5.0 - 11.7)	38	9.0 (5.8 - 12.1)	27	5.9 (3.2 - 8.8)
No	2603	72.2 (66.0 - 78.4)	237	67.1 (61.3 - 73.0)	275	62.7 (56.9 - 68.7)	302	80.5 (76.2 - 84.8)	295	81.6 (77.1 - 86.1)
<b>Experiences of forced sex: believed to be related to selling sex<sup>a,c</sup></b>										
Yes	890	80.6 (72.8 - 88.3)	121	92.5 (86.6 - 98.4)	105	61.4 (50.5 - 72.4)	67	77.7 (67.9 - 87.8)	71	86.3 (76.9 - 95.6)
No	224	19.5 (11.7 - 27.3)	9	7.5 (1.5 - 13.4)	44	38.6 (27.5 - 49.6)	22	22.3 (12.3 - 32.0)	10	13.7 (5.1 - 22.4)
<b>Been physically harassed or hurt because of selling sex<sup>a</sup></b>										
Yes, in the last 6 months	728	18.3 (14.6 - 21.9)	75	19.1 (13.9 - 24.2)	128	30.4 (24.6 - 36.0)	63	13.2 (9.6 - 16.9)	49	12.0 (8.5 - 15.5)
Yes, but not in the last 6 months	447	10.3 (8.3 - 12.3)	50	10.1 (6.7 - 13.5)	48	10.6 (7.0 - 14.3)	66	15.3 (11.1 - 19.5)	34	7.6 (4.5 - 10.7)
No	2547	71.4 (67.0 - 75.9)	243	70.8 (65.1 - 76.5)	249	59.0 (52.9 - 65.2)	262	71.4 (66.2 - 76.8)	294	80.4 (75.9 - 84.9)
<b>Actions after experiencing violence:<sup>a,c</sup></b>										
Did not report	1008	57.2 (51.0 - 63.4)	111	52.2 (44.6 - 59.8)	149	64.5 (56.9 - 72.1)	100	54.9 (45.9 - 63.7)	68	43.4 (34.5 - 52.2)
Informed the local chief	25	1.1 (0.5 - 1.7)	4	0.7 (0.0 - 1.3)	4	1.2 (0.0 - 2.5)	1	1.1 (0.0 - 3.3)	8	3.1 (0.5 - 5.7)
Reported to NGO/CBO	98	4.9 (3.0 - 6.8)	20	4.0 (1.8 - 6.2)	9	3.6 (0.2 - 7.0)	5	3.2 (0.02 - 6.3)	16	8.8 (4.1 - 13.4)
Reported to peer/outreach worker	114	4.8 (2.8 - 6.8)	19	8.2 (3.5 - 12.9)	7	1.3 (0.3 - 2.2)	8	3.0 (0.7 - 5.2)	19	9.6 (4.1 - 15.1)
Reported to police	364	17.4 (13.9 - 20.9)	42	16.7 (10.8 - 22.7)	54	19.4 (13.2 - 25.6)	38	22.5 (14.8 - 30.5)	42	25.3 (17.5 - 33.3)
Shared with friends/family	236	11.3 (6.1 - 16.5)	52	17.8 (11.8 - 23.9)	9	2.7 (0.9 - 4.6)	38	19.3 (12.6 - 25.8)	16	12.4 (6.5 - 18.2)
Went to clinic	82	3.7 (1.5 - 6.0)	2	1.0 (0.0 - 2.2)	10	4.5 (1.2 - 7.7)	6	3.7 (0.4 - 7.0)	8	3.8 (0.8 - 6.8)
Went to DICE	211	9.1 (6.3 - 12.0)	29	9.3 (5.1 - 13.4)	25	7.6 (4.0 - 11.2)	9	2.6 (0.3 - 4.8)	21	11.5 (6.3 - 16.7)
Went to violence center	69	2.3 (1.3 - 3.3)	15	4.5 (1.7 - 7.3)	7	2.3 (0.0 - 4.7)	6	1.7 (0.09 - 3.2)	10	4.3 (1.4 - 7.1)
Other	13	0.6 (0.2 - 1.0)	3	0.9 (0.0 - 1.9)	0	0.0 (0.0 - 0.0)	1	0.7 (0.0 - 1.8)	0	0.0 (0.0 - 0.0)
<b>Been arrested because of selling sex<sup>a</sup></b>										
Yes, in the last 6 months	744	17.7 (11.0 - 24.4)	87	20.6 (15.9 - 25.3)	144	33.2 (27.2 - 39.2)	45	8.0 (5.0 - 10.9)	15	4.0 (1.8 - 6.2)
Yes, but not in the last 6 months	761	18.0 (14.0 - 22.1)	84	20.9 (15.3 - 26.5)	73	16.7 (12.1 - 21.3)	81	17.6 (13.5 - 21.7)	70	17.1 (12.6 - 21.7)
No	2214	64.3 (55.4 - 73.1)	197	58.5 (52.1 - 64.9)	208	50.1 (43.7 - 56.5)	263	74.4 (69.5 - 79.4)	291	78.9 (74.2 - 83.6)
<b>Received help dealing with the authorities last time arrested from:<sup>b</sup></b>										
AIDS tribunal	4	0.3 (0.0 - 0.6)	0	0.0 (0.0 - 0.0)	2	1.2 (0.0 - 2.6)	0	0.0 (0.0 - 0.0)	1	1.3 (0.0 - 3.2)
Did not receive help	630	48.1 (40.3 - 55.8)	63	34.7 (25.7 - 43.7)	104	54.3 (45.6 - 62.9)	61	55.0 (44.0 - 65.5)	21	24.9 (14.5 - 35.2)
Family/regular partner	179	14.0 (8.6 - 19.4)	9	5.9 (1.6 - 10.1)	31	13.4 (8.1 - 18.6)	14	10.8 (4.8 - 16.7)	25	31.4 (20.9 - 41.9)
Legal support	74	4.7 (2.7 - 6.6)	14	8.9 (3.0 - 14.9)	15	6.8 (2.2 - 11.5)	4	3.0 (0.0 - 6.1)	5	5.6 (0.0 - 13.0)
Network	468	28.6 (19.6 - 37.7)	81	52.3 (42.9 - 61.8)	65	24.8 (17.7 - 31.9)	38	28.1 (17.8 - 38.7)	18	17.0 (9.5 - 24.4)
NGO/CBO/DICE	83	6.6 (1.5 - 11.6)	5	3.0 (0.3 - 5.7)	7	2.0 (0.0 - 4.1)	4	4.4 (0.0 - 8.9)	22	26.6 (15.4 - 37.8)
Other	11	1.0 (0.4 - 1.6)	1	1.6 (0.0 - 4.1)	1	0.9 (0.0 - 2.0)	2	1.8 (0.0 - 4.0)	0	0.0 (0.0 - 0.0)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on a personal network size using the respondent driven sampling package in R, using Gile's sequential sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sum of sample numerator is higher than the sample denominator, as multiple responses could be selected

<sup>c</sup> Sample denominator is based on the previous question

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; CBO, community-based organization; DICE, drop-in center; NGO, non-governmental organization; AIDS, acquired immunodeficiency syndrome.

Table 4.11 cont.: Stigma And Discrimination Among Female Sex Workers By Location, BBS, Kenya , 2024

	Kisumu (N=427)		Machakos (N=462)		Mombasa (N=414)		Nairobi (N=461)		Nakuru (N=397)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Ashamed to sell sex<sup>a</sup></b>										
Strongly agree	28	7.8 (4.7 - 10.8)	66	14.0 (10.5 - 17.5)	18	3.2 (1.4 - 5.1)	109	21.1 (14.8 - 27.4)	29	6.1 (3.3 - 8.9)
Agree	72	18.8 (14.0 - 23.6)	107	23.8 (18.6 - 28.9)	19	4.8 (2.3 - 7.3)	54	12.7 (6.1 - 19.3)	89	25.2 (19.8 - 30.7)
Neutral	8	2.2 (0.6 - 3.9)	8	2.9 (1.3 - 4.4)	6	1.4 (0.2 - 2.6)	56	12.6 (8.6 - 16.6)	9	2.7 (0.4 - 5.0)
Disagree	218	51.2 (43.9 - 58.6)	83	17.5 (13.4 - 21.7)	41	9.0 (5.7 - 12.4)	60	13.8 (9.5 - 18.1)	66	18.0 (12.8 - 23.0)
Strongly disagree	101	20.0 (13.0 - 27.1)	188	41.8 (36.1 - 47.6)	329	81.6 (77.1 - 86.0)	182	39.8 (32.4 - 47.3)	204	48.0 (41.9 - 54.2)
<b>Ashamed to disclose selling sex when among other sex workers<sup>a</sup></b>										
Strongly agree	19	5.9 (3.0 - 8.7)	58	12.0 (8.2 - 15.9)	4	0.6 (0.09 - 1.1)	22	6.4 (0.3 - 12.6)	6	1.8 (0.09 - 3.6)
Agree	45	11.4 (7.8 - 15.1)	89	22.4 (17.3 - 27.5)	10	2.8 (0.9 - 4.7)	20	3.8 (1.8 - 5.9)	26	7.5 (4.5 - 10.4)
Neutral	6	1.1 (0.4 - 1.8)	17	2.8 (1.5 - 4.1)	3	0.7 (0.0 - 1.5)	10	3.0 (0.9 - 5.1)	6	1.8 (0.08 - 3.5)
Disagree	176	43.4 (36.5 - 50.2)	113	23.1 (18.5 - 27.7)	30	6.8 (3.7 - 9.9)	71	16.3 (11.4 - 21.1)	91	26.9 (21.3 - 32.5)
Strongly disagree	181	38.2 (31.2 - 45.2)	184	39.6 (34.0 - 45.4)	367	89.1 (85.4 - 92.8)	337	70.5 (63.6 - 77.4)	267	62.0 (56.1 - 67.9)
<b>Ashamed to disclose selling sex to community social or health worker<sup>a</sup></b>										
Strongly agree	34	8.6 (5.3 - 11.8)	32	6.6 (4.2 - 9.0)	11	2.2 (0.5 - 4.0)	77	16.6 (10.3 - 22.8)	9	1.9 (0.3 - 3.6)
Agree	59	14.8 (10.5 - 19.0)	72	18.4 (13.7 - 23.2)	22	5.9 (3.3 - 8.4)	34	7.9 (4.9 - 10.9)	35	7.9 (4.7 - 11.1)
Neutral	9	2.1 (0.6 - 3.7)	26	3.8 (2.1 - 5.5)	2	0.5 (0.0 - 1.2)	13	2.2 (0.9 - 3.5)	18	6.1 (2.8 - 9.5)
Disagree	211	51.3 (44.1 - 58.5)	135	27.8 (23.1 - 32.5)	55	11.5 (7.9 - 15.1)	107	26.8 (19.6 - 34.0)	96	26.8 (21.1 - 32.5)
Strongly disagree	114	23.2 (17.7 - 28.7)	197	43.3 (37.4 - 49.3)	324	79.9 (75.0 - 84.8)	230	46.5 (39.8 - 53.3)	239	57.3 (51.6 - 63.0)
<b>Disclosed selling sex to the following people:<sup>b</sup></b>										
Colleagues	12	1.5 (0.4 - 2.7)	41	8.0 (5.2 - 10.8)	184	58.1 (52.1 - 63.9)	118	27.4 (20.0 - 34.8)	16	4.7 (2.1 - 7.3)
Family	154	38.6 (30.1 - 47.0)	123	26.5 (21.5 - 31.4)	120	23.5 (18.8 - 28.3)	136	28.3 (22.0 - 34.5)	157	42.4 (35.8 - 49.1)
Friends/acquaintances who are sex workers	390	94.5 (92.1 - 97.0)	420	89.6 (86.3 - 93.0)	400	96.8 (94.0 - 99.6)	424	94.8 (92.5 - 97.2)	310	80.5 (75.5 - 85.5)
Friends/acquaintances who are not sex workers	83	17.0 (12.6 - 21.5)	179	42.7 (36.9 - 48.5)	46	8.2 (5.4 - 10.9)	182	34.1 (27.5 - 40.8)	187	47.2 (40.6 - 53.8)
Healthcare providers/HIV care provider	119	28.3 (20.2 - 36.4)	263	54.0 (47.8 - 60.1)	269	67.7 (62.2 - 73.2)	207	43.2 (36.5 - 50.1)	134	28.4 (23.4 - 33.5)
Partner/spouse	28	5.5 (3.0 - 8.0)	25	3.8 (2.2 - 5.4)	111	31.9 (26.1 - 37.6)	52	10.8 (7.4 - 14.3)	57	12.1 (8.4 - 15.8)
No one	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	2	0.1 (0.0 - 0.3)	2	0.3 (0.0 - 0.7)
Other	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	2	0.6 (0.0 - 1.7)
<b>Felt excluded from family activities because of selling sex<sup>a</sup></b>										
Yes, in the last 6 months	51	11.1 (7.7 - 14.5)	30	5.9 (3.7 - 8.1)	64	13.1 (8.9 - 17.2)	77	16.5 (11.7 - 21.3)	73	17.7 (12.9 - 22.5)
Yes, but not in the last 6 months	29	5.4 (2.8 - 7.9)	17	3.8 (1.9 - 5.6)	70	17.4 (13.1 - 21.7)	65	11.0 (6.1 - 16.0)	23	5.5 (2.9 - 8.1)
No	347	83.5 (79.3 - 87.7)	415	90.3 (87.4 - 93.3)	279	69.5 (63.7 - 75.4)	318	72.5 (65.5 - 79.4)	301	76.7 (71.8 - 81.7)
<b>Family members made unfair comments or gossiped because of selling sex<sup>a</sup></b>										
Yes, in the last 6 months	72	14.2 (10.4 - 18.1)	79	18.1 (14.0 - 22.1)	117	26.1 (20.5 - 31.7)	136	29.4 (23.2 - 35.6)	86	21.4 (16.3 - 26.4)
Yes, but not in the last 6 months	49	9.9 (6.1 - 13.6)	14	2.8 (1.2 - 4.3)	66	16.3 (12.1 - 20.6)	69	13.2 (7.0 - 19.4)	30	6.0 (3.3 - 8.6)
No	306	75.9 (70.1 - 81.7)	369	79.2 (74.8 - 83.5)	231	57.6 (51.4 - 63.7)	255	57.4 (49.3 - 65.6)	281	72.6 (67.3 - 78.0)
<b>Ever verbally harassed/scolded<sup>a</sup></b>										
Yes, in the last 6 months	113	21.4 (15.0 - 27.8)	103	22.6 (18.0 - 27.3)	102	20.9 (16.4 - 25.5)	208	41.4 (34.6 - 48.1)	194	43.8 (38.0 - 49.6)
Yes, but not in the last 6 months	40	8.3 (5.5 - 11.1)	19	3.6 (1.8 - 5.4)	27	5.0 (2.8 - 7.2)	61	14.0 (6.7 - 21.3)	54	14.8 (10.2 - 19.5)
No	273	70.3 (63.9 - 76.8)	340	73.8 (68.8 - 78.7)	285	74.1 (69.0 - 79.2)	192	44.6 (37.3 - 51.9)	148	41.3 (35.4 - 47.3)
<b>Ever blackmailed<sup>a</sup></b>										
Yes, in the last 6 months	70	13.0 (9.3 - 16.7)	48	12.2 (8.4 - 16.1)	84	18.6 (14.2 - 23.1)	100	21.3 (16.0 - 26.7)	44	10.7 (7.0 - 14.4)
Yes, but not in the last 6 months	33	6.5 (4.0 - 8.9)	22	4.6 (2.4 - 6.8)	38	6.9 (4.2 - 9.7)	63	11.8 (8.0 - 15.6)	19	2.8 (1.2 - 4.4)
No	324	80.5 (76.0 - 85.1)	392	83.2 (78.7 - 87.7)	292	74.5 (69.4 - 79.5)	296	66.9 (60.5 - 73.3)	334	86.5 (82.7 - 90.3)
<b>Ever forced to have sex<sup>a</sup></b>										
Yes, in the last 6 months	88	20.4 (15.5 - 25.2)	53	12.0 (8.4 - 15.6)	86	17.0 (12.9 - 21.1)	121	27.0 (21.1 - 33.0)	59	15.7 (10.8 - 20.6)
Yes but not in the last 6 months	35	5.8 (3.6 - 8.1)	27	6.1 (3.4 - 8.9)	39	7.5 (4.7 - 10.3)	101	19.1 (12.6 - 25.6)	57	11.6 (8.0 - 15.2)
No	303	73.8 (68.4 - 79.2)	382	81.9 (77.3 - 86.5)	289	75.5 (70.5 - 80.5)	239	53.9 (46.4 - 61.4)	281	72.8 (67.3 - 78.1)
<b>Experiences of forced sex believed to be related to selling sex<sup>a,c</sup></b>										
Yes	87	68.0 (58.1 - 77.5)	75	95.0 (90.6 - 99.5)	116	88.9 (82.6 - 95.2)	154	69.6 (61.5 - 77.6)	94	85.0 (76.7 - 93.1)
No	36	32.0 (22.6 - 41.7)	5	5.0 (0.3 - 9.7)	9	11.1 (4.8 - 17.3)	67	30.4 (22.5 - 38.4)	22	15.0 (6.9 - 23.3)
<b>Been physically harassed or hurt because of selling sex<sup>a</sup></b>										
Yes, in the last 6 months	76	17.6 (13.0 - 22.1)	62	13.3 (9.9 - 16.7)	91	18.5 (14.3 - 22.7)	100	21.6 (16.4 - 26.7)	84	18.8 (14.4 - 23.2)
Yes, but not in the last 6 months	29	5.5 (3.2 - 7.9)	35	7.6 (4.4 - 10.7)	49	11.3 (7.5 - 15.1)	85	12.9 (8.0 - 17.8)	51	11.7 (7.9 - 15.5)
No	322	76.9 (72.0 - 81.8)	365	79.2 (74.6 - 83.7)	274	70.2 (64.7 - 75.7)	276	65.5 (58.8 - 72.3)	262	69.5 (64.5 - 74.5)
<b>Actions after experiencing violence:<sup>a,c</sup></b>										
Did not report	106	53.6 (44.4 - 62.8)	105	70.5 (61.6 - 79.5)	124	71.4 (64.5 - 78.5)	153	52.3 (44.7 - 59.9)	92	51.7 (43.2 - 60.4)
Informed the local chief	1	0.2 (0.0 - 0.5)	1	0.4 (0.0 - 1.2)	2	1.4 (0.0 - 3.5)	1	0.08 (0.0 - 0.2)	3	1.6 (0.0 - 3.4)
Reported to NGO/CBO	7	4.2 (0.6 - 7.8)	2	2.6 (0.0 - 8.4)	7	2.7 (0.02 - 5.4)	25	10.9 (6.1 - 15.8)	7	3.9 (0.5 - 7.2)
Reported to peer/outreach worker	9	4.6 (0.8 - 8.3)	7	3.9 (0.4 - 7.5)	9	3.1 (0.3 - 5.9)	8	1.7 (0.07 - 3.4)	28	8.1 (4.5 - 11.5)
Reported to police	27	11.4 (6.0 - 16.8)	21	13.8 (7.3 - 20.2)	34	13.1 (7.6 - 18.6)	48	11.4 (6.8 - 16.1)	58	22.8 (16.2 - 29.4)
Shared with friends/family	23	9.7 (5.3 - 14.1)	9	5.1 (1.7 - 8.5)	3	0.3 (0.0 - 1.0)	22	10.1 (4.7 - 15.5)	64	24.3 (17.7 - 30.9)
Went to clinic	1	0.2 (0.0 - 0.7)	4	1.5 (0.0 - 3.5)	3	1.8 (0.0 - 3.7)	18	5.2 (1.9 - 8.7)	30	12.0 (6.9 - 17.0)
Went to DICE	31	17.6 (11.6 - 23.7)	10	4.5 (1.2 - 7.7)	22	7.8 (3.7 - 12.0)	38	11.5 (7.5 - 15.6)	26	10.0 (5.6 - 14.3)
Went to violence center	0	0.0 (0.0 - 0.0)	2	0.5 (0.0 - 1.1)	8	1.9 (0.0 - 4.0)	12	2.1 (0.6 - 3.5)	9	3.3 (0.8 - 5.8)
Other	4	1.2 (0.0 - 2.5)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	3	1.2 (0.0 - 2.5)	2	1.2 (0.0 - 3.0)
<b>Been arrested because of selling sex<sup>a</sup></b>										
Yes, in the last 6 months	77	15.2 (10.8 - 19.5)	51	10.4 (7.3 - 13.5)	70	13.3 (9.1 - 17.5)	157	31.6 (25.3 - 37.9)	98	23.2 (17.9 - 28.5)
Yes, but not in the last 6 months	76	14.8 (8.5 - 21.1)	80	14.5 (10.4 - 18.5)	49	9.8 (6.6 - 13.1)	106	18.6 (12.3 - 25.0)	142	32.2 (25.7 - 38.6)
No	274	70.0 (63.4 - 76.7)	331	75.1 (69.8 - 80.5)	295	76.9 (71.8 - 81.9)	198	49.8 (41.3 - 58.3)	157	44.6 (38.0 - 51.3)
<b>Received help dealing with the authorities last time arrested from:<sup>b</sup></b>										
AIDS tribunal	1	0.2 (0.0 - 0.5)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Did not receive help	71	51.7 (41.2 - 62.2)	67	51.9 (42.3 - 61.4)	54	64.2 (52.2 - 76.5)	83	44.0 (35.1 - 52.8)	106	52.0 (44.0 - 59.9)
Family/regular partner	8	7.0 (2.4 - 11.6)	17	13.4 (7.6 - 19.2)	25	22.9 (13.8 - 32.0)	20	7.7 (3.9 - 11.4)	30	13.9 (8.7 - 19.1)
Legal support	13	9.0 (2.8 - 15.2)	1	1.2 (0.0 - 3.6)	5	2.1 (0.0 - 5.4)	8	2.3 (0.5 - 4.2)	9	3.0 (0.5 - 5.4)
Network	44	27.8 (19.2 - 36.4)	44	32.6 (24.1 - 41.3)	3	3.4 (0.0 - 7.1)	96	41.1 (32.9 - 49.3)	79	30.5 (23.5 - 37.6)
NGO/CBO/DICE	7	3.5 (0.3 - 6.6)	2	1.0 (0.0 - 2.3)	6	5.4 (0.5 - 10.2)	19	8.1 (3.3 - 13.0)	11	5.2 (1.7 - 8.7)
Other	4	2.3 (0.0 - 4.9)	0	0.0 (0.0 - 0.0)	1	1.9 (0.0 - 5.2)	0	0.0 (0.0 - 0.0)	2	0.9 (0.0 - 2.1)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the respondent driven sampling package in R, using Gile's sequential sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sum of sample numerator is higher than the sample denominator, as multiple responses could be selected

<sup>c</sup> Sample denominator is based on the previous question

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; CBO, community-based organization; DICE, drop-in center; NGO, non-governmental organization; AIDS, acquired immunodeficiency syndrome.

Table 4.11B: Avoidance of Health Services Among Female Sex Workers By Location, BBS, Kenya , 2024

	Overall Estimate (N=3722)		Kajiado (N=368)		Kiambu (N=425)		Kilifi (N=391)		Kisii (N=377)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Avoided seeking health services due to concerns someone may find out about selling sex</b>										
Yes, in the last 6 months	276	7.8 (4.9 - 10.6)	32	9.3 (4.8 - 13.9)	51	13.0 (8.6 - 17.3)	4	1.5 (0.09 - 2.9)	17	4.1 (2.1 - 6.2)
Yes, but not in the last 6 months	213	5.3 (2.4 - 8.1)	52	15.0 (10.6 - 19.4)	13	2.2 (0.8 - 3.6)	22	5.9 (2.9 - 9.0)	10	2.6 (0.5 - 4.7)
No	3233	87.0 (82.4 - 91.6)	284	75.6 (69.6 - 81.6)	361	84.8 (80.3 - 89.4)	365	92.6 (89.4 - 95.7)	350	93.3 (90.2 - 96.4)
<b>Avoided seeking HIV services due to fear of discrimination for selling sex<sup>a</sup></b>										
Yes, in the last 6 months	245	6.9 (3.9 - 9.9)	35	10.8 (6.3 - 15.2)	50	12.9 (8.3 - 17.4)	6	1.9 (0.4 - 3.5)	20	4.8 (2.7 - 6.8)
Yes, but not in the last 6 months	185	4.6 (2.2 - 7.0)	42	11.5 (7.6 - 15.4)	12	2.3 (1.2 - 3.3)	22	5.6 (2.6 - 8.6)	5	1.0 (0.1 - 1.8)
No	3289	88.5 (83.7 - 93.3)	291	77.7 (72.0 - 83.4)	362	84.8 (80.2 - 89.5)	363	92.5 (89.1 - 96.0)	352	94.3 (91.9 - 96.7)
<b>Avoided disclosing to HIV service provider about selling sex<sup>a</sup></b>										
Yes, in the last 6 months	272	7.0 (4.9 - 9.2)	29	10.2 (5.4 - 15.2)	48	11.6 (7.2 - 16.1)	11	3.4 (1.3 - 5.5)	16	3.5 (1.8 - 5.2)
Yes, but not in the last 6 months	162	4.4 (2.5 - 6.3)	40	11.1 (7.2 - 15.1)	13	3.2 (1.4 - 5.1)	20	5.3 (2.3 - 8.3)	3	1.2 (0.0 - 2.4)
No	3280	88.6 (85.0 - 92.2)	299	78.6 (73.0 - 84.2)	361	85.2 (80.3 - 90.0)	360	91.3 (87.6 - 95.1)	358	95.3 (93.1 - 97.6)
<b>Discriminated by HIV service provider because of selling sex<sup>a</sup></b>										
Yes, in the last 6 months	106	2.2 (0.7 - 3.8)	9	1.6 (0.06 - 3.2)	28	5.7 (3.3 - 8.1)	2	0.5 (0.0 - 1.0)	9	1.4 (0.5 - 2.3)
Yes, but not in the last 6 months	101	2.0 (0.4 - 3.7)	11	1.5 (0.4 - 2.6)	6	1.2 (0.06 - 2.4)	7	1.9 (0.4 - 3.5)	7	1.4 (0.0 - 3.0)
No because I hid	1208	35.0 (26.8 - 43.2)	55	19.7 (14.0 - 25.4)	140	35.8 (29.6 - 41.8)	51	15.2 (10.5 - 19.8)	155	45.6 (40.1 - 51.1)
No, even though they knew	2299	60.8 (51.6 - 70.0)	292	77.1 (72.8 - 81.5)	251	57.3 (51.1 - 63.6)	330	82.4 (77.3 - 87.5)	205	51.6 (45.8 - 57.4)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the respondent driven sampling package in R, using Gile's sequential sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval

Table 4.11B cont.: Avoidance of Health Services Among Female Sex Workers By Location, BBS, Kenya , 2024

	Kisumu (N=427)		Machakos (N=462)		Mombasa (N=414)		Nairobi (N=461)		Nakuru (N=397)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>avoided seeking health services due to concerns someone may find out about selling sex</b>										
Yes, in the last 6 months	17	5.1 (2.6 - 7.6)	15	4.1 (1.4 - 6.9)	36	8.6 (5.2 - 12.1)	67	14.4 (9.9 - 18.8)	37	9.5 (5.8 - 13.1)
Yes, but not in the last 6 months	21	3.3 (1.6 - 5.0)	4	0.5 (0.05 - 1.0)	23	4.3 (2.3 - 6.3)	47	8.9 (4.3 - 13.6)	21	4.5 (2.1 - 7.1)
No	389	91.6 (88.6 - 94.6)	443	95.4 (92.6 - 98.1)	355	87.1 (83.0 - 91.1)	347	76.7 (70.4 - 83.0)	339	86.0 (82.0 - 90.0)
<b>avoided seeking HIV services due to fear of discrimination for selling sex<sup>a</sup></b>										
Yes, in the last 6 months	6	1.3 (0.3 - 2.3)	9	2.5 (0.5 - 4.6)	31	7.5 (4.2 - 10.9)	63	12.7 (9.0 - 16.3)	25	7.7 (3.7 - 11.1)
Yes, but not in the last 6 months	7	1.3 (0.2 - 2.4)	6	1.0 (0.01 - 1.9)	23	4.6 (2.4 - 6.8)	51	9.2 (4.6 - 13.9)	17	4.9 (2.1 - 7.1)
No	413	97.4 (95.9 - 98.8)	447	96.5 (94.2 - 98.8)	359	87.9 (83.9 - 91.8)	347	78.1 (72.4 - 83.7)	355	87.4 (82.9 - 91.1)
<b>avoided disclosing to HIV service provider about selling sex<sup>a</sup></b>										
Yes, in the last 6 months	37	8.5 (5.6 - 11.5)	11	3.3 (0.9 - 5.7)	38	7.0 (4.3 - 9.6)	54	10.4 (7.3 - 13.5)	28	5.4 (3.0 - 7.1)
Yes, but not in the last 6 months	20	4.2 (2.0 - 6.4)	9	2.0 (0.6 - 3.3)	13	3.2 (1.2 - 5.1)	32	6.0 (3.2 - 8.9)	12	3.2 (1.0 - 5.1)
No	370	87.2 (83.6 - 91.0)	442	94.7 (92.1 - 97.4)	362	89.9 (86.4 - 93.4)	374	83.5 (79.3 - 87.8)	354	91.4 (88.5 - 94.1)
<b>discriminated by HIV service provider because of selling sex<sup>a</sup></b>										
Yes, in the last 6 months	4	0.4 (0.1 - 0.7)	0	0.0 (0.0 - 0.0)	6	0.9 (0.09 - 1.6)	36	6.8 (4.0 - 9.6)	12	3.0 (0.08 - 5.1)
Yes, but not in the last 6 months	6	0.8 (0.02 - 1.5)	1	0.09 (0.0 - 0.2)	7	0.6 (0.0 - 1.2)	44	8.5 (4.7 - 12.3)	12	2.1 (0.4 - 3.1)
No because I hid	106	26.6 (18.3 - 35.1)	215	52.3 (45.9 - 58.8)	144	32.9 (27.4 - 38.6)	173	41.6 (34.2 - 48.9)	169	45.0 (38.9 - 51.1)
No, even though they knew	311	72.1 (64.2 - 80.0)	246	47.6 (41.2 - 53.9)	252	65.7 (59.9 - 71.3)	208	43.2 (36.3 - 50.1)	204	49.9 (44.0 - 55.1)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the respondent driven sampling package in R, using Gile's sequential sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval

## 4.12: Alcohol and Drug Use

Alcohol consumption was widespread and often frequent. Overall, 29.7% reported never drinking, while 22.0% drank four or more times per week, 16.6% two to three times weekly, 21.3% two to four times per month, and 10.4% monthly or less. On a typical occasion, 47.0% consumed 1–2 drinks and 33.6% had 3–4, with smaller proportions reporting 5–6 (12.0%), 7–9 (4.3%), or  $\geq 10$  drinks (3.0%).

Heavy episodic drinking ( $\geq 6$  drinks) in the past year was reported at least monthly by 27.6% (11.4% monthly, 16.2% weekly) and daily/almost daily by 5.3%; 55.4% never engaged in it.

Markers of hazardous use were notable: difficulty stopping once started occurred at least monthly in 12.6%, weekly in 12.2%, and daily in 5.9% (53.6% never). Failure to meet expectations due to drinking was reported at least monthly by 26.2% (12.8% monthly, 15.0% weekly, 3.4% daily; 51.8% never). A morning drink after heavy use occurred at least weekly in 27.3% (15.2% weekly, 12.1% daily; 52.7% never). Feelings of remorse or guilt were at least weekly in 22.3% (15.2% weekly, 7.1% daily; 45.0% never). Memory blackouts occurred at least monthly in 15.6% (12.6% monthly, 12.0% weekly, 3.0% daily; 55.3% never).

Alcohol-related harms were common: 13.8% experienced alcohol-related injuries in the past year (68.9% previously), and 14.3% reported that others expressed concern about their drinking in the past year (60.9% previously). Injection drug use was rare (0.8% lifetime)

Based on AUDIT scoring, 36.9% fell in Zone I (low-risk drinking, score 0–7) and 29.3% in Zone II (use above low-risk, score 8–15). Higher-risk categories accounted for roughly one-third of participants: 11.7% were in Zone III (harmful/hazardous, score 16–19) and 22.0% in Zone IV (suggested dependence, score 20–40).

Table 4.12: Alcohol And Drug Use Among Female Sex Workers By Location, BBS, Kenya, 2024

	Overall Estimate (N=3722)		Kajiado (N=368)		Kiambu (N=425)		Kilifi (N=391)		Kisii (N=377)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Frequency of alcohol consumption<sup>a</sup></b>										
Never	1082	29.7 (21.9 - 37.5)	91	22.8 (17.1 - 28.6)	73	18.2 (13.5 - 22.9)	77	19.7 (14.8 - 24.6)	202	55.1 (49.2 - 60.9)
Monthly or less	394	10.4 (5.8 - 15.0)	18	4.4 (1.9 - 6.9)	47	11.3 (7.6 - 15.1)	102	26.5 (21.1 - 32.0)	37	10.0 (6.6 - 13.5)
2-4 times per month	770	21.3 (16.5 - 26.1)	91	26.5 (20.8 - 32.3)	105	25.0 (19.5 - 30.3)	113	31.1 (25.6 - 36.6)	54	14.9 (10.9 - 19.0)
2-3 times per week	622	16.6 (11.3 - 21.9)	58	20.0 (14.5 - 25.5)	63	12.7 (9.2 - 16.3)	49	12.6 (8.4 - 16.8)	34	8.2 (5.2 - 11.2)
4 or more per week	852	22.0 (16.8 - 27.2)	110	26.2 (20.8 - 31.5)	137	32.8 (26.9 - 38.7)	49	10.0 (6.7 - 13.4)	49	11.7 (7.2 - 16.3)
<b>Number of alcoholic drinks consumed on a typical day<sup>b</sup></b>										
1 or 2	1177	47.0 (41.6 - 52.3)	137	49.5 (42.6 - 56.4)	146	46.9 (40.3 - 53.6)	145	49.5 (42.7 - 56.3)	79	48.3 (39.3 - 57.5)
3 or 4	909	33.6 (31.1 - 36.1)	85	33.4 (26.9 - 39.9)	125	32.5 (26.4 - 38.5)	106	31.2 (25.1 - 37.2)	52	28.8 (20.4 - 37.1)
5 or 6	343	12.0 (9.3 - 14.8)	34	10.6 (7.0 - 14.3)	58	15.8 (11.2 - 20.5)	45	15.3 (10.2 - 20.3)	20	8.8 (4.6 - 12.9)
7 to 9	128	4.3 (2.9 - 5.7)	8	2.9 (0.6 - 5.2)	15	3.4 (1.4 - 5.4)	10	2.3 (0.7 - 3.9)	10	5.2 (1.7 - 8.7)
10 or more	81	3.0 (1.3 - 4.7)	13	3.6 (0.9 - 6.2)	8	1.3 (0.2 - 2.5)	7	1.8 (0.2 - 3.3)	13	8.9 (2.2 - 15.6)
<b>Frequency of consuming six or more drinks on one occasion in the last year<sup>b</sup></b>										
Never	1402	55.4 (51.0 - 59.9)	163	64.9 (58.4 - 71.4)	183	54.8 (47.9 - 61.6)	188	64.9 (58.5 - 71.3)	95	57.8 (48.6 - 67.0)
Less than monthly	338	11.6 (6.9 - 16.2)	22	4.3 (2.1 - 6.5)	50	13.3 (8.3 - 18.3)	54	16.3 (11.3 - 21.3)	30	15.8 (9.1 - 22.5)
Monthly	327	11.4 (9.5 - 13.4)	41	13.8 (9.6 - 18.1)	34	10.3 (5.6 - 15.0)	36	8.0 (4.9 - 11.1)	20	8.0 (4.4 - 11.7)
Weekly	413	16.2 (11.8 - 20.7)	36	12.2 (8.0 - 16.4)	58	15.9 (10.9 - 21.0)	20	5.2 (2.4 - 8.1)	21	12.2 (6.1 - 18.3)
Daily/almost daily	158	5.3 (4.7 - 6.0)	15	4.7 (2.0 - 7.4)	27	5.8 (3.3 - 8.3)	15	5.6 (1.8 - 9.3)	8	6.2 (0.9 - 11.5)
<b>Unable to stop drinking once started in the last year<sup>b</sup></b>										
Never	1365	53.6 (47.5 - 59.7)	108	40.7 (33.5 - 47.9)	165	45.9 (39.4 - 52.5)	213	70.0 (64.0 - 75.9)	96	59.8 (51.3 - 68.2)
Less than monthly	438	15.7 (10.1 - 21.3)	26	8.9 (5.2 - 12.6)	95	28.5 (22.5 - 34.4)	54	15.9 (11.1 - 20.7)	32	17.6 (11.0 - 24.1)
Monthly	326	12.6 (8.3 - 17.0)	47	15.9 (10.8 - 21.1)	24	7.2 (3.7 - 10.7)	25	7.5 (4.4 - 10.6)	24	12.2 (6.7 - 17.7)
Weekly	324	12.2 (8.8 - 15.6)	47	18.9 (13.4 - 24.4)	28	8.9 (4.5 - 13.4)	17	4.2 (1.9 - 6.5)	16	8.1 (3.6 - 12.6)
Daily/almost daily	185	5.9 (2.9 - 9.0)	49	15.6 (10.5 - 20.6)	40	9.5 (5.9 - 13.0)	4	2.5 (0.0 - 5.1)	6	2.4 (0.0 - 4.8)
<b>Frequency of times failed to do what is expected because of drinking in the last year<sup>b</sup></b>										
Never	1366	51.8 (46.8 - 56.9)	156	55.6 (48.3 - 62.9)	183	49.6 (42.7 - 56.4)	189	62.0 (55.6 - 68.5)	90	54.7 (46.0 - 63.3)
Less than monthly	468	17.0 (10.2 - 23.8)	15	4.1 (1.9 - 6.4)	91	28.3 (22.4 - 34.3)	71	24.4 (18.5 - 30.3)	36	20.2 (13.5 - 26.9)
Monthly	343	12.8 (10.5 - 15.1)	48	17.3 (11.9 - 22.7)	32	9.6 (5.1 - 14.2)	30	7.5 (4.6 - 10.4)	34	18.1 (11.7 - 24.6)
Weekly	376	15.0 (8.7 - 21.2)	39	16.2 (10.8 - 21.5)	40	11.0 (6.9 - 15.1)	20	5.0 (2.5 - 7.5)	13	6.9 (2.6 - 11.2)
Daily/almost daily	85	3.4 (1.4 - 5.4)	19	6.8 (3.5 - 10.1)	6	1.5 (0.3 - 2.6)	3	1.0 (0.0 - 2.0)	1	0.2 (0.0 - 0.5)
<b>Need a drink in the morning after heavy drinking in the last year<sup>b</sup></b>										
Never	1413	52.7 (46.4 - 59.0)	131	44.0 (37.2 - 51.0)	178	47.2 (40.4 - 53.8)	212	73.5 (67.8 - 79.2)	89	53.8 (43.9 - 63.6)
Less than monthly	311	11.5 (7.0 - 16.0)	10	2.3 (0.7 - 4.0)	62	22.4 (16.5 - 28.6)	51	14.2 (9.9 - 18.3)	30	18.0 (10.6 - 25.4)
Monthly	229	8.4 (6.3 - 10.6)	30	10.8 (6.6 - 15.0)	25	6.1 (2.8 - 9.4)	14	3.6 (0.9 - 6.2)	20	9.5 (4.8 - 14.2)
Weekly	382	15.2 (10.4 - 20.1)	52	20.7 (14.6 - 26.7)	34	9.3 (5.4 - 13.3)	15	3.6 (1.6 - 5.7)	23	13.9 (7.2 - 20.7)
Daily/almost daily	303	12.1 (7.6 - 16.5)	54	22.2 (15.9 - 28.5)	53	14.9 (10.3 - 19.5)	21	5.1 (2.7 - 7.6)	12	4.9 (1.4 - 8.4)
<b>Feel remorse/guilt after drinking in the last year<sup>b</sup></b>										
Never	1162	45.0 (39.7 - 50.3)	123	42.8 (35.7 - 50.1)	145	38.8 (32.6 - 44.9)	157	56.2 (49.2 - 63.1)	73	46.0 (37.0 - 54.8)
Less than monthly	512	19.1 (11.5 - 26.7)	23	6.5 (3.2 - 9.8)	107	33.9 (27.6 - 40.3)	81	26.2 (20.3 - 32.1)	46	26.1 (19.0 - 33.2)
Monthly	378	13.5 (9.8 - 17.2)	43	12.9 (8.7 - 17.3)	26	4.9 (2.3 - 7.5)	49	11.1 (7.2 - 15.1)	31	16.7 (10.6 - 22.8)
Weekly	391	15.2 (11.0 - 19.5)	40	16.4 (11.4 - 21.4)	50	15.6 (10.7 - 20.5)	19	4.6 (1.8 - 7.3)	21	10.1 (4.7 - 15.6)
Daily/almost daily	195	7.1 (3.0 - 11.3)	48	21.3 (15.3 - 27.3)	24	6.8 (3.7 - 9.9)	7	1.9 (0.4 - 3.4)	3	1.1 (0.0 - 2.6)
<b>Unable to remember what happened the night before<sup>b</sup></b>										
Never	1492	55.3 (51.0 - 59.6)	160	54.2 (46.9 - 61.7)	191	51.9 (45.2 - 58.6)	208	68.3 (62.2 - 74.4)	98	56.8 (47.6 - 66.0)
Less than monthly	449	17.1 (11.0 - 23.2)	25	9.1 (5.1 - 13.0)	95	30.8 (24.3 - 37.4)	58	18.4 (13.3 - 23.5)	48	25.7 (18.3 - 33.2)
Monthly	335	12.6 (9.9 - 15.4)	35	11.2 (7.3 - 15.1)	37	9.5 (6.1 - 12.9)	32	9.5 (5.3 - 13.6)	20	11.9 (5.8 - 18.0)
Weekly	283	12.0 (6.6 - 17.4)	36	17.2 (10.9 - 23.5)	23	5.3 (2.5 - 8.2)	14	3.7 (1.3 - 6.1)	7	4.7 (0.4 - 8.9)
Daily/almost daily	79	3.0 (1.3 - 4.7)	21	8.2 (4.1 - 12.3)	6	2.4 (0.7 - 4.2)	1	0.2 (0.0 - 0.5)	1	0.9 (0.0 - 2.1)
<b>Injuries to self or someone else as a result of drinking<sup>b</sup></b>										
Yes, during the last year	374	13.8 (9.9 - 17.8)	21	6.0 (3.1 - 9.0)	69	21.1 (14.9 - 27.6)	29	10.5 (6.1 - 14.9)	15	9.5 (4.0 - 15.0)
Yes, but not in the last year	1771	68.9 (63.7 - 74.1)	191	72.8 (66.4 - 79.2)	247	68.8 (61.8 - 75.6)	246	79.8 (73.9 - 85.7)	116	68.9 (60.8 - 76.8)
No	493	17.3 (13.3 - 21.3)	65	21.2 (15.6 - 26.6)	36	10.1 (6.2 - 14.0)	38	9.7 (5.8 - 13.7)	43	21.7 (15.0 - 28.5)
<b>Others have concerns about your drinking<sup>b</sup></b>										
Yes, during the last year	389	14.3 (7.9 - 20.8)	18	6.5 (3.1 - 9.9)	130	38.4 (32.0 - 45.0)	39	13.0 (8.6 - 17.4)	13	6.8 (3.2 - 10.4)
Yes, but not in the last year	1587	60.9 (56.4 - 65.4)	174	62.8 (55.7 - 69.9)	182	51.2 (44.6 - 57.7)	207	68.0 (61.8 - 74.1)	105	65.1 (56.5 - 73.6)
No	662	24.8 (19.4 - 30.1)	85	30.7 (23.9 - 37.5)	40	10.4 (6.4 - 14.4)	67	19.0 (13.4 - 24.7)	56	28.1 (20.5 - 35.9)
<b>Ever injected drugs (heroin, cocaine, morphine)<sup>a</sup></b>										
Yes	40	0.8 (0.5 - 1.1)	2	0.7 (0.0 - 1.5)	6	1.2 (0.04 - 2.4)	2	0.6 (0.0 - 1.6)	1	0.4 (0.0 - 0.9)
No	3679	99.2 (98.9 - 99.5)	366	99.3 (98.5 - 100.0)	418	98.8 (97.6 - 100.0)	388	99.4 (98.4 - 100.0)	375	99.6 (99.1 - 100.0)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the respondent driven sampling package in R, using Gile's sequential sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sample denominator is based on the previous question

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval

Table 4.12 cont.: Alcohol And Drug Use Among Female Sex Workers By Location, BBS, Kenya, 2024

	Kisumu (N=427)		Machakos (N=462)		Mombasa (N=414)		Nairobi (N=461)		Nakuru (N=397)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Frequency of alcohol consumption<sup>a</sup></b>										
Never	85	20.7 (15.3 - 26.1)	167	38.7 (32.8 - 44.6)	129	29.7 (24.5 - 35.0)	121	25.8 (18.5 - 33.1)	137	36.3 (30.0 - 42.5)
Monthly or less	51	12.9 (8.8 - 17.0)	67	12.6 (8.7 - 16.4)	11	2.2 (0.7 - 3.8)	30	6.4 (1.9 - 11.0)	31	7.3 (4.4 - 10.1)
2-4 times per month	51	11.1 (7.6 - 14.6)	78	15.4 (11.5 - 19.3)	122	30.5 (25.2 - 35.8)	90	21.8 (16.0 - 27.6)	66	15.4 (10.6 - 20.1)
2-3 times per week	151	34.9 (28.7 - 41.2)	62	14.3 (10.4 - 18.1)	47	9.8 (6.7 - 12.9)	74	15.4 (11.0 - 19.8)	84	21.7 (16.5 - 26.9)
4 or more per week	89	20.4 (12.6 - 28.3)	88	19.0 (14.5 - 23.5)	105	27.8 (22.2 - 33.4)	146	30.5 (23.6 - 37.4)	79	19.4 (13.7 - 25.1)
<b>Number of alcoholic drinks consumed on a typical day<sup>b</sup></b>										
1 or 2	161	50.8 (44.3 - 57.2)	95	33.3 (26.6 - 40.0)	169	61.4 (55.1 - 67.8)	143	46.5 (40.0 - 52.9)	102	36.3 (28.8 - 43.6)
3 or 4	120	35.1 (29.3 - 41.0)	126	42.3 (34.8 - 49.7)	90	30.9 (24.9 - 36.9)	113	32.8 (26.7 - 38.9)	92	35.7 (28.2 - 43.3)
5 or 6	36	9.7 (6.3 - 13.1)	44	14.3 (9.2 - 19.4)	14	5.2 (2.3 - 8.1)	45	10.4 (7.1 - 13.9)	47	18.3 (12.1 - 24.4)
7 to 9	17	3.0 (1.3 - 4.6)	26	8.4 (5.1 - 11.7)	10	2.4 (0.7 - 4.0)	24	7.2 (3.7 - 10.7)	8	4.5 (0.07 - 9.0)
10 or more	8	1.4 (0.0 - 2.9)	4	1.7 (0.0 - 3.5)	2	0.1 (0.0 - 0.3)	15	3.1 (1.2 - 5.0)	11	5.3 (0.7 - 9.9)
<b>Frequency of consuming six or more drinks on one occasion in the last year<sup>b</sup></b>										
Never	189	58.3 (52.3 - 64.3)	139	49.1 (42.2 - 56.0)	147	46.7 (39.6 - 53.8)	155	47.5 (40.6 - 54.6)	143	54.8 (46.4 - 63.2)
Less than monthly	15	3.9 (1.7 - 6.0)	64	20.5 (14.9 - 26.0)	9	2.5 (0.5 - 4.5)	66	20.2 (14.5 - 25.8)	28	7.4 (4.1 - 10.6)
Monthly	47	13.7 (9.9 - 17.5)	39	11.0 (7.7 - 14.3)	42	16.5 (10.8 - 22.3)	35	9.1 (5.6 - 12.8)	33	12.6 (7.2 - 17.9)
Weekly	67	18.5 (13.6 - 23.5)	39	14.5 (9.9 - 19.1)	73	29.9 (23.0 - 36.6)	57	16.3 (11.4 - 21.2)	42	21.4 (14.3 - 28.6)
Daily/almost daily	24	5.6 (2.8 - 8.4)	14	4.9 (2.1 - 7.8)	14	4.4 (1.9 - 6.9)	27	6.8 (3.9 - 9.8)	14	3.8 (1.1 - 6.6)
<b>Unable to stop drinking once started in the last year<sup>b</sup></b>										
Never	197	60.3 (54.7 - 66.0)	167	59.3 (52.5 - 66.1)	144	52.1 (44.8 - 59.3)	155	47.0 (40.3 - 53.6)	120	46.9 (38.9 - 54.9)
Less than monthly	31	8.6 (5.4 - 11.8)	57	17.9 (12.5 - 23.3)	17	4.3 (1.8 - 6.7)	94	28.6 (22.3 - 34.8)	32	11.2 (6.8 - 15.6)
Monthly	34	9.7 (6.2 - 13.2)	25	8.7 (5.3 - 12.0)	67	25.7 (18.9 - 32.6)	26	6.6 (3.7 - 9.5)	54	20.1 (13.8 - 26.3)
Weekly	65	18.5 (13.8 - 23.3)	38	11.4 (7.6 - 15.3)	47	15.9 (10.9 - 21.0)	31	8.3 (5.2 - 11.5)	35	15.2 (9.4 - 21.1)
Daily/almost daily	15	2.8 (0.8 - 4.9)	8	2.7 (0.7 - 4.7)	10	2.0 (0.4 - 3.6)	34	9.5 (6.2 - 12.8)	19	6.6 (2.8 - 10.4)
<b>Frequency of times failed to do what is expected because of drinking in the last year<sup>b</sup></b>										
Never	182	53.7 (47.4 - 60.0)	178	60.9 (53.8 - 67.9)	139	42.5 (35.7 - 49.2)	128	39.3 (32.4 - 46.0)	121	48.3 (39.9 - 56.8)
Less than monthly	42	12.8 (8.8 - 16.7)	44	13.1 (8.3 - 17.9)	12	3.1 (1.0 - 5.2)	117	33.4 (27.3 - 39.7)	40	13.6 (8.8 - 18.4)
Monthly	43	13.0 (8.8 - 17.1)	23	9.8 (5.7 - 13.9)	44	15.1 (9.9 - 20.5)	46	13.0 (9.1 - 16.9)	43	11.7 (6.3 - 17.0)
Weekly	67	19.0 (14.3 - 23.6)	46	14.6 (10.0 - 19.3)	82	36.6 (29.6 - 43.5)	28	7.5 (4.0 - 11.0)	41	18.0 (12.0 - 24.0)
Daily/almost daily	8	1.5 (0.3 - 2.8)	4	1.6 (0.0 - 3.3)	8	2.7 (0.2 - 5.2)	21	6.9 (3.6 - 10.1)	15	8.4 (2.6 - 14.2)
<b>Need a drink in the morning after heavy drinking in the last year<sup>b</sup></b>										
Never	177	52.7 (46.5 - 59.0)	168	58.0 (51.1 - 65.0)	139	39.5 (33.1 - 45.9)	182	52.7 (45.7 - 59.8)	137	52.9 (44.4 - 61.4)
Less than monthly	36	10.4 (6.9 - 13.8)	31	8.3 (4.6 - 12.1)	14	4.2 (1.6 - 6.7)	57	17.5 (12.5 - 22.6)	20	6.4 (3.2 - 9.7)
Monthly	35	9.5 (6.2 - 12.9)	34	13.2 (8.7 - 17.7)	35	12.0 (7.5 - 16.6)	12	4.8 (1.6 - 7.9)	24	6.6 (3.3 - 9.9)
Weekly	74	22.5 (17.4 - 27.6)	44	14.5 (10.1 - 18.9)	64	27.8 (21.0 - 34.7)	35	9.6 (6.3 - 13.0)	41	15.2 (10.0 - 20.4)
Daily/almost daily	20	4.8 (1.9 - 7.7)	18	6.0 (3.1 - 8.9)	33	16.5 (9.9 - 23.0)	54	15.3 (10.8 - 19.9)	38	18.8 (11.8 - 25.9)
<b>Feel remorse/guilt after drinking in the last year<sup>b</sup></b>										
Never	169	52.4 (46.6 - 58.3)	153	53.6 (46.5 - 60.7)	129	38.6 (32.0 - 45.1)	95	31.5 (25.3 - 37.5)	118	45.5 (37.8 - 53.3)
Less than monthly	46	12.9 (8.9 - 16.9)	45	13.5 (8.4 - 18.7)	13	4.0 (1.5 - 6.5)	120	35.8 (29.6 - 41.9)	31	12.8 (7.3 - 18.4)
Monthly	40	10.5 (6.6 - 14.4)	37	12.7 (8.8 - 16.6)	63	25.9 (19.3 - 32.7)	44	11.8 (8.4 - 15.3)	45	14.9 (10.0 - 19.8)
Weekly	69	19.8 (15.2 - 24.5)	52	17.7 (12.5 - 23.0)	66	26.7 (20.1 - 33.2)	33	9.1 (5.6 - 12.7)	41	17.0 (10.6 - 23.3)
Daily/almost daily	18	4.3 (2.1 - 6.4)	8	2.4 (0.8 - 4.1)	14	4.9 (1.2 - 8.4)	48	11.9 (7.6 - 16.2)	25	9.7 (5.3 - 14.2)
<b>Unable to remember what happened the night before<sup>b</sup></b>										
Never	189	54.6 (49.0 - 60.4)	188	62.3 (55.2 - 69.3)	153	45.9 (38.4 - 53.4)	168	53.3 (46.9 - 59.4)	137	50.4 (42.2 - 58.5)
Less than monthly	45	13.4 (9.5 - 17.2)	33	10.5 (6.5 - 14.5)	13	4.1 (1.2 - 7.0)	102	28.2 (22.7 - 33.9)	30	13.7 (7.5 - 20.0)
Monthly	41	11.3 (7.5 - 15.1)	34	12.2 (8.4 - 16.1)	52	20.7 (14.2 - 27.2)	34	8.7 (5.3 - 12.2)	50	18.6 (12.1 - 25.2)
Weekly	57	18.5 (13.9 - 23.2)	36	13.6 (8.9 - 18.3)	60	28.2 (21.3 - 35.0)	20	4.9 (2.6 - 7.2)	30	11.9 (7.2 - 16.5)
Daily/almost daily	10	2.2 (0.8 - 3.6)	4	1.4 (0.0 - 2.8)	7	1.1 (0.1 - 2.2)	16	4.9 (2.5 - 7.3)	13	5.5 (2.3 - 8.6)
<b>Injuries to self or someone else as a result of drinking<sup>b</sup></b>										
Yes, during the last year	73	21.9 (16.6 - 27.2)	41	14.5 (9.5 - 19.5)	30	7.9 (4.6 - 11.2)	47	12.4 (8.5 - 16.4)	49	20.6 (14.3 - 26.8)
Yes, but not in the last year	219	63.8 (57.8 - 69.9)	207	70.4 (64.2 - 76.5)	213	79.0 (73.2 - 84.8)	201	61.8 (55.3 - 68.1)	131	54.8 (46.5 - 63.4)
No	50	14.2 (9.9 - 18.5)	47	15.1 (10.4 - 19.8)	42	13.1 (8.0 - 18.1)	92	25.9 (19.9 - 31.8)	80	24.6 (17.9 - 31.2)
<b>Others have concerns about your drinking<sup>b</sup></b>										
Yes, during the last year	41	13.0 (8.3 - 17.7)	31	10.0 (5.9 - 14.1)	23	7.2 (3.7 - 10.7)	58	17.1 (12.4 - 21.9)	36	17.0 (10.3 - 23.7)
Yes, but not in the last year	230	68.9 (63.3 - 74.7)	195	66.5 (59.9 - 73.0)	165	54.9 (47.6 - 62.3)	190	58.1 (51.4 - 64.6)	139	52.7 (44.0 - 61.3)
No	71	18.1 (13.6 - 22.4)	69	23.6 (18.3 - 28.8)	97	37.8 (31.1 - 44.6)	92	24.8 (18.9 - 30.8)	85	30.3 (22.5 - 38.1)
<b>Ever injected drugs (heroin, cocaine, morphine)<sup>a</sup></b>										
Yes	4	0.5 (0.0 - 1.1)	8	2.0 (0.0 - 4.3)	5	0.7 (0.0 - 1.8)	8	0.8 (0.01 - 1.5)	4	0.7 (0.0 - 1.6)
No	423	99.5 (98.9 - 100.0)	454	98.0 (95.8 - 100.0)	409	99.3 (98.2 - 100.0)	453	99.2 (98.4 - 100.0)	393	99.3 (98.4 - 100.0)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the respondent driven sampling package in R, using Gile's sequential sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sample denominator is based on the previous question

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval

Table 4.12B: Alcohol Assessment Score Among Female Sex Workers By Location, BBS, Kenya, 2024

	Overall Estimate (N=3722)		Nairobi (N=461)		Mombasa (N=414)		Kilifi (N=391)		Kiambu (N=425)		Nakuru (N=397)		Kisumu (N=427)		Machakos (N=462)		Kajiado (N=368)		Kisii (N=377)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Zones based on AUDIT scores<sup>a</sup></b>																				
Zone I- low risk drinking (score 0-7)	960	36.9 (29.9 - 43.9)	89	32.2 (25.0 - 39.5)	119	33.5 (27.2 - 39.7)	173	59.3 (52.9 - 65.6)	68	43.5 (34.8 - 52.2)	132	40.7 (34.7 - 46.8)	126	41.8 (34.9 - 48.7)	92	25.0 (19.6 - 30.2)	85	28.2 (22.2 - 34.1)	76	27.9 (20.5 - 35.2)
Zone II- use in excess of low-risk (score 8-15)	779	29.3 (26.1 - 32.6)	72	22.5 (16.9 - 28.2)	128	37.9 (31.3 - 44.4)	81	24.5 (19.0 - 30.1)	50	28.8 (21.1 - 36.4)	93	27.5 (21.9 - 33.1)	81	28.3 (22.1 - 34.6)	75	26.9 (20.9 - 33.0)	126	35.6 (29.3 - 42.1)	73	32.0 (24.1 - 40.0)
Zone III- harmful & hazardous drinking (score 16-19)	312	11.7 (9.7 - 13.8)	30	14.0 (8.6 - 19.4)	48	12.3 (7.5 - 17.3)	29	8.3 (4.5 - 12.0)	25	11.3 (5.8 - 16.8)	35	8.1 (5.3 - 10.9)	24	8.5 (4.4 - 12.6)	34	16.9 (11.1 - 22.8)	49	15.2 (10.2 - 20.1)	38	11.1 (6.9 - 15.3)
Zone IV- suggested dependence (score 20-40)	587	22.0 (16.9 - 27.1)	86	31.3 (24.3 - 38.2)	57	16.3 (11.6 - 20.9)	30	7.9 (4.2 - 11.7)	31	16.4 (10.1 - 22.8)	82	23.7 (18.6 - 28.8)	64	21.4 (16.3 - 26.5)	84	31.2 (24.6 - 37.7)	80	20.9 (15.9 - 26.1)	73	29.1 (21.6 - 36.5)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the respondent driven sampling package in R, using Gile's sequential sampling estimator.

<sup>a</sup> AUDIT score and zones adopted from World Health Organization guidelines ([https://iris.who.int/bitstream/handle/10665/67205/WHO\\_MSD\\_MSB\\_01.6a-eng.pdf?sequence=1](https://iris.who.int/bitstream/handle/10665/67205/WHO_MSD_MSB_01.6a-eng.pdf?sequence=1))

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; AUDIT, Alcohol Use Disorder Identification Test

## 4.13: Mental Health

Analysis of PHQ-9 symptom frequencies indicated that the majority of participants reported experiencing several depressive symptoms on “several days” during the reference period. The most frequently reported symptoms at this level were little interest or pleasure in activities (53.9%), feeling down, depressed, or hopeless (55.9%), sleep disturbance (46.8%), and low energy or fatigue (56.8%).

Appetite changes showed a bimodal pattern, with 45.1% reporting symptoms on “several days” and 40.4% reporting “not at all.” Feelings of worthlessness or excessive self-blame were reported “several days” by 42.9% and “not at all” by 41.5%. Concentration difficulties were less frequent, with 52.5% indicating “not at all” and 35.3% “several days.” Similarly, psychomotor changes (either slowed movements or restlessness) were reported “not at all” by 53.9% and “several days” by 36.3%.

For thoughts of self-harm or feeling better off dead, most participants (64.8%) reported “not at all,” while 27.5% experienced them on “several days,” 4.0% on “more than half the days,” and 3.7% on “nearly every day”.

Overall PHQ-9 severity was: none to minimal 32.9%, mild 42.0%, moderate 17.5%, moderately severe 5.7%, and severe 2.0%.

Table 4.13: Depression Among Female Sex Workers By Location, BBS, Kenya, 2024

	Overall Estimate (N=3722)		Kajiado (N=368)		Kiambu (N=425)		Kilifi (N=391)		Kisii (N=377)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Little interest or pleasure in doing things<sup>a</sup></b>										
Not at all	1090	31.9 (24.5 - 39.2)	70	21.1 (16.0 - 26.2)	95	22.3 (17.4 - 27.1)	111	35.7 (29.0 - 42.5)	151	42.5 (36.5 - 48.4)
Several days	2113	53.9 (49.1 - 58.7)	191	47.0 (40.6 - 53.2)	269	63.1 (57.5 - 68.6)	244	57.8 (51.4 - 64.1)	208	53.5 (47.6 - 59.4)
More than half of days	295	7.6 (4.6 - 10.6)	47	13.1 (9.1 - 17.1)	34	9.2 (5.7 - 12.7)	17	3.8 (1.8 - 5.9)	13	3.2 (1.5 - 4.9)
Nearly every day	222	6.6 (2.4 - 10.8)	60	18.9 (13.8 - 24.0)	27	5.5 (3.1 - 8.0)	18	2.7 (1.3 - 4.0)	4	0.8 (0.04 - 1.6)
<b>Felt down, depressed, or hopeless<sup>a</sup></b>										
Not at all	960	27.1 (22.0 - 32.2)	61	16.7 (12.2 - 21.1)	75	16.0 (11.3 - 20.5)	101	32.5 (26.0 - 39.2)	136	37.1 (31.3 - 42.8)
Several days	2135	55.9 (51.1 - 60.6)	194	51.2 (44.9 - 57.5)	284	67.3 (61.5 - 73.1)	241	56.8 (50.4 - 63.1)	205	51.9 (46.1 - 57.8)
More than half of days	350	9.5 (6.2 - 12.8)	44	13.6 (9.6 - 17.5)	30	7.2 (4.5 - 10.0)	21	5.0 (2.2 - 7.8)	32	10.5 (6.8 - 14.2)
Nearly every day	275	7.5 (3.6 - 11.4)	69	18.5 (13.6 - 23.5)	36	9.6 (6.1 - 13.0)	27	5.7 (2.8 - 8.5)	3	0.5 (0.0 - 1.1)
<b>Trouble falling asleep, staying asleep or sleeping too much<sup>a</sup></b>										
Not at all	1226	34.3 (29.4 - 39.1)	81	23.5 (17.9 - 29.1)	122	28.5 (23.3 - 33.9)	98	27.6 (21.4 - 33.9)	143	41.2 (35.4 - 47.0)
Several days	1771	46.8 (42.1 - 51.4)	148	39.2 (33.0 - 45.2)	210	48.1 (42.2 - 54.0)	223	56.7 (50.7 - 62.6)	170	42.5 (36.6 - 48.4)
More than half of days	382	9.8 (6.8 - 12.7)	54	15.9 (10.9 - 20.9)	47	12.2 (7.5 - 16.8)	31	6.3 (3.8 - 8.7)	47	11.5 (8.1 - 14.9)
Nearly every day	341	9.2 (5.2 - 13.3)	85	21.4 (16.1 - 26.8)	46	11.2 (7.6 - 14.8)	38	9.4 (5.7 - 13.2)	16	4.8 (2.2 - 7.4)
<b>Feeling tired or having little energy<sup>a</sup></b>										
Not at all	1023	27.9 (23.3 - 32.6)	68	16.5 (12.2 - 20.8)	103	24.1 (19.1 - 29.2)	89	27.7 (21.7 - 33.7)	126	34.3 (29.0 - 39.7)
Several days	2126	56.8 (52.9 - 60.7)	191	52.8 (45.9 - 59.7)	248	59.1 (53.0 - 65.2)	239	56.9 (50.4 - 63.3)	220	57.5 (52.1 - 62.9)
More than half of days	322	8.6 (5.4 - 11.8)	47	14.6 (10.1 - 19.1)	36	6.5 (3.9 - 9.2)	35	9.0 (5.3 - 12.6)	26	7.4 (4.3 - 10.5)
Nearly every day	249	6.7 (3.2 - 10.2)	62	16.1 (11.4 - 20.8)	38	10.3 (6.0 - 14.4)	27	6.5 (3.3 - 9.6)	4	0.8 (0.0 - 1.7)
<b>Poor appetite or overeating<sup>a</sup></b>										
Not at all	1471	40.4 (35.4 - 45.3)	132	35.6 (29.8 - 41.3)	128	29.8 (23.8 - 35.6)	138	38.8 (33.1 - 44.5)	176	50.4 (44.3 - 56.5)
Several days	1677	45.1 (41.3 - 49.0)	141	38.4 (32.3 - 44.3)	205	50.1 (43.9 - 56.3)	204	50.0 (44.0 - 56.0)	153	38.9 (32.9 - 44.8)
More than half of days	321	8.0 (5.1 - 10.9)	38	11.1 (6.7 - 15.5)	45	9.7 (6.1 - 13.4)	16	3.1 (1.2 - 5.1)	40	9.5 (6.3 - 12.7)
Nearly every day	251	6.5 (3.5 - 9.6)	57	15.0 (10.4 - 19.6)	47	10.5 (7.0 - 14.0)	32	8.1 (4.5 - 11.7)	7	1.2 (0.3 - 2.1)
<b>Feeling bad about self<sup>a</sup></b>										
Not at all	1532	41.5 (37.4 - 45.6)	152	37.7 (31.8 - 43.5)	161	35.2 (29.8 - 40.7)	147	41.7 (35.6 - 47.9)	186	52.1 (46.6 - 57.6)
Several days	1606	42.9 (38.0 - 47.9)	117	32.4 (26.7 - 38.2)	186	45.9 (39.7 - 52.2)	193	46.7 (40.6 - 52.8)	172	42.7 (37.4 - 48.1)
More than half of days	304	7.8 (4.9 - 10.6)	34	10.7 (6.9 - 14.4)	29	7.1 (4.4 - 9.9)	31	6.7 (3.9 - 9.6)	13	3.4 (1.4 - 5.4)
Nearly every day	278	7.8 (3.7 - 11.9)	65	19.3 (13.7 - 24.8)	49	11.8 (7.6 - 15.8)	19	4.8 (2.2 - 7.4)	5	1.8 (0.05 - 3.5)
<b>Trouble concentrating on things<sup>a</sup></b>										
Not at all	1930	52.5 (44.0 - 60.9)	186	51.1 (45.1 - 57.1)	189	42.8 (36.8 - 48.8)	172	47.9 (41.7 - 54.2)	261	75.4 (70.6 - 80.2)
Several days	1337	35.3 (29.7 - 40.9)	115	30.8 (25.0 - 36.6)	183	44.1 (38.4 - 49.8)	180	44.0 (38.0 - 50.0)	105	23.2 (18.5 - 27.9)
More than half of days	240	6.8 (2.5 - 11.2)	21	5.5 (2.8 - 8.2)	21	5.3 (2.3 - 8.3)	24	4.9 (2.5 - 7.3)	7	1.1 (0.3 - 1.8)
Nearly every day	213	5.4 (2.2 - 8.5)	46	12.6 (8.6 - 16.6)	32	7.8 (4.3 - 11.3)	14	3.2 (1.3 - 5.0)	3	0.4 (0.0 - 0.8)
<b>Moving or speaking so slowly that other people could have noticed or being restless<sup>a</sup></b>										
Not at all	2017	53.9 (45.5 - 62.3)	162	41.6 (35.6 - 47.5)	211	44.6 (38.8 - 50.5)	190	51.7 (45.0 - 58.5)	278	78.0 (73.7 - 82.3)
Several days	1344	36.3 (30.9 - 41.6)	128	35.0 (28.9 - 41.1)	172	43.8 (37.7 - 49.9)	162	37.6 (31.6 - 43.5)	90	20.5 (16.1 - 24.9)
More than half of days	216	6.1 (2.8 - 9.3)	39	14.7 (9.5 - 19.9)	15	2.9 (1.3 - 4.5)	15	4.3 (1.7 - 6.9)	6	1.2 (0.5 - 1.9)
Nearly every day	143	3.8 (1.6 - 5.9)	39	8.8 (5.5 - 12.1)	27	8.7 (4.9 - 12.4)	23	6.4 (3.2 - 9.5)	2	0.3 (0.0 - 0.6)
<b>Thoughts that one would be better off dead or of hurting self<sup>a</sup></b>										
Not at all	2429	64.8 (60.1 - 69.6)	254	65.0 (59.0 - 71.0)	254	53.8 (48.1 - 59.5)	242	64.3 (58.4 - 70.2)	263	73.5 (68.7 - 78.4)
Several days	1006	27.5 (23.0 - 32.0)	84	26.2 (20.2 - 32.3)	121	32.8 (27.2 - 38.4)	113	28.2 (23.0 - 33.5)	99	22.4 (17.6 - 27.2)
More than half of days	159	4.0 (2.5 - 5.6)	14	4.0 (1.6 - 6.3)	24	5.6 (3.0 - 8.4)	24	4.9 (2.8 - 7.0)	9	2.4 (0.7 - 4.0)
Nearly every day	126	3.7 (2.0 - 5.4)	16	4.8 (2.1 - 7.4)	26	7.8 (3.9 - 11.7)	11	2.5 (0.8 - 4.3)	5	1.7 (0.0 - 3.4)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the respondent driven sampling package in R, using Gile's sequential sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval

Table 4.13 cont.: Depression Among Female Sex Workers By Location, BBS, Kenya, 2024

	Kisumu (N=427)		Machakos (N=462)		Mombasa (N=414)		Nairobi (N=461)		Nakuru (N=397)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Little interest or pleasure in doing things<sup>a</sup></b>										
Not at all	110	29.4 (20.4 - 38.4)	199	46.9 (41.3 - 52.5)	159	41.1 (35.5 - 46.7)	149	34.8 (27.7 - 41.8)	46	13.3 (8.6 - 17.9)
Several days	248	57.4 (50.2 - 64.6)	233	45.1 (39.6 - 50.6)	245	57.2 (51.3 - 63.0)	216	42.7 (36.1 - 49.5)	259	61.4 (55.6 - 67.3)
More than half of days	58	10.7 (7.5 - 13.8)	19	4.5 (2.4 - 6.5)	5	0.9 (0.0 - 1.8)	44	9.7 (4.2 - 15.1)	58	13.4 (9.5 - 17.3)
Nearly every day	11	2.5 (0.8 - 4.2)	11	3.5 (0.8 - 6.3)	5	0.8 (0.05 - 1.6)	52	12.8 (8.3 - 17.4)	34	11.9 (7.0 - 16.8)
<b>Felt down, depressed, or hopeless<sup>a</sup></b>										
Not at all	96	23.2 (17.6 - 28.8)	142	33.9 (28.4 - 39.4)	128	32.3 (26.9 - 37.7)	132	30.5 (23.3 - 37.8)	89	22.0 (16.9 - 27.1)
Several days	238	58.7 (51.7 - 65.8)	277	57.3 (51.5 - 63.2)	273	65.0 (59.2 - 70.9)	222	45.2 (37.8 - 52.6)	201	49.2 (43.1 - 55.3)
More than half of days	69	12.9 (8.8 - 17.0)	32	6.5 (4.2 - 8.8)	6	0.9 (0.1 - 1.8)	51	11.9 (5.6 - 18.1)	65	17.0 (12.4 - 21.7)
Nearly every day	24	5.2 (2.8 - 7.6)	11	2.3 (0.4 - 4.2)	7	1.7 (0.3 - 3.1)	56	12.5 (8.3 - 16.6)	42	11.8 (7.5 - 16.0)
<b>Trouble falling asleep, staying asleep or sleeping too much<sup>a</sup></b>										
Not at all	166	39.3 (32.4 - 46.3)	204	46.6 (41.1 - 52.1)	137	33.7 (27.9 - 39.5)	158	37.0 (29.2 - 44.7)	117	31.0 (25.1 - 36.9)
Several days	185	44.0 (37.6 - 50.4)	223	45.9 (40.6 - 51.2)	249	60.3 (54.3 - 66.3)	190	41.9 (34.5 - 49.2)	173	42.2 (36.2 - 48.2)
More than half of days	60	13.1 (9.0 - 17.0)	19	4.1 (1.6 - 6.5)	13	2.8 (1.2 - 4.4)	48	9.2 (6.2 - 12.2)	63	12.8 (9.1 - 16.5)
Nearly every day	16	3.6 (1.6 - 5.7)	16	3.5 (1.3 - 5.6)	15	3.2 (1.3 - 5.1)	65	12.0 (8.1 - 15.9)	44	14.0 (9.2 - 18.7)
<b>Feeling tired or having little energy<sup>a</sup></b>										
Not at all	136	31.2 (25.4 - 37.1)	178	40.6 (35.1 - 46.1)	105	25.1 (19.6 - 30.6)	138	30.3 (23.2 - 37.3)	80	21.6 (16.7 - 26.5)
Several days	226	56.1 (49.3 - 62.8)	252	52.8 (47.5 - 58.1)	290	71.2 (65.9 - 76.4)	235	51.8 (44.5 - 59.1)	225	53.2 (47.4 - 58.9)
More than half of days	55	10.5 (7.4 - 13.6)	20	4.7 (2.1 - 7.2)	8	1.5 (0.4 - 2.7)	33	5.9 (3.7 - 8.2)	62	17.1 (12.5 - 21.7)
Nearly every day	10	2.2 (0.6 - 3.8)	12	2.0 (0.8 - 3.1)	11	2.2 (0.9 - 3.6)	55	12.0 (7.9 - 16.1)	30	8.1 (4.9 - 11.3)
<b>Poor appetite or overeating<sup>a</sup></b>										
Not at all	178	40.8 (32.7 - 48.9)	240	53.0 (47.7 - 58.2)	168	39.6 (34.0 - 45.2)	191	42.8 (36.5 - 49.1)	120	32.5 (26.4 - 38.5)
Several days	177	44.9 (38.3 - 51.4)	193	41.4 (36.0 - 46.9)	225	55.7 (49.7 - 61.7)	193	40.8 (33.8 - 47.8)	186	45.9 (39.9 - 52.0)
More than half of days	59	12.0 (8.4 - 15.4)	16	3.1 (1.1 - 5.1)	10	2.1 (0.6 - 3.6)	33	6.7 (4.1 - 9.3)	64	14.6 (10.3 - 18.9)
Nearly every day	13	2.4 (0.8 - 4.0)	13	2.5 (0.9 - 4.1)	11	2.6 (0.9 - 4.3)	44	9.7 (3.6 - 15.8)	27	7.0 (3.4 - 10.6)
<b>Feeling bad about self<sup>a</sup></b>										
Not at all	167	38.5 (31.1 - 46.0)	214	47.4 (41.9 - 52.9)	166	39.4 (33.8 - 45.0)	210	47.6 (40.1 - 55.2)	129	33.7 (27.5 - 39.9)
Several days	168	42.1 (35.9 - 48.3)	213	45.6 (40.0 - 51.3)	233	57.3 (51.5 - 63.1)	157	32.8 (26.2 - 39.4)	167	40.8 (34.6 - 47.0)
More than half of days	65	13.8 (9.7 - 17.8)	27	5.5 (3.3 - 7.8)	10	1.7 (0.5 - 2.8)	35	6.4 (3.8 - 9.0)	60	14.5 (10.5 - 18.5)
Nearly every day	27	5.6 (3.2 - 8.0)	8	1.5 (0.3 - 2.6)	5	1.6 (0.2 - 3.0)	59	13.2 (8.8 - 17.5)	41	11.0 (6.9 - 15.1)
<b>Trouble concentrating on things<sup>a</sup></b>										
Not at all	194	44.0 (36.6 - 51.5)	279	60.7 (54.9 - 66.6)	217	50.9 (45.1 - 56.8)	292	66.1 (59.7 - 72.5)	140	33.3 (27.4 - 39.2)
Several days	163	39.1 (32.5 - 45.8)	171	35.9 (30.1 - 41.6)	179	44.9 (39.1 - 50.6)	112	22.7 (17.7 - 27.6)	129	33.3 (27.3 - 39.2)
More than half of days	60	14.7 (10.5 - 18.8)	8	2.3 (0.3 - 4.2)	14	3.4 (1.4 - 5.4)	16	3.3 (0.0 - 7.6)	69	21.2 (16.1 - 26.3)
Nearly every day	10	2.2 (0.6 - 3.8)	4	1.1 (0.0 - 2.3)	4	0.8 (0.03 - 1.6)	41	8.0 (5.0 - 11.0)	59	12.2 (8.2 - 16.3)
<b>Moving or speaking so slowly that other people could have noticed or being restless<sup>a</sup></b>										
Not at all	216	47.7 (40.3 - 55.1)	289	63.8 (58.1 - 69.6)	220	53.0 (47.1 - 58.8)	303	65.4 (58.0 - 72.7)	148	39.1 (33.2 - 45.0)
Several days	150	38.5 (31.9 - 45.1)	159	33.1 (27.6 - 38.5)	171	42.1 (36.3 - 47.9)	122	28.6 (21.5 - 35.7)	190	47.1 (41.2 - 53.0)
More than half of days	54	12.0 (8.3 - 15.6)	12	2.6 (1.1 - 4.2)	15	3.1 (1.4 - 4.9)	15	3.1 (1.4 - 4.8)	45	10.8 (7.3 - 14.4)
Nearly every day	7	1.8 (0.3 - 3.3)	2	0.5 (0.0 - 1.1)	8	1.8 (0.3 - 3.3)	21	2.9 (1.4 - 4.4)	14	3.0 (0.9 - 5.1)
<b>Thoughts that one would be better off dead or of hurting self<sup>a</sup></b>										
Not at all	272	62.5 (56.1 - 68.9)	320	69.2 (64.0 - 74.4)	222	53.5 (48.0 - 59.0)	322	69.9 (63.3 - 76.6)	280	71.6 (66.1 - 77.0)
Several days	106	26.9 (21.4 - 32.2)	122	26.7 (21.8 - 31.5)	173	42.2 (36.7 - 47.7)	89	17.7 (11.6 - 23.9)	99	24.1 (18.6 - 29.7)
More than half of days	41	9.0 (6.0 - 12.1)	14	2.9 (1.2 - 4.6)	9	1.4 (0.3 - 2.5)	17	4.5 (1.6 - 7.4)	7	1.5 (0.1 - 2.8)
Nearly every day	8	1.6 (0.06 - 3.2)	6	1.2 (0.4 - 2.0)	10	2.9 (0.5 - 5.3)	33	7.8 (4.8 - 10.9)	11	2.8 (0.6 - 5.1)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the respondent driven sampling package in R, using Gile's sequential sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval

Table 4.13B: Depression Scores Among Female Sex Workers By Location, BBS, Kenya, 2024

	Overall Estimate (N=3722)		Kajiado (N=368)		Kiambu (N=425)		Kilifi (N=391)		Kisii (N=377)		Kisumu (N=427)		Machakos (N=462)		Mombasa (N=414)		Nairobi (N=461)		Nakuru (N=397)		
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	
<b>PHQ9 score<sup>a,b</sup></b>																					
None to minimal	1190	32.9 (25.7 - 40.0)	71	17.1 (12.8 - 21.5)	107	24.1 (18.8 - 29.2)	113	35.2 (28.2 - 42.1)	164	47.1 (41.3 - 52.9)	132	32.2 (24.8 - 39.7)	218	47.8 (42.1 - 53.5)	156	37.3 (31.7 - 42.8)	154	35.4 (27.9 - 43.0)	75	19.5 (14.2 - 24.9)	
Mild	1580	42.0 (38.7 - 45.2)	138	38.9 (32.7 - 45.0)	179	41.8 (35.9 - 47.8)	171	40.5 (34.6 - 46.3)	175	44.5 (38.7 - 50.3)	172	40.8 (34.5 - 47.1)	194	40.7 (35.1 - 46.3)	217	54.1 (48.1 - 60.0)	178	38.8 (32.9 - 44.8)	156	37.4 (31.8 - 43.1)	
Moderate	678	17.5 (11.8 - 23.3)	99	25.9 (20.4 - 31.4)	96	22.6 (17.7 - 27.6)	77	16.6 (12.2 - 21.1)	34	7.9 (5.0 - 10.8)	94	21.5 (16.5 - 26.4)	38	9.5 (6.3 - 12.7)	29	5.7 (2.9 - 8.6)	86	15.8 (10.0 - 21.6)	125	32.2 (26.4 - 38.0)	
Moderately severe	200	5.7 (3.3 - 8.0)	33	11.6 (7.2 - 15.9)	33	7.6 (4.0 - 11.2)	25	6.7 (3.5 - 10.0)	3	0.5 (0.0 - 1.1)	26	4.6 (2.5 - 6.8)	11	1.8 (0.6 - 3.0)	9	2.0 (0.7 - 3.3)	31	8.2 (4.5 - 11.8)	29	7.9 (4.9 - 10.9)	
Severe	72	2.0 (0.6 - 3.4)	27	6.5 (3.6 - 9.4)	10	3.9 (1.1 - 6.7)	4	1.0 (0.05 - 1.9)	0	0.0 (0.0 - 0.0)	3	0.8 (0.0 - 2.0)	1	0.09 (0.0 - 0.2)	3	0.9 (0.0 - 2.1)	12	1.8 (0.4 - 3.1)	12	2.9 (0.6 - 5.2)	

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the respondent driven sampling package in R, using Gile's sequential sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> PHQ9 score is a self-report tool used to screen for and assess the severity of depression based on the sum of the scores for the indicated nine mental health questions (<https://www.hiv.uw.edu/page/mental-health-screening/phq-9>)

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; PHQ, Patient Health Questionnaire

## **Chapter 5: People Who Inject Drugs**

# Chapter 5: People Who Inject Drugs

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## 5.1: Sociodemographic Characteristics

Among PWID in Kenya (N=2,100), most are men (86.2%) with women 13.8%, Nairobi has the highest number of women (21.7%) than other counties.

The median age is 34 years (IQR 29–41) with the youngest in Kiambu at 30 years and oldest in Kilifi 36 years.

The largest age band is 25–34 (41.0%), followed by 35–44 (33.3%). Education skews low-to-middle level with the majority having attended : primary 54.7% followed by secondary 34.4%, and post-secondary 4.6% (highest in Kiambu 8.3%, lowest in Kilifi 1.4%). Nearly half are single/never married 42.6%, 30.6% are married/cohabiting, and 23.5% divorced/separated.

Over three quarters (75.2%) have biological children (highest in Kilifi 81.5%). Livelihoods are mainly informal work 63.6% with self-employment 28.0% and formal jobs 2.8%; sex work 2.4% overall (peaks in Kilifi 3.4%). Monthly income clusters at KSh 5,000–<20,000: 48.8% and KSh 20,000–<50,000: 37.6%; ≥KSh 50,000 is 5.7% overall (higher in Mombasa 13.4%), while <KSh 5,000 is 7.9% overall but elevated in Nairobi 18.8%.

Table 5.1: Sociodemographic Characteristics of People Who Inject Drugs By Location, Kenya 2024

	Overall (N=2100)		Kiambu (N=466)		Kilifi (N=582)		Mombasa (N=469)		Nairobi (N=603)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Sex</b>										
Female	278	13.8 (8.9 - 18.7)	53	12.5 (8.8 - 16.2)	59	10.9 (7.3 - 14.6)	48	10.4 (6.8 - 14.1)	118	21.7 (17.5 - 25.8)
Male	1821	86.2 (81.3 - 91.1)	393	87.5 (83.8 - 91.2)	523	89.1 (85.4 - 92.7)	421	89.5 (85.9 - 93.2)	484	78.3 (74.2 - 82.5)
<b>Median age, years (IQR)</b>	2100	34 (29 - 41)	446	30 (25 - 38)	582	36 (32 - 43)	469	35 (29 - 41)	603	35 (28 - 42)
<b>Age (years)</b>										
18-24	195	10.2 (3.2 - 17.1)	84	19.5 (15.6 - 23.3)	14	2.5 (1.1 - 3.9)	35	7.4 (4.7 - 10.0)	62	11.7 (8.6 - 14.8)
25-34	833	41.0 (37.0 - 45.0)	204	46.1 (41.1 - 51.1)	205	37.6 (32.7 - 42.4)	185	41.9 (36.3 - 47.6)	239	38.0 (33.5 - 42.6)
35-44	721	33.3 (26.4 - 40.2)	112	24.9 (20.3 - 29.5)	237	39.5 (34.9 - 44.1)	188	37.8 (31.6 - 44.0)	184	30.8 (26.3 - 35.2)
45+	351	15.5 (10.3 - 20.8)	46	9.6 (6.6 - 12.5)	126	20.5 (16.6 - 24.3)	61	12.9 (9.5 - 16.3)	118	19.5 (15.3 - 23.7)
<b>Highest level of education<sup>a</sup></b>										
Never attended school	97	4.2 (1.1 - 7.3)	2	0.5 (0.0 - 1.1)	26	3.5 (2.4 - 4.6)	40	8.5 (6.7 - 10.3)	29	4.3 (3.0 - 5.6)
Nursery/pre-school	67	2.1 (0.2 - 4.1)	1	0.2 (0.0 - 0.4)	18	3.3 (0.7 - 6.0)	42	9.1 (4.4 - 13.8)	6	0.9 (0.0 - 2.1)
Primary school	1122	54.7 (45.1 - 64.2)	190	42.2 (37.6 - 46.9)	367	64.7 (60.8 - 68.6)	270	58.4 (53.9 - 62.8)	295	50.3 (46.4 - 54.2)
Secondary school	707	34.4 (23.1 - 45.7)	213	48.8 (44.1 - 53.5)	160	27.1 (22.9 - 31.3)	104	21.6 (16.5 - 26.6)	230	38.2 (34.3 - 42.0)
Post-secondary <sup>b</sup>	103	4.6 (1.4 - 7.9)	40	8.3 (5.8 - 10.8)	10	1.4 (0.2 - 2.6)	12	2.5 (0.3 - 4.7)	41	6.4 (4.8 - 8.0)
<b>Current marital status<sup>a</sup></b>										
Single/never married	914	42.6 (39.4 - 45.9)	198	45.4 (40.6 - 50.3)	273	45.2 (40.3 - 50.1)	196	40.1 (35.0 - 45.2)	247	39.2 (34.8 - 43.8)
Married/cohabiting	662	30.6 (22.8 - 38.4)	112	23.0 (18.9 - 27.1)	213	38.1 (33.5 - 42.6)	120	24.6 (19.1 - 30.1)	217	36.2 (31.9 - 40.5)
Divorced/separated	459	23.5 (15.8 - 31.3)	126	29.6 (25.0 - 34.1)	81	13.5 (10.4 - 16.5)	137	30.9 (26.1 - 35.7)	115	20.5 (17.6 - 23.3)
Widowed	64	3.2 (1.9 - 4.4)	10	2.0 (0.9 - 3.1)	15	3.3 (1.2 - 5.4)	16	4.3 (2.4 - 6.3)	23	4.1 (1.5 - 6.7)
<b>Has biological children<sup>a</sup></b>										
Yes	1630	75.2 (68.9 - 81.5)	306	67.6 (63.1 - 72.1)	489	81.5 (77.6 - 85.4)	341	72.1 (67.5 - 76.7)	494	79.3 (75.5 - 83.1)
No	470	24.8 (18.5 - 31.1)	140	32.4 (27.9 - 36.9)	93	18.5 (14.6 - 22.4)	128	27.9 (23.3 - 32.5)	109	20.7 (16.9 - 24.5)
<b>Main source of income<sup>a</sup></b>										
Formal employment	67	2.8 (2.0 - 3.6)	13	3.3 (1.2 - 5.3)	16	3.4 (1.2 - 5.5)	15	2.4 (1.2 - 3.6)	23	2.9 (1.4 - 4.4)
Informal work	1319	63.6 (47.0 - 80.2)	306	68.3 (63.9 - 72.6)	225	37.0 (32.1 - 41.8)	334	72.4 (67.7 - 77.2)	454	75.0 (71.1 - 79.0)
Self-employment <sup>c</sup>	574	28.0 (12.6 - 43.3)	105	24.3 (20.3 - 28.3)	304	53.7 (48.6 - 58.8)	100	20.8 (16.9 - 24.6)	65	12.8 (9.6 - 16.1)
Sex work	63	2.4 (0.6 - 4.1)	5	0.7 (0.3 - 1.2)	24	3.4 (1.9 - 4.9)	13	3.0 (0.0 - 6.1)	21	3.0 (1.4 - 4.6)
Spouse/partner/friends	3	0.3 (0.0 - 0.8)	2	0.9 (0.0 - 2.0)	0	0.0 (0.0 - 0.0)	1	0.2 (0.0 - 0.7)	0	0.0 (0.0 - 0.0)
None	74	2.9 (1.2 - 4.5)	15	2.6 (1.5 - 3.7)	13	2.6 (1.1 - 4.1)	6	1.1 (0.3 - 1.9)	40	6.2 (3.9 - 8.5)
<b>Monthly income (KSh.)<sup>a</sup></b>										
<5000	149	7.9 (1.8 - 14.0)	8	2.0 (0.6 - 3.3)	31	7.5 (4.6 - 10.4)	13	3.6 (1.4 - 5.8)	97	18.8 (15.3 - 22.2)
5000 to <20000	953	48.8 (38.9 - 58.6)	196	48.9 (44.2 - 53.5)	272	52.8 (48.0 - 57.7)	161	33.8 (28.8 - 38.8)	324	56.9 (52.4 - 61.4)
20000 to <50000	770	37.6 (24.9 - 50.4)	209	44.8 (40.1 - 49.6)	191	33.1 (28.6 - 37.7)	230	49.2 (43.8 - 54.7)	140	21.5 (17.7 - 25.4)
50000 and above	129	5.7 (2.9 - 8.5)	21	4.3 (2.3 - 6.4)	33	6.5 (3.8 - 9.3)	60	13.4 (7.2 - 19.6)	15	2.8 (1.1 - 4.4)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis

<sup>b</sup> Post-secondary education includes vocational or technician training, college, university, graduate and above.

<sup>c</sup> Self-employment includes businesses and selling drugs

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; IQR, interquartile range; KSh., Kenya shillings

## 5.2: HIV Prevalence

Overall HIV prevalence among people who inject drugs (PWID) in Kenya was 8.8% (95% CI: 3.2–14.3) with marked variation by location—highest in Kilifi (11.6%), Mombasa (10.7%), and Nairobi (11.2%), and lowest in Kiambu (3.3%).

Prevalence was significantly higher among women (24.0%) than men (6.5%), reflecting disproportionate vulnerability among female PWID, particularly in Mombasa (38.4%) and Machakos (30.8%).

HIV burden increased with age, from 2.3% among those aged 18–24 to 12.9% among those 45 and older, suggesting cumulative exposure risk. Education and socioeconomic gradients were clear: those who never attended school had a 24.0% prevalence, versus 5.5% among those with secondary education. By occupation, infection was highest among sex workers (24.8%) and those reporting no income (15.3%), and lowest among those in informal work (8.0%). Among women who had ever been pregnant, prevalence was 23.9%, rising to 41.9% among those who did not attend antenatal care during their last live birth—underscoring both the intersection of gender and structural barriers in driving HIV risk among PWID.

Table 5.2: Prevalence of HIV Among People Who Inject Drugs By Location, BBS, Kenya, 2024

	Overall (N=2100)		Kiambu (N=466)		Kilifi (N=582)		Mombasa (N=469)		Nairobi (N=603)	
	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)
<b>Overall</b>	208/2078	8.8 (3.2 - 14.3)	17/446	3.3 (1.9 - 4.6)	67/571	11.6 (6.8 - 16.4)	52/465	10.7 (4.0 - 17.3)	72/596	11.2 (4.9 - 17.5)
<b>Sex</b>										
Female	70/272	24.0 (13.4 - 34.7)	7/53	12.0 (4.7 - 19.3)	21/57	38.4 (23.9 - 52.8)	15/45	30.8 (15.6 - 46.0)	27/117	21.3 (13.5 - 29.0)
Male	138/1805	6.5 (2.1 - 10.9)	10/393	2.0 (0.9 - 3.1)	46/514	8.4 (4.5 - 12.3)	37/420	8.5 (4.2 - 12.7)	45/478	8.3 (3.8 - 13.0)
<b>Age (years)</b>										
18-24 <sup>f</sup>	4/96	2.3 (0.0 - 5.6)	0/84	0.0 (0.0 - 1.5)	0/14	0.0 (0.0 - 3.1)	1/34	1.4 (0.8 - 1.8)	3/62	5.2 (0.0 - 10.7)
25-34	59/827	7.0 (3.7 - 10.3)	7/204	3.6 (1.1 - 6.2)	15/201	7.2 (2.3 - 12.1)	18/183	10.6 (5.8 - 15.4)	19/239	8.2 (3.7 - 12.7)
35-44	91/714	10.7 (4.1 - 17.2)	6/112	3.4 (1.3 - 5.6)	36/232	16.7 (11.4 - 21.9)	23/187	11.4 (7.0 - 15.8)	26/183	12.4 (7.1 - 17.6)
45+	54/343	12.9 (8.1 - 17.7)	4/46	7.8 (0.8 - 14.7)	16/124	11.3 (4.9 - 17.5)	10/61	14.0 (6.0 - 21.9)	24/112	19.3 (12.2 - 26.5)
<b>Highest level of education</b>										
Never attended school <sup>f</sup>	22/94	24.0 (15.1 - 32.9)	0/2	0.0 (0.0 - 45.9)	5/25	18.7 (2.6 - 35.2)	10/40	26.1 (12.7 - 39.6)	7/29	26.5 (8.8 - 45.0)
Nursery/pre-school <sup>f</sup>	3/59	3.0 (0.0 - 6.2)	0/1	0.0 (0.0 - 84.2)	1/18	2.8 (0.0 - 7.9)	2/41	3.1 (0.0 - 7.3)	0/6	0.0 (0.0 - 7.5)
Primary school	127/1112	10.3 (5.9 - 14.7)	10/190	4.9 (2.1 - 7.7)	46/362	12.8 (8.1 - 17.4)	33/269	11.2 (7.5 - 14.9)	38/291	13.2 (9.2 - 17.2)
Secondary school	49/697	5.5 (1.6 - 9.4)	6/213	1.8 (0.5 - 3.2)	13/155	8.2 (3.0 - 13.3)	6/102	6.2 (0.5 - 12.0)	24/227	7.6 (3.4 - 11.8)
Post-secondary <sup>g</sup>	7/103	5.7 (1.1 - 10.3)	1/40	3.8 (0.0 - 9.6)	2/10	26.4 (0.0 - 58.8)	1/12	10.2 (0.0 - 28.8)	3/41	7.5 (0.0 - 16.2)
<b>Current marital status</b>										
Single/never married	34/455	7.4 (0.6 - 14.2)	1/126	0.7 (0.0 - 1.7)	8/79	10.5 (3.4 - 17.5)	14/135	11.7 (6.4 - 17.0)	11/115	8.3 (2.3 - 14.5)
Married/cohabiting	77/656	10.3 (6.0 - 14.7)	6/112	5.0 (1.1 - 8.9)	29/212	14.2 (8.5 - 20.0)	15/120	12.3 (6.0 - 18.4)	27/212	11.4 (6.8 - 16.1)
Divorced/separated	84/903	7.9 (3.7 - 12.1)	8/198	3.3 (1.0 - 5.7)	25/265	8.0 (3.8 - 12.2)	20/194	9.0 (4.7 - 13.3)	31/246	12.1 (7.9 - 16.3)
Widowed	13/63	13.7 (5.9 - 21.6)	2/10	19.9 (0.0 - 40.1)	5/15	32.5 (4.5 - 62.0)	3/16	8.8 (0.0 - 19.5)	3/22	15.3 (0.0 - 30.9)
<b>Main source of income</b>										
Formal employment <sup>f</sup>	6/54	7.2 (0.4 - 14.1)	0/13	0.0 (0.0 - 8.6)	1/16	4.3 (0.0 - 12.7)	3/15	21.6 (0.9 - 42.3)	2/23	8.0 (0.0 - 20.9)
Informal work	117/1307	8.0 (4.1 - 11.8)	12/306	3.1 (1.4 - 4.8)	24/223	12.8 (7.2 - 18.4)	30/331	7.5 (5.8 - 9.3)	51/447	10.9 (6.3 - 15.6)
Self-employment <sup>h</sup>	56/566	9.1 (4.1 - 14.1)	4/105	3.6 (0.5 - 6.8)	30/296	9.3 (5.2 - 13.3)	14/100	16.6 (8.5 - 24.7)	8/65	10.5 (3.7 - 17.0)
Sex work <sup>f</sup>	17/56	24.8 (9.6 - 40.1)	0/5	0.0 (0.0 - 33.6)	8/23	33.8 (15.8 - 52.3)	4/12	34.0 (3.0 - 64.2)	5/21	13.4 (0.0 - 28.0)
None	12/74	15.3 (6.5 - 24.0)	1/15	9.2 (0.0 - 23.0)	4/13	23.6 (1.0 - 46.0)	1/6	28.1 (0.0 - 69.8)	6/40	16.1 (2.4 - 29.5)
<b>Monthly income (KSh.)</b>										
<5000	19/192	8.5 (4.5 - 12.6)	1/8	12.6 (0.0 - 32.0)	6/73	6.7 (0.3 - 13.1)	2/13	16.0 (0.0 - 36.5)	10/98	9.1 (3.5 - 14.7)
5000 to <20000	102/944	10.3 (4.1 - 16.5)	7/196	3.2 (1.2 - 5.2)	31/269	11.6 (7.1 - 16.1)	25/161	15.1 (9.2 - 21.0)	39/318	12.3 (8.2 - 16.5)
20000 to <50000	61/762	7.4 (3.3 - 11.4)	8/209	2.9 (0.8 - 5.0)	23/186	14.8 (9.9 - 19.7)	15/228	5.6 (3.7 - 7.6)	15/139	8.2 (2.2 - 14.2)
50000 and above <sup>f</sup>	15/107	8.3 (3.0 - 13.5)	0/21	0.0 (0.0 - 6.7)	4/33	6.0 (0.3 - 11.8)	9/59	15.1 (5.4 - 25.0)	2/15	6.1 (0.0 - 15.2)
<b>Ever pregnant</b>										
Yes	64/245	23.9 (14.4 - 33.4)	7/45	14.3 (5.7 - 22.8)	20/52	38.2 (22.9 - 53.7)	14/43	29.8 (14.3 - 45.2)	23/105	20.5 (12.2 - 28.8)
No <sup>f</sup>	6/20	28.4 (7.6 - 49.2)	0/8	0.0 (0.0 - 14.2)	1/5	38.7 (0.0 - 87.9)	1/3	22.2 (0.0 - 70.1)	4/12	27.2 (1.8 - 54.0)
<b>Currently pregnant</b>										
Yes	61/232	23.9 (14.2 - 33.5)	7/42	14.7 (5.6 - 23.9)	20/50	39.0 (23.7 - 54.8)	14/43	30.0 (14.6 - 45.1)	20/97	19.1 (10.8 - 27.5)
No <sup>f</sup>	3/8	39.7 (1.5 - 77.9)	0/3	0.0 (0.0 - 52.2)	0/2	0.0 (0.0 - 30.8)	-	-	3/8	39.5 (0.9 - 78.3)
<b>ANC visit during last live birth</b>										
Yes	57/206	24.1 (14.8 - 33.5)	7/36	18.0 (7.4 - 28.6)	20/46	41.9 (24.7 - 59.0)	11/33	25.8 (9.8 - 41.5)	19/91	18.5 (10.1 - 27.0)
No <sup>f</sup>	5/16	41.2 (14.2 - 68.2)	0/7	0.0 (0.0 - 19.5)	0/3	0.0 (0.0 - 14.8)	2/9	35.5 (0.0 - 70.4)	3/7	47.2 (5.8 - 87.2)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Post - secondary education includes vocational or technician training, college, university, graduate and above.

<sup>b</sup> Self - employment includes businesses and selling drugs

<sup>c</sup> Estimates with a sample numerator of zero were calculated using binomial approximation. Meta analysis for overall estimates were restricted to include estimates with a non-zero sample numerator.

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; KSh., Kenya shillings

### 5.3: Population-level Viral Suppression

Among people who inject drugs (PWID) living with HIV in Kenya, overall viral load suppression (VL < 50 copies/ml) was 72.5% (95% CI: 61.4–83.7), indicating encouraging treatment outcomes but with regional disparities.

Suppression was highest in Nairobi (81.3%) and Kilifi (78.0%), moderate in Kiambu (72.6%), and lowest in Mombasa (57.0%), suggesting localized program gaps in the coastal region. By sex, males (76.4%) had slightly higher suppression than females (70.5%), though female suppression reached 90.1% in Nairobi but fell to 51.1% in Mombasa, highlighting county-specific inequalities in adherence and service continuity.

Viral suppression increased with age—from 68.2% among PWID aged 25–34 years to 93.3% among those 45+, reflecting better outcomes among older adults likely on ART longer. Suppression was also linked to higher education levels, reaching 81.3% among those with secondary and 100% among post-secondary education.

Finally, women who had ever been pregnant had high suppression (76.7%), especially those who attended ANC during their last birth (82.6%), underscoring the positive effect of integrated maternal and HIV care services.

Table 5.3: Viral Load Suppression (VL <50 copies/ml) Among People Who Inject Drugs By Location, BBS, Kenya, 2024

	Overall Estimate (N=204)		Kiambu (N=175)		Kilifi (N=66)		Mombasa (N=50)		Nairobi (N=71)	
	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)
<b>Overall</b>	148/204	72.5 (61.4 - 83.7)	13/17	72.6 (52.6 - 90.1)	51/66	78.0 (66.3 - 89.5)	27/50	57.0 (44.1 - 70.8)	57/71	81.3 (69.6 - 93.1)
<b>Sex</b>										
Female	97/134	70.5 (52.7 - 88.2)	7/10	59.3 (34.2 - 76.0)	36/45	78.3 (64.9 - 91.2)	17/35	51.1 (35.8 - 67.1)	37/44	90.1 (77.0 - 100.0)
Male	51/70	76.4 (67.3 - 85.5)	6/7	88.3 (71.6 - 100.0)	15/21	77.4 (58.5 - 97.1)	10/15	70.8 (44.6 - 98.8)	20/27	69.1 (54.7 - 83.9)
<b>Age (years)</b>										
18-24	3/4	93.3 (66.3 - 100.0)	-	-	-	-	1/1	100.0 (29.2 - 100.0)	2/3	64.9 (10.6 - 100.0)
25-34	37/58	68.2 (49.2 - 87.2)	4/7	52.6 (25.5 - 76.1)	11/15	81.0 (64.0 - 98.8)	7/18	46.1 (22.3 - 71.5)	15/18	86.0 (68.3 - 100.0)
35-44	61/88	74.6 (60.0 - 89.2)	5/6	87.9 (71.4 - 100.0)	25/35	70.5 (52.4 - 87.0)	10/21	51.9 (30.1 - 75.5)	21/26	84.5 (66.7 - 100.0)
45+	47/54	93.3 (84.8 - 100.0)	4/4	100.0 (66.4 - 100.0)	15/16	95.8 (87.3 - 100.0)	9/10	92.4 (78.0 - 100.0)	19/24	76.8 (61.6 - 90.8)
<b>Highest level of education</b>										
Never attended school	13/21	70.3 (26.0 - 100.0)	-	-	3/5	68.1 (25.7 - 100.0)	3/9	35.2 (0.6 - 70.8)	7/7	100.0 (94.2 - 100.0)
Nursery/pre-school	3/3	100.0 (98.6 - 100.0)	-	-	1/1	100.0 (39.8 - 100.0)	2/2	100.0 (59.0 - 100.0)	-	-
Primary school	89/124	74.4 (63.8 - 84.9)	8/10	76.4 (57.0 - 93.3)	34/45	77.0 (64.3 - 89.8)	17/32	55.3 (36.3 - 75.2)	30/37	83.2 (68.8 - 97.8)
Secondary school	38/49	81.3 (70.7 - 91.9)	5/6	88.5 (73.4 - 100.0)	11/13	79.9 (57.3 - 100.0)	4/6	81.2 (51.5 - 100.0)	18/24	74.2 (55.0 - 93.0)
Post-secondary <sup>a,c</sup>	5/6	100.0 (98.6 - 100.0)	0/1	0.0 (0.0 - 60.2)	2/2	100.0 (81.5 - 100.0)	1/1	100.0 (59.0 - 100.0)	2/3	54.7 (0.0 - 100.0)
<b>Current marital status</b>										
Single/never married	23/34	80.5 (58.2 - 100.0)	1/1	100.0 (29.2 - 100.0)	6/8	80.5 (56.1 - 100.0)	8/14	59.1 (34.2 - 85.4)	8/11	71.6 (34.8 - 100.0)
Married/cohabitating	56/76	73.6 (63.5 - 83.8)	5/6	73.4 (47.6 - 93.1)	22/29	73.2 (54.9 - 91.1)	8/14	59.5 (31.6 - 88.0)	21/27	79.2 (62.5 - 96.1)
Divorced/separated	59/82	74.3 (60.4 - 88.3)	5/8	61.4 (31.2 - 89.8)	20/25	83.0 (66.5 - 99.8)	9/19	55.1 (32.7 - 79.7)	25/30	84.5 (71.0 - 98.5)
Widowed	10/12	100.0 (98.6 - 100.0)	2/2	100.0 (47.8 - 100.0)	3/4	86.3 (51.3 - 100.0)	2/3	33.6 (0.0 - 100.0)	3/3	100.0 (88.8 - 100.0)
<b>Main source of income</b>										
Formal employment	4/6	100.0 (98.0 - 100.0)	-	-	1/1	100.0 (59.0 - 100.0)	2/3	74.3 (25.0 - 100.0)	1/2	90.6 (13.8 - 100.0)
Informal work	83/114	72.3 (56.6 - 87.9)	9/12	72.5 (51.6 - 91.6)	19/23	80.9 (64.7 - 97.4)	13/29	48.5 (30.5 - 67.5)	42/50	84.4 (70.7 - 98.3)
Self-employment <sup>b</sup>	38/55	68.6 (56.3 - 81.0)	3/4	65.3 (6.8 - 100.0)	22/30	74.6 (58.3 - 91.1)	9/13	66.1 (42.1 - 89.2)	4/8	46.2 (9.7 - 83.4)
Sex work	12/17	76.3 (53.6 - 98.9)	-	-	6/8	74.9 (42.2 - 100.0)	2/4	52.4 (0.0 - 100.0)	4/5	85.6 (50.2 - 100.0)
None	11/12	100.0 (98.9 - 100.0)	1/1	100.0 (29.2 - 100.0)	3/4	84.7 (46.7 - 100.0)	1/1	100.0 (59.0 - 100.0)	6/6	100.0 (93.4 - 100.0)
<b>Monthly income (KSh.)</b>										
<5000	15/19	85.1 (63.7 - 100.0)	1/1	100.0 (29.2 - 100.0)	5/6	64.8 (14.4 - 100.0)	1/2	55.3 (0.0 - 100.0)	8/10	75.8 (45.8 - 100.0)
5000 to <20000	69/100	74.4 (64.5 - 84.3)	5/7	68.1 (34.3 - 100.0)	22/31	79.9 (62.8 - 98.3)	13/23	57.8 (33.8 - 82.2)	29/39	78.1 (63.5 - 93.4)
20000 to <50000	45/59	77.1 (67.4 - 86.9)	6/8	67.4 (39.8 - 90.1)	18/22	77.0 (62.3 - 91.8)	9/15	73.2 (51.7 - 97.3)	12/14	86.7 (66.7 - 100.0)
50000 and above	8/15	67.9 (17.1 - 100.0)	-	-	3/4	73.1 (27.9 - 100.0)	3/9	27.3 (0.0 - 56.3)	2/2	100.0 (66.4 - 100.0)
<b>Ever pregnant</b>										
Yes	46/64	76.7 (66.7 - 86.6)	6/7	88.2 (71.5 - 100.0)	14/20	75.9 (55.2 - 97.6)	9/14	68.2 (39.7 - 98.2)	17/23	68.0 (50.1 - 85.1)
No	5/6	100.0 (98.6 - 100.0)	-	-	1/1	100.0 (75.3 - 100.0)	1/1	100.0 (59.0 - 100.0)	3/4	77.2 (30.9 - 100.0)
<b>Currently pregnant</b>										
Yes	44/61	77.7 (67.2 - 88.2)	6/7	88.2 (71.1 - 100.0)	14/20	75.9 (54.9 - 97.1)	9/14	68.1 (40.1 - 97.8)	15/20	69.9 (48.8 - 89.6)
No	2/3	56.2 (0.0 - 100.0)	-	-	-	-	-	-	2/3	56.2 (0.0 - 100.0)
<b>ANC visit during last live birth</b>										
Yes	43/57	82.6 (73.9 - 91.4)	6/7	88.2 (72.9 - 100.0)	14/20	75.9 (54.8 - 97.0)	8/11	88.5 (75.4 - 100.0)	15/19	73.6 (55.8 - 91.5)
No	3/5	51.3 (1.4 - 100.0)	-	-	-	-	1/2	38.4 (0.0 - 100.0)	2/3	64.8 (0.0 - 100.0)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent -Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Post-secondary education includes vocational or technician training, college, university, graduate and above.

<sup>b</sup> Self-employment includes businesses and selling drugs

<sup>c</sup> Estimates with a sample numerator of zero were calculated using binomial approximation. Meta analysis for overall estimates were restricted to include estimates with a non-zero sample numerator.

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; Ksh., Kenya shillings; VL, viral load

Table 5.3B: Viral Load Suppression (VL<200 copies/ml) Among People Who Inject Drugs By Location, BBS, Kenya, 2024

	Overall Estimate (N=204)		Kiambu (N=175)		Kilifi (N=66)		Mombasa (N=50)		Nairobi (N=71)	
	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)
<b>Overall</b>	170/204	84.7 (77.7 - 91.7)	15/17	87.4 (65.8 - 100.0)	53/66	82.1 (70.3 - 94.4)	38/50	79.3 (65.8 - 93.6)	64/71	91.0 (78.4 - 100.0)
<b>Sex</b>										
Female	110/134	82.4 (72.3 - 92.4)	8/10	76.7 (48.6 - 100.0)	36/45	78.3 (65.2 - 91.2)	25/35	74.7 (59.0 - 91.1)	41/44	94.7 (81.6 - 100.0)
Male	60/70	92.9 (84.1 - 100.0)	7/7	100.0 (82.4 - 100.0)	17/21	88.9 (75.8 - 100.0)	13/15	90.4 (74.0 - 100.0)	23/27	85.6 (73.2 - 97.8)
<b>Age (years)</b>										
18-24	3/4	93.1 (65.7 - 100.0)	-	-	-	-	1/1	100.0 (29.2 - 100.0)	2/3	64.7 (10.6 - 100.0)
25-34	45/58	84.8 (76.0 - 93.6)	6/7	81.6 (57.1 - 100.0)	11/15	80.8 (64.0 - 98.8)	12/18	72.1 (50.9 - 94.4)	16/18	93.0 (79.9 - 100.0)
35-44	72/88	87.6 (79.6 - 95.6)	5/6	88.0 (70.4 - 100.0)	27/35	77.7 (60.5 - 94.8)	16/21	81.0 (60.2 - 100.0)	24/26	94.0 (82.6 - 100.0)
45+	50/54	97.0 (92.4 - 100.0)	4/4	100.0 (66.4 - 100.0)	15/16	95.8 (87.6 - 100.0)	9/10	92.3 (77.7 - 100.0)	22/24	90.5 (80.2 - 100.0)
<b>Highest level of education</b>										
Never attended school	16/21	91.0 (73.4 - 100.0)	-	-	3/5	68.3 (24.9 - 100.0)	6/9	81.1 (57.6 - 100.0)	7/7	100.0 (94.2 - 100.0)
Nursery/pre-school	3/3	100.0 (98.6 - 100.0)	-	-	1/1	100.0 (39.8 - 100.0)	2/2	100.0 (59.0 - 100.0)	-	-
Primary school	103/124	85.3 (76.7 - 94.0)	9/10	85.1 (70.5 - 96.5)	35/45	79.3 (66.4 - 91.9)	24/32	76.1 (58.6 - 93.9)	35/37	94.9 (85.1 - 100.0)
Secondary school	42/49	88.9 (80.5 - 97.4)	5/6	88.6 (73.2 - 100.0)	12/13	93.1 (80.1 - 100.0)	5/6	83.6 (52.0 - 100.0)	20/24	84.4 (69.3 - 100.0)
Post-secondary <sup>a</sup>	6/7	100.0 (98.9 - 100.0)	1/1	100.0 (39.8 - 100.0)	2/2	100.0 (81.5 - 100.0)	1/1	100.0 (59.0 - 100.0)	2/3	55.0 (0.0 - 100.0)
<b>Current marital status</b>										
Single/never married	27/34	88.9 (74.9 - 100.0)	1/1	100.0 (29.2 - 100.0)	6/8	80.5 (56.6 - 100.0)	11/14	75.6 (53.2 - 96.9)	9/11	87.3 (65.2 - 100.0)
Married/cohabitating	65/76	91.6 (81.7 - 100.0)	6/6	100.0 (76.8 - 100.0)	23/29	78.3 (61.6 - 96.0)	12/14	93.3 (81.8 - 100.0)	24/27	86.2 (73.0 - 99.3)
Divorced/separated	11/12	100.0 (98.9 - 100.0)	2/2	100.0 (47.8 - 100.0)	3/4	86.1 (52.3 - 100.0)	3/3	100.0 (69.2 - 100.0)	3/3	100.0 (88.8 - 100.0)
Widowed	67/82	85.4 (73.2 - 97.6)	6/8	73.0 (43.2 - 100.0)	21/25	87.9 (72.2 - 100.0)	12/19	69.4 (48.3 - 92.2)	28/30	95.2 (87.0 - 100.0)
<b>Main source of income</b>										
Formal employment	5/6	100.0 (98.6 - 100.0)	-	-	1/1	100.0 (59.0 - 100.0)	2/3	74.9 (27.0 - 100.0)	2/2	100.0 (75.3 - 100.0)
Informal work	96/114	84.5 (76.1 - 92.8)	10/12	80.8 (59.8 - 99.6)	19/23	80.8 (63.6 - 97.8)	21/29	78.3 (60.7 - 97.8)	46/50	91.7 (78.1 - 100.0)
Self-employment <sup>b</sup>	43/55	86.0 (70.2 - 100.0)	4/4	100.0 (71.5 - 100.0)	23/30	80.3 (64.5 - 96.9)	10/13	74.1 (51.8 - 96.4)	6/8	79.7 (52.5 - 100.0)
Sex work	15/17	99.9 (97.9 - 100.0)	-	-	7/8	91.3 (73.4 - 100.0)	4/4	100.0 (86.3 - 100.0)	4/5	84.5 (48.5 - 100.0)
None	11/12	100.0 (98.9 - 100.0)	1/1	100.0 (29.2 - 100.0)	3/4	85.3 (50.4 - 100.0)	1/1	100.0 (59.0 - 100.0)	6/6	100.0 (93.4 - 100.0)
<b>Monthly income (KSh.)</b>										
<5000	17/19	99.9 (98.5 - 100.0)	1/1	100.0 (29.2 - 100.0)	5/6	64.9 (15.2 - 100.0)	2/2	100.0 (78.2 - 100.0)	9/10	86.9 (61.8 - 100.0)
5000 to <20000	81/100	86.3 (78.3 - 94.3)	6/7	79.7 (49.9 - 100.0)	22/31	80.0 (62.9 - 98.2)	18/23	80.6 (62.1 - 100.0)	35/39	91.5 (80.5 - 100.0)
20000 to <50000	50/59	88.1 (79.4 - 96.8)	7/8	91.8 (74.4 - 100.0)	20/22	88.8 (76.2 - 100.0)	11/15	82.8 (61.7 - 100.0)	12/14	86.6 (65.8 - 100.0)
50000 and above	11/15	83.9 (57.0 - 100.0)	-	-	3/4	72.9 (28.6 - 100.0)	6/9	63.0 (28.5 - 97.4)	2/2	100.0 (66.4 - 100.0)
<b>Ever pregnant</b>										
Yes	55/64	93.6 (85.3 - 100.0)	7/7	100.0 (82.4 - 100.0)	16/20	88.0 (73.7 - 100.0)	12/14	89.6 (71.7 - 100.0)	20/23	87.3 (73.5 - 100.0)
No	5/6	100.0 (98.6 - 100.0)	-	-	1/1	100.0 (75.3 - 100.0)	1/1	100.0 (59.0 - 100.0)	3/4	75.7 (27.7 - 100.0)
<b>Currently pregnant</b>										
Yes	53/61	95.4 (88.5 - 100.0)	7/7	100.0 (82.4 - 100.0)	16/20	87.9 (73.7 - 100.0)	12/14	89.3 (72.7 - 100.0)	18/20	91.8 (77.6 - 100.0)
No	2/3	56.2 (0.0 - 100.0)	-	-	-	-	-	-	2/3	56.2 (0.0 - 100.0)
<b>ANC visit during last live birth</b>										
Yes	50/57	98.5 (96.4 - 100.0)	7/7	100.0 (82.4 - 100.0)	16/20	88.1 (73.9 - 100.0)	10/11	98.0 (98.7 - 100.0)	17/19	91.0 (75.9 - 100.0)
No	5/5	100.0 (98.6 - 100.0)	-	-	-	-	2/2	100.0 (81.5 - 100.0)	3/3	100.0 (89.1 - 100.0)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Post-secondary education includes vocational or technician training, college, university, graduate and above.

<sup>b</sup> Self-employment includes businesses and selling drugs

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; Ksh., Kenya shillings; VL, viral load

Table 5.3C: Viral Load Suppression (VL<1000 copies/ml) Among People Who Inject Drugs By Location, BBS, Kenya, 2024

	Overall Estimate (N=204)		Kiambu (N=175)		Kilifi (N=66)		Mombasa (N=50)		Nairobi (N=71)	
	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)
<b>Overall</b>	176/204	86.9 (79.5 - 94.2)	15/17	87.4 (65.6 - 100.0)	55/66	85.5 (73.3 - 98.0)	40/50	82.4 (68.6 - 96.6)	66/71	93.4 (78.9 - 100.0)
<b>Sex</b>										
Female	114/134	84.4 (76.3, 92.4)	8/10	76.7 (48.6, 100.0)	38/45	83.6 (69.5, 97.1)	26/35	75.4 (60.1, 91.3)	42/44	96.4 (82.2, 100.0)
Male	62/70	92.1 (85.7, 99.1)	-	-	17/21	88.8 (75.2, 100.0)	14/15	98.8 (99.4, 99.7)	24/27	89.3 (77.3, 100.0)
<b>Age (years)</b>										
18-24	3/4	93.2 (66.1 - 100.0)	-	-	-	-	1/1	100.0 (29.2 - 100.0)	2/3	64.9 (10.7 - 100.0)
25-34	47/58	85.8 (72.1 - 99.5)	6/7	81.6 (57.9 - 100.0)	11/15	80.9 (64.1 - 98.7)	13/18	73.2 (52.1 - 94.1)	17/18	98.2 (92.9 - 100.0)
35-44	74/88	89.5 (81.6 - 97.4)	5/6	88.0 (70.0 - 100.0)	28/35	82.4 (65.9 - 99.0)	17/21	87.6 (67.9 - 100.0)	24/26	94.0 (82.7 - 100.0)
45+	52/54	99.8 (98.4 - 100.0)	4/4	100.0 (66.4 - 100.0)	16/16	100.0 (96.6 - 100.0)	9/10	92.3 (77.3 - 100.0)	23/24	93.7 (85.7 - 100.0)
<b>Highest level of education</b>										
Never attended school	18/21	98.7 (94.2 - 100.0)	-	-	3/5	69.1 (25.1 - 100.0)	8/9	96.1 (89.5 - 100.0)	7/7	100.0 (94.2 - 100.0)
Nursery/pre-school	3/3	100.0 (98.6 - 100.0)	-	-	1/1	100.0 (39.8 - 100.0)	2/2	100.0 (59.0 - 100.0)	-	-
Primary school	105/124	87.0 (79.3 - 94.6)	9/10	85.1 (70.8 - 97.4)	37/45	84.0 (71.5 - 96.8)	24/32	76.1 (58.8 - 94.3)	35/37	94.9 (85.4 - 100.0)
Secondary school	44/49	92.0 (84.2 - 99.9)	5/6	88.5 (72.9 - 100.0)	12/13	93.1 (79.8 - 100.0)	5/6	83.6 (51.7 - 100.0)	22/24	94.0 (81.7 - 100.0)
Post-secondary <sup>a</sup>	6/7	100.0 (98.9 - 100.0)	1/1	100.0 (39.8 - 100.0)	2/2	100.0 (81.5 - 100.0)	1/1	100.0 (59.0 - 100.0)	2/3	55.0 (0.0 - 100.0)
<b>Current marital status</b>										
Single/never married	29/34	96.2 (89.8 - 100.0)	1/1	100.0 (29.2 - 100.0)	6/8	80.5 (56.6 - 100.0)	12/14	82.6 (62.2 - 100.0)	10/11	96.6 (89.1 - 100.0)
Married/cohabitating	69/82	86.2 (72.9 - 99.5)	6/8	72.9 (42.5 - 100.0)	21/25	87.9 (72.3 - 100.0)	13/19	70.9 (49.3 - 93.4)	29/30	97.6 (90.8 - 100.0)
Divorced/separated	67/76	93.3 (85.1 - 100.0)	6/6	100.0 (76.8 - 100.0)	25/29	85.1 (69.1 - 100.0)	12/14	93.3 (82.4 - 100.0)	24/27	86.3 (72.6 - 99.2)
Widowed	11/12	100.0 (98.9 - 100.0)	2/2	100.0 (47.8 - 100.0)	3/4	85.2 (52.1 - 100.0)	3/3	100.0 (69.2 - 100.0)	3/3	100.0 (88.8 - 100.0)
<b>Main source of income</b>										
Formal employment	5/6	100.0 (98.6 - 100.0)	-	-	1/1	100.0 (59.0 - 100.0)	2/3	74.3 (25.5 - 100.0)	2/2	100.0 (75.3 - 100.0)
Informal work	99/114	86.0 (77.8 - 94.2)	10/12	80.8 (60.2 - 99.7)	19/23	81.0 (64.1 - 97.2)	23/29	84.2 (67.9 - 100.0)	47/50	93.1 (79.3 - 100.0)
Self-employment <sup>b</sup>	46/55	91.7 (81.2 - 100.0)	4/4	100.0 (71.5 - 100.0)	25/30	88.2 (74.4 - 100.0)	10/13	73.9 (51.2 - 96.4)	7/8	91.6 (75.6 - 100.0)
Sex work	15/17	99.8 (97.9 - 100.0)	-	-	7/8	91.4 (74.6 - 100.0)	4/4	100.0 (86.3 - 100.0)	4/5	85.6 (49.3 - 100.0)
None	11/12	100.0 (98.9 - 100.0)	1/1	100.0 (29.2 - 100.0)	3/4	84.8 (52.4 - 100.0)	1/1	100.0 (59.0 - 100.0)	6/6	100.0 (93.4 - 100.0)
<b>Monthly income (KSh.)</b>										
<5000	17/19	99.9 (98.5 - 100.0)	1/1	100.0 (29.2 - 100.0)	5/6	65.1 (15.4 - 100.0)	2/2	100.0 (78.2 - 100.0)	9/10	86.9 (62.5 - 100.0)
5000 to <20000	82/100	87.4 (79.4 - 95.3)	6/7	79.7 (50.3 - 100.0)	22/31	80.0 (63.3 - 98.5)	18/23	80.5 (60.5 - 100.0)	36/39	93.2 (82.5 - 100.0)
20000 to <50000	54/59	95.8 (91.1 - 100.0)	7/8	91.7 (74.3 - 100.0)	21/22	96.1 (88.1 - 100.0)	13/15	93.7 (80.9 - 100.0)	13/14	96.5 (90.2 - 100.0)
50000 and above	12/15	99.8 (97.2 - 100.0)	-	-	4/4	100.0 (79.4 - 100.0)	6/9	62.9 (27.8 - 96.6)	2/2	100.0 (66.4 - 100.0)
<b>Ever pregnant</b>										
Yes	56/64	98.8 (97.0 - 100.0)	7/7	100.0 (82.4 - 100.0)	16/20	88.0 (73.0 - 100.0)	13/14	98.7 (99.4 - 99.7)	20/23	87.4 (73.0 - 100.0)
No	6/6	100.0 (98.9 - 100.0)	-	-	1/1	100.0 (75.3 - 100.0)	1/1	100.0 (59.0 - 100.0)	4/4	100.0 (90.0 - 100.0)
<b>Currently pregnant</b>										
Yes	54/61	98.9 (97.6 - 100.0)	7/7	100.0 (82.4 - 100.0)	16/20	88.2 (73.2 - 100.0)	13/14	98.7 (99.4 - 99.7)	18/20	92.0 (78.0 - 100.0)
No	2/3	56.0 (0.0 - 100.0)	-	-	-	-	-	-	2/3	56.0 (0.0 - 100.0)
<b>ANC visit during last live birth</b>										
Yes	50/57	98.6 (96.6 - 100.0)	7/7	100.0 (82.4 - 100.0)	16/20	88.1 (73.6 - 100.0)	10/11	98.1 (98.4 - 100.0)	17/19	91.0 (75.7 - 100.0)
No	5/5	100.0 (98.6 - 100.0)	-	-	-	-	2/2	100.0 (81.5 - 100.0)	3/3	100.0 (89.1 - 100.0)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Post-secondary education includes vocational or technician training, college, university, graduate and above.

<sup>b</sup> Self-employment includes businesses and selling drugs

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; Ksh., Kenya shillings; VL, viral load

## 5.4: HIV Incidence

Testing is underway and will be added to this report as an addendum.

## 5.5: UNAIDS 95-95-95 Cascade

### **Conditional:**

Among HIV-positive PWID with viral load results (N=204), the conditional UNAIDS cascade is strong on the first two pillars—95.4% knew their status and 98.4% of those aware were on ART—but viral suppression varies by threshold and county.

Using the strict VL <50 copies/mL, 82.0% of those on ART were suppressed overall, highest in Kilifi (85.7%) and Nairobi (83.4%), similar in Kiambu (82.9%), and notably lower in Mombasa (63.1%); suppression improves when using VL <200 (93.9%) and VL <1000 (95.6%). Age patterns show younger adults 18–34 had 80.0% suppression at <50 (with dips in Mombasa 54.5% and Kiambu 64.4%), while those ≥35 fared better at 85.1% overall and reached 100% in Kiambu (small n), but only 69.5% in Mombasa—highlighting a consistent coastal gap.

Overall, Kenya's PWID programs meet or exceed the first two 95s, but to fully realize the third 95, targeted adherence and VL management support in Mombasa (and for younger clients) is warranted, mindful of small denominators and wide CIs in some strata.

### **Unconditional:**

The unconditional UNAIDS 95-95-95 cascade among HIV-positive people who inject drugs (PWID) in Kenya shows strong progress toward the first two 95s but modest gaps in the third.

Nationally, 95.4% of PWID living with HIV were aware of their HIV status, 91.8% of all were on ART, and 73.4% achieved viral suppression (VL < 50 copies/mL).

Suppression improved to 87.5% at VL < 200 and 89.0% at VL < 1000, consistent with treatment effectiveness despite some adherence challenges.

County patterns reveal high ART uptake and suppression in Nairobi (81.4%), Kilifi (78.1%), and Kiambu (72.6%), but persistently lower viral control in Mombasa (57.0%), reflecting site-level retention and monitoring gaps.

Younger PWID (18–34 years) lag slightly behind older peers (35 + years) across all steps, with lower viral suppression (71.2% vs. 79.8%) and especially weaker performance in Mombasa and Kiambu.

Overall, Kenya's PWID program meets or exceeds global 95–95 targets for diagnosis and ART coverage, but sustaining viral suppression—particularly among younger injectors and in coastal counties—remains a key challenge to achieving the final “95.”

Table 5.5.1: Conditional UNAIDS 95-95-95 Cascade Among People Who Inject Drugs by Location and Age, BBS, Kenya, 2024

	Overall (N=2100)		Kiambu (N=466)		Kilifi (N=582)		Mombasa (N=469)		Nairobi (N=603)	
	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)
<b>VL &lt;50 copies/mL</b>										
Aware of HIV status	190/204	95.4 (92.0 - 98.8)	15/17	87.4 (87.2 - 87.6)	61/66	94.8 (90.6 - 99.5)	45/50	92.8 (82.7 - 100.0)	9/71	97.5 (96.8 - 98.3)
On ART among those aware	188/190	98.4 (96.1 - 100.0)	15/15	100.0 (100.0 - 100.0)	60/61	96.0 (95.9 - 96.1)	44/45	97.3 (95.1 - 99.4)	9/69	100.0 (100.0 - 100.0)
Virally suppressed among those on ART	148/188	82.0 (76.7 - 87.3)	13/15	82.9 (80.7 - 83.0)	51/60	85.7 (78.6 - 92.7)	27/44	63.1 (47.3 - 79.8)	7/69	83.4 (71.3 - 95.7)
<b>18-34 years</b>										
Aware of HIV status	54/62	92.8 (87.2 - 98.5)	6/7	81.6 (45.1 - 100.0)	13/15	89.9 (79.1 - 100.0)	15/19	86.8 (71.3 - 100.0)	10/21	95.8 (88.5 - 100.0)
On ART among those aware	54/54	100.0 (99.6 - 100.0)	6/6	100.0 (100.0 - 100.0)	13/13	100.0 (100.0 - 100.0)	15/15	100.0 (100.0 - 100.0)	10/20	100.0 (100.0 - 100.0)
Virally suppressed among those on ART	40/54	80.0 (65.6 - 94.4)	4/6	64.4 (22.6 - 100.0)	11/13	89.9 (79.6 - 100.0)	8/15	54.5 (26.6 - 82.5)	7/20	86.2 (70.8 - 100.0)
<b>35 years and above</b>										
Aware of HIV status	136/142	97.9 (96.4 - 99.4)	9/10	93.5 (87.6 - 100.0)	48/51	96.4 (91.4 - 100.0)	30/31	97.6 (93.9 - 100.0)	9/50	98.4 (96.7 - 100.0)
On ART among those aware	134/136	98.6 (96.1 - 100.0)	9/9	100.0 (100.0 - 100.0)	47/48	94.9 (89.1 - 100.0)	29/30	95.4 (89.1 - 100.0)	9/49	100.0 (100.0 - 100.0)
Virally suppressed among those on ART	108/134	85.1 (71.3 - 98.8)	9/9	100.0 (100.0 - 100.0)	40/47	84.4 (75.1 - 93.5)	19/29	69.5 (55.6 - 84.9)	10/49	82.1 (67.5 - 96.8)
<b>VL &lt;200 copies/mL</b>										
Aware of HIV status	190/204	95.4 (92.0 - 98.8)	15/17	87.4 (87.2 - 87.6)	61/66	94.8 (90.6 - 99.5)	45/50	92.8 (82.7 - 100.0)	9/71	97.5 (96.8 - 98.3)
On ART among those aware	188/190	98.4 (96.1 - 100.0)	15/15	100.0 (100.0 - 100.0)	60/61	96.0 (95.9 - 96.1)	44/45	97.3 (95.1 - 99.4)	9/69	100.0 (100.0 - 100.0)
Virally suppressed among those on ART	170/188	93.9 (87.7 - 100.0)	15/15	100.0 (100.0 - 100.0)	53/60	90.2 (85.1 - 95.5)	38/44	87.9 (74.6 - 100.0)	4/69	93.3 (87.0 - 99.6)
<b>18-34 years</b>										
Aware of HIV status	54/62	92.8 (87.2 - 98.5)	6/7	81.6 (45.1 - 100.0)	13/15	89.9 (79.1 - 100.0)	15/19	86.8 (71.3 - 100.0)	10/21	95.8 (88.5 - 100.0)
On ART among those aware	54/54	100.0 (99.6 - 100.0)	6/6	100.0 (100.0 - 100.0)	13/13	100.0 (100.0 - 100.0)	15/15	100.0 (100.0 - 100.0)	10/20	100.0 (100.0 - 100.0)
Virally suppressed among those on ART	48/54	94.5 (87.9 - 100.0)	6/6	100.0 (100.0 - 100.0)	11/13	89.9 (79.5 - 100.0)	13/15	83.8 (61.9 - 100.0)	8/20	92.3 (81.3 - 100.0)
<b>35 years and above</b>										
Aware of HIV status	136/142	97.9 (96.4 - 99.4)	9/10	93.5 (87.6 - 100.0)	48/51	96.4 (91.4 - 100.0)	30/31	97.6 (93.9 - 100.0)	9/50	98.4 (96.7 - 100.0)
On ART among those aware	134/136	98.6 (96.1 - 100.0)	9/9	100.0 (100.0 - 100.0)	47/48	94.9 (89.1 - 100.0)	29/30	95.4 (89.1 - 100.0)	9/49	100.0 (100.0 - 100.0)
Virally suppressed among those on ART	122/134	94.9 (89.4 - 100.0)	9/9	100.0 (100.0 - 100.0)	42/47	90.3 (83.2 - 97.5)	25/29	90.9 (76.4 - 100.0)	6/49	93.8 (84.9 - 100.0)
<b>VL &lt;1000 copies/mL</b>										
Aware of HIV status	190/204	95.4 (92.0 - 98.8)	15/17	87.4 (87.2 - 87.6)	61/66	94.8 (90.6 - 99.5)	45/50	92.8 (82.7 - 100.0)	9/71	97.5 (96.8 - 98.3)
On ART among those aware	188/190	98.4 (96.1 - 100.0)	15/15	100.0 (100.0 - 100.0)	60/61	96.0 (95.9 - 96.1)	44/45	97.3 (95.1 - 99.4)	9/69	100.0 (100.0 - 100.0)
Virally suppressed among those on ART	173/188	95.6 (91.4 - 99.9)	15/15	100.0 (100.0 - 100.0)	55/60	93.9 (90.4 - 97.7)	38/44	87.9 (74.2 - 100.0)	5/69	94.3 (90.0 - 98.7)
<b>18-34 years</b>										
Aware of HIV status	54/62	92.8 (87.2 - 98.5)	6/7	81.6 (45.1 - 100.0)	13/15	89.9 (79.1 - 100.0)	15/19	86.8 (71.3 - 100.0)	10/21	95.8 (88.5 - 100.0)
On ART among those aware	54/54	100.0 (99.6 - 100.0)	6/6	100.0 (100.0 - 100.0)	13/13	100.0 (100.0 - 100.0)	15/15	100.0 (100.0 - 100.0)	10/20	100.0 (100.0 - 100.0)
Virally suppressed among those on ART	48/54	94.5 (87.8 - 100.0)	6/6	100.0 (100.0 - 100.0)	11/13	89.9 (79.6 - 100.0)	13/15	83.8 (61.9 - 100.0)	8/20	92.2 (81.3 - 100.0)
<b>35 years and above</b>										
Aware of HIV status	136/142	97.9 (96.4 - 99.4)	9/10	93.5 (87.6 - 100.0)	48/51	96.4 (91.4 - 100.0)	30/31	97.6 (93.9 - 100.0)	9/50	98.4 (96.7 - 100.0)
On ART among those aware	134/136	98.6 (96.1 - 100.0)	9/9	100.0 (100.0 - 100.0)	47/48	94.9 (89.1 - 100.0)	29/30	95.4 (89.1 - 100.0)	9/49	100.0 (100.0 - 100.0)
Virally suppressed among those on ART	125/134	96.6 (93.8 - 99.3)	9/9	100.0 (100.0 - 100.0)	44/47	95.1 (90.8 - 99.6)	25/29	90.9 (76.4 - 100.0)	7/49	95.4 (90.0 - 100.0)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent - Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; mL, milliliters; VL, viral load, ART, antiretroviral therapy.

Table 5.5.2: Unconditional UNAIDS 95-95-95 Cascade Among People Who Inject Drugs By Location And Age, BBS, Kenya, 2024

	Overall (N=2100)		Kiambu (N=466)		Killifi (N=582)		Mombasa (N=469)		Nairobi (N=603)	
	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)
<b>VL &lt;50 copies/mL</b>										
Aware of HIV status	190/204	95.4 (92.0 - 98.8)	15/17	87.4 (87.2 - 87.6)	61/66	94.8 (90.6 - 99.5)	45/50	92.8 (82.7 - 100.0)	69/71	97.5 (96.8 - 98.3)
On ART among those aware	188/204	91.8 (84.1 - 99.5)	15/17	87.4 (86.4 - 88.1)	60/66	91.1 (83.3 - 98.6)	44/50	90.2 (75.4 - 100.0)	69/71	97.5 (97.0 - 98.3)
Virally suppressed among those on ART	148/204	73.4 (64.2 - 82.7)	13/17	72.6 (70.7 - 74.4)	51/66	78.1 (68.3 - 87.9)	27/50	57.0 (41.6 - 73.3)	57/71	81.4 (68.9 - 93.9)
<b>18-34 years</b>										
Aware of HIV status	54/62	92.8 (87.2 - 98.5)	6/7	81.6 (45.1 - 100.0)	13/15	89.9 (79.1 - 100.0)	15/19	86.8 (71.3 - 100.0)	20/21	95.8 (88.5 - 100.0)
On ART among those aware	54/62	92.8 (87.2 - 98.4)	6/7	81.6 (45.1 - 100.0)	13/15	89.9 (79.2 - 100.0)	15/19	86.7 (70.7 - 100.0)	20/21	95.7 (88.5 - 100.0)
Virally suppressed among those on ART	40/62	71.2 (55.1 - 87.3)	4/7	52.6 (12.6 - 90.4)	11/15	80.8 (66.1 - 96.7)	8/19	47.3 (19.4 - 75.8)	17/21	82.5 (66.3 - 98.9)
<b>35 years and above</b>										
Aware of HIV status	136/142	97.9 (96.4 - 99.4)	9/10	93.5 (87.6 - 100.0)	48/51	96.4 (91.4 - 100.0)	30/31	97.6 (93.9 - 100.0)	49/50	98.4 (96.7 - 100.0)
On ART among those aware	134/142	98.0 (96.3 - 99.6)	9/10	93.6 (87.6 - 100.0)	47/51	91.5 (80.9 - 100.0)	29/31	93.1 (77.3 - 100.0)	49/50	98.4 (96.7 - 100.0)
Virally suppressed among those on ART	108/142	79.8 (66.8 - 92.8)	9/10	93.5 (87.5 - 100.0)	40/51	77.2 (64.9 - 89.4)	19/31	64.7 (51.4 - 79.3)	40/50	80.8 (66.4 - 95.4)
<b>VL &lt;200 copies/mL</b>										
Aware of HIV status	190/204	95.4 (92.0 - 98.8)	15/17	87.4 (87.2 - 87.6)	61/66	94.8 (90.6 - 99.5)	45/50	92.8 (82.7 - 100.0)	69/71	97.5 (96.8 - 98.3)
On ART among those aware	188/204	91.8 (84.1 - 99.5)	15/17	87.4 (86.4 - 88.1)	60/66	91.1 (83.3 - 98.6)	44/50	90.2 (75.4 - 100.0)	69/71	97.5 (97.0 - 98.3)
Virally suppressed among those on ART	170/204	87.5 (87.3 - 87.6)	15/17	87.5 (87.2 - 87.5)	53/66	82.1 (73.4 - 91.4)	38/50	79.3 (64.7 - 94.9)	64/71	90.9 (84.5 - 97.4)
<b>18-34 years</b>										
Aware of HIV status	54/62	92.8 (87.2 - 98.5)	6/7	81.6 (45.1 - 100.0)	13/15	89.9 (79.1 - 100.0)	15/19	86.8 (71.3 - 100.0)	20/21	95.8 (88.5 - 100.0)
On ART among those aware	54/62	92.8 (87.2 - 98.4)	6/7	81.6 (45.1 - 100.0)	13/15	89.9 (79.2 - 100.0)	15/19	86.7 (70.7 - 100.0)	20/21	95.7 (88.5 - 100.0)
Virally suppressed among those on ART	48/62	83.7 (74.7 - 92.6)	6/7	81.6 (45.5 - 100.0)	11/15	80.9 (65.9 - 96.8)	13/19	72.7 (46.0 - 100.0)	18/21	88.3 (75.6 - 100.0)
<b>35 years and above</b>										
Aware of HIV status	136/142	97.9 (96.4 - 99.4)	9/10	93.5 (87.6 - 100.0)	48/51	96.4 (91.4 - 100.0)	30/31	97.6 (93.9 - 100.0)	49/50	98.4 (96.7 - 100.0)
On ART among those aware	134/142	98.0 (96.3 - 99.6)	9/10	93.6 (87.6 - 100.0)	47/51	91.5 (80.9 - 100.0)	29/31	93.1 (77.3 - 100.0)	49/50	98.4 (96.7 - 100.0)
Virally suppressed among those on ART	122/142	90.4 (85.5 - 95.4)	9/10	93.5 (87.5 - 100.0)	42/51	82.6 (70.8 - 94.4)	25/31	84.6 (68.5 - 100.0)	46/50	92.3 (83.6 - 100.0)
<b>VL &lt;1000 copies/mL</b>										
Aware of HIV status	190/204	95.4 (92.0 - 98.8)	15/17	87.4 (87.2 - 87.6)	61/66	94.8 (90.6 - 99.5)	45/50	92.8 (82.7 - 100.0)	69/71	97.5 (96.8 - 98.3)
On ART among those aware	188/204	91.8 (84.1 - 99.5)	15/17	87.4 (86.4 - 88.1)	60/66	91.1 (83.3 - 98.6)	44/50	90.2 (75.4 - 100.0)	69/71	97.5 (97.0 - 98.3)
Virally suppressed among those on ART	176/204	89.0 (83.8 - 94.3)	15/17	87.4 (87.1 - 87.7)	55/66	85.5 (77.1 - 94.3)	40/50	82.3 (69.2 - 96.0)	66/71	93.4 (89.1 - 97.8)
<b>18-34 years</b>										
Aware of HIV status	54/62	92.8 (87.2 - 98.5)	6/7	81.6 (45.1 - 100.0)	13/15	89.9 (79.1 - 100.0)	15/19	86.8 (71.3 - 100.0)	20/21	95.8 (88.5 - 100.0)
On ART among those aware	54/62	92.8 (87.2 - 98.4)	6/7	81.6 (45.1 - 100.0)	13/15	89.9 (79.2 - 100.0)	15/19	86.7 (70.7 - 100.0)	20/21	95.7 (88.5 - 100.0)
Virally suppressed among those on ART										
<b>35 years and above</b>										
Aware of HIV status	50/62	86.4 (78.7 - 94.1)	6/7	81.6 (45.4 - 100.0)	11/15	80.9 (66.0 - 96.7)	14/19	73.7 (53.2 - 94.2)	19/21	92.6 (82.4 - 100.0)
On ART among those aware	136/142	97.9 (96.4 - 99.4)	9/10	93.5 (87.6 - 100.0)	48/51	96.4 (91.4 - 100.0)	30/31	97.6 (93.9 - 100.0)	49/50	98.4 (96.7 - 100.0)
Virally suppressed among those on ART	134/142	98.0 (96.3 - 99.6)	9/10	93.6 (87.6 - 100.0)	47/51	91.5 (80.9 - 100.0)	29/31	93.1 (77.3 - 100.0)	49/50	98.4 (96.7 - 100.0)
Virally suppressed among those on ART	126/142	92.5 (88.4 - 96.5)	9/10	93.5 (87.6 - 100.0)	44/51	87.0 (75.9 - 98.1)	26/31	89.1 (76.0 - 100.0)	47/50	93.9 (88.1 - 99.6)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; mL, milliliters; VL, viral load, ART, antiretroviral therapy.

## 5.6: HIV and STI Knowledge and Attitudes

### **HIV:**

Nearly all PWID surveyed in Kenya demonstrated strong HIV prevention knowledge: 98.0% knew that consistent condom use reduces HIV risk, and 97.7% recognized that having one uninfected partner can prevent transmission.

Awareness of key transmission routes was also high—94.2% identified needle sharing and 97.7% unprotected sex as major risks—though understanding of mother-to-child transmission and other routes was lower. Knowledge of prevention methods was widespread for condoms (95.3%) and safe needles (87.8%), but awareness of biomedical prevention lagged, with only 25.4% citing PrEP and 17.1% mentioning PEP.

Perceived personal risk varied sharply by county: 70.5% of respondents in Mombasa felt at risk compared with just 30.9% in Kiambu, reflecting differences in risk perception and possibly exposure to harm reduction messaging.

### **STI:**

Knowledge of sexually transmitted infections (STIs) was high overall, with 93.7% reporting awareness, peaking at 99.7% in Kilifi.

About 24% of PWID experienced STI symptoms in the past year, most commonly in Kilifi (32.8%), 64.1% sought treatment, showing moderate health-seeking behavior.

Of those diagnosed, 70.0% informed their sexual partners and 63.4% abstained from sex during infection, condom use during symptomatic periods remained low (30.8%).

Only 5.9% reported receiving HPV vaccination, suggesting limited engagement with broader sexual health prevention services.

Overall, STI knowledge is strong, but behavioral responses—especially partner notification, condom use, and vaccination—indicate critical gaps for targeted education and service integration among PWID populations.

Table 5.6.1: HIV Knowledge And Attitudes Among People Who Inject Drugs By Location, BBS, Kenya, 2024

	Overall (N=2100)		Kiambu (N=446)		Kilifi (N=582)		Mombasa (N=469)		Nairobi (N=603)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Can reduce the risk of getting HIV by using a condom every time a</b>										
Yes	2037	98.0 (96.9 - 99.0)	439	98.8 (98.2 - 99.3)	569	97.5 (95.6 - 99.4)	447	97.4 (94.7 - 100.0)	582	96.8 (94.9 - 98.8)
No	52	2.0 (1.0 - 3.1)	6	1.2 (0.7 - 1.8)	13	2.5 (0.6 - 4.4)	14	2.6 (0.0 - 5.3)	19	3.2 (1.2 - 5.1)
<b>Can reduce their chance of getting HIV by h</b>										
Yes	2038	97.7 (96.3 - 99.1)	439	98.8 (98.6 - 99.0)	573	98.0 (96.2 - 99.8)	447	95.8 (93.6 - 98.1)	579	96.6 (93.2 - 100.0)
No	53	2.3 (0.9 - 3.7)	5	1.2 (1.0 - 1.4)	9	2.0 (0.2 - 3.8)	20	4.2 (1.9 - 6.4)	19	3.4 (0.0 - 6.8)
<b>Routes of HIV transmissionb</b>										
Blood and body fluids	58	3.6 (0.0 - 7.7)	46	9.1 (6.7 - 11.4)	0	0.0 (0.0 - 0.0)	1	0.1 (0.0 - 0.2)	11	2.2 (0.8 - 3.7)
Blood transfusion	775	35.8 (25.8 - 45.8)	104	23.2 (19.2 - 27.1)	272	45.9 (40.5 - 51.3)	204	41.7 (36.3 - 47.1)	195	32.8 (28.7 - 37.0)
Breast feeding by HIV+ mothers	304	13.5 (9.8 - 17.2)	49	12.6 (9.3 - 15.8)	84	13.4 (10.3 - 16.5)	114	19.2 (15.3 - 23.1)	57	9.6 (6.9 - 12.2)
During delivery by HIV+ mothers	275	11.4 (7.1 - 15.8)	47	9.8 (7.2 - 12.4)	80	13.2 (10.1 - 16.3)	107	17.0 (13.3 - 20.8)	41	6.4 (4.3 - 8.5)
Sharing of needles	1971	94.2 (90.1 - 98.3)	437	98.0 (96.7 - 99.2)	565	97.2 (95.7 - 98.8)	463	98.5 (97.3 - 99.7)	506	81.1 (77.4 - 84.9)
Unprotected anal sex	430	17.2 (2.0 - 32.5)	5	0.8 (0.2 - 1.3)	157	21.4 (17.7 - 25.1)	114	18.6 (14.7 - 22.6)	154	28.4 (24.2 - 32.5)
Unprotected sex	2045	97.7 (96.6 - 98.9)	439	98.5 (97.5 - 99.6)	569	97.8 (96.6 - 99.1)	462	98.5 (97.3 - 99.7)	575	95.3 (93.5 - 97.2)
<b>HIV prevention methodsb</b>										
Abstinence	881	38.1 (21.2 - 54.9)	110	24.2 (20.3 - 28.1)	413	63.9 (58.8 - 69.1)	197	38.0 (32.9 - 43.1)	161	26.5 (22.4 - 30.6)
Being faithful to one partner	669	31.9 (25.2 - 38.5)	138	32.5 (27.8 - 37.1)	138	23.1 (19.1 - 27.0)	187	34.4 (29.5 - 39.3)	206	37.9 (33.3 - 42.4)
Condoms	1993	95.3 (94.1 - 96.6)	425	95.3 (93.4 - 97.2)	556	96.2 (94.7 - 97.7)	435	91.9 (88.0 - 95.8)	577	95.2 (93.0 - 97.4)
PEP	406	17.1 (6.8 - 27.4)	36	6.5 (4.6 - 8.5)	147	23.4 (19.5 - 27.4)	61	9.4 (6.3 - 12.5)	162	29.6 (25.2 - 34.0)
PMTCT	1	0.3 (0.0 - 0.8)	1	0.3 (0.0 - 0.8)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
PrEP	607	25.4 (16.1 - 34.7)	66	13.7 (10.6 - 16.9)	223	32.9 (28.6 - 37.0)	148	24.6 (20.5 - 28.8)	170	30.7 (26.2 - 35.2)
Safe needles	1837	87.8 (79.3 - 96.3)	377	83.8 (80.2 - 87.3)	547	95.5 (93.9 - 97.1)	467	99.7 (99.0 - 100.0)	446	71.3 (67.2 - 75.4)
<b>Feel at risk of being infected with HIVa</b>										
Yes	931	47.3 (31.4 - 63.3)	140	30.9 (26.9 - 34.9)	249	41.9 (37.2 - 46.6)	312	70.5 (65.6 - 75.4)	230	46.2 (41.8 - 50.5)
No	1001	52.7 (36.7 - 68.6)	290	69.1 (65.1 - 73.1)	285	58.1 (53.4 - 62.8)	120	29.5 (24.6 - 34.4)	306	53.8 (49.5 - 58.2)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

aNon-responses and missing data were excluded from the analysis.

bSum of sample numerator is higher than the sample denominator, as multiple responses could be selected

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; PrEP, pre-exposure prophylaxis; PEP, post-exposure prophylaxis; PMTCT, prevention of mother to child transmission of HIV; ART, antiretroviral therapy

Table 5.6.1B: Sexually Transmitted Infection Knowledge And Attitudes Among People Who Inject Drugs By Location, BBS, Kenya, 2024

	Overall Estimate (N=21)		Kiambu (N=446)		Kilifi (N=582)		Mombasa (N=469)		Nairobi (N=603)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Heard of diseases that can be transmitted :</b>										
Yes	1919	93.7 (88.7 - 98.7)	418	94.5 (92.8 - 96.1)	577	99.7 (99.6 - 99.8)	437	95.7 (93.3 - 98.1)	487	83.7 (80.0 - 87.5)
No	148	6.3 (1.3 - 11.3)	26	5.5 (3.9 - 7.2)	3	0.3 (0.2 - 0.4)	24	4.3 (1.9 - 6.7)	95	16.3 (12.5 - 20.0)
<b>Had symptoms of STI (abnormal discharge from penis/vagina, pen.</b>										
Yes	485	23.9 (17.3 - 30.6)	85	18.0 (14.3 - 21.7)	190	32.8 (29.1 - 36.5)	90	20.9 (16.0 - 25.8)	120	23.8 (20.0 - 27.6)
No	1579	76.1 (69.4 - 82.7)	359	82.0 (78.3 - 85.7)	388	67.2 (63.5 - 70.8)	370	79.1 (74.2 - 84.0)	462	76.2 (72.4 - 80.0)
<b>Sought treatment for any of these symptom</b>										
Yes	303	64.1 (59.5 - 68.6)	51	60.1 (50.1 - 70.2)	111	61.7 (53.6 - 69.7)	52	62.6 (52.8 - 72.5)	89	71.3 (62.4 - 80.2)
No	182	35.9 (31.4 - 40.5)	34	39.9 (29.8 - 49.9)	79	38.3 (30.3 - 46.4)	38	37.4 (27.5 - 47.2)	31	28.7 (19.8 - 37.6)
<b>Told by health provider had STI in the last 1</b>										
Yes	174	8.4 (3.5 - 13.3)	25	4.5 (4.1 - 5.0)	78	14.3 (9.4 - 19.2)	32	8.4 (2.6 - 14.2)	39	7.6 (1.5 - 13.7)
No	1890	91.6 (86.7 - 96.5)	419	95.5 (95.0 - 95.9)	500	85.7 (80.8 - 90.6)	428	91.6 (85.8 - 97.4)	543	92.4 (86.3 - 98.5)
<b>Informed sexual partner last time had an S</b>										
Yes	126	70.0 (57.5 - 82.5)	12	48.6 (29.2 - 68.1)	63	80.0 (68.5 - 91.5)	24	78.3 (64.0 - 92.7)	27	66.7 (51.7 - 81.7)
No	47	30.0 (17.5 - 42.5)	13	51.4 (31.9 - 70.8)	15	20.0 (8.5 - 31.5)	8	21.6 (7.3 - 36.0)	11	33.3 (18.3 - 48.3)
<b>Stopped having vaginal or anal sex during t</b>										
Yes	114	63.4 (45.8 - 81.0)	11	47.1 (26.8 - 67.5)	55	64.3 (54.9 - 73.6)	30	91.0 (75.1 - 100.0)	18	49.3 (33.1 - 65.4)
No	60	36.6 (19.0 - 54.2)	14	52.9 (32.5 - 73.2)	23	35.7 (26.4 - 45.1)	2	9.0 (0.0 - 24.9)	21	50.7 (34.6 - 66.8)
<b>Used condoms last time had STI<sup>a,b</sup></b>										
Yes	21	30.8 (9.6 - 52.0)	3	21.6 (3.3 - 39.9)	11	58.1 (34.4 - 81.8)	0	0.0 (0.0 - 0.0)	7	18.6 (6.8 - 30.5)
No	36	69.2 (48.0 - 90.4)	11	78.4 (60.1 - 96.7)	12	41.9 (18.2 - 65.6)	0	0.0 (0.0 - 0.0)	13	81.4 (69.5 - 93.2)
<b>Received HPV vaccination<sup>a</sup></b>										
Yes	25	5.9 (1.1 - 10.6)	5	6.8 (0.0 - 14.2)	7	8.9 (0.5 - 17.3)	2	1.6 (0.0 - 4.4)	11	10.1 (2.6 - 17.5)
No	250	94.1 (89.4 - 98.9)	48	93.2 (85.8 - 100.0)	50	91.1 (82.7 - 99.5)	46	98.4 (95.6 - 100.0)	106	90.0 (82.5 - 97.4)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R.

<sup>a</sup>Non-responses and missing data were excluded from the analysis.

<sup>b</sup>Sum of sample numerator is higher than the sample denominator, as multiple responses could be selected

Abbreviations: N, sample denominator; n, sample numerator; CI, confidence interval; HPV, humanpapillomavirus, STI, sexually transmitted infections

## **Hepatitis B and C:**

Overall hepatitis B (HBV) awareness was 78.6% but varied widely with Kilifi having the highest 91.2% and lowest in Kiambu 69.0%.

Only 25.6% reported HBV vaccination, led by Nairobi at 46.6%, Kiambu 42.1% Mombasa 6.2% and Kilifi 10.9%.

HBV information exposure was 63.1% overall with Kilifi at 84.6% and Kiambu 46.8%), Correct recognition of injection risk was moderate (62.1% citing needle sharing) amid misconceptions (e.g., 14.2% “sharing a meal,” 3.6% “unclean water”).

HBV testing history was 38.4% overall (Nairobi 56.1%, Kiambu 19.7%); among the last tests, 9.7% were positive (Kilifi 13.9%, Mombasa 10.9%, Nairobi 5.3%), with reported HBV treatment in 69.3% of positives.

Hepatitis C (HCV) awareness was lower at 65.0% (Kilifi 85.1%, Nairobi 77.1%, Kiambu 38.6%), with 58.2% receiving HCV information overall; knowledge of key transmission was better for needles (84.4%) and, to a lesser extent, paraphernalia (26.9%), but many also endorsed sexual transmissions (49.4%) and 24.8% blood transfusion, indicating mixed understanding.

HCV testing was 37.0% overall (Nairobi 57.0%, Kiambu 23.9%); last-test positivity was 20.1% (highest Mombasa 34.0%), and 60.4% of that positive reported receiving HCV treatment, with large county differences (e.g., Kiambu 96.3%, Mombasa 38.1%).

Table 5.6.2: Hepatitis B And C Knowledge And Testing History Among People Who Inject Drugs By Location, BBS, Kenya, 2024

	Overall Estimate (N=2100)		Kiambu (N=446)		Kilifi (N=582)		Mombasa (N=469)		Nairobi (N=603)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Ever heard of hepatitis B<sup>a</sup></b>										
Yes	1638	78.6 (69.3 - 88.0)	315	69.0 (64.0 - 74.0)	540	91.2 (88.0 - 94.3)	352	73.3 (69.6 - 77.0)	431	80.5 (77.3 - 83.7)
No	460	21.4 (12.0 - 30.7)	131	31.0 (26.0 - 36.0)	42	8.8 (5.7 - 12.0)	115	26.7 (23.1 - 30.4)	172	19.5 (16.3 - 22.7)
<b>Received hepatitis B vaccine<sup>a,b</sup></b>										
Yes	445	25.6 (23.2 - 28.0)	143	42.1 (36.6 - 47.6)	59	10.9 (7.5 - 14.4)	28	6.2 (3.6 - 8.9)	215	46.6 (41.3 - 51.8)
No	1186	74.4 (72 - 76.8)	171	57.9 (52.4 - 63.4)	478	89.1 (85.6 - 92.5)	324	93.8 (91.1 - 96.4)	213	53.4 (48.2 - 58.7)
<b>Received health information on hepatitis B<sup>a,b</sup></b>										
Yes	1127	63.1 (45.3 - 81.0)	162	46.8 (40.8 - 52.9)	459	84.6 (80.1 - 89.1)	195	49.1 (42.2 - 55.9)	311	71.5 (66.7 - 76.2)
No	494	36.9 (19.0 - 54.7)	152	53.2 (47.1 - 59.2)	68	15.4 (10.9 - 19.9)	157	50.9 (44.1 - 57.8)	117	28.5 (23.8 - 33.3)
<b>Modes of transmission of hepatitis B<sup>b,c</sup></b>										
Blood transfusion	245	15.2 (11.5 - 19.0)	47	14.9 (10.4 - 19.3)	60	15.1 (11.1 - 19.1)	75	20.7 (15.6 - 25.8)	63	10.7 (6.3 - 15.1)
Drinking unclean water	85	3.6 (1.4 - 5.7)	9	1.7 (1.4 - 2.1)	17	3.9 (1.6 - 6.1)	15	3.1 (0.3 - 5.9)	44	7.9 (3.8 - 12.0)
Mother to unborn infant	97	4.8 (1.5 - 8.0)	18	5.6 (3.4 - 7.9)	7	1.5 (0.6 - 2.5)	48	9.6 (5.4 - 13.7)	24	3.7 (0.4 - 7.0)
Sharing a meal	237	14.2 (8.0 - 20.3)	43	10.8 (7.0 - 14.5)	38	10.4 (6.1 - 14.7)	39	11.5 (7.0 - 16.1)	117	24.3 (19.5 - 29.2)
Sharing of needles	1079	62.1 (50.3 - 73.9)	173	55.0 (48.6 - 61.3)	430	77.0 (72.5 - 81.4)	228	60.7 (53.3 - 68.1)	248	55.4 (50.3 - 60.5)
Sexual intercourse	340	20.7 (11.0 - 30.4)	66	19.9 (15.0 - 24.9)	80	14.1 (9.7 - 18.4)	142	37.4 (31.1 - 43.6)	52	12.2 (7.6 - 16.7)
<b>Ever tested for hepatitis B<sup>a</sup></b>										
Yes	672	38.4 (23.1 - 53.6)	69	19.7 (14.9 - 24.5)	232	42.0 (37.5 - 46.4)	119	35.7 (29.8 - 41.7)	252	56.1 (51.2 - 61.0)
No	948	61.6 (46.4 - 76.9)	244	80.3 (75.5 - 85.1)	302	58.0 (53.6 - 62.5)	225	64.3 (58.3 - 70.2)	177	43.9 (39.0 - 48.8)
<b>Result of last hepatitis B test<sup>a,b</sup></b>										
Positive	50	9.7 (4.3 - 15.1)	0	0.0 (0.0 - 0.0)	29	13.9 (7.2 - 20.7)	10	10.9 (3.4 - 18.5)	11	5.3 (0.0 - 10.8)
Negative	490	90.3 (84.9 - 95.7)	0	0.0 (0.0 - 0.0)	171	86.0 (79.3 - 92.8)	87	89.0 (81.5 - 96.6)	232	94.7 (89.2 - 100.0)
<b>Received treatment for hepatitis B<sup>b</sup></b>										
Yes	35	69.3 (57.6 - 80.9)	0	0.0 (0.0 - 0.0)	21	72.6 (57.2 - 88.0)	7	68.0 (42.7 - 93.2)	7	61.7 (36.5 - 86.9)
No	15	30.7 (19.1 - 42.4)	0	0.0 (0.0 - 0.0)	8	27.4 (12.0 - 42.8)	3	32.0 (6.8 - 57.3)	4	38.3 (13.1 - 63.5)
<b>Ever heard of hepatitis C</b>										
Yes	1365	65.0 (44.0 - 85.9)	175	38.6 (34.9 - 42.2)	509	85.1 (81.5 - 88.7)	282	59.1 (54.7 - 63.5)	399	77.1 (73.6 - 80.5)
No	720	35.0 (14.1 - 56.0)	267	61.4 (57.8 - 65.1)	70	14.9 (11.3 - 18.5)	179	40.9 (36.5 - 45.3)	204	22.9 (19.5 - 26.4)
<b>Received health information on hepatitis C<sup>a,b</sup></b>										
Yes	932	58.2 (42.3 - 74.1)	93	42.5 (36.0 - 48.9)	405	76.6 (71.5 - 81.6)	151	45.8 (39.7 - 52.0)	283	67.5 (62.6 - 72.4)
No	431	41.8 (25.9 - 57.7)	82	57.5 (51.1 - 64.0)	102	23.4 (18.4 - 28.5)	131	54.2 (48.0 - 60.3)	116	32.5 (27.6 - 37.4)
<b>Modes of transmission of hepatitis C<sup>b,c</sup></b>										
Blood transfusion	168	24.8 (10.6 - 39.0)	27	32.2 (22.3 - 42.2)	36	13.6 (8.3 - 18.9)	66	44.1 (35.5 - 52.7)	39	11.1 (5.8 - 16.3)
Mother to unborn infant	63	8.3 (1.1 - 15.5)	6	7.5 (0.1 - 15.0)	6	2.1 (0.0 - 5.4)	37	23.0 (14.6 - 31.4)	14	3.7 (0.0 - 8.2)
Sexual intercourse	410	49.4 (25.9 - 72.9)	53	53.5 (43.9 - 63.1)	182	43.3 (37.3 - 49.3)	114	79.3 (71.3 - 87.3)	61	22.1 (16.0 - 28.1)
Sharing a meal	1	0.1 (0.0 - 0.3)	0	0.0 (0.0 - 0.0)	1	0.1 (0.0 - 0.3)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Sharing of needles	780	84.4 (75.9 - 93.0)	87	90.2 (77.7 - 100.0)	341	82.3 (78.0 - 86.7)	144	95.5 (85.8 - 100.0)	208	73.8 (68.2 - 79.5)
Sharing of paraphernalia (i.e. water for injection)	183	26.9 (8.5 - 45.4)	33	33.1 (24.3 - 41.9)	18	8.6 (3.9 - 13.4)	86	54.6 (46.1 - 63.1)	46	12.6 (7.5 - 17.7)
Body fluids	28	2.3 (0.0 - 4.6)	2	1.3 (0.0 - 4.0)	8	1.6 (0.0 - 3.5)	0	0.0 (0.0 - 0.0)	18	6.7 (1.7 - 11.6)
<b>Ever tested for hepatitis C<sup>a</sup></b>										
Yes	541	37.0 (22.9 - 51.1)	49	23.9 (17.0 - 30.8)	181	36.8 (32.1 - 41.5)	78	29.7 (23.3 - 36.1)	233	57.0 (51.8 - 62.1)
No	790	63.0 (48.9 - 77.1)	122	76.1 (69.2 - 83.0)	320	63.2 (58.5 - 67.9)	195	70.3 (63.9 - 76.7)	153	43.0 (37.9 - 48.2)
<b>Result of last hepatitis C test<sup>a,b</sup></b>										
Positive	102	20.1 (13.2 - 27.0)	10	15.6 (4.2 - 26.9)	29	19.5 (10.8 - 28.2)	24	34.0 (21.1 - 46.8)	39	16.0 (9.4 - 22.5)
Negative	399	79.9 (73.0 - 86.8)	39	84.4 (73.1 - 95.8)	127	80.5 (71.8 - 89.2)	44	66.0 (53.2 - 78.9)	189	84.0 (77.5 - 90.5)
<b>Received treatment for hepatitis C<sup>b</sup></b>										
Yes	56	60.4 (40.4 - 80.3)	9	96.3 (64.5 - 100.0)	14	59.4 (33.8 - 84.9)	11	38.1 (21.4 - 54.8)	22	59.9 (44.9 - 74.9)
No	46	39.6 (19.7 - 59.6)	1	3.7 (0.0 - 35.5)	15	40.6 (15.1 - 66.2)	13	61.9 (45.2 - 78.5)	17	40.1 (25.1 - 55.1)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sample denominator is based on the previous question

<sup>c</sup> Sum of sample numerator is higher than the sample denominator, as multiple responses could be selected

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; ART, antiretroviral therapy, PEP, post-exposure prophylaxis;

PMTCT, prevention of mother to child transmission of HIV; PrEP, pre-exposure prophylaxis; STI, sexually transmitted infection; HPV, human papillomavirus

## 5.7: STI, hepatitis B, and hepatitis C Biomarkers

Overall, the burden of viral hepatitis among people who inject drugs (PWID) in Kenya remains substantial. Active hepatitis B infection was found to be at 14.0% with the highest in Mombasa (17.3%), followed by Nairobi (8.2%), while Kiambu (0.7%) and Kilifi (3.8%) reported much lower rates.

Active hepatitis C prevalence was 7.4% nationally, with particularly high estimates in Kilifi (24.4%) and Kiambu (14.0%), and lower levels in Mombasa (8.3%) and Nairobi (9.5%)—illustrating wide geographic variation and continued injection-related transmission risk.

In contrast, bacterial STIs were rare: active syphilis (0.5%), chlamydia (0.5%), and gonorrhea (0.6%), all with overlapping low ranges across counties. Together, these data show that while classic STIs are relatively uncommon among PWID, viral hepatitis—especially HBV and HCV—remains an important comorbidity, concentrated in high-burden coastal and urban counties, underscoring the need for expanded hepatitis screening, vaccination, and treatment integration within harm-reduction programs.

Table 5.7: Prevalence of STI, Hepatitis B and Hepatitis C Among People Who Inject Drugs By Location, BBS, Kenya, 2024

	Overall Estimate		Kiambu		Kilifi		Mombasa		Nairobi	
	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)
Active hepatitis B	40/295	14.0 (7.2 - 20.8)	5/39	14.0 (0.3 - 29.9)	13/90	24.3 (8.7 - 43.5)	10/72	8.3 (0.9 - 20.2)	12/94	9.4 (1.4 - 21.7)
Active hepatitis C	144/2007	7.4 (2.3 - 12.6)	2/438	0.6 (0.0 - 1.6)	22/560	3.7 (2.2 - 5.5)	73/439	17.3 (13.2 - 21.9)	47/570	8.1 (5.7 - 10.9)
Active syphilis	6/1501	0.5 (0.0 - 0.9)	4/446	1.0 (0.2 - 2.1)	0/569	0.0 (0.0 - 0.0)	1/460	0.4 (0.0 - 1.3)	1/595	0.03 (0.0 - 0.1)
Chlamydia	10/1206	0.5 (0.1 - 0.8)	1/310	0.4 (0.0 - 1.4)	2/217	0.4 (0.0 - 1.1)	1/283	0.1 (0.0 - 0.3)	6/396	1.0 (0.3 - 2.1)
Gonorrhea	5/1206	0.6 (0.0 - 1.4)	0/310	0.0 (0.0 - 0.0)	1/217	0.2 (0.0 - 0.8)	0/283	0.0 (0.0 - 0.0)	4/396	1.0 (0.1 - 2.3)

*All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent - Driven Sampling package in R, applying Gile's Sequential Sampling estimator*

*Abbreviations: N, sample denominator; n, sample numerator; CI, confidence interval; STI, sexually transmitted infections*

## 5.8: Drug Use

The median age of first injection among PWID in Kenya was 24 years, with most initiating heroin use as their first injected drug, underscoring early exposure and limited diversity of injected substances.

Heroin remains the dominant drug, with over 98% reporting injecting it in the past three months, while use of other injectable drugs such as cocaine or benzodiazepines was negligible.

Injection is highly frequent—87% inject daily or more often—and most last injected within a week, reflecting entrenched dependency and high-risk use patterns.

Nearly half (49%) reported injecting with others, most commonly in injecting dens, particularly in Mombasa and Kiambu, increasing exposure to shared equipment risks.

Polydrug use is common, with over half (52%) also using cannabis and 27% using tranquilizers, while sex-for-drugs exchange remains a significant vulnerability among women (61% overall, with the highest being in Mombasa at 84%).

Overall, these findings reveal a high-intensity heroin-driven epidemic with overlapping sexual and injection-related risk behaviors that differ by region, emphasizing the need for integrated harm reduction, gender-sensitive outreach, and mental health support.

Access to sterile injecting equipment among PWID in Kenya is generally high but uneven across counties.

Nationally, 76.7% reported always having access to sterile needles, with the highest availability in Kilifi (98.6%) and Nairobi (91.9%), but lower in Kiambu (62.7%) and Mombasa (53.4%). Similarly, 79.1% reported always using sterile needles in the past three months, though usage drops sharply in coastal counties where availability is constrained.

Despite high overall coverage, 28.3% reported sharing needles and 34.0% shared injection paraphernalia during their last injection, posing significant risk for HIV and hepatitis transmission.

The main barriers to consistent sterile use were unavailability (48.9%), cost (14.8%), and difficulty finding clean needles (10.1%), with these barriers most pronounced in Mombasa and Kiambu.

Drop-in centers (DICE) and outreach workers are the leading needle sources, with 47.9% obtaining needles from DICE and 47.8% from peer educators. However, county differences are stark—DICE access is nearly universal in Kilifi (81.4%) but limited in Kiambu (11.8%), while Mombasa (54.1%) relies heavily on needle exchange programs. These findings underscore the importance of expanding harm-reduction services, strengthening peer-led distribution, and addressing structural barriers to ensure consistent clean-needle access across all regions.

Table 5.8.1: Drug Use Among People Who Inject Drugs By Location, BBS, Kenya, 2024

	Overall Estimate (N=2100)		Kiambu (N=466)		Kilifi (N=582)		Mombasa (N=469)		Nairobi (N=603)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Median age first injected drugs, years</b>	2065	24 (20 - 30)	444	24 (20 - 30)	579	26 (21 - 31)	448	26 (21 - 32)	594	22 (18 - 27)
<b>Drugs injected at first time</b>										
Cocaine	19	0.9 (0.2 - 1.6)	3	0.9 (0.0 - 2.0)	6	0.6 (0.1 - 1.0)	9	1.9 (0.6 - 3.2)	1	0.2 (0.0 - 0.6)
Benzodiazepine/tranquillizers	1	0.01 (0.0 - 0.05)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	0.08 (0.0 - 0.2)
Heroin	2080	99.1 (98.5 - 99.8)	443	99.1 (98.0 - 100.0)	576	99.4 (99.0 - 99.9)	460	98.1 (96.8 - 99.4)	601	99.7 (99.3 - 100.0)
<b>Drugs injected in the last 3 months</b>										
Cocaine only	4	0.0 (0.0 - 0.1)	0	0.0 (0.0 - 0.0)	1	0.0 (0.0 - 0.1)	2	0.5 (0.0 - 1.3)	1	0.1 (0.0 - 0.3)
Heroin only	2061	98.6 (97.7 - 99.4)	441	99.0 (98.2 - 99.8)	578	99.0 (97.5 - 100.0)	451	96.5 (94.8 - 98.3)	591	98.7 (97.8 - 99.5)
Heroin and any other drug	34	1.4 (0.6 - 2.1)	5	1.0 (0.2 - 1.8)	3	0.9 (0.0 - 2.5)	16	3.0 (1.4 - 4.6)	10	1.2 (0.4 - 2.0)
Other opioids only	1	0.0 (0.0 - 0.1)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	0.1 (0.0 - 0.4)
<b>Last injected heroin<sup>a,b</sup></b>										
Within the last 7 days	1990	95.3 (92.7 - 98.0)	439	97.8 (96.3 - 99.3)	555	95.1 (93.0 - 97.2)	449	96.7 (95.1 - 98.3)	547	91.6 (89.1 - 94.2)
2 to 4 weeks ago	53	2.7 (2.0 - 3.4)	5	1.6 (0.3 - 2.8)	13	2.9 (1.1 - 4.7)	13	2.7 (1.3 - 4.1)	22	3.4 (1.7 - 5.0)
More than 4 weeks	52	2.1 (0.06 - 4.1)	2	0.6 (0.0 - 1.4)	13	2.0 (0.7 - 3.3)	5	0.6 (0.06 - 1.2)	32	5.0 (2.9 - 7.1)
<b>Last injected cocaine<sup>a,b</sup></b>										
Within the last 7 days	13	66.6 (32.5 - 100.0)	2	61.2 (19.2 - 100.0)	2	96.3 (67.6 - 100.0)	7	83.3 (62.1 - 100.0)	2	19.2 (0.0 - 46.8)
2 to 4 weeks ago	3	4.2 (0.0 - 9.5)	1	10.6 (4.2 - 17.5)	1	3.7 (0.0 - 32.1)	1	9.0 (0.0 - 24.8)	0	0.0 (0.0 - 0.0)
More than 4 weeks	7	31.5 (0.0 - 68.4)	1	28.2 (0.0 - 68.9)	0	0.0 (0.0 - 0.0)	1	7.7 (0.0 - 21.1)	5	80.8 (53.5 - 100.0)
<b>Last injected other drug<sup>a,b,d</sup></b>										
Within the last 7 days	13	66.2 (44.7 - 87.8)	1	100.0 (29.2 - 100.0)	0	0.0 (0.0 - 0.0)	9	76.1 (48.3 - 100.0)	3	44.4 (3.0 - 86.1)
2 to 4 weeks ago	3	27.0 (5.8 - 48.2)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	2	23.9 (0.0 - 51.0)	1	35.3 (0.0 - 81.9)
More than 4 weeks	2	6.8 (0.0 - 15.3)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	2	20.3 (0.0 - 51.3)
<b>Frequency of drugs injected in the last 3 months</b>										
More than 3 times a day	748	34.1 (28.7 - 39.6)	156	31.3 (27.0 - 35.5)	206	35.1 (30.2 - 39.9)	193	41.4 (32.9 - 50.0)	193	28.6 (24.3 - 32.9)
2 to 3 times a day	1094	52.9 (47.4 - 58.4)	215	49.1 (44.4 - 53.8)	342	58.8 (54.1 - 63.5)	220	47.1 (39.1 - 55.2)	317	56.2 (51.8 - 60.7)
Once a day	146	7.5 (4.5 - 10.5)	39	11.8 (8.2 - 15.4)	33	6.1 (3.5 - 8.6)	24	4.5 (2.6 - 6.5)	50	7.8 (5.1 - 10.4)
2 to 3 times a week	62	2.8 (0.8 - 4.9)	25	5.0 (3.1 - 6.9)	1	0.07 (0.0 - 0.2)	17	3.3 (1.8 - 4.9)	19	3.0 (1.6 - 4.4)
Once a week	30	1.4 (0.4 - 2.4)	9	2.1 (0.8 - 3.3)	0	0.0 (0.0 - 0.0)	7	1.6 (0.4 - 2.8)	14	1.9 (0.9 - 2.9)
Once a month	20	1.3 (0.2 - 2.4)	2	0.8 (0.0 - 1.6)	0	0.0 (0.0 - 0.0)	8	1.9 (0.5 - 3.2)	10	2.4 (0.7 - 4.2)
<b>Other drugs used in the last 3 months<sup>e</sup></b>										
Alcohol	52	1.3 (0.3 - 2.2)	42	9.1 (6.3 - 11.8)	1	0.1 (0.0 - 0.2)	1	0.2 (0.0 - 0.6)	8	1.4 (0.4 - 2.4)
Cannabis/bang	1108	52.4 (49.0 - 55.8)	223	50.3 (45.5 - 55.1)	315	50.7 (45.5 - 56.0)	217	50.7 (45.2 - 56.3)	353	57.2 (52.6 - 61.9)
Ketamine	14	0.6 (0.0 - 1.4)	0	0.0 (0.0 - 0.0)	4	0.7 (0.0 - 1.4)	1	0.1 (0.0 - 0.2)	9	1.5 (0.4 - 2.5)
Khat	261	12.3 (7.2 - 17.4)	26	7.2 (4.5 - 9.9)	90	12.8 (9.6 - 16.0)	45	9.1 (6.5 - 11.8)	100	20.9 (16.7 - 25.2)
Prescribed drugs	48	2.1 (0.4 - 3.7)	35	6.9 (5.0 - 8.9)	7	1.7 (0.0 - 3.5)	1	0.1 (0.0 - 0.2)	5	0.9 (0.3 - 1.6)
Sniffed/inhaled drugs (glue, poppers, fuel)	62	2.7 (1.1 - 4.2)	5	1.0 (0.2 - 1.9)	16	2.2 (1.1 - 3.4)	15	3.0 (1.6 - 4.5)	26	5.9 (3.2 - 8.7)
Spice/K2	15	1.0 (0.0 - 2.4)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	0.3 (0.0 - 0.9)	14	1.8 (0.7 - 2.8)
Tobacco	190	9.3 (2.8 - 15.9)	119	26.0 (22.1 - 29.9)	1	0.1 (0.0 - 0.2)	12	2.4 (0.9 - 3.8)	58	10.2 (7.2 - 13.1)
Tranquilizers (rohypnol, xanax, diazepam)	564	26.6 (17.0 - 36.1)	96	20.2 (16.5 - 24.0)	248	37.8 (33.2 - 42.4)	135	31.9 (27.1 - 36.7)	85	16.7 (12.9 - 20.5)
<b>Injection with more than one person at last time injected</b>										
Injected with one or more people	1120	49.3 (29.1 - 69.6)	358	79.3 (75.7 - 83.0)	319	46.6 (42.0 - 51.1)	161	34.9 (28.9 - 40.9)	282	36.6 (32.2 - 41.0)
Never injected with someone	980	50.7 (30.5 - 70.9)	88	20.7 (16.8 - 24.5)	263	53.4 (48.7 - 58.2)	308	65.1 (59.0 - 71.2)	321	63.4 (59.1 - 67.6)
<b>Place of injection with another person<sup>a,b</sup></b>										
House of a drug dealer	24	3.1 (0.0 - 6.2)	12	4.0 (1.5 - 6.6)	11	5.2 (2.3 - 8.0)	0	0.0 (0.0 - 0.0)	1	0.6 (0.0 - 1.9)
House of another person who injects	31	2.6 (1.0 - 4.2)	6	2.4 (0.0 - 4.8)	17	5.3 (2.5 - 8.1)	3	1.2 (0.0 - 2.4)	5	2.4 (0.4 - 4.5)
In an abandoned building	42	4.3 (1.3 - 7.2)	7	1.8 (0.7 - 3.0)	22	8.9 (5.0 - 12.8)	2	1.6 (0.0 - 3.8)	11	6.5 (2.8 - 10.2)
Injecting den	697	60.0 (37.9 - 82.1)	247	64.9 (59.3 - 70.5)	112	27.6 (21.4 - 33.7)	117	75.8 (67.5 - 84.1)	221	69.0 (61.4 - 76.6)
Location where drugs were purchased	69	5.3 (0.8 - 9.7)	6	1.2 (0.2 - 2.2)	58	21.2 (15.1 - 27.4)	4	2.6 (0.0 - 5.8)	1	1.0 (0.0 - 3.1)
My house	118	12.0 (9.7 - 14.3)	32	11.1 (7.1 - 15.1)	48	13.7 (9.3 - 18.1)	12	8.8 (4.0 - 13.6)	26	14.2 (9.0 - 19.4)
Prison	3	0.3 (0.0 - 0.6)	1	0.4 (0.0 - 0.8)	1	0.3 (0.0 - 0.6)	0	0.0 (0.0 - 0.0)	1	1.0 (0.0 - 3.2)
Public toilet/Shop/cafe/bar/Other open spaces	50	5.0 (1.0 - 9.1)	5	1.3 (0.3 - 2.3)	43	15.8 (12.0 - 19.5)	0	0.0 (0.0 - 0.0)	2	0.4 (0.0 - 1.2)
Street/park/beach	77	6.7 (1.3 - 12.0)	40	12.6 (9.6 - 15.7)	4	1.1 (0.0 - 3.4)	23	9.9 (3.5 - 16.3)	10	3.8 (1.7 - 6.0)
Workplace	5	0.2 (0.1 - 0.3)	1	0.2 (0.0 - 0.4)	3	0.9 (0.0 - 2.3)	0	0.0 (0.0 - 0.0)	1	0.3 (0.0 - 1.4)
Other	3	0.4 (0.3 - 0.5)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	3	0.7 (0.0 - 4.2)
<b>Sold sex for drugs (Male)</b>										
Yes	138	6.4 (1.6 - 11.2)	1	0.1 (0.0 - 0.3)	74	12.1 (9.0 - 15.1)	35	7.2 (4.4 - 10.0)	28	6.2 (3.8 - 8.6)
No	1682	93.7 (88.8 - 98.5)	392	99.9 (99.7 - 100.0)	449	87.9 (84.9 - 90.9)	386	92.8 (90.1 - 95.6)	455	93.8 (91.4 - 96.2)
<b>Sold sex for drugs (Female)</b>										
Yes	162	61.0 (44.5 - 77.5)	25	45.0 (31.5 - 58.4)	40	62.2 (45.6 - 79.1)	36	83.8 (74.3 - 93.0)	61	51.8 (41.3 - 62.0)
No	116	39.3 (22.7 - 55.8)	28	55.0 (42.1 - 68.0)	19	37.8 (20.6 - 54.7)	12	16.2 (7.2 - 25.5)	57	48.2 (37.9 - 58.7)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sample denominator is based on the previous question

<sup>c</sup> Sum of sample numerator is higher than the sample denominator, as multiple responses could be selected

<sup>d</sup> Computed using weighted average due to small numbers

Abbreviations: N, sample denominator; n, sample numerator; IQR, interquartile range; CI, confidence interval

Table 5.8.2: Clean Needle Use Among People Who Inject Drugs By Location, BBS, Kenya, 2024

	Overall (N=2100)		Kiambu (N=466)		Kilifi (N=582)		Mombasa (N=469)		Nairobi (N=603)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Availability of sterile needles/syringes</b>										
Always	1679	76.7 (55.2 - 98.2)	288	62.7 (57.9 - 67.4)	571	98.6 (97.6 - 99.5)	265	53.4 (45.5 - 61.3)	555	91.9 (89.3 - 94.6)
Most of the time	296	16.4 (0.0 - 34.4)	75	17.4 (13.4 - 21.3)	7	1.0 (0.1 - 1.8)	182	41.9 (34.0 - 49.8)	32	5.5 (3.2 - 7.8)
Sometimes	101	5.7 (0.0 - 12.9)	67	16.6 (12.7 - 20.5)	4	0.5 (0.01 - 1.0)	18	3.8 (2.2 - 5.5)	12	2.0 (0.7 - 3.3)
Rarely	17	0.8 (0.0 - 2.2)	15	3.0 (1.6 - 4.5)	0	0.0 (0.0 - 0.0)	1	0.3 (0.0 - 0.7)	1	0.1 (0.0 - 0.3)
Never	7	0.3 (0.05 - 0.6)	1	0.3 (0.0 - 0.8)	0	0.0 (0.0 - 0.0)	3	0.6 (0.0 - 1.2)	3	0.4 (0.0 - 1.0)
<b>Frequency of sterile needle use in the last 3 months</b>										
Always	1733	79.1 (59.9 - 98.3)	308	65.9 (61.4 - 70.5)	578	99.5 (98.9 - 100.0)	291	59.0 (50.0 - 67.9)	556	91.7 (89.1 - 94.2)
Most of the time	242	13.7 (0.0 - 30.2)	48	12.4 (8.8 - 16.0)	3	0.4 (0.0 - 1.0)	161	37.7 (28.6 - 47.0)	30	4.3 (2.5 - 6.2)
Sometimes	104	6.1 (0.0 - 14.1)	74	18.2 (14.4 - 22.1)	1	0.09 (0.0 - 0.2)	13	2.4 (1.0 - 3.8)	16	3.8 (1.8 - 5.8)
Rarely	18	0.9 (0.0 - 2.2)	14	3.0 (1.5 - 4.5)	0	0.0 (0.0 - 0.0)	3	0.6 (0.0 - 1.2)	1	0.2 (0.0 - 0.5)
Never	3	0.1 (0.0 - 0.4)	2	0.4 (0.001 - 0.8)	0	0.0 (0.0 - 0.0)	1	0.3 (0.0 - 0.7)	0	0.0 (0.0 - 0.0)
<b>Shared needle with another person last time injected<sup>a</sup></b>										
Yes	267	28.3 (24.3 - 32.2)	77	22.6 (18.1 - 27.1)	81	31.6 (25.4 - 37.8)	49	27.8 (20.8 - 34.9)	60	30.5 (23.8 - 37.3)
No	849	71.8 (67.9 - 75.8)	281	77.4 (72.9 - 81.8)	238	68.4 (62.0 - 74.8)	109	72.2 (65.0 - 79.4)	221	69.5 (62.6 - 76.3)
<b>Shared cooker, cotton or water with another person last time injected<sup>b</sup></b>										
Yes	338	34.0 (27.1 - 40.9)	129	33.2 (28.4 - 38.0)	63	24.7 (18.6 - 30.7)	68	40.8 (32.8 - 48.8)	78	37.4 (30.1 - 44.6)
No	778	66.1 (59.2 - 72.9)	227	66.8 (61.9 - 71.7)	255	75.3 (69.1 - 81.5)	92	59.2 (51.1 - 67.3)	204	62.6 (54.9 - 70.4)
<b>Reasons for not always using a sterile needle or syringe</b>										
Afraid to carry needles	3	0.7 (0.0 - 1.5)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	2	1.3 (0.0 - 3.0)	1	0.8 (0.0 - 1.9)
Believe person sharing with has the same HIV status	9	2.6 (0.0 - 5.3)	7	4.0 (1.2 - 6.7)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	2	5.2 (0.0 - 12.3)
Cleaned the needle	27	6.2 (1.6 - 10.8)	14	9.7 (4.9 - 14.3)	0	0.0 (0.0 - 0.0)	8	3.4 (0.9 - 5.8)	5	10.1 (0.9 - 19.4)
Difficult to find	50	10.1 (3.0 - 17.3)	24	18.3 (11.4 - 25.2)	0	0.0 (0.0 - 0.0)	22	12.0 (6.8 - 17.2)	4	9.2 (0.0 - 18.5)
Expensive	64	14.8 (0.0 - 33.9)	54	42.5 (33.3 - 51.9)	0	0.0 (0.0 - 0.0)	5	2.6 (0.7 - 4.5)	5	13.9 (0.1 - 27.9)
Not available	200	48.9 (24.4 - 73.5)	35	22.8 (15.1 - 30.5)	2	35.4 (0.0 - 92.3)	140	80.3 (73.6 - 86.9)	23	51.7 (35.6 - 67.6)
Peer pressure to share	7	16.3 (0.0 - 45.9)	1	0.7 (0.0 - 1.9)	2	64.6 (8.5 - 100.0)	0	0.0 (0.0 - 0.0)	4	3.8 (0.0 - 7.8)
Other	7	2.2 (0.0 - 4.6)	3	2.0 (0.0 - 4.3)	0	0.0 (0.0 - 0.0)	1	0.4 (0.0 - 0.9)	3	5.3 (0.0 - 11.4)
<b>Places got sterile needles from in last 3 months<sup>b</sup></b>										
DICE	1103	47.9 (12.8 - 83.1)	55	11.8 (8.7 - 14.9)	467	81.4 (77.6 - 85.1)	179	37.2 (31.2 - 43.2)	402	61.4 (56.7 - 66.1)
Drug dealers or other drug users	266	12.8 (5.7 - 19.9)	58	12.8 (9.8 - 15.8)	141	25.0 (20.8 - 29.1)	38	8.9 (6.1 - 11.7)	29	5.3 (3.0 - 7.6)
Needle/syringe exchange program	473	23.5 (11.1 - 36.0)	15	2.5 (1.5 - 3.5)	165	36.8 (31.5 - 42.0)	275	54.1 (47.9 - 60.4)	18	3.1 (1.5 - 4.7)
Peer educators/outreach worker	960	47.8 (23.1 - 72.4)	332	70.7 (66.2 - 75.1)	120	18.9 (15.4 - 22.5)	292	61.0 (55.1 - 66.9)	216	40.6 (36.0 - 45.2)
Pharmacy/chemist	282	15.2 (5.3 - 25.1)	112	24.4 (20.3 - 28.6)	50	8.6 (6.0 - 11.2)	100	24.9 (19.9 - 29.8)	20	3.5 (1.8 - 5.3)
Public/private hospitals and clinics	45	1.8 (0.4 - 3.2)	2	0.5 (0.0 - 1.1)	9	1.7 (0.5 - 2.9)	5	1.2 (0.1 - 2.2)	29	4.5 (2.9 - 6.2)
Sex partner/friend/acquaintance/spouse	163	8.5 (3.9 - 13.0)	37	11.0 (7.7 - 14.4)	53	8.4 (6.0 - 10.8)	45	11.9 (8.6 - 15.2)	28	3.2 (1.9 - 4.5)
Street vendor	100	4.7 (0.5 - 8.9)	27	6.1 (3.6 - 8.6)	47	8.6 (6.2 - 11.0)	1	0.2 (0.0 - 0.6)	25	4.2 (2.2 - 6.2)
<i>All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.</i>										
<sup>a</sup> Non-responses and missing data were excluded from the analysis.										
<sup>b</sup> Sum of sample numerator is higher than the sample denominator, as multiple responses could be selected										
Abbreviations: N, sample denominator; n, sample numerator; CI, confidence interval; DICE, drop-in centre										

## **OAT:**

Awareness and engagement with drug treatment programs among PWID in Kenya are high but vary across regions. Nationally, 91.9% were aware of available drug treatment programs, with the highest awareness in Mombasa (98.4%) and Nairobi (95.4%), though lower in Kilifi (84.6%). About half (51.4%) had ever been in a drug treatment program, ranging from 17.9% in Kiambu to 83.2% in Nairobi, showing strong urban engagement. Of those with recent treatment experience, 71.8% had attended a program in the past year, with Nairobi again leading (94.2%) but lower participation in Kiambu (48.6%).

Medication-assisted therapy coverage, such as methadone or buprenorphine, reached 35.4% nationally—highest in Nairobi (65.3%) and Kilifi (38.1%), but minimal in Kiambu (8.2%)—while about 23.3% wished to start treatment, indicating unmet demand. Overdose history was common, with 30.0% reporting ever overdosing, particularly in Kilifi (45.0%), and only 34.3% had received naloxone for overdose management in the past year. These findings reveal that while Kenya's OAT and harm-reduction programs have made significant progress—especially in Nairobi and coastal counties—gaps in treatment access, overdose prevention, and medication coverage remain, particularly in Kiambu and other inland regions.

Table 5.8.3: Opioid Agonist Therapy (OAT) Among People Who Inject Drugs By Location, BBS, Kenya, 2024

	Overall (N=2100)		Kiambu (N=466)		Kilifi (N=582)		Mombasa (N=469)		Nairobi (N=603)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Aware of availability of any drug treatment program<sup>a</sup></b>										
Yes	1962	91.9 (85.8 - 98.0)	407	89.0 (85.8 - 92.2)	521	84.6 (79.8 - 89.2)	460	98.4 (97.3 - 99.5)	574	95.4 (93.5 - 97.4)
No	137	8.2 (2.0 - 14.3)	39	11.0 (7.6 - 14.4)	60	15.4 (10.6 - 20.4)	9	1.6 (0.6 - 2.6)	29	4.6 (2.5 - 6.6)
<b>Ever been in a drug treatment program<sup>a</sup></b>										
Yes	1181	51.4 (24.9 - 77.9)	92	17.9 (14.5 - 21.2)	355	58.0 (53.2 - 62.7)	229	46.4 (37.1 - 55.6)	505	83.2 (79.6 - 86.8)
No	918	48.6 (22.1 - 75.2)	353	82.1 (78.9 - 85.4)	227	42.0 (37.2 - 46.9)	240	53.6 (44.3 - 62.9)	98	16.8 (13.1 - 20.4)
<b>Been in a drug treatment program in the last 12 months<sup>b</sup></b>										
Yes	930	71.8 (53.7 - 89.9)	42	48.6 (38.3 - 58.8)	253	70.4 (64.8 - 76.0)	164	72.8 (65.9 - 79.7)	471	94.2 (92.0 - 96.4)
No	251	28.4 (10.1 - 46.6)	50	51.4 (41.1 - 61.8)	102	29.6 (24.1 - 35.1)	65	27.2 (20.4 - 34.0)	34	5.8 (3.5 - 8.0)
<b>Unable to get into a drug treatment program in the last 12 months<sup>b</sup></b>										
Yes	82	32.4 (19.4 - 45.4)	7	13.3 (4.8 - 21.8)	42	40.8 (29.3 - 51.7)	21	30.6 (19.0 - 42.2)	12	43.6 (25.9 - 61.2)
No	169	68.0 (54.7 - 81.4)	43	86.7 (77.7 - 95.8)	60	59.2 (48.7 - 70.4)	44	69.4 (57.9 - 80.8)	22	56.4 (38.3 - 74.6)
<b>Received drug dependency medication in the last 12 months<sup>a</sup></b>										
Yes	824	35.4 (12.2 - 58.5)	43	8.2 (6.0 - 10.4)	240	38.1 (33.2 - 43.0)	137	29.9 (23.1 - 36.6)	404	65.3 (60.7 - 69.9)
No, would like to	484	23.3 (19.8 - 26.7)	88	20.1 (16.2 - 23.9)	138	22.4 (18.4 - 26.5)	144	28.4 (23.2 - 33.6)	114	22.1 (18.4 - 25.9)
No, not interested	753	40.0 (16.7 - 63.3)	302	69.1 (64.8 - 73.4)	202	39.2 (34.5 - 43.9)	180	41.0 (34.1 - 47.8)	69	10.9 (7.6 - 14.2)
No, don't know about such treatment	30	1.3 (0.3 - 2.3)	12	2.6 (1.2 - 4.1)	2	0.3 (0.0 - 0.6)	4	0.8 (0.1 - 1.5)	12	1.6 (0.6 - 2.7)
<b>Ever overdosed on any drugs</b>										
Yes	669	30.0 (18.4 - 41.6)	81	16.5 (13.1 - 19.8)	277	45.0 (40.3 - 49.5)	153	31.9 (24.5 - 39.3)	158	26.7 (22.4 - 31.0)
No	1431	70.0 (58.4 - 81.6)	365	83.5 (80.3 - 86.8)	305	55.0 (50.4 - 59.7)	316	68.1 (60.8 - 75.4)	445	73.3 (69.2 - 77.4)
<b>Received naloxone for overdose management in the last 12 months<sup>a,b</sup></b>										
Yes	237	34.3 (19.9 - 48.6)	19	23.0 (13.1 - 33.0)	99	37.4 (30.4 - 44.3)	34	22.4 (14.7 - 30.3)	85	53.5 (44.7 - 62.5)
No	414	65.9 (51.4 - 80.4)	59	77.0 (67.1 - 86.8)	167	62.6 (55.6 - 69.7)	116	77.6 (69.9 - 85.1)	72	46.5 (37.4 - 55.4)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sample denominator is based on the previous question

<sup>c</sup> Medication for drug dependency include methadone, buprenorphine, naltrexone and suboxone

Abbreviations: N, sample denominator; n, sample numerator; CI, confidence interval

## 5.9: Sexual Behavior

Among people who inject drugs (PWID) in Kenya, sexual activity begins early, with a median age at sexual debut of 17 years, consistent across all regions. Most respondents reported a low number of sexual partners—typically one to two, in the last six months—suggesting stable but ongoing sexual risk within relationships.

Vaginal sex was nearly universal (98.1%) in the most recent encounter, while anal (1.6%) and oral (0.4%) sex were rare, indicating limited engagement in non-vaginal sexual practices among this group.

Transactional sex remains a key risk factor: 13.7% of PWID reported selling sex for drugs or money in the past three months, with the highest prevalence in Kilifi (17.6%) and Nairobi (16.3%), compared to 5.8% in Kiambu.

Among those engaged in transactional sex, about 37% did so consistently (“always”) while under the influence of drugs, especially in Kilifi (64.9%), pointing to overlapping vulnerabilities of drug dependence and economic precarity. These findings highlight how sexual and drug-use risks intersect among PWID—particularly for those trading sex to sustain substance use—underscoring the need for integrated harm-reduction and sexual health interventions targeting this population.

Table 5.9.1: Sexual Behavior Characteristics Among People Who Inject Drugs By Location, BBS, Kenya, 2024

	Overall (N=2100)		Kiambu (N=466)		Kilifi (N=582)		Mombasa (N=469)		Nairobi (N=603)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Median age at first sex, years (IQR)<sup>a</sup></b>	1979	17 (15 - 19)	439	17 (15 - 18)	565	17 (15 - 19)	417	17 (15 - 19)	558	17 (15 - 19)
<b>Median number of sex partners in the last 6 months (IQR)<sup>a</sup></b>	1577	1 (1 - 2)	370	2 (1 - 3)	469	2 (1 - 3)	291	1 (1 - 2)	447	1 (1 - 2)
<b>Type of sex in the last sexual encounter<sup>a</sup></b>										
Anal	20	1.6 (0.0 - 3.5)	0	0.0 (0.0 - 0.0)	11	3.6 (0.4 - 7.0)	9	2.9 (0.8 - 5.1)	0	0.0 (0.0 - 0.0)
Oral	6	0.4 (0.08 - 0.7)	1	0.3 (0.0 - 0.7)	2	0.7 (0.0 - 1.8)	1	0.06 (0.06 - 0.06)	2	0.5 (0.0 - 1.2)
Vaginal	1319	98.1 (96.1 - 100.0)	344	99.7 (99.3 - 100.0)	326	95.7 (92.2 - 99.1)	262	97.0 (94.4 - 99.6)	387	99.5 (98.8 - 100.0)
<b>Sold sex for drugs/money in the last 3 months<sup>a</sup></b>										
Yes	301	13.7 (8.5 - 19.0)	26	5.8 (3.5 - 7.9)	114	17.6 (13.9 - 21.2)	71	15.2 (9.4 - 20.9)	90	16.3 (12.5 - 20.0)
No	1798	86.3 (81.1 - 91.6)	420	94.2 (92.0 - 96.5)	468	82.4 (79.0 - 85.9)	398	84.8 (79.1 - 90.6)	512	83.7 (80.0 - 87.4)
<b>Frequency of selling sex while on drugs<sup>a</sup></b>										
Always	636	37.4 (31.2 - 56.6)	113	30.0 (25.4 - 34.6)	305	64.9 (59.8 - 70.0)	72	18.9 (14.5 - 23.2)	146	35.7 (30.5 - 40.9)
Most of the time	354	22.2 (11.5 - 33.0)	130	34.8 (30.1 - 39.5)	107	22.7 (17.9 - 27.4)	73	23.5 (18.3 - 28.6)	44	8.1 (5.5 - 10.7)
Sometime	414	28.0 (12.4 - 43.6)	76	21.0 (16.8 - 25.3)	41	8.9 (5.6 - 12.1)	107	42.0 (35.5 - 48.5)	190	40.2 (35.4 - 45.0)
Rarely	132	8.3 (3.4 - 13.2)	48	13.5 (9.8 - 17.2)	11	2.3 (0.8 - 3.9)	34	11.0 (7.6 - 14.4)	39	6.5 (4.0 - 9.0)
Never	65	4.1 (0.0 - 8.1)	3	0.6 (0.03 - 1.3)	6	1.2 (0.3 - 2.2)	19	4.7 (2.2 - 7.3)	37	9.6 (6.3 - 12.9)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval.

## 5.10: Uptake of Prevention and Treatment Services

### Condoms:

Condom accessibility among PWID in Kenya is generally good, with 79.7% reporting they could always obtain condoms when needed, though access varies geographically. Drop-in centers (47.2%), peer educators (37.6%), and supermarkets/pharmacies (35.7%) were the main condom sources, with Kilifi (70%) and Nairobi (60.9%) showing the highest utilization of DICE facilities.

However, 15.5% had never obtained condoms, particularly in Kiambu (20.1%) and Mombasa (22.4%), suggesting gaps in outreach coverage.

While 70.9% reported receiving free condoms in the past 12 months—led by Kilifi (90%)—consistent use remains low.

Only 43.7% used a condom during their last sexual encounter, with Nairobi showing the highest recent use (54.0%) and Kiambu the lowest (36.9%). Over the last six months, just 21.5% reported always using condoms, while more than a third (35.6%) never used them. These findings indicate that despite widespread condom availability and free distribution, consistent condom use remains limited, reflecting behavioral barriers, inconsistent risk perception, and potential gaps in sexual health education within harm reduction programs.

### Lubricants:

Lubricant use among PWID in Kenya remains limited, with only 8.5% reporting use overall, though slightly higher in Nairobi (11.5%) and Kilifi (10.4%), compared to lower rates in Kiambu (5.0%) and Mombasa (6.8%).

Among those who used lubricants, water-based products were most common (44.1%), including commercial and government-supplied options such as Sure Lube (26.1%) and KY Jelly (17.1%), suggesting some access to appropriate products for safer sex.

Most users obtained lubricants from supermarkets and pharmacies (55.3%) or drop-in centers (31.5%), though access through formal health facilities remained minimal (2.5%). Counties like Nairobi (39.6%) and Kilifi (36.5%) showed stronger links to community-based sources such as DICE facilities, highlighting the role of harm reduction programs in distribution.

Despite this, low overall use indicates significant gaps in sexual health awareness and access to affordable, safe lubricants—particularly in regions where drug use and transactional sex overlap—pointing to the need for integrating lubricant provision into broader HIV prevention and harm reduction strategies.

Table 5.10.1: Condom Use And Accessibility Among People Who Inject Drugs By Location, BBS, Kenya, 2024

	Overall (N=2100)		Kiambu (N=446)		Kilifi (N=582)		Mombasa (N=469)		Nairobi (N=603)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Places usually get condoms<sup>a</sup></b>										
Bars/clubs	4	0.2 (0.0 - 0.4)	2	0.5 (0.0 - 1.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	2	0.3 (0.0 - 0.8)
Clinic/hospital	434	19.0 (6.6 - 31.4)	56	12.5 (9.3 - 15.6)	246	37.0 (32.4 - 41.4)	37	8.2 (4.8 - 11.6)	95	18.2 (14.5 - 22.0)
Condom dispensers	483	21.8 (11.2 - 32.5)	84	19.7 (15.3 - 24.1)	242	37.7 (33.2 - 42.2)	81	14.8 (10.5 - 19.2)	76	15.1 (11.7 - 18.4)
Drop-in centre	1036	47.2 (22.6 - 71.8)	58	12.8 (9.6 - 16.1)	402	70.0 (65.3 - 74.7)	197	45.2 (39.2 - 51.1)	379	60.9 (55.9 - 65.8)
Friend/peer	2	0.04 (0.0 - 0.1)	1	0.3 (0.0 - 0.8)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	0.06 (0.0 - 0.2)
Peer educators	757	37.6 (31.8 - 43.5)	169	38.1 (33.1 - 43.1)	233	41.4 (36.7 - 46.1)	191	41.9 (36.4 - 47.3)	164	29.2 (24.9 - 33.4)
Sex venues	135	6.7 (4.3 - 9.2)	11	3.7 (1.5 - 5.9)	41	5.4 (3.6 - 7.1)	41	9.0 (5.7 - 12.4)	42	8.6 (5.9 - 11.3)
Supermarket/pharmacy/kiosk	767	35.7 (31.3 - 40.1)	148	32.9 (28.6 - 37.1)	288	42.1 (37.5 - 46.6)	154	32.7 (28.4 - 37.1)	177	34.8 (30.3 - 39.4)
Never obtained condoms	289	15.5 (7.5 - 23.5)	91	20.1 (16.4 - 23.8)	16	4.2 (1.7 - 6.7)	97	22.4 (17.2 - 27.5)	85	15.3 (11.8 - 18.8)
<b>Received free condoms in the last 12 months<sup>b</sup></b>										
Yes	1446	70.9 (56.9 - 84.9)	263	59.5 (55.0 - 64.0)	531	90.0 (86.9 - 93.1)	269	60.5 (54.9 - 66.0)	383	73.4 (68.9 - 78.0)
No	584	29.1 (15.1 - 43.2)	181	40.5 (36.1 - 44.9)	48	10.0 (6.7 - 13.3)	184	39.5 (33.9 - 45.1)	171	26.6 (22.2 - 30.9)
<b>Unable to get condoms when needed in the last 12 months<sup>b</sup></b>										
Always	140	7.7 (0.0 - 15.9)	25	5.9 (3.9 - 7.9)	15	2.5 (1.1 - 4.0)	12	2.3 (0.8 - 3.7)	88	20.0 (15.8 - 24.4)
Sometimes	234	12.6 (4.6 - 20.6)	16	4.0 (2.1 - 5.8)	110	23.7 (18.9 - 28.5)	51	11.6 (8.5 - 14.7)	57	11.1 (7.6 - 14.7)
Never	1596	79.7 (69.9 - 89.6)	396	90.2 (87.7 - 92.7)	448	73.8 (69.2 - 78.4)	354	86.2 (82.7 - 89.6)	398	68.9 (63.8 - 73.8)
<b>Used condom at last sex<sup>a</sup></b>										
Yes	690	43.7 (36.5 - 50.9)	138	36.9 (32.1 - 41.7)	196	40.6 (35.6 - 45.6)	125	43.0 (37.1 - 49.1)	231	54.0 (48.3 - 59.6)
No	909	56.3 (49.1 - 63.6)	232	63.1 (58.2 - 68.0)	274	59.4 (54.2 - 64.7)	179	57.0 (51.0 - 62.9)	224	46.0 (40.4 - 51.6)
<b>Used condom in the last 6 months<sup>a</sup></b>										
Always	380	21.5 (13.3 - 29.6)	66	18.2 (14.5 - 21.9)	120	21.5 (17.4 - 25.7)	45	13.2 (9.4 - 17.1)	149	32.8 (27.8 - 37.9)
Most of the time	178	11.6 (5.7 - 17.5)	67	17.9 (14.0 - 21.9)	39	7.5 (4.6 - 10.4)	45	15.6 (10.4 - 20.7)	27	5.5 (3.1 - 7.9)
Sometimes	301	21.2 (16.2 - 26.3)	49	14.5 (10.9 - 18.1)	110	26.1 (21.3 - 31.0)	63	24.4 (19.3 - 29.6)	79	19.7 (15.4 - 24.1)
Rarely	167	10.1 (6.3 - 13.9)	57	15.0 (11.3 - 18.8)	26	5.5 (2.4 - 8.7)	32	10.6 (7.1 - 14.1)	52	9.6 (6.6 - 12.6)
Never	574	35.6 (32.6 - 38.6)	131	34.4 (29.2 - 39.5)	175	39.3 (34.2 - 44.3)	120	36.2 (30.1 - 42.2)	148	32.4 (27.3 - 37.4)
<p>All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.</p> <p><sup>a</sup> Sum of sample numerator is higher than the sample denominator, as multiple responses could be selected</p> <p><sup>b</sup> Non-responses and missing data were excluded from the analysis</p> <p>Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval.</p>										

Table 5.10.2: Lubricant Use Among People Who Inject Drugs By Location, BBS, Kenya, 2024

	Overall (N=2100)		Kiambu (N=446)		Kilifi (N=582)		Mombasa (N=469)		Nairobi (N=603)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Use lubricant<sup>a</sup></b>										
Yes	203	8.5 (5.5 - 11.4)	24	5.0 (3.2 - 6.7)	77	10.4 (7.7 - 13.1)	35	6.8 (3.4 - 10.2)	67	11.5 (8.1 - 14.9)
No	1863	91.6 (88.6 - 94.5)	419	95.0 (93.2 - 96.8)	503	89.6 (87.1 - 92.1)	426	93.2 (89.5 - 96.9)	515	88.5 (85.2 - 91.8)
<b>Type of lubricant used<sup>b</sup></b>										
KY jelly	34	17.1 (12.4 - 21.8)	1	9.1 (0.0 - 23.1)	12	22.0 (10.3 - 33.6)	7	14.4 (4.9 - 24.3)	14	18.9 (7.3 - 30.7)
Sure lube/govt. lube	54	26.1 (19.0 - 33.1)	4	16.1 (0.9 - 30.7)	15	24.9 (13.0 - 37.1)	15	35.9 (19.9 - 52.0)	20	25.2 (12.8 - 37.4)
Other oil-based products	5	3.5 (0.0 - 7.7)	0	0.0 (0.0 - 0.0)	4	8.1 (0.0 - 16.4)	1	6.3 (0.0 - 15.7)	0	0.0 (0.0 - 0.0)
Other water-based products	86	44.1 (21.1 - 67.2)	19	74.7 (56.0 - 94.8)	42	41.3 (28.8 - 53.5)	12	43.4 (24.2 - 62.4)	13	17.5 (6.6 - 28.3)
Don't know	24	10.5 (0.0 - 28.7)	0	0.0 (0.0 - 0.0)	4	3.8 (0.4 - 7.2)	0	0.0 (0.0 - 0.0)	20	38.3 (24.6 - 52.3)
<b>Places usually get lubricant<sup>a,b</sup></b>										
Clinic/hospital	7	2.5 (0.4 - 4.6)	0	0.0 (0.0 - 0.0)	4	5.3 (0.9 - 9.6)	1	2.1 (0.0 - 5.7)	2	2.1 (0.0 - 4.7)
Drop-in centre	60	31.5 (22.9 - 40.1)	4	23.2 (3.5 - 41.4)	21	36.5 (23.6 - 49.5)	9	22.3 (9.1 - 35.3)	26	39.6 (24.2 - 55.0)
Friends/peers	1	0.4 (0.0 - 1.4)	0	0.0 (0.0 - 0.0)	1	1.8 (0.0 - 5.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Partners	11	8.3 (0.0 - 17.4)	1	2.1 (0.3 - 3.9)	1	1.0 (0.0 - 2.9)	6	22.3 (5.3 - 39.4)	3	7.3 (0.0 - 18.1)
Peer educators	4	1.7 (0.0 - 4.3)	0	0.0 (0.0 - 0.0)	1	1.0 (0.0 - 2.5)	0	0.0 (0.0 - 0.0)	3	5.8 (0.0 - 13.1)
Sex venues	4	0.9 (0.0 - 2.2)	0	0.0 (0.0 - 0.0)	1	1.0 (0.0 - 2.5)	3	3.9 (0.4 - 7.2)	0	0.0 (0.0 - 0.0)
Supermarket/pharmacy/chemist/kiosk	101	55.3 (42.9 - 67.7)	19	74.7 (56.0 - 94.8)	45	53.5 (40.4 - 66.6)	14	49.4 (29.2 - 70.0)	23	45.1 (28.9 - 61.2)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis

<sup>b</sup> Sample denominator is based on the previous question

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval.

**PrEP:**

Awareness and uptake of HIV prevention through PrEP among PWID in Kenya remain moderate, with 77.1% having heard of PrEP and 20.1% reporting ever taking it. Awareness is highest in Kilifi (94.8%) and Nairobi (77.9%), but notably lower in Mombasa (64.9%) and Kiambu (70.8%).

Among those aware, the main reasons for not taking PrEP were low perceived HIV risk (55.9%) and trust in sexual partners (13.6%), reflecting persistent misconceptions about vulnerability. Only 56.6% of PrEP users had taken it within the last six months, and 69.3% reported daily adherence.

Uptake was highest in Nairobi (21.3%) and Mombasa (22.2%), signaling stronger engagement in urban centers. Overall, PrEP use is concentrated among those engaging in high-risk behaviors such as unprotected sex and needle sharing, underscoring the need to integrate PrEP delivery into harm reduction programs and improve education on perceived HIV risk and adherence support.

**PEP:**

PEP awareness among PWID was 65.2% nationally, with the highest in Kilifi (91.7%) and Nairobi (72.1%), and the lowest in Mombasa (38.9%). Despite relatively good awareness, only 18.8% had ever taken PEP, and 45.8% had used it in the last six months—most commonly for needle sharing (49.7%), followed by sexual assault (20.8%). Other reasons, such as accidental needle pricks and condom breakage, were less frequent.

Usage and access were strongest in Nairobi (30.2%) and Kilifi (19.8%), suggesting more integrated service delivery in these counties. These results point to promising levels of PEP awareness and utilization, but also highlight the need to expand PEP services for PWID in coastal and peri-urban areas and to reinforce timely post-exposure care, especially for those exposed through injection-related and sexual risk events.

Table 5.10.3: Pre-Exposure Prophylaxis (PrEP) Use Among People Who Inject Drugs By Location, BBS, Kenya, 2024

	Overall (N=2100)		Kiambu (N=446)		Kilifi (N=582)		Mombasa (N=469)		Nairobi (N=603)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Ever heard of PrEP</b>										
Yes	1611	77.1 (64.4 - 89.8)	325	70.8 (66.1 - 75.4)	550	94.8 (92.8 - 96.7)	321	64.9 (55.5 - 74.3)	415	77.9 (74.4 - 81.4)
No	482	22.9 (10.2 - 35.6)	119	29.2 (24.7 - 33.8)	31	5.2 (3.2 - 7.3)	148	35.1 (26.1 - 44.1)	184	22.1 (18.7 - 25.6)
<b>Ever taken PrEP<sup>b</sup></b>										
Yes	334	20.1 (17.4 - 22.7)	52	15.7 (11.7 - 19.6)	128	20.4 (16.6 - 24.2)	69	22.2 (17.4 - 27.0)	85	21.3 (16.7 - 25.9)
No	1277	80.0 (77.3 - 82.7)	273	84.3 (80.1 - 88.5)	422	79.6 (76.0 - 83.3)	252	77.8 (72.8 - 82.7)	330	78.7 (74.2 - 83.2)
<b>Main reason not taking PrEP<sup>a, b</sup></b>										
Don't feel at risk	710	55.9 (41.0 - 70.9)	183	66.9 (61.0 - 72.7)	246	58.3 (52.6 - 63.9)	75	33.6 (27.3 - 40.0)	206	64.8 (58.7 - 70.8)
Don't know where to go	46	3.7 (1.5 - 5.8)	19	6.8 (4.1 - 9.4)	7	1.6 (0.3 - 3.0)	9	4.2 (1.3 - 7.1)	11	2.5 (0.8 - 4.3)
Don't want to/don't trust it	9	0.9 (0.2 - 1.7)	6	2.4 (0.7 - 4.2)	1	0.4 (0.0 - 0.8)	1	0.8 (0.0 - 2.4)	1	0.6 (0.0 - 1.4)
Don't want others to know	2	0.06 (0.0 - 0.3)	2	0.6 (0.0 - 1.2)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Don't want to take pill every day	112	9.6 (3.0 - 16.2)	15	6.9 (3.5 - 10.3)	44	11.9 (8.2 - 15.6)	45	17.6 (12.0 - 23.3)	8	1.9 (0.3 - 3.5)
Don't qualify/healthcare worker won't prescribe	11	0.9 (0.0 - 1.8)	0	0.0 (0.0 - 0.0)	7	2.2 (0.3 - 4.1)	3	0.6 (0.0 - 1.3)	1	0.6 (0.0 - 1.8)
Fear of side effects	5	0.3 (0.0 - 0.6)	1	0.3 (0.0 - 0.7)	3	0.7 (0.0 - 1.7)	1	0.1 (0.0 - 0.3)	0	0.0 (0.0 - 0.0)
Lack of information on PrEP	16	1.4 (0.0 - 3.3)	11	4.4 (2.1 - 6.8)	0	0.0 (0.0 - 0.0)	1	0.4 (0.0 - 1.1)	4	1.1 (0.0 - 2.3)
Lack permission from spouse/partner	2	0.06 (0.0 - 0.2)	0	0.0 (0.0 - 0.0)	2	0.3 (0.0 - 0.7)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Stigma/discrimination by HCW for injecting drugs	1	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	0.1 (0.0 - 0.4)	0	0.0 (0.0 - 0.0)
Trust partners	155	13.6 (9.8 - 17.4)	22	8.4 (4.7 - 12.2)	48	12.6 (8.7 - 16.5)	36	17.1 (11.8 - 22.4)	49	16.0 (11.6 - 20.5)
Too many HIV tests/appointments	43	3.1 (0.0 - 9.1)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	43	12.4 (8.6 - 16.2)	0	0.0 (0.0 - 0.0)
Tested HIV-positive	137	10.1 (5.6 - 14.6)	10	3.3 (1.3 - 5.3)	51	11.9 (8.4 - 15.5)	31	12.8 (8.2 - 17.3)	45	12.5 (8.4 - 16.5)
<b>Taken PrEP in the last 6 months<sup>b</sup></b>										
Yes	199	56.6 (50.4 - 62.8)	28	57.6 (45.4 - 69.5)	76	48.3 (37.4 - 59.2)	42	60.7 (47.6 - 73.9)	53	60.2 (48.8 - 71.8)
No	135	43.7 (37.5 - 49.8)	24	42.4 (30.2 - 54.9)	52	51.7 (40.9 - 62.6)	27	39.3 (26.0 - 52.5)	32	39.8 (28.0 - 51.5)
<b>Main reason for taking PrEP<sup>a, b</sup></b>										
Am a sex worker	11	6.6 (2.3 - 11.0)	2	8.7 (0.0 - 18.5)	2	1.6 (0.0 - 3.4)	3	10.7 (0.0 - 23.3)	4	5.9 (0.0 - 12.4)
At risk of infection	2	1.7 (0.0 - 5.2)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	2	7.3 (0.0 - 16.1)
Don't trust partners	36	24.2 (2.4 - 46.0)	14	56.3 (38.9 - 73.3)	4	4.8 (0.6 - 9.0)	6	13.5 (0.8 - 26.4)	12	23.1 (9.9 - 35.9)
Fear of condom burst/slippage/breakage	12	5.0 (0.0 - 11.8)	0	0.0 (0.0 - 0.0)	1	1.0 (0.0 - 2.7)	3	3.3 (0.0 - 6.6)	8	15.4 (5.8 - 25.2)
Have multiple sex partners	33	19.0 (11.8 - 26.2)	3	9.5 (0.0 - 19.5)	10	19.4 (8.4 - 30.2)	6	17.0 (4.4 - 29.0)	14	27.9 (15.2 - 40.8)
Sexual partner has HIV	11	4.4 (1.2 - 7.5)	1	1.3 (1.0 - 1.5)	1	1.2 (0.0 - 3.3)	4	8.7 (0.0 - 18.3)	5	5.4 (0.0 - 12.1)
Sharing needles	25	11.8 (0.0 - 24.9)	0	0.0 (0.0 - 0.0)	12	17.5 (8.1 - 26.9)	12	28.1 (12.7 - 43.1)	1	2.2 (0.0 - 6.1)
Unprotected sex	64	27.8 (9.5 - 46.2)	8	24.4 (10.1 - 38.6)	45	54.6 (42.7 - 66.5)	6	18.7 (5.0 - 32.7)	5	12.8 (1.6 - 23.9)
<b>Currently taking PrEP daily as prescribed<sup>b</sup></b>										
Yes	140	69.3 (63.0 - 75.6)	14	55.5 (38.3 - 72.5)	58	74.0 (63.0 - 84.6)	30	72.0 (58.7 - 85.2)	38	69.7 (55.6 - 83.8)
No	59	31.3 (24.4 - 38.2)	14	44.5 (27.6 - 61.7)	18	26.0 (15.4 - 37.0)	12	28.0 (15.2 - 40.9)	15	30.3 (16.5 - 44.1)
<b>Reasons for stopping PrEP<sup>a, b</sup></b>										
Drug fatigue/too many pills	4	8.9 (1.9 - 16.0)	0	0.0 (0.0 - 0.0)	1	8.7 (0.0 - 24.4)	2	17.0 (0.0 - 39.0)	1	11.7 (0.0 - 32.8)
Fear of/had side effects	2	2.3 (0.0 - 5.9)	1	7.2 (0.0 - 17.1)	1	5.9 (0.0 - 17.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Not at risk anymore	38	56.8 (47.9 - 65.7)	8	53.8 (30.0 - 76.7)	13	58.6 (34.3 - 84.2)	5	43.8 (13.6 - 74.7)	12	64.8 (35.4 - 93.5)
Not refilled	2	4.8 (0.0 - 14.4)	0	0.0 (0.0 - 0.0)	2	21.0 (0.0 - 43.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Tested HIV-positive	1	0.04 (0.0 - 0.7)	1	6.4 (0.0 - 15.3)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Too many HIV tests/appointments	4	7.2 (0.0 - 21.8)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	4	30.5 (5.0 - 55.4)	0	0.0 (0.0 - 0.0)
Trust partners	5	9.0 (0.0 - 19.0)	3	28.0 (4.7 - 52.5)	1	5.9 (0.0 - 17.0)	1	8.7 (0.0 - 24.3)	0	0.0 (0.0 - 0.0)
Using condoms	1	0.04 (0.0 - 0.7)	1	4.7 (0.0 - 11.2)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis

<sup>b</sup> Sample denominator is based on the previous question

Abbreviations: N, sample denominator; n, sample numerator; CI, confidence interval; PrEP, pre-exposure prophylaxis

Table 5.10.3B: Post-Exposure Prophylaxis (PEP) Use Among People Who Inject Drugs By Location, BBS, Kenya, 2024

	Overall (N=2100)		Kiambu (N=446)		Kilifi (N=582)		Mombasa (N=469)		Nairobi (N=603)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Ever heard of PEP</b>										
Yes	1281	65.2 (43.3 - 87.1)	263	57.7 (52.9 - 62.5)	482	91.7 (89.4 - 94.1)	181	38.9 (33.8 - 44.1)	355	72.1 (68.0 - 76.2)
No	675	34.9 (13.0 - 56.8)	171	42.3 (37.4 - 47.2)	48	8.3 (5.8 - 10.8)	256	61.1 (56.0 - 66.2)	200	27.9 (23.8 - 31.9)
<b>Ever taken PEP<sup>a</sup></b>										
Yes	270	18.8 (10.6 - 27.1)	44	13.9 (9.8 - 18.0)	91	19.8 (15.5 - 24.1)	17	11.2 (6.4 - 16.0)	118	30.2 (24.6 - 35.7)
No	1011	81.2 (72.9 - 89.5)	219	86.1 (81.8 - 90.3)	391	80.2 (75.8 - 84.5)	164	88.8 (83.9 - 93.7)	237	69.8 (64.2 - 75.5)
<b>Taken PEP in the last 6 months<sup>a</sup></b>										
Yes	130	45.8 (36.7 - 54.8)	25	49.7 (35.6 - 63.4)	37	34.6 (24.5 - 45.0)	7	44.3 (21.2 - 67.7)	61	53.9 (42.9 - 64.9)
No	140	54.7 (45.8 - 63.7)	19	50.3 (36.8 - 64.2)	54	65.4 (54.9 - 75.6)	10	55.7 (32.2 - 78.9)	57	46.1 (35.2 - 57.0)
<b>Reasons for taking PEP<sup>a</sup></b>										
Accidental needle prick	17	15.3 (7.1 - 23.5)	2	8.3 (0.6 - 16.1)	4	12.8 (1.3 - 24.1)	2	32.3 (0.0 - 66.0)	9	11.7 (3.9 - 19.5)
Condom burst/slippage/breakage	18	9.9 (1.9 - 18.0)	1	5.0 (0.0 - 11.9)	6	15.6 (3.3 - 27.8)	0	0.0 (0.0 - 0.0)	11	16.4 (5.8 - 27.0)
Exposure to blood	1	0.7 (0.0 - 1.9)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	2.0 (0.0 - 5.5)
Human bite	3	1.0 (0.0 - 2.5)	1	2.6 (0.9 - 4.4)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	2	2.1 (0.0 - 4.6)
Rape/ sexual assault	26	20.8 (10.7 - 31.0)	6	22.5 (10.4 - 34.7)	4	9.3 (1.1 - 17.6)	2	19.2 (0.0 - 44.7)	14	31.1 (17.7 - 44.5)
Sharing needles	61	49.7 (36.3 - 63.1)	14	53.9 (36.3 - 71.2)	23	62.3 (46.7 - 78.0)	3	48.5 (11.7 - 86.9)	21	33.5 (18.9 - 48.2)
Unprotected sex	3	1.0 (0.0 - 2.8)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	3	3.2 (0.0 - 7.2)
Other	1	0.02 (0.0 - 0.4)	1	7.6 (0.0 - 20.9)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Sample denominator is based on the previous question

Abbreviations: N, sample denominator; n, sample numerator; CI, confidence interval; PEP, post-exposure prophylaxis

## Peer Educator/Outreach Workers:

Peer engagement remains a cornerstone of harm reduction among people who inject drugs (PWID) in Kenya.

Nationally, 85.2% reported having interacted with a peer educator or outreach worker, with particularly strong engagement in Mombasa (89.5%) and Kilifi (87.6%), though lower in Kiambu (80.5%). However, recent contact within the past three months varied widely exceeding 95% in Mombasa and Nairobi but dropping to 70.3% in Kilifi. Peer educators primarily provided needle and syringe exchange (84.8%), health education (46.2%), and medically assisted therapy (MAT) information (33.6%), demonstrating a focus on prevention and treatment linkage.

Despite this, access to violence support (9.8%) and naloxone (6.0%) remains low, suggesting missed opportunities for addressing overdose and safety. Overall, the data highlight strong peer engagement but uneven distribution of critical harm reduction services, underscoring the need for broader naloxone access and psychosocial support integration within peer-led outreach.

Table 5.10.4: Service Uptake Through Peer Educators/ Outreach Workers Among People Who Inject Drugs By Location, BBS, Kenya, 2024

	Overall (N=2100)		Kiambu (N=446)		Kilifi (N=582)		Mombasa (N=469)		Nairobi (N=603)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Ever had contact with peer educator/outreach worker in the community<sup>a</sup></b>										
Yes	1755	85.2 (81.2 - 89.2)	371	80.5 (76.2 - 84.8)	502	87.6 (84.9 - 90.4)	427	89.5 (86.2 - 92.9)	455	82.9 (79.6 - 86.1)
No	344	14.8 (10.8 - 18.9)	75	19.5 (15.2 - 23.8)	80	12.4 (9.5 - 15.2)	42	10.5 (7.1 - 13.9)	147	17.1 (13.8 - 20.4)
<b>Contact with a peer educator/ outreach worker in the last 3 months<sup>b</sup></b>										
Yes	1554	88.7 (76.5 - 100.0)	346	91.6 (88.7 - 94.5)	367	70.3 (64.3 - 76.3)	409	95.9 (94.2 - 97.5)	432	96.7 (94.9 - 98.5)
No	201	11.4 (0.0 - 23.5)	25	8.4 (5.4 - 11.4)	135	29.7 (23.8 - 35.6)	18	4.1 (2.5 - 5.8)	23	3.3 (1.4 - 5.2)
<b>Services or information received from peer educator/outreach worker<sup>b,c</sup></b>										
Condoms	432	27.2 (12.9 - 41.6)	149	41.6 (36.4 - 46.9)	130	34.3 (29.0 - 39.7)	43	7.7 (5.0 - 10.4)	110	25.4 (20.1 - 30.7)
Health education/ IECs	677	46.2 (35.9 - 56.5)	142	42.9 (37.4 - 48.4)	131	35.8 (30.1 - 41.6)	226	60.7 (55.7 - 65.6)	178	45.3 (39.9 - 50.9)
Lubricants	36	1.5 (0.2 - 2.9)	0	0.0 (0.0 - 0.0)	19	3.2 (1.5 - 4.9)	12	1.9 (0.3 - 3.5)	5	1.0 (0.0 - 2.2)
MAT information	517	33.6 (14.2 - 53.1)	88	25.2 (20.1 - 30.3)	182	56.3 (50.6 - 62.1)	63	10.7 (6.7 - 14.7)	184	42.2 (36.4 - 47.9)
Naloxone	77	6.0 (0.0 - 12.0)	3	0.8 (0.09 - 1.6)	33	13.9 (8.8 - 19.1)	12	1.4 (0.2 - 2.5)	29	7.8 (4.4 - 11.3)
Needle syringes exchange	1306	84.8 (76.2 - 93.5)	323	93.0 (90.0 - 96.0)	322	86.7 (82.5 - 90.9)	366	87.2 (83.7 - 90.8)	295	72.3 (67.5 - 77.1)
Referral for ART	52	3.2 (0.2 - 6.3)	0	0.0 (0.0 - 0.0)	24	7.0 (3.9 - 10.0)	11	1.5 (0.4 - 2.7)	17	4.5 (2.1 - 7.0)
Referral for drug treatment	337	23.3 (2.7 - 43.9)	1	0.1 (0.1 - 0.1)	133	43.0 (37.3 - 48.8)	52	11.0 (7.8 - 14.1)	151	39.0 (33.5 - 44.6)
Referral for HIV testing	336	20.3 (6.0 - 34.7)	3	0.6 (0.02 - 1.2)	113	31.8 (26.3 - 37.3)	92	17.7 (14.2 - 21.2)	128	31.2 (25.9 - 36.4)
Referral for STI treatment	158	10.3 (0.0 - 20.9)	0	0.0 (0.0 - 0.0)	57	16.4 (11.7 - 21.2)	16	2.3 (0.9 - 3.8)	85	22.3 (17.9 - 26.6)
Violence support	136	9.8 (0.1 - 19.5)	0	0.0 (0.0 - 0.0)	39	16.3 (11.1 - 21.6)	19	2.9 (1.2 - 4.6)	78	20.2 (16.0 - 24.2)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis

<sup>b</sup> Sample denominator is based on the previous question

<sup>c</sup> Sum of sample numerator is higher than the sample denominator, as multiple responses could be selected

Abbreviations: N, sample denominator; n, sample numerator; CI, confidence interval; ART, anti-retroviral treatment; IEC, information, education, and communication materials; MAT; medically assisted therapy; STI, sexually transmitted infection

## Clinics/ DICEs:

Clinical and DICE-based service utilization is high among PWID, with 73.1% reporting a visit within the past 12 months — particularly high in Nairobi (93.7%) and Mombasa (80.4%), but notably lower in Kiambu (36.7%). These facilities provide an array of harm reduction and health services, including needle and syringe exchange (66.2%), HIV testing and counseling (36.5%), and MAT services (17.6%). Access to Hepatitis B and C testing (16.1%) and vaccination (3.7%) remains limited, despite their high relevance for PWID. Encouragingly, addiction counseling (29.5%) and safe injection counseling (28.9%) were increasingly available, particularly in Nairobi, reflecting integration of behavioral and clinical care. However, low provision of condoms (31.5%), lubricants (3.1%), and sexual health services (6.5%) highlights persistent gaps in comprehensive HIV and STI prevention. Strengthening multi-service DICE models, especially in underperforming counties like Kiambu, will be crucial to ensuring equitable access to the full harm reduction continuum.

Table 5.10.4B: Service Uptake At Clinics/Drop-In Centres Among People Who Inject Drugs By Location, BBS, Kenya, 2024

	Overall (N=2100)		Kiambu (N=446)		Kilifi (N=582)		Mombasa (N=469)		Nairobi (N=603)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Visited clinic/DICE that provides KP information or services in the last 12 months<sup>a</sup></b>										
Yes	1593	73.1 (48.7 - 97.6)	174	36.7 (31.8 - 41.5)	463	81.6 (78.1 - 85.1)	390	80.4 (75.6 - 85.1)	566	93.7 (91.2 - 96.2)
No	505	26.9 (2.4 - 51.4)	272	63.3 (58.5 - 68.1)	119	18.4 (14.9 - 21.9)	79	19.6 (14.8 - 24.5)	35	6.3 (3.7 - 8.9)
<b>Services received when last visited clinic/DICE<sup>a,b</sup></b>										
Addiction counseling	370	29.5 (14.7 - 44.3)	20	19.7 (11.5 - 27.9)	96	36.0 (29.6 - 42.5)	51	14.4 (9.8 - 18.9)	203	47.4 (42.0 - 52.8)
General treatment	19	1.2 (0.0 - 2.6)	1	0.5 (0.0 - 1.3)	0	0.0 (0.0 - 0.0)	11	3.2 (1.1 - 5.3)	7	1.1 (0.0 - 2.8)
Hepatitis B/C test	232	16.1 (4.1 - 28.1)	5	4.4 (0.9 - 7.9)	83	27.6 (21.6 - 33.6)	29	6.4 (3.5 - 9.3)	115	25.8 (21.2 - 30.3)
Hepatitis B vaccination	74	3.7 (0.0 - 8.5)	0	0.0 (0.0 - 0.0)	12	2.8 (1.2 - 4.6)	9	1.0 (0.2 - 1.8)	53	10.9 (7.7 - 14.1)
HIV testing & counseling	506	36.5 (20.9 - 52.1)	19	14.3 (8.6 - 20.1)	113	39.1 (32.8 - 45.5)	137	38.7 (33.0 - 44.5)	237	53.1 (47.9 - 58.4)
Information on ART	158	10.5 (3.1 - 17.8)	2	0.9 (0.3 - 1.4)	54	16.7 (11.7 - 21.7)	24	7.7 (4.1 - 11.3)	78	16.3 (12.1 - 20.4)
Information on hepatitis	134	9.9 (1.4 - 18.3)	3	2.8 (0.0 - 5.7)	59	21.5 (15.5 - 27.7)	22	3.7 (1.8 - 5.6)	50	11.4 (8.1 - 14.7)
Information on MAT	373	28.4 (13.7 - 43.1)	24	20.8 (13.0 - 28.7)	99	36.2 (29.6 - 42.9)	48	11.5 (7.5 - 15.5)	202	44.7 (39.6 - 49.9)
Information on STI or HIV prevention	217	15.3 (5.1 - 25.4)	8	5.9 (2.3 - 9.5)	73	22.6 (17.2 - 28.2)	26	6.6 (3.4 - 9.7)	110	25.5 (20.6 - 30.3)
Information on TB	79	5.4 (1.0 - 9.7)	0	0.0 (0.0 - 0.0)	29	10.5 (6.1 - 15.0)	20	4.1 (1.8 - 6.4)	30	6.9 (4.0 - 9.7)
Medically assisted therapy	229	17.6 (7.9 - 27.3)	10	10.3 (4.6 - 16.0)	75	26.3 (20.1 - 32.5)	36	7.6 (4.6 - 10.6)	108	25.9 (20.9 - 30.9)
Needles/syringe exchange	783	66.2 (54.5 - 77.8)	73	65.5 (56.9 - 73.9)	159	50.0 (43.6 - 56.5)	245	77.4 (72.8 - 82.0)	306	71.5 (66.8 - 76.1)
Received condoms	385	31.5 (13.1 - 50.0)	41	37.8 (28.9 - 46.5)	173	49.6 (43.4 - 55.9)	22	5.4 (2.5 - 8.3)	149	33.4 (27.9 - 38.7)
Received lubricants	60	3.1 (0.9 - 5.4)	1	0.4 (0.03 - 0.9)	28	6.2 (3.6 - 8.9)	11	2.3 (0.2 - 4.4)	20	3.2 (1.5 - 4.8)
Received PrEP	2	0.1 (0.0 - 0.4)	1	1.3 (0.0 - 4.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	0.5 (0.0 - 0.7)
Safe injection counseling	391	28.9 (11.8 - 45.9)	17	14.1 (8.4 - 19.7)	156	50.4 (44.4 - 56.5)	63	15.1 (11.1 - 19.1)	155	35.5 (30.5 - 40.6)
Sexual reproductive health services	84	6.5 (2.6 - 10.3)	5	4.0 (1.2 - 6.8)	21	7.6 (3.5 - 11.7)	11	2.5 (0.0 - 5.1)	47	11.3 (7.8 - 14.8)

All proportions and confidence intervals are weighted population estimates.  
Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.  
<sup>a</sup> Non-responses and missing data were excluded from the analysis  
<sup>b</sup> Sum of sample numerator is higher than the sample denominator, as multiple responses could be selected

Abbreviations: N, sample denominator; n, sample numerator; CI, confidence interval; ART, anti-retroviral treatment; DICE, drop-in centre; KP, key population; MAT, medically assisted therapy; PrEP, pre-exposure prophylaxis; STI, sexually transmitted infection; TB, tuberculosis

## HIV Testing:

HIV testing coverage among PWID in Kenya is exceptionally high, with 96.4% reporting ever having tested and nearly half (49.5%) having tested within the past three months, reflecting strong engagement with HIV services. Testing recency was highest in Nairobi (76.2%) but comparatively lower in Kiambu (31.4%) and Kilifi (42.8%), suggesting differences in outreach and testing accessibility. The national HIV positivity rate among PWID was 8.4%, with higher prevalence observed in Kilifi (11.1%) and Nairobi (10.2%), underscoring ongoing transmission risk within these populations.

Self-testing uptake, however, remains low—only 7.9% reported ever using an HIV self-test—though it was more common in Nairobi (11.0%) than elsewhere. Encouragingly, 86.5% of those with positive self-test results sought confirmatory testing at a health facility, demonstrating good linkage to care once individuals test. Overall, these findings indicate that Kenya’s PWID population is well integrated into HIV testing programs, but efforts should focus on expanding self-testing, targeting high-prevalence regions, and ensuring frequent testing among younger and harder-to-reach groups.

Table 5.10.5: HIV Testing Among People Who Inject Drugs By Location, BBS, Kenya, 2024

	Overall (N=2100)		Kiambu (N=446)		Kilifi (N=582)		Mombasa (N=469)		Nairobi (N=603)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Ever tested for HIV<sup>a</sup></b>										
Yes	2029	96.4 (94.0 - 98.9)	419	94.5 (92.6 - 96.3)	579	99.5 (99.0 - 100.0)	440	94.3 (90.4 - 98.1)	591	97.2 (95.5 - 98.8)
No	70	3.6 (1.2 - 6.1)	26	5.5 (3.6 - 7.4)	3	0.5 (0.0 - 1.0)	29	5.7 (1.9 - 9.6)	12	2.8 (1.2 - 4.5)
<b>Last time tested for HIV<sup>a,b</sup></b>										
Less than 3 months	942	49.5 (30.9 - 68.2)	127	31.4 (26.9 - 36.0)	225	42.8 (37.6 - 48.1)	186	47.5 (41.7 - 53.3)	404	76.2 (72.1 - 80.2)
4-6 months	366	22.1 (18.0 - 26.1)	92	23.0 (18.7 - 27.2)	105	22.5 (18.0 - 26.8)	96	26.3 (21.9 - 30.7)	73	16.6 (12.9 - 20.3)
7-12 months	241	14.6 (7.2 - 21.9)	77	21.4 (16.9 - 25.9)	87	18.4 (14.3 - 22.6)	56	14.3 (10.5 - 18.0)	21	4.3 (2.0 - 6.5)
More than 12 months	255	13.8 (5.2 - 22.5)	98	24.2 (20.1 - 28.4)	90	16.2 (12.7 - 19.8)	48	12.0 (8.4 - 15.5)	19	3.0 (1.5 - 4.5)
<b>Result of most recent HIV test<sup>a,b</sup></b>										
Positive	181	8.4 (4.3 - 12.5)	10	2.1 (0.9 - 3.2)	59	11.1 (7.7 - 14.4)	45	10.0 (6.5 - 13.6)	67	10.2 (7.3 - 13.1)
Negative	1831	91.7 (87.5 - 95.8)	406	97.9 (96.8 - 99.0)	512	88.9 (85.7 - 92.1)	392	90.0 (86.5 - 93.5)	521	89.8 (87.0 - 92.5)
<b>Ever self- tested for HIV</b>										
Yes	163	7.9 (5.6 - 10.2)	36	8.0 (5.5 - 10.4)	43	7.2 (4.9 - 9.4)	24	5.5 (3.3 - 7.7)	60	11.0 (7.8 - 14.1)
No	1866	92.1 (89.8 - 94.4)	383	92.0 (89.7 - 94.4)	536	92.8 (90.7 - 95.0)	416	94.5 (92.3 - 96.7)	531	89.0 (86.0 - 92.1)
<b>Result of last HIV self-test<sup>a,b</sup></b>										
Positive	15	7.0 (0.0 - 14.2)	0	0.0 (0.0 - 0.0)	4	11.3 (0.5 - 21.7)	1	1.5 (0.0 - 3.7)	10	14.9 (5.4 - 24.1)
Negative	146	93.2 (86.1 - 100.0)	35	100.0 (96.3 - 100.0)	39	88.7 (78.1 - 99.7)	23	98.5 (96.3 - 100.0)	49	85.1 (75.9 - 94.7)
<b>Confirmed HIV positive self-test result in a facility<sup>b,c</sup></b>										
Yes	13	86.5 (71.1 - 100.0)	0	0.0 (0.0 - 0.0)	4	100.0 (89.4 - 100.0)	1	100.0 (54.1 - 100.0)	8	80.4 (55.3 - 100.0)
No	2	13.5 (0.0 - 28.3)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	2	19.6 (0.0 - 43.3)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sample denominator is based on the previous question

<sup>c</sup> Computed using weighted average due to small numbers

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval.

**ART:**

ART coverage among HIV-positive PWID in Kenya is exceptionally strong, with 100% reporting ever having been on treatment and nearly all (97–100%) currently receiving ART across all counties. Most clients (63.9%) have been on ART for over five years, indicating sustained engagement in care and long-term adherence to treatment programs. The majority (89.7%) had visited a facility for an ART refill within the last three months, reflecting consistent contact with health services and strong linkage to care.

Treatment is primarily accessed through drop-in centers (48.8%) and public clinics or hospitals (45.9%), underscoring the vital role of both harm reduction and public health systems in ART delivery. Despite this, adherence challenges persist—34.3% reported missing at least one ART dose in the past month, particularly in Mombasa (52.4%) and Nairobi (39.0%), highlighting the need for adherence counseling and tailored support for PWID managing both addiction and HIV. Overall, Kenya demonstrates excellent ART coverage among PWID, though continued focus on retention, adherence monitoring, and integration of substance-use services is needed to maintain viral suppression and long-term health outcomes.

Table 5.10.6: Uptake And Adherence to ART Among People Who Inject Drugs By Location, BBS, Kenya, 2024

	Overall (N=2100)		Kiambu (N=446)		Kilifi (N=582)		Mombasa (N=469)		Nairobi (N=603)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Ever been on ART<sup>a</sup></b>										
Yes	177	100.0 (99.8 - 100.0)	8	100.0 (85.2 - 100.0)	59	100.0 (99.2 - 100.0)	44	100.0 (98.6 - 100.0)	66	100.0 (99.4 - 100.0)
<b>Time started taking ART<sup>a,b</sup></b>										
<6 months	9	7.7 (6.2 - 9.2)	0	0.0 (0.0 - 0.0)	4	8.0 (0.0 - 16.7)	2	7.2 (0.0 - 18.1)	3	8.1 (0.0 - 19.6)
6 -12 months	11	8.2 (0.04 - 16.4)	0	0.0 (0.0 - 0.0)	7	19.8 (4.1 - 35.2)	1	5.0 (0.0 - 16.3)	3	6.5 (0.0 - 14.4)
1 -3 yrs	19	10.6 (8.9 - 12.3)	1	20.7 (0.0 - 48.8)	6	10.4 (2.1 - 18.5)	7	13.9 (3.1 - 24.5)	5	9.4 (0.7 - 18.2)
3 -5 yrs	14	8.5 (6.9 - 10.0)	1	6.1 (2.8 - 8.6)	5	7.3 (0.8 - 13.9)	3	8.6 (0.4 - 16.7)	5	9.2 (1.5 - 17.1)
>5 yrs	108	63.9 (56.0 - 71.9)	6	73.2 (45.3 - 100.0)	34	54.5 (37.9 - 71.4)	21	65.3 (49.7 - 80.6)	47	66.7 (51.9 - 81.6)
<b>Currently on ART<sup>a,c</sup></b>										
Yes	176	100.0 (99.8 - 100.0)	8	100.0 (85.2 - 100.0)	59	100.0 (99.2 - 100.0)	43	97.2 (92.4 - 100.0)	66	100.0 (99.4 - 100.0)
No	1	0.02 (0.0 - 0.2)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	2.8 (0.0 - 7.2)	0	0.0 (0.0 - 0.0)
<b>Places receive ART<sup>a,b</sup></b>										
Drop -in centre	101	48.8 (28.0 - 69.6)	1	15.8 (0.0 - 40.7)	44	66.7 (49.8 - 83.3)	23	61.4 (46.1 - 77.1)	33	45.6 (31.9 - 59.3)
NGO/FBO facility	5	2.5 (0.0 - 5.1)	1	6.1 (2.8 - 8.6)	0	0.0 (0.0 - 0.0)	2	2.4 (0.0 - 5.2)	2	4.2 (0.0 - 10.2)
Private clinic/hospital pharmacy	5	4.4 (0.0 - 8.8)	0	0.0 (0.0 - 0.0)	3	10.5 (0.0 - 25.1)	1	2.9 (0.0 - 7.5)	1	2.2 (0.0 - 6.0)
Public clinic/hospital pharmacy	65	45.9 (21.1 - 70.8)	6	78.1 (52.9 - 100.0)	12	22.8 (7.8 - 37.8)	17	33.3 (17.1 - 49.1)	30	48.0 (33.8 - 62.2)
<b>Time of last clinic visit to facility for ART refill<sup>a,b</sup></b>										
Less than 3 months ago	155	89.7 (85.9 - 93.4)	7	93.9 (91.8 - 96.8)	53	92.0 (85.1 - 98.7)	36	84.0 (72.4 - 95.8)	59	89.8 (81.3 - 98.2)
3 -5 months ago	12	7.9 (5.1 - 10.6)	1	6.1 (2.8 - 8.6)	4	5.4 (0.0 - 11.2)	3	10.5 (0.0 - 21.2)	4	7.9 (0.0 - 15.9)
6 -11 months	4	1.9 (0.8 - 3.0)	0	0.0 (0.0 - 0.0)	1	1.1 (0.0 - 2.7)	2	3.1 (0.0 - 6.7)	1	2.3 (0.0 - 6.3)
1 -2 years ago	1	0.2 (0.0 - 0.5)	0	0.0 (0.0 - 0.0)	1	1.6 (0.0 - 4.4)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
More than two years ago	2	0.02 (0.0 - 0.2)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	2	2.4 (0.0 - 5.9)	0	0.0 (0.0 - 0.0)
<b>Missed taking one or more ART pills in the last one month<sup>a,b</sup></b>										
Yes	56	34.3 (19.4 - 49.3)	1	15.8 (0.0 - 40.7)	13	24.9 (10.1 - 39.8)	21	52.4 (35.8 - 68.7)	21	39.0 (25.2 - 53.1)
No	118	67.6 (50.8 - 84.3)	7	84.2 (59.3 - 100.0)	46	75.1 (60.3 - 89.9)	22	47.6 (31.3 - 64.1)	43	61.0 (46.8 - 75.0)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> The sample denominator includes those who reported result of most recent HIV test as positive, confirmed HIV positive self-test result in a facility, and reported ever been on ART.

<sup>b</sup> Non-responses and missing data were excluded from the analysis.

<sup>c</sup> Sample denominator is based on the previous question

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; ART, antiretroviral therapy; NGO, non-government organization; FBO, faith-based organization.

## TB:

Tuberculosis (TB) screening coverage among HIV-positive PWID in Kenya is remarkably high, with 100% of those living with HIV reporting being asked about TB symptoms during their last HIV clinic visit. Despite this universal screening, 24.9% experienced TB-related symptoms in the past year, suggesting ongoing vulnerability to TB infection within this group. Among those symptomatic, diagnostic follow-up was inconsistent—only 7.6% received both chest X-ray and sputum testing, while 24.2% had no TB diagnostic test at all.

Nearly half (41.3%) of those tested were found to be TB-positive, indicating a substantial burden of active or prior TB disease among PWID. Encouragingly, 86.8% of those previously diagnosed reported having received treatment, reflecting good linkage to TB care once diagnosed. However, gaps remain in comprehensive TB diagnostics and routine screening among HIV-negative PWID, emphasizing the need to expand active case finding, improve diagnostic access, and integrate TB-HIV services within harm reduction and drug treatment programs to reduce undetected TB in this high-risk population.

Table 5.10.7: Tuberculosis Screening And Treatment Among People Who Inject Drugs By Location, BBS, Kenya, 2024

	Overall (N=2100)	
	n	% (95% CI)
<b>Self-reported HIV status</b>		
Positive	181	8.0 (2.1 - 13.9)
Negative	1831	92.0 (86.1 - 97.9)
Indeterminate	0	0.0 (0.0 - 0.0)
<b>Asked about TB symptoms at last HIV clinic visit<sup>b</sup></b>		
Yes	181	100.0 (100.0 - 100.0)
No	0	0.0 (0.0 - 0.0)
Currently on TB treatment	0	0.0 (0.0 - 0.0)
<b>Experienced TB symptoms in last 12 months<sup>a,b</sup></b>		
Yes	49	24.9 (10.8 - 39.0)
No	125	75.1 (61.0 - 89.2)
<b>Received chest x-ray or sputum test in last 12 months<sup>a,b</sup></b>		
Chest x-ray and sputum test	1	7.6 (2.0 - 13.1)
Chest x-ray	20	26.0 (2.7 - 49.2)
Sputum test	13	42.3 (26.5 - 58.1)
None	14	24.2 (10.2 - 38.2)
<b>Result of last TB test<sup>a,b</sup></b>		
Positive	13	41.3 (27.8 - 54.8)
Negative	19	58.7 (45.2 - 72.2)
Did not received results	0	0.0 (0.0 - 0.0)
<b>Received treatment last time had TB<sup>b</sup></b>		
Yes	5	86.8 (53.6 - 100.0)
No	1	13.2 (0.0 - 46.4)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the respondent driven sampling package in R, using Gile's sequential sampling estimator.

<sup>a</sup> Non-responses and missing data were not included in the analysis

<sup>b</sup> Sample denominator is based on the previous question

Abbreviations: N, sample denominator; n, sample numerator; CI, 95% confidence interval; TB, tuberculosis

## 5.11: Reproductive Health

Among female PWID in Kenya, nearly nine in ten (87.1%) had ever been pregnant, with a median of two pregnancies, highlighting significant reproductive activity in this population. A small proportion (2.8%) were currently pregnant, with the highest rates in Nairobi (5.8%), suggesting ongoing fertility despite overlapping vulnerabilities such as substance use and HIV risk. Encouragingly, 96.5% of women who had ever been pregnant reported giving birth, and 89.2% attended antenatal care (ANC) during their last pregnancy—though coverage varied slightly, with Mombasa (79.9%) reporting lower attendance.

HIV testing integration within ANC services was strong, as 92.5% were offered an HIV test, and among those who tested positive, 86.3% were on ART during pregnancy—most having initiated treatment before conception. However, only 56.0% were offered syphilis testing, reflecting a missed opportunity for comprehensive maternal screening. Family planning uptake was moderate (43.8%), with higher use in Kiambu (59.4%) than in coastal counties. The most common methods were long-acting reversible contraceptives (IUDs/implants, 54.2%) and injections (24.9%), suggesting reliance on clinic-based options over barrier methods. Overall, these findings point to strong ANC and HIV service integration but underscore the need to enhance syphilis screening, postpartum family planning, and reproductive health counseling tailored to the needs of women who inject drugs.

Table 5.11: Reproductive Health Among People Who Inject Drugs By Location, BBS, Kenya, 2024

	Overall (N=2100)		Kiambu (N=446)		Kilifi (N=582)		Mombasa (N=469)		Nairobi (N=603)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Pregnancy status</b>										
Currently pregnant	13	2.8 (0.3 - 5.4)	3	3.5 (0.0 - 7.2)	2	2.0 (0.0 - 4.3)	0	0.0 (0.0 - 0.0)	8	5.8 (1.0 - 10.6)
Ever pregnant, but not currently pregnant	236	87.1 (82.0 - 92.1)	42	81.0 (71.3 - 90.8)	52	91.3 (85.2 - 97.6)	44	91.1 (83.3 - 98.7)	98	83.2 (75.4 - 90.9)
Never been pregnant	29	10.1 (6.9 - 13.2)	8	15.5 (6.1 - 24.7)	5	6.7 (0.5 - 12.8)	4	8.9 (1.1 - 16.9)	12	11.0 (4.6 - 17.5)
<b>Median times pregnant (IQR)</b>	249	2 (1 - 4)	45	2 (1 - 3)	54	3 (2 - 5)	44	2 (2 - 3)	106	2 (1 - 3)
<b>Time last pregnant<sup>c</sup></b>										
< 1 year	40	15.7 (14.1 - 17.3)	8	13.8 (4.6 - 23.2)	8	15.8 (5.1 - 26.8)	7	13.8 (3.7 - 24.3)	17	16.1 (7.4 - 24.8)
1-3 years	63	28.3 (23.3 - 33.2)	13	26.5 (15.0 - 38.1)	15	27.6 (11.4 - 43.6)	12	35.7 (19.7 - 51.1)	23	24.1 (14.6 - 33.6)
>3 years	145	57.0 (53.0 - 61.0)	24	59.7 (44.8 - 74.4)	31	56.6 (40.1 - 73.0)	25	50.5 (34.8 - 66.4)	65	59.8 (49.1 - 70.5)
<b>Ever given birth, among individuals ever pregnant<sup>a,b</sup></b>										
Yes	239	96.5 (93.5 - 99.6)	43	91.7 (82.5 - 100.0)	52	97.1 (93.6 - 100.0)	44	100.0 (98.6 - 100.0)	100	95.2 (91.2 - 99.3)
No	10	3.7 (0.4 - 7.0)	2	8.3 (0.0 - 17.5)	2	2.9 (0.0 - 6.3)	0	0.0 (0.0 - 0.0)	6	4.8 (0.6 - 9.0)
<b>Had a live birth in the last 36 months</b>										
<1 year	40	54.4 (33.8 - 74.9)	11	75.9 (57.8 - 94.6)	8	34.0 (14.0 - 54.7)	6	66.7 (32.4 - 100.0)	15	40.2 (21.9 - 58.6)
1-2 years	20	21.5 (3.8 - 39.2)	1	5.3 (0.0 - 12.7)	8	46.0 (20.3 - 70.5)	1	9.7 (0.0 - 28.4)	10	23.5 (7.6 - 39.2)
2-3 years	20	25.9 (17.3 - 34.4)	3	18.8 (1.4 - 35.7)	4	20.1 (2.4 - 38.1)	1	23.7 (0.0 - 55.2)	12	36.3 (17.3 - 55.3)
<b>Went to an ANC clinic during last pregnancy that resulted in live birth</b>										
Yes	210	89.2 (82.5 - 95.9)	36	86.4 (75.0 - 97.8)	48	95.1 (89.5 - 100.0)	34	79.9 (66.9 - 93.1)	92	93.1 (88.0 - 98.2)
No	26	11.2 (4.3 - 18.1)	7	13.6 (2.0 - 25.2)	3	4.9 (0.0 - 10.6)	9	20.1 (7.4 - 32.6)	7	6.9 (1.7 - 12.0)
<b>Offered an HIV test at the ANC clinic last time pregnant<sup>a</sup></b>										
Yes	198	92.5 (89.4 - 95.5)	34	93.4 (84.4 - 100.0)	44	88.5 (73.3 - 100.0)	31	92.2 (83.0 - 100.0)	89	95.1 (88.3 - 100.0)
No	3	1.6 (0.0 - 3.7)	1	3.7 (0.0 - 9.4)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	2	3.6 (0.0 - 10.1)
Already knew I have HIV	9	6.1 (1.4 - 10.7)	1	2.9 (0.0 - 8.3)	4	11.5 (0.0 - 26.7)	3	7.8 (0.0 - 17.5)	1	1.3 (0.0 - 4.1)
<b>Time tested for HIV during last pregnancy</b>										
First trimester	129	62.2 (44.3 - 80.1)	22	52.6 (35.9 - 69.5)	25	48.1 (30.5 - 65.2)	25	88.0 (77.0 - 99.0)	57	58.4 (46.8 - 70.0)
Second trimester	76	42.6 (29.0 - 56.2)	11	41.5 (24.8 - 58.2)	21	60.2 (43.3 - 77.6)	10	26.6 (9.7 - 43.3)	34	40.3 (29.2 - 51.4)
Third trimester	36	19.7 (9.4 - 30.0)	12	33.2 (19.1 - 47.2)	4	10.0 (0.4 - 19.8)	7	24.1 (7.0 - 41.2)	13	12.9 (4.8 - 21.1)
<b>Result of last HIV test last time pregnant</b>										
Positive	20	7.0 (1.2 - 12.9)	3	8.3 (0.7 - 15.7)	8	14.6 (4.8 - 24.5)	1	0.5 (0.0 - 0.6)	8	4.6 (0.8 - 8.4)
Negative	176	93.4 (87.6 - 99.3)	30	91.7 (84.4 - 99.2)	35	85.4 (75.5 - 95.3)	30	99.5 (99.4 - 99.6)	81	95.4 (91.6 - 99.1)
<b>On ART during last pregnancy, among those with HIV positive status<sup>a,b</sup></b>										
Yes	28	86.3 (72.3 - 100.0)	4	64.8 (21.9 - 100.0)	12	100.0 (96.3 - 100.0)	4	100.0 (85.8 - 100.0)	8	72.3 (40.2 - 100.0)
No	3	13.7 (0.0 - 31.4)	1	35.2 (0.0 - 78.2)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	2	27.7 (0.0 - 58.4)
<b>Time started ART during last pregnancy</b>										
Prior to pregnancy	23	84.6 (66.2 - 100.0)	3	71.6 (32.3 - 100.0)	11	96.1 (88.0 - 100.0)	4	100.0 (85.8 - 100.0)	5	60.7 (21.8 - 99.6)
First trimester	4	18.1 (0.0 - 38.7)	1	28.4 (0.0 - 68.1)	1	3.9 (0.0 - 11.7)	0	0.0 (0.0 - 0.0)	2	39.3 (0.0 - 79.7)
<b>Offered a syphilis test at the ANC clinic, last time pregnant<sup>a</sup></b>										
Yes	110	56.0 (39.6 - 72.8)	26	69.0 (53.8 - 84.2)	22	37.2 (21.6 - 53.4)	11	46.8 (26.0 - 67.7)	51	71.5 (60.6 - 82.5)
No	75	44.0 (27.7 - 60.8)	9	31.0 (16.3 - 45.7)	22	62.8 (47.5 - 77.6)	18	53.2 (31.6 - 74.8)	26	28.5 (17.4 - 39.5)
<b>Using a family planning method<sup>a</sup></b>										
Yes	123	43.8 (32.1 - 55.5)	33	59.4 (46.0 - 72.7)	22	36.3 (20.2 - 52.6)	13	32.4 (16.6 - 47.7)	55	46.9 (36.1 - 57.8)
No	154	56.5 (44.9 - 68.1)	20	40.6 (27.4 - 53.8)	37	63.7 (47.7 - 79.4)	35	67.6 (51.7 - 84.0)	62	53.1 (42.1 - 64.0)
<b>Types of family planning methods used<sup>a,b</sup></b>										
Condoms	22	11.0 (6.1 - 16.0)	6	15.5 (3.8 - 27.1)	5	12.7 (0.0 - 26.1)	1	12.4 (0.0 - 34.1)	10	5.4 (1.2 - 9.6)
Birth control pill	9	5.3 (0.0 - 11.7)	0	0.0 (0.0 - 0.0)	2	9.5 (0.0 - 23.5)	0	0.0 (0.0 - 0.0)	7	12.0 (2.5 - 21.3)
Injections	27	24.9 (13.7 - 36.1)	13	42.4 (26.9 - 58.1)	3	16.4 (0.0 - 37.2)	2	24.8 (0.0 - 53.7)	9	17.6 (7.2 - 28.0)
IUD/copper/implants	59	54.2 (31.3 - 77.0)	15	39.7 (23.8 - 55.2)	10	39.0 (13.7 - 63.4)	12	87.6 (64.8 - 100.0)	22	47.8 (32.7 - 63.0)
Rhythms/natural methods	6	4.5 (0.0 - 10.4)	1	5.9 (0.0 - 16.1)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	5	12.1 (2.0 - 22.3)
Sterilization	4	6.4 (0.0 - 16.6)	0	0.0 (0.0 - 0.0)	2	22.4 (0.0 - 53.0)	0	0.0 (0.0 - 0.0)	2	4.3 (0.0 - 9.6)
Withdrawal	1	0.03 (0.0 - 0.3)	0	0.0 (0.0 - 0.0)	1	1.3 (0.0 - 3.9)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Other	1	0.4 (0.0 - 1.1)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	1.1 (0.0 - 2.9)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the respondent driven sampling package in R, using Gile's sequential sampling estimator.

<sup>a</sup> Non-responses and missing data were not included in the analysis

<sup>b</sup> Sample denominator is based on the previous question

Abbreviations: N, sample denominator; n, sample numerator; CI, 95% confidence interval; ART, anti-retroviral treatment; IUD, intrauterine device

## 5.12: Stigma and Discrimination

Stigma and discrimination remain deeply rooted among people who inject drugs (PWID) in Kenya, influencing both self-perception and access to essential services. A large proportion of participants reported feeling ashamed about injecting, reflecting persistent internalized stigma across all regions, particularly in Nairobi and Kilifi.

Despite this, many PWID disclosed their drug use to family members and fellow injectors, suggesting some trust within personal and peer networks. Experiences of verbal harassment (46.2%), physical assault (24.1%), and blackmail (27.1%) were widespread, with such incidents often linked to drug use and compounded by limited access to protection or justice.

A notable share had been arrested because of injecting, and over half reported receiving no help when detained, illustrating systemic marginalization and lack of legal support.

These findings underscore how stigma, violence, and criminalization converge to heighten vulnerability among PWID, necessitating rights-based interventions that prioritize protection, nonjudgmental care, and legal empowerment.

More than half reported avoiding health services in the past six months due to fear that others might discover their drug use. Avoidance of HIV-related services was somewhat lower (7.6%) but still substantial, especially in Nairobi, where higher visibility of drug use may heighten fear of exposure. Many respondents admitted to concealing their injecting behavior from HIV service providers, driven more by anticipated stigma than by direct discrimination. Although only a small minority experienced overt discrimination from health workers, the high rate of self-censorship and avoidance signals an enduring climate of mistrust between PWID and healthcare systems. To reduce these barriers, Kenya's harm reduction and HIV programs must strengthen confidentiality, expand stigma-free health services, and promote staff sensitization, ensuring PWID can access care without fear of judgment or exposure.

Table 5.12: Stigma and Discrimination Among People Who Inject Drugs By Location, BBS, Kenya , 2024

	Overall (N=2100)		Kiambu (N=446)		Kilifi (N=582)		Mombasa (N=469)		Nairobi (N=603)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Ashamed to inject drugs<sup>a</sup></b>										
Strongly agree	956	39.5 (25.6 - 53.4)	90	19.3 (15.7 - 23.0)	349	51.1 (46.3 - 55.9)	203	39.6 (32.1 - 47.2)	314	47.6 (42.7 - 52.6)
Agree	386	19.5 (7.0 - 32.0)	168	37.2 (32.9 - 41.6)	75	14.1 (10.4 - 17.8)	39	7.3 (5.0 - 9.5)	104	19.5 (15.4 - 23.5)
Neutral	64	3.7 (1.6 - 5.8)	18	4.3 (1.7 - 6.8)	22	6.3 (2.9 - 9.7)	13	2.8 (1.3 - 4.4)	11	1.5 (0.5 - 2.5)
Disagree	386	20.5 (15.0 - 26.1)	85	19.2 (15.4 - 23.0)	129	27.9 (23.4 - 32.4)	71	14.3 (10.7 - 17.8)	101	20.7 (16.1 - 25.1)
Strongly disagree	305	16.8 (2.1 - 31.6)	85	19.9 (15.9 - 23.9)	7	0.6 (0.2 - 1.0)	143	36.0 (27.3 - 44.7)	70	10.7 (7.7 - 13.8)
<b>Ashamed to disclose injecting drugs when among other people who inject drugs<sup>a</sup></b>										
Strongly agree	384	13.9 (0.6 - 27.1)	13	2.5 (1.4 - 3.7)	65	7.7 (5.2 - 10.2)	69	11.9 (8.4 - 15.3)	237	33.3 (29.1 - 37.5)
Agree	245	11.5 (4.9 - 18.2)	77	18.2 (14.0 - 22.5)	31	3.8 (2.3 - 5.3)	42	8.1 (5.6 - 10.6)	95	16.1 (12.5 - 19.6)
Neutral	54	2.8 (1.1 - 4.6)	10	2.6 (1.1 - 4.1)	11	2.7 (0.7 - 4.7)	24	5.2 (3.1 - 7.3)	9	0.8 (0.2 - 1.5)
Disagree	591	30.5 (16.4 - 44.7)	98	22.2 (18.2 - 26.3)	258	51.3 (46.5 - 56.1)	97	19.6 (15.4 - 23.7)	138	29.0 (24.3 - 33.6)
Strongly disagree	823	41.2 (24.9 - 57.6)	248	54.4 (49.7 - 59.2)	217	34.5 (30.0 - 38.9)	237	55.3 (48.5 - 62.1)	121	20.8 (16.6 - 25.0)
<b>Ashamed to disclose about injecting drugs to community social or health worker<sup>a</sup></b>										
Strongly agree	507	19.8 (8.9 - 30.7)	23	5.6 (3.5 - 7.8)	179	26.5 (22.5 - 30.5)	84	16.6 (12.6 - 20.6)	221	30.4 (26.3 - 34.6)
Agree	423	18.8 (6.9 - 30.7)	126	28.7 (24.6 - 32.8)	188	29.4 (25.0 - 33.7)	30	5.1 (3.3 - 6.9)	79	12.2 (9.1 - 15.3)
Neutral	150	7.5 (1.8 - 13.2)	29	6.0 (3.9 - 8.2)	33	6.6 (3.6 - 9.6)	76	15.7 (11.5 - 20.0)	12	1.9 (0.6 - 3.2)
Disagree	620	33.8 (26.9 - 40.8)	115	24.0 (20.0 - 28.1)	175	36.4 (31.5 - 41.3)	175	40.7 (33.9 - 47.6)	155	34.0 (29.0 - 38.9)
Strongly disagree	395	20.0 (6.0 - 33.9)	153	35.6 (31.0 - 40.2)	7	1.1 (0.05 - 2.1)	104	21.9 (13.5 - 30.3)	131	21.5 (17.6 - 25.4)
<b>Disclosed injecting drugs to the following people:<sup>b</sup></b>										
Colleagues	253	12.5 (3.3 - 21.7)	60	13.5 (10.2 - 16.7)	10	1.3 (0.4 - 2.3)	123	24.1 (16.2 - 32.1)	60	11.1 (7.9 - 14.3)
Family	1563	72.8 (59.6 - 86.0)	322	69.1 (64.3 - 73.9)	519	90.0 (87.5 - 92.5)	356	74.3 (69.2 - 79.3)	366	57.6 (52.7 - 62.5)
Friends/acquaintances who inject drugs	1617	81.2 (66.7 - 95.6)	433	96.0 (93.7 - 98.2)	339	63.9 (59.3 - 68.5)	424	90.5 (87.6 - 93.3)	421	74.3 (70.7 - 77.8)
Friends/acquaintances who do not inject drugs	1285	63.7 (45.5 - 81.9)	231	51.9 (47.1 - 56.6)	490	86.8 (83.8 - 89.8)	331	70.1 (64.5 - 75.8)	233	45.9 (41.3 - 50.4)
Healthcare/HIV care providers	971	46.9 (36.5 - 57.3)	162	34.5 (30.3 - 38.8)	321	60.5 (56.0 - 65.0)	245	45.6 (38.5 - 52.8)	243	47.0 (42.2 - 51.6)
Partner/spouse	792	33.1 (23.0 - 43.3)	164	33.7 (29.3 - 38.2)	158	26.7 (22.2 - 31.3)	142	24.5 (18.2 - 30.8)	328	47.4 (43.0 - 51.9)
No one	14	0.7 (0.0 - 1.8)	0	0.0 (0.0 - 0.0)	5	0.7 (0.07 - 1.4)	9	2.3 (0.8 - 3.8)	0	0.0 (0.0 - 0.0)
Other	3	0.1 (0.0 - 0.3)	1	0.08 (0.06 - 0.1)	0	0.0 (0.0 - 0.0)	1	0.1 (0.0 - 0.4)	1	0.3 (0.0 - 0.8)
<b>Felt excluded from family activities because of injecting drugs<sup>a</sup></b>										
Yes, in the last 6 months	905	43.0 (35.5 - 50.4)	192	40.8 (36.3 - 45.3)	281	47.8 (42.8 - 52.8)	223	50.0 (42.9 - 57.1)	209	33.3 (28.5 - 37.9)
Yes, but not in the last 6 months	299	14.8 (7.9 - 21.7)	104	24.8 (20.4 - 29.2)	87	14.9 (11.3 - 18.5)	61	11.0 (8.3 - 13.7)	47	8.8 (6.1 - 11.5)
No	889	42.2 (31.7 - 52.7)	150	34.4 (30.1 - 38.7)	214	37.3 (32.6 - 42.1)	185	39.0 (31.4 - 46.7)	340	58.0 (53.2 - 62.8)
<b>Family members made unfair comments or gossiped because of injecting drugs<sup>a</sup></b>										
Yes, in the last 6 months	1091	52.2 (51.0 - 53.4)	231	52.6 (48.0 - 57.2)	307	52.0 (47.1 - 56.9)	229	50.7 (43.2 - 58.1)	324	53.4 (48.7 - 58.0)
Yes, but not in the last 6 months	243	10.9 (5.5 - 16.4)	86	17.5 (14.2 - 20.9)	77	12.3 (9.2 - 15.5)	58	9.9 (7.3 - 12.5)	22	4.1 (2.3 - 6.0)
No	762	36.9 (31.7 - 42.2)	129	29.9 (25.3 - 34.5)	198	35.7 (30.8 - 40.6)	182	39.4 (31.1 - 47.7)	253	42.5 (37.8 - 47.3)
<b>Ever verbally harassed/scolded<sup>a</sup></b>										
Yes, in the last 6 months	1000	46.2 (38.1 - 54.2)	267	58.5 (53.8 - 63.4)	267	42.0 (37.2 - 46.8)	230	41.6 (34.0 - 49.2)	236	42.7 (37.9 - 47.4)
Yes, but not in the last 6 months	201	9.3 (2.2 - 16.4)	91	19.7 (15.8 - 23.5)	62	9.0 (6.7 - 11.3)	30	5.4 (3.4 - 7.4)	18	3.2 (1.5 - 5.0)
No	896	44.5 (29.6 - 59.4)	88	21.8 (17.6 - 26.0)	253	49.0 (43.8 - 54.2)	209	53.0 (44.5 - 61.5)	346	54.1 (49.5 - 58.7)
<b>Ever blackmailed<sup>a</sup></b>										
Yes, in the last 6 months	623	27.1 (10.7 - 43.5)	41	10.0 (7.0 - 13.0)	270	42.5 (37.8 - 47.2)	83	15.5 (10.4 - 20.6)	229	40.4 (35.7 - 45.0)
Yes, but not in the last 6 months	103	4.6 (3.2 - 6.0)	24	5.0 (3.1 - 6.9)	45	6.3 (4.2 - 8.4)	20	3.8 (2.1 - 5.5)	14	3.1 (1.3 - 5.0)
No	1371	68.3 (51.7 - 85.0)	381	85.0 (81.5 - 88.4)	267	51.2 (46.0 - 56.4)	366	80.8 (75.2 - 86.3)	357	56.5 (51.7 - 61.4)
<b>Ever forced to have sex<sup>a</sup></b>										
Yes, in the last 6 months	122	5.7 (2.8 - 8.6)	8	2.0 (0.6 - 3.3)	48	8.0 (5.3 - 10.7)	21	4.5 (1.8 - 7.2)	45	8.2 (5.3 - 11.1)
Yes, but not in the last 6 months	70	3.5 (2.2 - 4.9)	6	1.5 (0.3 - 2.8)	25	3.9 (2.2 - 5.5)	16	3.8 (1.8 - 5.8)	23	4.8 (2.9 - 6.8)
No	1904	90.8 (86.6 - 95.0)	431	96.5 (94.7 - 98.3)	509	88.1 (85.2 - 90.9)	432	91.7 (88.2 - 95.3)	532	87.0 (83.6 - 90.4)
<b>Experiences of forced sex believed to be related to injecting drugs<sup>a</sup></b>										
Yes	148	81.1 (67.9 - 94.3)	13	96.4 (91.4 - 100.0)	59	76.7 (64.2 - 89.0)	29	83.7 (70.5 - 97.0)	47	65.6 (52.2 - 78.8)
No	44	19.8 (7.5 - 32.0)	1	3.6 (0.0 - 8.7)	14	23.3 (11.5 - 35.3)	8	16.3 (3.5 - 28.9)	21	34.4 (21.8 - 47.2)
<b>Ever physically harassed or hurt because of injecting drugs<sup>a</sup></b>										
Yes, in the last 6 months	520	24.1 (19.4 - 28.7)	108	23.2 (19.4 - 27.0)	132	19.8 (16.1 - 23.3)	112	22.4 (17.9 - 26.9)	168	30.7 (25.9 - 35.4)
Yes, but not in the last 6 months	292	13.9 (6.5 - 21.2)	91	19.3 (15.8 - 22.8)	59	8.9 (6.5 - 11.3)	112	21.2 (15.3 - 27.1)	30	6.2 (3.7 - 8.7)
No	1285	62.1 (55.4 - 68.9)	247	57.5 (52.8 - 62.1)	391	71.4 (67.4 - 75.4)	245	56.3 (48.7 - 64.0)	402	63.1 (58.3 - 68.1)
<b>Actions after experiencing violence:<sup>a,b,c</sup></b>										
Informed the local chief	5	1.4 (0.3 - 2.5)	0	0.0 (0.0 - 0.0)	2	2.5 (0.0 - 6.3)	1	0.8 (0.0 - 2.0)	2	1.8 (0.0 - 3.7)
Reported to NGO/CBO	65	10.4 (2.4 - 18.4)	3	6.5 (0.0 - 13.2)	10	9.9 (2.0 - 17.3)	1	2.7 (0.0 - 8.4)	51	21.7 (14.3 - 29.2)
Reported to peer/outreach worker	22	6.2 (3.2 - 9.2)	3	6.8 (0.0 - 14.4)	5	3.4 (0.3 - 6.5)	7	10.5 (2.7 - 18.4)	7	5.0 (0.6 - 9.4)
Reported to police	95	30.7 (17.4 - 44.0)	7	20.5 (7.7 - 32.9)	28	20.1 (11.8 - 28.5)	26	49.4 (34.2 - 64.6)	34	32.3 (22.3 - 42.3)
Shared with friends/family	84	29.9 (10.0 - 49.7)	31	59.6 (46.2 - 73.3)	17	12.9 (6.9 - 19.1)	11	21.3 (9.0 - 33.5)	25	26.3 (15.9 - 36.4)
Went to clinic	23	7.5 (0.9 - 14.2)	3	2.4 (1.5 - 3.3)	3	1.9 (0.0 - 4.0)	8	16.9 (5.8 - 27.8)	9	8.9 (1.8 - 16.1)
Went to DICE	100	21.5 (0.0 - 43.4)	2	3.0 (0.02 - 6.1)	74	53.9 (44.1 - 63.9)	9	17.9 (7.2 - 28.6)	15	10.3 (4.0 - 16.7)
Went to violence center	9	1.2 (0.0 - 3.2)	0	0.0 (0.0 - 0.0)	8	4.3 (1.2 - 7.4)	0	0.0 (0.0 - 0.0)	1	0.4 (0.0 - 0.9)
Other	4	0.9 (0.0 - 2.0)	1	1.8 (0.0 - 4.9)	0	0.0 (0.0 - 0.0)	1	2.3 (0.0 - 6.1)	2	0.8 (0.0 - 1.9)
<b>Been arrested because of injecting drugs<sup>a</sup></b>										
Yes, in the last 6 months	404	18.2 (14.9 - 21.5)	112	22.8 (18.8 - 26.8)	124	19.2 (15.5 - 22.8)	75	15.6 (12.0 - 19.3)	93	15.5 (12.0 - 19.1)
Yes, but not in the last 6 months	786	38.1 (27.2 - 49.1)	157	35.7 (31.2 - 40.2)	154	23.3 (19.4 - 27.2)	231	47.1 (40.0 - 54.2)	244	46.3 (41.8 - 50.8)
No	906	43.7 (34.4 - 53.0)	177	41.5 (37.0 - 45.9)	304	57.5 (52.7 - 62.4)	162	37.3 (29.9 - 44.5)	263	38.2 (33.6 - 42.8)
<b>Received help dealing with the authorities last time arrested from:<sup>a</sup></b>										
AIDS tribunal	1	0.06 (0.0 - 0.2)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	0.3 (0.0 - 0.8)
Did not receive help	611	50.7 (33.5 - 67.9)	140	53.2 (46.9 - 59.6)	115	36.3 (30.3 - 42.4)	223	74.5 (69.4 - 79.5)	133	38.7 (32.6 - 44.6)
Family/regular partner	397	34.9 (21.2 - 48.5)	99	38.6 (32.2 - 45.1)	81	30.8 (24.7 - 36.7)	53	18.4 (13.9 - 22.9)	164	51.5 (45.6 - 57.6)
Network	34	2.4 (1.7 - 3.0)	6	1.9 (0.3 - 3.4)	9	2.9 (0.8 - 4.9)	7	1.6 (0.4 - 2.8)	12	2.8 (0.9 - 4.7)
NGO/CBO/DICE	81	7.3 (0.0 - 17.0)	4	1.1 (0.3 - 1.9)	56	22.0 (16.1 - 28.0)	17	4.9 (2.6 - 7.2)	4	1.3 (0.4 - 2.3)
Legal support	44	4.1 (0.8 - 7.4)	6	2.9 (0.6 - 5.1)	17	8.0 (4.2 - 11.9)	1	0.2 (0.0 - 0.6)	20	5.4 (2.8 - 8.0)
Other	8	0.6 (0.0 - 1.6)	7	2.3 (0.7 - 3.9)	0	0.0 (0.0 - 0.0)	1	0.4 (0.0 - 1.0)	0	0.0 (0.0 - 0.0)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the respondent driven sampling package in R, using Gile's sequential sampling estimator.

<sup>a</sup> Non-responses and missing data were not included in the analysis

<sup>b</sup> Sum of sample numerator is higher than the sample denominator, as multiple responses could be selected

<sup>c</sup> Sample denominator is based on the previous question

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; CBO, community-based organization; DICE, drop-in center; NGO, non-governmental organization; AIDS, acquired immunodeficiency syndrome.

Table 5.12B: Avoidance of Health Service Among People Who Inject Drugs by Location, BBS, Kenya, 2024

	Overall (N=2100)		Kiambu (N=446)		Kilifi (N=582)		Mombasa (N=469)		Nairobi (N=603)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Avoided seeking HIV services due to concerns someone may find out about injecting drugs<sup>a</sup></b>										
Yes, in the last 6 months	212	8.4 (2.5 - 14.2)	14	3.2 (1.6 - 4.7)	74	12.5 (9.4 - 15.5)	18	3.3 (1.2 - 5.4)	106	14.5 (11.0 - 17.9)
Yes, but not in the last 6 months	157	6.7 (3.5 - 11.9)	35	6.9 (4.9 - 9.0)	51	6.8 (4.8 - 8.9)	40	8.0 (5.7 - 10.4)	25	3.1 (2.9 - 7.3)
No	1727	84.9 (80.0 - 89.9)	397	89.9 (87.5 - 92.3)	456	80.7 (77.4 - 84.1)	405	88.7 (85.4 - 91.9)	469	80.4 (76.6 - 84.2)
<b>Avoided seeking HIV services due to fear of discrimination for injecting drugs<sup>a</sup></b>										
Yes, in the last 6 months	211	7.6 (1.7 - 13.4)	8	2.2 (0.7 - 3.6)	62	10.2 (7.2 - 13.1)	16	3.1 (0.7 - 5.5)	125	14.7 (11.5 - 18.0)
Yes, but not in the last 6 months	116	4.9 (3.2 - 6.6)	22	4.4 (2.8 - 6.1)	39	5.1 (3.4 - 6.9)	43	7.1 (4.9 - 9.3)	12	3.0 (1.2 - 4.8)
No	1769	87.5 (82.6 - 92.5)	416	93.4 (91.2 - 95.5)	480	84.7 (81.6 - 87.9)	410	89.8 (86.7 - 92.9)	463	82.2 (78.7 - 85.7)
<b>Avoided disclosing to HIV service provider about injecting drugs<sup>a</sup></b>										
Yes, in the last 6 months	162	6.7 (2.6 - 10.8)	50	11.9 (8.8 - 15.0)	34	5.2 (3.0 - 7.3)	12	2.0 (0.9 - 3.2)	66	8.0 (5.5 - 10.6)
Yes, but not in the last 6 months	164	7.8 (2.7 - 13.0)	71	14.8 (11.8 - 17.9)	29	4.2 (2.6 - 5.9)	48	9.2 (6.2 - 12.2)	16	3.3 (1.6 - 4.9)
No	1768	85.4 (77.6 - 93.3)	322	73.3 (69.2 - 77.3)	519	90.6 (88.1 - 93.2)	409	88.8 (85.7 - 91.9)	518	88.7 (85.8 - 91.7)
<b>Discriminated by HIV service provider because of injecting drugs<sup>a</sup></b>										
Yes, in the last 6 months	21	0.7 (0.2 - 1.1)	0	0.0 (0.0 - 0.0)	10	1.0 (0.4 - 1.6)	5	0.7 (0.08 - 1.3)	6	1.0 (0.08 - 1.8)
Yes, but not in the last 6 months	44	1.7 (0.03 - 3.4)	2	0.5 (0.0 - 1.0)	28	4.3 (2.5 - 6.0)	5	0.7 (0.0 - 1.9)	9	1.3 (0.0 - 2.6)
No because I hid	385	20.0 (3.0 - 37.0)	200	45.7 (41.1 - 50.4)	82	13.6 (10.5 - 16.8)	63	13.3 (10.0 - 16.6)	40	7.4 (4.7 - 10.2)
No, even though they knew	1639	77.7 (61.8 - 93.6)	241	53.8 (49.1 - 58.5)	462	81.1 (77.5 - 84.6)	395	85.3 (81.4 - 89.2)	541	90.3 (87.1 - 93.5)
All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.										
<sup>a</sup> Non-responses and missing data were excluded from the analysis										
Abbreviations: N, sample denominator; n, sample numerator; CI, confidence interval										

## 5.13: Alcohol and Drug Use

Alcohol use among people who inject drugs (PWID) in Kenya varied widely across regions, with about 73% reporting abstinence, highest in Mombasa (87.1%) and lowest in Kilifi (59.8%), showing regional disparities in drinking behaviors.

Among those who consumed alcohol, most drank monthly or less, but a notable 18.6% in Kilifi drank four or more times weekly, suggesting heavier localized use.

Nearly 44% reported binge drinking episodes, especially in Kilifi, indicating elevated risk for hazardous alcohol use. Reports of inability to stop drinking, memory loss, or guilt after drinking were more common in Kilifi and Nairobi, signaling potential dependence.

Additionally, around 27% had sustained alcohol-related injuries, and nearly a quarter indicated that others had expressed concern about their drinking, underscoring the need for focused harm-reduction and integrated treatment programs for PWID struggling with alcohol.

Findings from the Alcohol Use Disorder Identification Test (AUDIT) reveal that nearly half (45%) of PWID fall within the low-risk drinking category (Zone I), though regional variation was notable — Mombasa (70.6%) showed the highest proportion of low-risk drinkers, while Kilifi (26.7%) had the lowest.

About one-quarter (25.6%) of respondents engaged in drinking above low-risk levels (Zone II), indicating early-stage hazardous use. Meanwhile, 8.3% reported harmful or hazardous drinking (Zone III), suggesting potential alcohol-related health risks.

Alarmingly, over one in five (21.4%) PWID showed signs of alcohol dependence (Zone IV), with Kilifi (39.9%) and Nairobi (31.6%) showing the highest dependence rates. These findings highlight significant differences in drinking severity across counties and emphasize the need for targeted screening, counseling, and access to alcohol-dependence treatment services within Kenya's harm reduction programs.

Table 5.13: Alcohol Use Among People Who Inject Drugs By Location, BBS, Kenya, 2024

	Overall (N=2100)		Kiambu (N=446)		Kilifi (N=582)		Mombasa (N=469)		Nairobi (N=603)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Frequency of alcohol consumption<sup>a</sup></b>										
Never	1555	73.1 (62.1 - 84.1)	328	71.2 (66.6 - 75.9)	353	59.8 (54.9 - 64.7)	409	87.1 (83.7 - 90.4)	465	74.1 (70.0 - 78.4)
Monthly or less	179	9.8 (8.2 - 11.4)	51	12.0 (8.8 - 15.1)	30	7.8 (4.7 - 11.0)	44	9.7 (6.9 - 12.6)	54	9.9 (6.9 - 12.9)
2-4 times per month	95	5.0 (1.2 - 8.8)	36	10.2 (6.9 - 13.4)	29	5.3 (2.9 - 7.8)	5	0.8 (0.2 - 1.4)	25	4.0 (2.2 - 5.8)
2-3 times per week	106	5.2 (1.5 - 9.0)	20	3.6 (2.1 - 5.1)	45	8.4 (5.4 - 11.5)	3	0.6 (0.0 - 1.4)	38	8.3 (5.4 - 11.1)
4 or more per week	162	6.8 (0.0 - 14.6)	11	3.0 (1.3 - 4.7)	125	18.6 (15.1 - 22.1)	8	1.8 (0.6 - 2.9)	18	3.7 (1.7 - 5.7)
<b>Number of alcoholic drinks consumed on a typical day<sup>b</sup></b>										
1 or 2	319	62.1 (49.4 - 74.9)	75	69.8 (61.6 - 77.8)	115	55.4 (48.0 - 62.7)	31	47.2 (33.2 - 61.3)	98	75.5 (67.0 - 84.2)
3 or 4	170	27.5 (17.1 - 37.9)	31	21.8 (14.9 - 29.0)	97	35.7 (28.9 - 42.7)	20	37.1 (23.6 - 50.6)	22	15.5 (7.6 - 23.4)
5 or 6	38	7.1 (2.8 - 11.4)	7	3.6 (1.2 - 6.1)	11	5.2 (2.0 - 8.4)	8	14.2 (4.9 - 23.5)	12	5.9 (2.0 - 9.8)
7 to 9	8	1.6 (0.9 - 2.3)	3	3.2 (0.0 - 6.5)	2	1.0 (0.0 - 2.3)	1	1.4 (0.0 - 4.6)	2	1.6 (0.0 - 3.9)
10 or more	7	1.4 (0.2 - 2.6)	2	1.5 (0.0 - 3.4)	4	2.7 (0.5 - 4.9)	0	0.0 (0.0 - 0.0)	1	1.4 (0.0 - 3.6)
<b>Frequency of consuming six or more drinks on one occasion in the last year<sup>b</sup></b>										
Never	276	56.5 (45.8 - 67.2)	85	71.1 (61.8 - 80.4)	96	47.7 (40.1 - 55.3)	34	58.9 (45.4 - 72.5)	61	48.7 (39.1 - 58.3)
Less than monthly	100	18.8 (13.3 - 24.3)	17	14.3 (7.2 - 21.4)	41	20.0 (13.6 - 26.3)	19	26.8 (15.4 - 38.2)	23	14.8 (8.1 - 21.4)
Monthly	56	10.0 (1.9 - 18.1)	8	8.1 (1.4 - 14.7)	18	8.1 (4.1 - 12.2)	1	2.0 (0.0 - 5.2)	29	21.7 (13.9 - 29.5)
Weekly	54	7.5 (3.5 - 11.6)	8	6.6 (2.3 - 10.9)	27	8.6 (5.3 - 12.0)	1	2.4 (0.0 - 6.5)	18	12.3 (4.7 - 19.7)
Daily/almost daily	56	7.0 (0.02 - 14.0)	0	0.0 (0.0 - 0.0)	47	15.5 (10.3 - 20.8)	5	9.9 (1.4 - 18.4)	4	2.6 (0.0 - 5.2)
<b>Unable to stop drinking once started in the last year<sup>b</sup></b>										
Never	256	56.7 (39.9 - 73.6)	69	52.4 (43.5 - 61.5)	73	39.1 (30.9 - 47.2)	46	80.2 (70.6 - 89.9)	68	55.3 (46.1 - 64.5)
Less than monthly	93	16.2 (9.6 - 22.8)	27	23.3 (15.0 - 31.6)	40	19.2 (13.4 - 24.9)	12	14.6 (6.8 - 22.4)	14	7.8 (3.3 - 12.3)
Monthly	52	10.0 (1.6 - 18.3)	13	15.9 (7.9 - 23.7)	12	6.0 (2.2 - 9.9)	0	0.0 (0.0 - 0.0)	27	18.1 (11.3 - 25.0)
Weekly	61	9.3 (5.9 - 12.8)	8	7.7 (2.8 - 12.5)	34	10.5 (6.6 - 14.5)	2	5.2 (0.0 - 11.8)	17	13.3 (5.5 - 21.2)
Daily/almost daily	80	7.8 (0.0 - 19.4)	1	0.7 (0.0 - 1.7)	70	25.2 (18.7 - 31.8)	0	0.0 (0.0 - 0.0)	9	5.4 (1.5 - 9.3)
<b>Frequency of times failed to do what is expected because of drinking in the last year<sup>b</sup></b>										
Never	255	59.2 (38.8 - 79.6)	70	56.8 (47.3 - 66.4)	63	36.4 (28.1 - 44.5)	48	86.8 (79.7 - 93.8)	74	56.5 (46.3 - 66.6)
Less than monthly	92	14.9 (6.7 - 23.0)	21	20.9 (12.0 - 29.6)	51	21.3 (15.3 - 27.4)	12	13.2 (6.1 - 20.3)	8	3.9 (0.9 - 7.1)
Monthly	61	9.3 (2.3 - 16.3)	18	13.2 (6.9 - 19.6)	19	8.2 (4.4 - 12.0)	0	0.0 (0.0 - 0.0)	24	15.8 (9.1 - 22.6)
Weekly	58	9.5 (2.2 - 16.8)	8	8.4 (3.5 - 13.4)	32	11.6 (7.3 - 16.0)	0	0.0 (0.0 - 0.0)	18	17.8 (9.8 - 25.6)
Daily/almost daily	76	7.3 (0.0 - 17.5)	1	0.7 (0.0 - 1.7)	64	22.5 (16.3 - 28.8)	0	0.0 (0.0 - 0.0)	11	6.0 (1.2 - 10.8)
<b>Need a drink in the morning after heavy drinking in the last year<sup>b</sup></b>										
Never	251	55.9 (39.8 - 72.0)	76	63.2 (54.8 - 71.7)	65	37.2 (28.8 - 45.4)	43	74.5 (63.4 - 85.6)	67	48.7 (38.8 - 58.6)
Less than monthly	76	13.3 (9.3 - 17.4)	17	13.2 (6.8 - 19.6)	37	15.9 (10.6 - 21.3)	12	16.8 (6.9 - 26.5)	10	8.0 (2.0 - 13.9)
Monthly	55	10.3 (4.1 - 16.4)	12	12.6 (6.5 - 18.6)	17	9.0 (4.1 - 13.9)	1	2.4 (0.0 - 6.5)	25	17.1 (9.1 - 24.9)
Weekly	61	9.5 (2.8 - 16.2)	9	8.2 (2.6 - 13.7)	28	8.9 (5.5 - 12.4)	1	2.0 (0.0 - 5.2)	23	18.6 (11.3 - 25.9)
Daily/almost daily	99	11.0 (0.0 - 22.9)	4	2.8 (0.5 - 5.2)	82	29.0 (22.1 - 36.0)	3	4.4 (0.0 - 9.6)	10	7.6 (2.5 - 12.8)
<b>Feel remorse/guilt after drinking in the last year<sup>b</sup></b>										
Never	191	46.6 (28.0 - 65.2)	67	54.0 (45.0 - 63.3)	35	25.8 (17.4 - 33.9)	41	69.0 (56.2 - 81.8)	48	37.5 (27.9 - 47.0)
Less than monthly	91	19.0 (10.1 - 27.9)	33	30.1 (21.0 - 39.2)	29	13.9 (8.2 - 19.6)	14	22.8 (11.7 - 34.0)	15	9.8 (4.3 - 15.3)
Monthly	59	10.0 (2.3 - 17.6)	13	11.1 (4.9 - 17.3)	17	7.3 (3.7 - 11.0)	2	1.4 (0.0 - 3.3)	27	19.9 (12.7 - 27.2)
Weekly	62	9.6 (1.1 - 18.1)	3	2.4 (0.0 - 5.8)	34	13.5 (9.0 - 18.2)	1	2.0 (0.0 - 5.2)	24	19.9 (11.7 - 28.0)
Daily/almost daily	139	14.9 (0.0 - 31.6)	2	2.3 (0.0 - 5.7)	114	39.4 (32.1 - 46.9)	2	4.9 (0.0 - 11.4)	21	12.9 (6.4 - 19.6)
<b>Unable to remember what happened the night before<sup>b</sup></b>										
Never	202	45.4 (27.1 - 63.7)	59	45.3 (36.0 - 54.9)	53	31.8 (23.9 - 39.5)	43	71.8 (59.4 - 84.1)	47	32.9 (24.5 - 41.3)
Less than monthly	113	22.9 (12.0 - 33.8)	37	33.0 (23.7 - 42.2)	50	24.3 (17.3 - 31.2)	16	27.2 (15.4 - 39.0)	10	7.4 (2.1 - 12.7)
Monthly	68	11.8 (3.4 - 20.1)	16	16.6 (9.3 - 23.8)	22	9.4 (5.4 - 13.4)	1	1.1 (0.0 - 2.8)	29	20.0 (12.5 - 27.6)
Weekly	69	11.6 (0.0 - 25.6)	6	5.1 (0.9 - 9.3)	26	9.2 (5.5 - 13.0)	0	0.0 (0.0 - 0.0)	37	32.3 (23.4 - 41.1)
Daily/almost daily	90	8.1 (0.0 - 19.8)	0	0.0 (0.0 - 0.0)	78	25.3 (19.0 - 31.8)	0	0.0 (0.0 - 0.0)	12	7.3 (1.9 - 12.8)
<b>Injuries to self or someone else as a result of drinking<sup>b</sup></b>										
Yes, during the last year	128	26.8 (17.9 - 35.7)	37	35.3 (25.6 - 44.9)	56	29.1 (21.3 - 36.7)	15	28.9 (16.5 - 41.4)	20	14.2 (7.3 - 21.1)
Yes, but not in the last year	114	19.3 (4.4 - 34.1)	17	13.3 (6.9 - 19.6)	40	14.0 (9.6 - 18.3)	5	7.8 (0.5 - 15.1)	52	41.6 (32.2 - 50.9)
No	300	54.0 (46.0 - 62.0)	64	51.4 (41.0 - 62.0)	133	57.0 (49.3 - 64.7)	40	63.3 (51.4 - 75.2)	63	44.3 (34.7 - 53.8)
<b>Others have concerns about your drinking<sup>b</sup></b>										
Yes, during the last year	123	21.9 (9.6 - 34.3)	28	24.3 (16.4 - 32.2)	36	14.3 (9.8 - 18.9)	5	10.3 (1.4 - 19.3)	54	38.6 (28.8 - 48.4)
Yes, but not in the last year	110	20.6 (15.7 - 25.4)	26	24.8 (16.2 - 33.4)	52	23.6 (16.5 - 30.6)	11	19.9 (8.8 - 31.0)	21	14.3 (7.3 - 21.2)
No	309	57.6 (47.4 - 67.8)	64	50.9 (41.7 - 60.1)	141	62.1 (54.5 - 69.6)	44	69.8 (57.4 - 82.1)	60	47.1 (37.0 - 57.3)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the respondent driven sampling package in R, using Gile's sequential sampling estimator.

<sup>a</sup> Non-responses and missing data were not included in the analysis

<sup>b</sup> Sample denominator is based on the previous question

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval

Table 5.13: Alcohol Use Among People Who Inject Drugs By Location, BBS, Kenya, 2024

	Overall Estimate (N=210)		Kiambu (N=446)		Kilifi (N=582)		Mombasa (N=469)		Nairobi (N=603)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Zones based on AUDIT scores<sup>a</sup></b>										
Zone I- low risk drinking (score 0-7)	186	45.0 (25.3 - 64.7)	63	51.3 (42.1 - 60.6)	39	26.7 (18.8 - 34.4)	43	70.6 (57.8 - 83.2)	41	31.6 (22.6 - 40.6)
Zone II- use in excess of low-risk (score 8-15)	138	25.6 (21.2 - 29.9)	33	31.0 (22.0 - 39.9)	58	26.1 (20.0 - 32.4)	12	19.1 (8.3 - 30.1)	35	26.0 (17.4 - 34.5)
Zone III- harmful & hazardous drinking (score 16-19)	50	8.3 (6.3 - 10.2)	10	7.5 (2.5 - 12.6)	18	7.3 (4.0 - 10.6)	3	6.7 (0.0 - 14.0)	19	10.8 (5.6 - 16.1)
Zone IV- suggested dependence (score 20-40)	168	21.4 (4.6 - 38.2)	12	10.2 (4.8 - 15.5)	114	39.9 (32.5 - 47.4)	2	3.7 (0.0 - 8.1)	40	31.6 (21.9 - 41.4)
All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the respondent driven sampling package in R, using Gile's sequential sampling estimator.										
<sup>a</sup> AUDIT score and zones adopted from World Health Organization guidelines ( <a href="https://iris.who.int/bitstream/handle/10665/67205/WHO_MSD_MSB_01.6a-eng.pdf?sequence=1">https://iris.who.int/bitstream/handle/10665/67205/WHO_MSD_MSB_01.6a-eng.pdf?sequence=1</a> )										
Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; AUDIT, Alcohol Use Disorder Identification Test										

## 5.14: Mental Health

Symptoms of depression were highly prevalent among people who inject drugs (PWID) across Kenya. Overall, nearly half (49.4%) reported low interest or pleasure in activities and 51.5% felt down or hopeless on several days, indicating widespread mild to moderate depressive symptoms. Sleep disturbances and fatigue were also common, with over 40% experiencing trouble sleeping and 51.5% reporting tiredness or low energy, particularly in Kilifi and Mombasa.

Notably, about one in four (25.5%) felt bad about themselves nearly every day, and 9% reported suicidal thoughts, with the highest rates of severe depressive symptoms recorded in Nairobi. These findings highlight the urgent need for mental health screening, psychosocial support, and integration of depression care within harm reduction and HIV services for PWID.

Based on PHQ-9 depression scoring, over 70% of PWID exhibited some level of depressive symptoms, with 42.2% categorized as having mild depression and 15.9% moderate depression. Only 28.4% had none or minimal symptoms, reflecting the high mental health burden in this group. Moderately severe to severe depression affected 7.1% of respondents, most notably in Nairobi (15.4%) and Mombasa (6.7%), pointing to regional disparities in psychological distress.

These results underscore the need for integrated, community-based mental health interventions within drug treatment and HIV prevention programs to address the psychological vulnerabilities faced by PWID in Kenya

Table 5.14: Depression Among People Who Inject Drugs By Location, BBS, Kenya, 2024

	Overall (N=2100)		Kiambu (N=446)		Kilifi (N=582)		Mombasa (N=469)		Nairobi (N=603)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Little interest or pleasure in doing things<sup>a</sup></b>										
Not at all	803	37.6 (17.1 - 58.0)	279	63.1 (58.6 - 67.6)	120	19.8 (15.5 - 24.1)	104	21.1 (13.9 - 28.3)	300	46.2 (41.6 - 51.0)
Several days	1029	49.4 (21.9 - 76.9)	157	35.1 (30.7 - 39.5)	434	76.5 (72.5 - 80.5)	313	68.9 (61.7 - 76.0)	125	17.1 (13.7 - 20.6)
More than half of days	63	2.8 (0.4 - 5.1)	9	1.7 (0.7 - 2.6)	6	0.7 (0.1 - 1.3)	34	6.2 (4.1 - 8.3)	14	2.5 (0.9 - 4.1)
Nearly every day	202	10.3 (0.0 - 26.0)	1	0.1 (0.0 - 0.3)	22	3.0 (1.7 - 4.3)	18	3.9 (1.9 - 5.8)	161	34.2 (29.1 - 39.0)
<b>Felt down, depressed, or hopeless<sup>a</sup></b>										
Not at all	621	30.1 (14.3 - 46.0)	235	51.1 (46.4 - 55.9)	87	16.0 (11.9 - 20.1)	92	18.9 (11.5 - 26.3)	207	34.5 (30.5 - 38.7)
Several days	1096	51.5 (25.4 - 77.5)	183	43.1 (38.3 - 47.9)	450	76.9 (72.8 - 80.9)	298	68.0 (61.0 - 75.0)	165	17.8 (14.6 - 21.1)
More than half of days	93	4.2 (1.2 - 7.3)	22	4.2 (2.6 - 5.8)	4	0.5 (0.0 - 1.0)	48	8.2 (5.7 - 10.6)	19	4.1 (2.0 - 6.1)
Nearly every day	287	14.2 (0.0 - 33.5)	6	1.5 (0.3 - 2.7)	41	6.6 (4.1 - 9.1)	31	4.9 (3.1 - 6.8)	209	43.6 (38.5 - 48.5)
<b>Trouble falling asleep, staying asleep or sleeping too much<sup>a</sup></b>										
Not at all	817	39.7 (28.5 - 50.9)	226	48.4 (43.8 - 53.0)	131	22.9 (18.6 - 27.2)	188	44.1 (37.3 - 50.9)	272	43.3 (38.6 - 48.2)
Several days	939	44.1 (26.9 - 61.3)	171	41.0 (35.9 - 46.0)	383	65.3 (60.7 - 69.9)	232	47.3 (39.4 - 55.3)	153	22.8 (18.8 - 26.8)
More than half of days	99	4.9 (1.2 - 8.5)	43	9.4 (6.9 - 11.9)	1	0.2 (0.0 - 0.4)	27	5.6 (3.2 - 7.8)	28	4.5 (2.3 - 6.8)
Nearly every day	242	11.3 (0.0 - 23.9)	6	1.3 (0.4 - 2.3)	67	11.6 (8.1 - 15.2)	22	3.0 (1.4 - 4.6)	147	29.3 (24.8 - 33.7)
<b>Feeling tired or having little energy<sup>a</sup></b>										
Not at all	599	30.1 (14.6 - 45.6)	238	52.1 (47.4 - 56.9)	111	22.2 (17.0 - 27.5)	75	15.8 (10.8 - 20.8)	175	30.3 (26.3 - 34.3)
Several days	1118	51.5 (30.0 - 73.1)	192	44.1 (39.4 - 48.7)	418	68.2 (63.1 - 73.3)	309	70.0 (63.8 - 76.2)	199	23.7 (20.1 - 27.3)
More than half of days	96	4.3 (0.5 - 8.1)	14	3.4 (1.8 - 5.0)	2	0.2 (0.0 - 0.4)	56	9.5 (7.0 - 12.0)	24	4.1 (1.8 - 6.3)
Nearly every day	284	14.1 (0.0 - 32.7)	2	0.3 (0.0 - 0.7)	51	9.4 (6.1 - 12.7)	29	4.6 (3.0 - 6.3)	202	42.0 (37.2 - 46.6)
<b>Poor appetite or overeating<sup>a</sup></b>										
Not at all	832	42.7 (31.8 - 53.6)	197	41.9 (37.3 - 46.5)	146	28.5 (23.7 - 33.3)	239	55.4 (47.7 - 63.1)	250	44.9 (40.1 - 49.7)
Several days	932	41.6 (25.9 - 57.2)	204	48.9 (44.2 - 53.5)	365	58.9 (54.2 - 63.6)	187	36.6 (29.4 - 44.0)	176	21.8 (18.3 - 25.4)
More than half of days	91	4.2 (1.4 - 7.1)	35	7.2 (5.1 - 9.3)	3	0.5 (0.0 - 1.0)	29	5.6 (3.5 - 7.7)	24	3.8 (1.8 - 5.8)
Nearly every day	242	11.5 (0.0 - 24.1)	10	2.0 (0.8 - 3.2)	68	12.2 (8.6 - 15.7)	14	2.3 (0.5 - 4.2)	150	29.5 (25.0 - 33.9)
<b>Feeling bad about self<sup>a</sup></b>										
Not at all	479	23.2 (13.6 - 32.9)	94	20.5 (16.6 - 24.4)	97	18.5 (14.2 - 22.8)	77	16.2 (10.9 - 21.7)	211	37.7 (33.3 - 42.1)
Several days	881	41.5 (26.6 - 56.4)	185	43.1 (38.4 - 47.8)	296	48.6 (43.8 - 53.3)	228	54.4 (46.7 - 62.1)	172	19.9 (16.3 - 23.4)
More than half of days	189	9.8 (1.4 - 18.2)	86	19.5 (15.7 - 23.4)	6	0.8 (0.2 - 1.4)	68	14.2 (8.4 - 20.0)	29	4.7 (2.7 - 6.8)
Nearly every day	548	25.5 (14.5 - 36.5)	81	16.8 (13.2 - 20.5)	183	32.2 (27.3 - 37.0)	96	15.2 (10.7 - 19.7)	188	37.7 (32.9 - 42.5)
<b>Trouble concentrating on things<sup>a</sup></b>										
Not at all	871	40.8 (20.4 - 61.3)	302	67.3 (63.0 - 71.7)	144	23.2 (19.1 - 27.4)	120	25.1 (16.0 - 34.3)	305	47.5 (42.9 - 52.3)
Several days	996	47.5 (22.4 - 72.7)	134	30.1 (25.9 - 34.4)	395	68.1 (63.6 - 72.6)	323	70.8 (62.7 - 78.8)	144	20.9 (17.0 - 24.7)
More than half of days	59	2.7 (1.8 - 3.7)	9	2.3 (0.9 - 3.7)	5	1.7 (0.0 - 3.5)	20	3.2 (1.8 - 4.6)	25	3.8 (1.8 - 5.7)
Nearly every day	171	9.0 (0.0 - 21.6)	1	0.2 (0.0 - 0.6)	38	7.0 (3.9 - 10.0)	6	0.9 (0.0 - 2.0)	126	27.8 (23.2 - 32.3)
<b>Moving or speaking so slowly that other people could have noticed or being restless<sup>a</sup></b>										
Not at all	877	41.9 (20.6 - 63.2)	318	70.7 (66.4 - 75.1)	150	24.6 (20.3 - 29.0)	124	25.5 (19.3 - 31.8)	285	46.8 (42.3 - 51.4)
Several days	951	44.6 (17.7 - 71.5)	110	25.6 (21.4 - 29.7)	384	66.2 (61.5 - 70.7)	321	70.0 (63.7 - 76.4)	136	16.6 (13.3 - 19.9)
More than half of days	86	4.3 (3.0 - 5.5)	15	3.1 (1.1 - 5.1)	18	4.1 (1.9 - 6.3)	19	3.6 (1.9 - 5.2)	34	6.0 (3.6 - 8.4)
Nearly every day	183	9.3 (0.0 - 23.4)	3	0.6 (0.08 - 1.1)	30	5.1 (2.8 - 7.4)	5	0.8 (0.06 - 1.6)	145	30.7 (25.8 - 35.5)
<b>Thoughts that one would be better off dead or of hurting self<sup>a</sup></b>										
Not at all	1489	72.6 (64.9 - 80.3)	367	81.4 (77.2 - 85.6)	434	73.3 (68.9 - 77.8)	265	62.3 (54.9 - 69.7)	423	73.3 (68.9 - 77.8)
Several days	433	19.4 (17.3 - 21.5)	72	17.0 (12.9 - 21.2)	123	22.1 (18.1 - 26.2)	98	19.7 (12.8 - 26.6)	140	18.2 (14.6 - 21.8)
More than half of days	66	3.6 (0.7 - 6.4)	7	1.5 (0.4 - 2.7)	6	0.8 (0.2 - 1.5)	33	7.1 (4.4 - 9.9)	20	4.7 (2.5 - 6.8)
Nearly every day	109	4.6 (0.1 - 9.0)	0	0.0 (0.0 - 0.0)	19	3.7 (1.6 - 5.8)	73	10.9 (7.9 - 13.8)	17	3.7 (1.7 - 5.7)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the respondent driven sampling package in R, using Gile's sequential sampling estimator.

<sup>a</sup> Non-responses and missing data were not included in the analysis

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval

Table 5.14B: Depression Scores Among People Who Inject Drugs By Location, BBS, Kenya, 2024

	Overall (N=2100)		Kiambu (N=446)		Kilifi (N=582)		Mombasa (N=469)		Nairobi (N=603)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>PHQ9 score<sup>a,b</sup></b>										
None to minimal	597	28.4 (11.6 - 45.1)	236	51.8 (47.2 - 56.5)	85	13.9 (10.4 - 17.5)	82	17.7 (12.1 - 23.2)	194	30.1 (26.0 - 34.4)
Mild	863	42.2 (24.7 - 59.8)	142	34.3 (29.8 - 38.8)	324	57.2 (52.6 - 61.7)	238	56.7 (49.3 - 64.1)	159	20.6 (17.0 - 24.2)
Moderate	358	15.9 (12.3 - 19.5)	63	12.8 (9.7 - 15.8)	122	19.8 (16.1 - 23.5)	99	18.3 (14.2 - 22.4)	74	12.7 (9.5 - 15.9)
Moderately severe	153	7.1 (1.2 - 13.0)	5	1.1 (0.2 - 2.0)	30	5.3 (3.1 - 7.5)	46	6.7 (4.4 - 9.0)	72	15.4 (11.7 - 19.1)
Severe	126	6.4 (0.0 - 16.2)	0	0.0 (0.0 - 0.0)	21	3.8 (1.6 - 6.0)	4	0.6 (0.02 - 1.2)	101	21.1 (16.7 - 25.4)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the respondent driven sampling package in R, using Gile's sequential sampling estimator.

Non-responses and missing data were not included in the analysis

PHQ9 score is a self-report tool used to screen for and assess the severity of depression based on the sum of the scores for the indicated nine mental health questions (<https://www.hiv.uw.edu/page/mental-health-screening/phq-9>)

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; PHQ, Patient Health Questionnaire

## **Chapter 6: Men Who Have Sex With Men**

## 6.1: Sociodemographic Characteristics

The median age of MSM participants was 26 years (IQR 22–31), with most aged 18–24 years (41.7%) or 25–34 years (40.5%). Nearly half (46.6%) had secondary education, 29.7% had post-secondary, and 21.8% had primary education. Most were single (68.2%), and about a quarter (25.9%) had biological children. In terms of livelihood, 37.1% engaged in informal work, 30.0% were self-employed, and 15.5% had formal jobs, while 5.0% relied on sex work and 12.1% had no income. The majority (61.9%) earned between KSh 5,000 and <20,000 per month.

Table 6.1: Sociodemographic Characteristics of Men Who Have Sex with Men by Location, BBS, Kenya, 2024

	Overall Estimate (N=5242)		Kiambu (N=705)		Kilifi (N=560)		Kisumu (N=826)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Median age, years (IQR)</b>	5242	26 (22 - 31)	705	23 (21 - 28)	560	27 (23 - 33)	826	25 (22 - 31)
<b>Age (years)</b>								
18-24	2017	41.7 (34.7 - 48.7)	355	57.7 (52.8 - 62.6)	179	34.7 (29.6 - 39.9)	322	42.1 (36.9 - 47.3)
25-34	2238	40.5 (37.1 - 44.0)	254	31.2 (27.1 - 35.3)	258	44.9 (39.9 - 49.9)	363	42.0 (37.6 - 46.4)
35-44	779	14.0 (11.4 - 16.7)	81	9.3 (6.4 - 12.2)	98	14.9 (11.4 - 18.4)	105	11.7 (8.8 - 14.6)
45+	208	3.8 (1.9 - 5.6)	15	1.8 (0.7 - 2.9)	25	5.5 (2.9 - 8.1)	36	4.2 (2.6 - 5.7)
<b>Highest level of education<sup>a</sup></b>								
Never attended school	60	0.8 (0.3 - 1.4)	1	0.2 (0.0 - 0.5)	14	2.4 (0.9 - 3.8)	4	0.7 (0.0 - 1.6)
Nursery/pre-school	88	1.1 (0.5 - 1.7)	8	1.6 (0.5 - 2.8)	44	7.2 (4.6 - 9.7)	18	3.0 (1.4 - 4.6)
Primary school	1083	21.8 (12.4 - 31.2)	81	12.8 (9.4 - 16.1)	223	41.6 (36.7 - 46.4)	152	19.0 (15.8 - 22.2)
Secondary school	2411	46.6 (40.6 - 52.5)	381	57.2 (53.3 - 61.1)	195	36.0 (31.2 - 40.7)	435	53.7 (49.8 - 57.7)
Post-secondary <sup>b</sup>	1599	29.7 (20.9 - 38.5)	233	28.2 (25.5 - 31.0)	84	12.9 (9.9 - 16.0)	217	23.6 (20.2 - 26.9)
<b>Current marital status<sup>a</sup></b>								
Single/never married	3456	68.2 (59.2 - 77.2)	531	77.6 (73.2 - 82.0)	303	57.9 (53.9 - 61.9)	556	71.9 (68.4 - 75.3)
Married/cohabiting	835	14.7 (11.7 - 17.7)	110	15.2 (11.0 - 19.3)	92	14.0 (10.1 - 17.9)	103	10.3 (8.1 - 12.6)
Divorced/separated	926	16.7 (10.4 - 23.0)	63	7.2 (4.7 - 9.7)	160	27.6 (23.3 - 32.0)	163	17.4 (14.7 - 20.2)
Widowed	22	0.4 (0.2 - 0.5)	0	0.0 (0.0 - 0.0)	4	0.4 (0.3 - 0.6)	4	0.3 (0.0 - 0.6)
<b>Has biological children<sup>a</sup></b>								
Yes	1427	25.9 (20.0 - 31.9)	151	18.4 (13.2 - 23.6)	200	33.7 (29.1 - 38.4)	209	22.7 (19.3 - 26.1)
No	3813	74.1 (68.1 - 80.0)	553	81.6 (76.4 - 86.8)	360	66.3 (61.6 - 71.0)	617	77.3 (73.9 - 80.7)
<b>Main source of income<sup>a</sup></b>								
Formal employment	824	15.5 (10.2 - 20.8)	125	15.8 (12.7 - 18.9)	68	11.4 (8.4 - 14.4)	51	5.5 (3.7 - 7.2)
Informal work	1852	37.1 (28.7 - 45.5)	160	25.5 (20.2 - 30.8)	222	42.7 (37.8 - 47.7)	445	54.5 (50.7 - 58.4)
Self-employment <sup>c</sup>	1646	30.0 (27.1 - 32.9)	231	28.4 (24.6 - 32.3)	156	25.6 (21.3 - 29.9)	217	24.7 (21.3 - 28.2)
Sex work	317	5.0 (2.6 - 7.4)	18	2.3 (1.2 - 3.4)	57	10.6 (7.3 - 14.0)	20	1.9 (0.9 - 2.9)
Spouse/partner/friends	13	0.3 (0.1 - 0.5)	0	0.0 (0.0 - 0.0)	3	0.3 (0.0 - 0.6)	3	0.3 (0.0 - 0.6)
None	589	12.1 (8.6 - 15.5)	171	27.9 (23.0 - 32.9)	53	9.3 (7.3 - 11.3)	90	13.0 (10.0 - 16.1)
<b>Monthly income (KSh.)<sup>a</sup></b>								
<5000	375	8.7 (6.0 - 11.4)	29	5.9 (3.5 - 8.3)	40	8.9 (5.5 - 12.3)	116	16.9 (13.8 - 20.0)
5000 to <20000	2834	61.9 (56.7 - 67.1)	310	59.0 (53.5 - 64.4)	352	69.8 (64.9 - 74.8)	511	66.6 (62.9 - 70.4)
20000 to <50000	1368	26.3 (20.6 - 32.0)	200	30.9 (25.9 - 36.0)	113	19.3 (15.1 - 23.6)	142	15.3 (12.5 - 18.2)
50000 and above	176	3.1 (1.8 - 4.5)	32	4.2 (2.3 - 6.1)	14	1.9 (0.6 - 3.2)	12	1.1 (0.5 - 1.8)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Post-secondary education includes vocational or technician training, college, university, graduate and above.

<sup>c</sup> Self-employment includes businesses and selling drugs

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; IQR, interquartile range; KSh., Kenya shillings

Table 6.1: cont Sociodemographic Characteristics of Men Who Have Sex with Men by Location, BBS, Kenya, 2024

	Machakos (N=822)		Mombasa (N=937)		Nairobi (N=743)		Nakuru (N=649)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Median age, years (IQR)</b>	822	27 (23 - 32)	937	28 (24 - 35)	743	25 (22 - 30)	649	26 (22 - 30)
<b>Age (years)</b>								
18-24	290	35.9 (31.5 - 40.3)	271	30.7 (26.9 - 34.5)	297	45.1 (39.7 - 50.5)	303	44.9 (39.5 - 50.3)
25-34	377	44.2 (39.9 - 48.5)	390	40.5 (36.9 - 44.0)	322	39.6 (34.8 - 44.5)	274	41.0 (36.4 - 45.5)
35-44	120	15.0 (12.3 - 17.8)	202	20.7 (17.7 - 23.7)	106	12.9 (10.1 - 15.8)	67	13.3 (9.9 - 16.7)
45+	35	4.9 (1.0 - 8.8)	74	8.1 (6.0 - 10.2)	18	2.3 (0.7 - 3.9)	5	0.8 (0.1 - 1.5)
<b>Highest level of education<sup>a</sup></b>								
Never attended school	1	0.2 (0.0 - 0.4)	38	4.8 (3.2 - 6.3)	0	0.0 (0.0 - 0.0)	2	0.2 (0.0 - 0.5)
Nursery/pre-school	9	1.6 (0.3 - 2.8)	6	0.5 (0.1 - 0.8)	2	0.3 (0.0 - 0.6)	1	0.1 (0.0 - 0.2)
Primary school	159	21.0 (17.7 - 24.2)	350	39.0 (35.4 - 42.7)	74	11.1 (8.2 - 14.0)	44	6.5 (4.7 - 8.4)
Secondary school	399	46.7 (42.6 - 50.7)	369	38.2 (34.9 - 41.6)	337	46.5 (41.6 - 51.5)	295	42.7 (38.6 - 46.8)
Post-secondary <sup>b</sup>	254	30.6 (26.5 - 34.8)	174	17.5 (14.8 - 20.2)	330	42.1 (37.1 - 47.1)	307	50.5 (45.9 - 55.0)
<b>Current marital status<sup>a</sup></b>								
Single/never married	530	67.8 (63.6 - 72.0)	464	47.8 (44.3 - 51.3)	553	71.8 (67.3 - 76.3)	519	82.0 (77.2 - 86.8)
Married/cohabiting	153	17.1 (13.4 - 20.9)	195	20.2 (17.2 - 23.3)	109	15.7 (12.1 - 19.3)	73	10.3 (6.7 - 13.9)
Divorced/separated	132	14.1 (11.6 - 16.6)	272	31.1 (27.8 - 34.5)	81	12.5 (9.2 - 15.8)	55	7.5 (4.9 - 10.0)
Widowed	7	0.9 (0.2 - 1.7)	6	0.8 (0.1 - 1.6)	0	0.0 (0.0 - 0.0)	1	0.2 (0.1 - 0.3)
<b>Has biological children<sup>a</sup></b>								
Yes	216	25.5 (21.1 - 29.9)	343	37.6 (34.6 - 40.5)	200	24.9 (20.9 - 28.9)	108	18.3 (14.5 - 22.2)
No	606	74.5 (70.1 - 78.9)	593	62.4 (59.5 - 65.3)	543	75.1 (71.0 - 79.1)	541	81.7 (77.8 - 85.5)
<b>Main source of income<sup>a</sup></b>								
Formal employment	96	11.2 (7.8 - 14.6)	154	15.2 (12.7 - 17.6)	187	24.9 (20.4 - 29.3)	143	24.7 (20.8 - 28.6)
Informal work	337	44.4 (40.6 - 48.2)	302	36.6 (33.1 - 40.2)	207	28.3 (24.1 - 32.6)	179	25.2 (21.8 - 28.7)
Self-employment <sup>c</sup>	293	34.4 (30.7 - 38.1)	280	28.6 (25.6 - 31.7)	242	32.6 (28.1 - 37.0)	227	33.8 (29.9 - 37.7)
Sex work	41	3.7 (2.4 - 5.0)	122	11.2 (9.4 - 13.0)	51	6.0 (3.8 - 8.2)	8	0.9 (0.3 - 1.5)
Spouse/partner/friends	0	0.0 (0.0 - 0.0)	3	0.3 (0.0 - 0.6)	1	0.5 (0.0 - 1.2)	3	0.6 (0.0 - 1.5)
None	55	6.3 (4.6 - 8.1)	76	8.1 (6.3 - 9.9)	55	7.7 (5.5 - 10.0)	89	14.7 (11.5 - 17.9)
<b>Monthly income (KSh.)<sup>a</sup></b>								
<5000	45	8.3 (5.9 - 10.8)	75	9.9 (7.5 - 12.3)	41	6.0 (3.9 - 8.2)	29	5.2 (3.3 - 7.1)
5000 to <20000	448	59.4 (55.3 - 63.5)	536	67.1 (63.7 - 70.5)	376	58.1 (53.2 - 63.0)	301	49.3 (44.8 - 53.8)
20000 to <50000	253	29.1 (25.7 - 32.6)	205	21.3 (18.6 - 24.1)	261	32.7 (28.3 - 37.1)	194	34.8 (30.5 - 39.0)
50000 and above	26	3.1 (0.6 - 5.6)	18	1.6 (0.8 - 2.4)	28	3.2 (0.9 - 5.4)	46	10.7 (7.4 - 14.1)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Post-secondary education includes vocational or technician training, college, university, graduate and above.

<sup>c</sup> Self-employment includes businesses and selling drugs

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; IQR, interquartile range; KSh., Kenya shillings

## 6.2: HIV Prevalence

The overall HIV prevalence among MSM was 19.9% (95% CI: 12.1–27.7), varying widely by county—from 11.3% in Kisumu and 11.4% in Kilifi to 36.1% in Nairobi and 33.2% in Kiambu. Prevalence increased with age, from 11.6% among those aged 18–24 years to 34.0% among 35–44-year-olds. By education, prevalence was highest among those with no schooling or nursery education (over 50%), compared to 25.0% among those with primary and 16.4% among those with secondary education. Prevalence was 17.3% among single MSM, 24.8% among married/cohabiting, and 26.0% among divorced/separated. By income source, prevalence was highest among those in informal work (29.1%) and lowest among those in formal employment (16.4%) or sex work (16.2%). HIV prevalence also rose with income level, from 16.0% among those earning below KSh 5,000 to 27.4% among those earning KSh 50,000 or more.

Table 6.2: Prevalence of HIV Among Men Who Have Sex with Men by Location, BBS, Kenya, 2024

	Overall Estimate		Kiambu		Kilifi		Kisumu	
	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)
<b>Overall estimate</b>	1161/5090	20.0 (12.4, 27.6)	267/699	33.2 (29.0, 37.5)	68/554	11.4 (5.1, 17.7)	107/820	11.4 (5.5, 17.2)
<b>Age (years)</b>								
18-24	279/1984	11.6 (8.0, 15.2)	75/351	18.7 (14.2, 23.1)	10/178	6.1 (1.3, 10.9)	20/320	5.1 (3.4, 6.8)
25-34	555/2158	23.7 (14.5, 32.9)	125/252	47.8 (41.8, 53.9)	34/255	13.2 (8.5, 17.9)	46/361	11.2 (8.1, 14.3)
35-44	267/748	34.1 (19.5, 48.6)	58/81	66.2 (55.3, 77.1)	18/97	15.8 (6.6, 25.1)	26/104	23.6 (15.1, 32.1)
45+ <sup>c</sup>	60/196	27.9 (16.7, 39.1)	9/15	64.9 (35.6, 91.3)	6/24	18.8 (4.1, 33.7)	15/35	41.6 (25.5, 58.5)
<b>Highest level of education</b>								
Never attended school <sup>c</sup>	9/57	54.2 (34.9, 73.5)	1/1	100.0 (39.8, 100.0)	2/14	11.9 (0.0, 27.8)	1/3	19.0 (0.0, 66.8)
Nursery/pre-school	28/88	53.4 (33.9, 72.9)	4/8	46.6 (5.3, 88.8)	12/44	28.5 (13.3, 43.3)	4/18	24.2 (2.0, 46.5)
Primary school	248/1070	24.9 (16.3, 33.5)	45/81	50.6 (38.0, 63.0)	20/219	9.3 (4.2, 14.4)	30/152	18.5 (11.6, 25.5)
Secondary school	469/2353	16.5 (11.0, 22.0)	121/377	27.0 (22.3, 31.5)	16/194	7.5 (2.3, 12.7)	41/432	8.5 (6.6, 10.3)
Post-secondary <sup>a</sup>	407/1519	22.3 (14.1, 30.5)	96/231	37.4 (30.2, 44.5)	18/83	19.3 (9.4, 29.2)	31/215	10.2 (6.0, 14.5)
<b>Current marital status</b>								
Single/never married	668/3349	17.3 (11.2, 23.4)	176/527	29.5 (25.0, 34.1)	35/301	11.8 (7.5, 16.1)	55/553	8.8 (6.9, 10.6)
Married/cohabiting	254/811	24.9 (17.1, 32.7)	55/108	43.0 (32.1, 53.8)	16/90	13.3 (5.4, 20.9)	17/102	15.4 (8.5, 22.3)
Divorced/separated	233/906	26.0 (16.6, 35.4)	35/63	50.9 (37.7, 63.9)	16/158	9.4 (3.6, 15.2)	32/161	18.8 (11.8, 25.8)
Widowed <sup>c</sup>	5/14	23.1 (0.0, 50.1)	0/0	-	1/4	26.9 (0.0, 68.9)	3/4	58.5 (7.2, 100.0)
<b>Main source of income</b>								
Formal employment	262/790	29.2 (21.1, 37.3)	53/124	37.5 (27.7, 47.1)	11/67	19.7 (8.1, 31.1)	13/50	30.8 (15.5, 46.4)
Informal work	316/1819	16.2 (9.8, 22.6)	61/159	32.4 (24.2, 40.6)	14/221	4.9 (1.1, 8.6)	50/445	9.8 (6.7, 12.9)
Self-employment <sup>b</sup>	388/1572	21.0 (12.8, 29.2)	103/229	42.1 (35.6, 48.5)	23/154	16.1 (9.0, 23.2)	34/212	13.0 (7.8, 18.2)
Sex work	81/313	22.5 (12.5, 32.5)	8/18	44.5 (22.1, 67.0)	11/56	15.2 (3.7, 26.8)	3/20	5.7 (1.2, 10.5)
Spouse/partner/friends	5/9	33.8 (18.7, 48.9)	0/0	-	2/3	47.5 (0.0, 100.0)	1/3	26.9 (0.0, 67.1)
None <sup>c</sup>	109/582	16.5 (11.3, 21.7)	42/169	21.7 (14.4, 28.7)	7/52	14.3 (2.4, 26.4)	6/90	6.9 (1.0, 12.7)
<b>Monthly income (KSh.)</b>								
<5000	140/761	16.1 (10.7, 21.5)	45/158	25.7 (18.2, 33.0)	5/54	10.1 (0.0, 20.3)	14/157	8.2 (3.4, 13.0)
5000 to <20000	586/2771	19.4 (12.8, 25.9)	116/307	34.3 (28.6, 39.9)	39/349	11.2 (6.1, 16.2)	73/506	13.0 (9.0, 17.0)
20000 to <50000	376/1304	21.9 (13.1, 30.7)	94/199	39.2 (31.9, 46.6)	17/111	10.7 (4.1, 17.3)	19/141	8.6 (4.4, 12.9)
50000 and above	46/161	27.5 (15.4, 39.6)	10/31	27.9 (12.8, 43.2)	5/14	47.7 (10.9, 84.4)	1/12	17.4 (0.0, 43.0)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Post-secondary education includes vocational or technician training, college, university, graduate and above.

<sup>b</sup> Self-employment includes businesses and selling drugs

<sup>c</sup> Estimates with a sample numerator of zero were calculated using binomial approximation. Meta analysis for overall estimates were restricted to include estimates with a non-zero sample numerator.

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; IQR, interquartile range; Ksh., Kenya shillings

Table 6.2 cont: Prevalence of HIV Among Men Who Have Sex with Men by Location, BBS, Kenya, 2024

	Machakos		Mombasa		Nairobi		Nakuru	
	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)
<b>Overall estimate</b>	166/770	16.4 (12.1, 20.5)	193/922	18.7 (15.2, 22.2)	281/716	36.1 (31.8, 40.4)	79/609	12.0 (8.7, 15.3)
<b>Age (years)</b>								
18-24	30/284	8.6 (7.1, 10.1)	38/269	12.9 (9.3, 16.5)	76/288	24.0 (18.4, 29.5)	30/294	9.4 (6.9, 11.9)
25-34	87/349	18.1 (14.0, 21.9)	94/382	21.6 (17.2, 25.9)	134/308	41.4 (35.4, 47.4)	35/251	13.9 (9.0, 18.7)
35-44	41/106	31.7 (22.1, 40.9)	45/198	21.6 (15.6, 27.6)	65/102	64.2 (54.5, 74.0)	14/60	16.7 (7.2, 26.1)
45+ <sup>c</sup>	8/31	16.4 (2.9, 29.6)	16/73	19.2 (10.8, 27.7)	6/18	26.8 (4.5, 50.2)	0/4	0.0 (0.0, 26.5)
<b>Highest level of education</b>								
Never attended school <sup>c</sup>	1/1	100.0 (47.8, 100.0)	4/38	10.8 (1.2, 20.4)	0/0	-	0/2	0.0 (0.0, 52.2)
Nursery/pre-school	5/9	61.1 (26.3, 96.0)	1/6	9.1 (4.3, 14.0)	1/2	96.0 (95.7, 96.3)	1/1	100.0 (15.8, 100.0)
Primary school	30/154	14.9 (9.5, 20.3)	69/348	17.8 (13.9, 21.6)	43/73	56.4 (42.4, 70.2)	11/43	19.9 (10.0, 29.5)
Secondary school	77/377	14.9 (11.4, 18.2)	70/362	17.7 (13.2, 22.0)	116/324	32.1 (26.3, 37.8)	28/287	9.8 (7.6, 12.0)
Post-secondary <sup>a</sup>	53/229	16.9 (11.4, 22.0)	49/168	25.8 (18.5, 33.0)	121/317	34.7 (28.8, 40.7)	39/276	12.9 (7.4, 18.2)
<b>Current marital status</b>								
Single/never married	66/491	10.3 (7.9, 12.5)	88/456	16.9 (13.3, 20.5)	188/530	33.5 (28.9, 38.1)	60/491	11.7 (8.2, 15.1)
Married/cohabiting	50/148	28.6 (20.5, 36.7)	56/190	26.2 (19.3, 33.0)	51/107	36.6 (26.3, 47.0)	9/66	13.9 (4.0, 23.8)
Divorced/separated	49/125	30.8 (22.4, 39.4)	49/270	17.2 (12.4, 22.0)	42/79	50.5 (37.0, 64.4)	10/50	14.1 (5.7, 22.1)
Widowed <sup>c</sup>	1/6	8.6 (0.0, 21.8)	0/6	0.0 (0.0, 14.2)	0/0	-	0/1	0.0 (0.0, 52.2)
<b>Main source of income</b>								
Formal employment	30/88	25.8 (16.7, 34.2)	45/152	27.1 (19.6, 34.6)	84/181	46.2 (37.8, 54.7)	26/128	17.3 (9.7, 24.8)
Informal work	60/325	14.6 (10.4, 18.8)	44/297	13.1 (8.5, 17.7)	70/199	34.0 (26.8, 41.2)	17/173	9.1 (3.5, 14.7)
Self-employment <sup>b</sup>	54/264	14.8 (9.8, 19.3)	61/273	21.5 (16.6, 26.4)	92/231	32.1 (25.1, 39.2)	21/209	8.9 (5.3, 12.4)
Sex work	10/39	20.5 (6.7, 33.9)	26/121	19.4 (12.8, 26.0)	20/51	40.8 (25.6, 55.6)	3/8	28.0 (2.7, 52.8)
Spouse/partner/friends	0/0	-	2/3	33.8 (16.6, 50.3)	0/1	0.0 (0.0, 4.9)	0/3	0.0 (0.0, 24.7)
None <sup>c</sup>	12/54	18.3 (8.8, 27.4)	15/76	17.0 (8.7, 25.2)	15/53	27.2 (14.1, 40.2)	12/88	15.3 (6.5, 24.0)
<b>Monthly income (KSh.)</b>								
<5000	19/87	17.8 (9.0, 26.6)	25/137	15.7 (9.8, 21.6)	21/69	26.5 (14.2, 38.7)	11/99	12.3 (4.1, 20.5)
5000 to <20000	82/429	14.4 (11.0, 17.6)	106/524	18.2 (14.4, 21.9)	135/363	34.9 (29.9, 40.0)	35/293	10.9 (8.6, 13.2)
20000 to <50000	60/224	21.0 (15.3, 26.3)	47/204	20.6 (15.4, 25.9)	110/251	40.0 (32.7, 47.0)	29/174	14.5 (7.9, 21.0)
50000 and above	5/23	12.8 (1.9, 22.6)	8/17	49.7 (28.3, 71.2)	13/27	45.2 (24.1, 66.5)	4/37	11.6 (0.0, 24.2)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Post-secondary education includes vocational or technician training, college, university, graduate and above.

<sup>b</sup> Self-employment includes businesses and selling drugs

<sup>c</sup> Estimates with a sample numerator of zero were calculated using binomial approximation. Meta analysis for overall estimates were restricted to include estimates with a non-zero sample numerator.

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; IQR, interquartile range; Ksh., Kenya shillings

### 6.3: Population-level Viral Suppression

Overall, 68.3% of MSM living with HIV were virally suppressed (95% CI: 65.2–71.3). Viral load suppression (VLS) varied by county, from 63.5% in Kisumu and 66.1% in Machakos to 72.1% in Mombasa and 70.1% in Nairobi. Suppression increased with age, from 53.9% among those aged 18–24 years to 99.9% among those aged 45 years and above. VLS was similar across education levels (about 70%) and higher among married/cohabiting (71.8%) and divorced/separated MSM (73.0%) than among singles (66.1%). By income source, suppression was highest among those engaged in sex work (94.2%) and lowest among those with no income (49.1%). VLS also increased with income level, from 47.3% among those earning below KSh 5,000 to 83.7% among those earning KSh 50,000 or more.

Overall, 77.1% of MSM living with HIV were virally suppressed (<200 copies/mL), with county rates ranging from 72.3% in Nakuru to 79.5% in Nairobi. Suppression increased with age (from 64.6% among 18–24 to 99.1% among ≥45 years) and income (from 56.3% among those earning <KSh 5,000 to 84.7% among those earning ≥KSh 50,000). VLS was highest among those engaged in sex work (99.4%) and self-employment (82.0%), and lowest among those with no income (63.2%). Differences in viral suppression by education and marital status were modest.

[insert] Table 6.3B: Viral Load Suppression (VL<200 copies/ml) Among Men Who Have Sex with Men by Location, BBS, Kenya, 2024

At the <1000 copies/mL threshold, overall viral load suppression (VLS) was 80.8%, ranging from 77.4% in Machakos to 83.2% in both Nairobi and Mombasa. Suppression increased with age and income, reaching 99% among participants aged ≥45 years and 89.3% among those earning ≥KSh 50,000. Higher VLS was also observed among those with primary education (86.9%), the divorced/separated (85.0%), and individuals engaged in sex work (99.5%), while the lowest rates occurred among those with no income (70.8%) and the youngest age group (70.5%).

Overall, 77.1% of MSM living with HIV were virally suppressed (<200 copies/mL), with county rates ranging from 72.3% in Nakuru to 79.5% in Nairobi. Suppression increased with age (from 64.6% among 18–24 to 99.1% among ≥45 years) and income (from 56.3% among those earning <KSh 5,000 to 84.7% among those earning ≥KSh 50,000). VLS was highest among those engaged in sex work (99.4%) and self-employment (82.0%), and lowest among those with no income (63.2%). Differences in viral suppression by education and marital status were modest.

Table 6.3: Viral Load Suppression (VL <50 copies/ml) Among Men Who Have Sex with Men by Location, BBS, Kenya, 2024

	Overall Estimate (N=1151)		Kiambu (N=265)		Kilifi (N=68)		Kisumu (N=106)	
	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)
<b>Overall</b>	826/1151	68.3 (65.2 - 71.3)	181/265	67.8 (60.2, 75.2)	50/68	69.5 (57.2, 81.4)	76/106	63.5 (53.1, 71.2)
<b>Age (years)</b>								
18-24	176/278	53.9 (45.9 - 61.9)	44/75	54.7 (41.8 - 66.3)	8/10	61.8 (40.8 - 81.0)	11/21	34.7 (16.8 - 46.5)
25-34	393/549	71.2 (66.9 - 75.5)	88/124	75.1 (66.8 - 84.8)	22/34	68.0 (53.8 - 82.6)	33/46	65.4 (51.4 - 77.4)
35-44	202/265	74.9 (64.6 - 85.2)	41/57	67.2 (52.4 - 81.0)	15/18	78.8 (57.4 - 100.0)	18/25	63.2 (42.3 - 81.2)
45+	55/59	99.9 (98.7 - 100.0)	8/9	95.9 (89.0 - 100.0)	5/6	73.7 (32.6 - 100.0)	14/14	100.0 (93.9 - 100.0)
<b>Highest level of education</b>								
Never attended school <sup>c</sup>	3/6	45.7 (3.8 - 87.5)	0/1	0.0 (0.0 - 60.2)	1/2	35.7 (0.0 - 100.0)	0/1	0.0 (0.0 - 60.2)
Nursery school/pre-school <sup>c</sup>	15/24	65.0 (25.2 - 100.0)	4/4	100.0 (81.5 - 100.0)	7/12	56.2 (29.0 - 84.4)	2/3	76.1 (21.8 - 100.0)
Primary school	179/246	71.6 (65.2 - 78.0)	34/45	79.1 (67.0 - 91.6)	17/20	84.7 (64.3 - 100.0)	21/29	65.1 (43.7 - 84.9)
Secondary school	338/465	69.6 (63.6 - 75.6)	79/119	63.3 (52.5 - 72.6)	11/16	53.9 (30.1 - 75.7)	30/42	59.8 (41.6 - 74.2)
Post-secondary <sup>a</sup>	291/404	69.9 (64.8 - 74.9)	64/96	66.3 (52.5 - 79.7)	14/18	78.1 (57.0 - 99.4)	23/31	68.1 (51.1 - 82.0)
<b>Current marital status</b>								
Single/never married	458/664	66.1 (62.1 - 70.1)	116/176	65.2 (56.8 - 73.4)	25/35	71.6 (57.6 - 85.7)	34/56	52.6 (38.6 - 63.9)
Married/cohabiting	191/251	71.8 (63.8 - 79.9)	39/54	71.7 (58.6 - 85.2)	10/16	43.1 (18.1 - 63.8)	14/16	87.4 (73.0 - 100.0)
Divorced/separated	171/230	73.0 (66.4 - 79.6)	25/34	75.4 (59.7 - 91.3)	14/16	81.9 (61.3 - 100.0)	25/31	72.7 (52.5 - 89.4)
Widowed	5/5	100.0 (98.9 - 100.0)	0/0	-	1/1	100.0 (54.1 - 100.0)	3/3	100.0 (59.0 - 100.0)
<b>Main source of income</b>								
Formal employment	188/260	68.7 (60.2 - 77.2)	32/52	63.6 (46.2 - 83.3)	9/11	81.9 (55.9 - 100.0)	8/13	32.3 (0.0 - 60.0)
Informal work	219/312	67.9 (59.7 - 76.0)	46/60	73.4 (58.1 - 87.3)	6/14	35.5 (13.1 - 56.6)	33/48	69.6 (54.3 - 84.7)
Self-employment <sup>b</sup>	289/385	72.9 (65.8 - 80.0)	71/103	66.0 (53.6 - 77.1)	19/23	83.7 (68.3 - 99.0)	29/35	81.8 (65.7 - 97.4)
Sex work	59/81	94.2 (88.8 - 99.7)	5/8	71.0 (38.3 - 100.0)	9/11	79.9 (51.7 - 100.0)	3/3	100.0 (39.8 - 100.0)
Spouse/partner/friends	4/5	100.0 (98.6 - 100.0)	0/0	-	2/2	100.0 (54.1 - 100.0)	1/1	100.0 (29.2 - 100.0)
None	67/108	49.1 (30.0 - 68.3)	27/42	67.2 (51.9 - 82.9)	5/7	44.8 (6.0 - 80.7)	2/6	12.2 (0.0 - 31.1)
<b>Monthly income (KSh.)</b>								
<5000	82/139	47.3 (32.7 - 61.9)	27/45	61.8 (45.7 - 78.1)	2/5	19.0 (0.0 - 50.2)	8/14	37.9 (10.5 - 59.6)
5000 to <20000	282/375	74.2 (67.6 - 80.8)	64/93	67.1 (53.3 - 79.9)	15/17	82.4 (62.6 - 100.0)	16/19	70.7 (41.2 - 91.8)
20000 to <50000	416/578	70.6 (66.3 - 74.9)	79/115	69.2 (58.4 - 80.5)	27/39	71.1 (57.8 - 84.7)	52/72	69.5 (57.2 - 81.2)
50000 and above <sup>c</sup>	37/45	83.7 (67.3 - 100.0)	9/10	81.1 (42.7 - 100.0)	4/5	86.4 (49.4 - 100.0)	0/1	0.0 (0.0 - 41.0)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent - Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Post-secondary education includes vocational or technician training, college, university, graduate and above.

<sup>b</sup> Self-employment includes businesses and selling drugs

<sup>c</sup> Estimates with a sample numerator of zero were calculated using binomial approximation. Meta analysis for overall estimates were restricted to include estimates with a non-zero sample numerator.

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; Ksh., Kenya shillings; VL, viral load

Table 6.3 cont: Viral Load Suppression (VL <50 copies/ml) Among Men Who Have Sex with Men by Location, BBS,

	Machakos (N=165)		Mombasa (N=192)		Nairobi (N=278)		Nakuru (N=77)	
	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)
<b>Overall</b>	119/165	66.1 (57.2, 71.8)	139/192	72.1 (64.3, 79.8)	208/278	70.1 (64.0, 76.0)	53/77	66.6 (54.5, 77.7)
<b>Age (years)</b>								
18-24	20/30	60.5 (42.7 - 75.6)	22/38	50.7 (33.7 - 64.3)	55/74	65.4 (52.5 - 77.7)	16/30	49.1 (28.5 - 67.9)
25-34	64/86	72.6 (62.3 - 81.5)	64/93	70.0 (58.1 - 82.3)	98/133	70.7 (60.7 - 80.5)	24/33	71.3 (52.9 - 89.2)
35-44	27/41	53.4 (30.3 - 70.9)	39/45	89.9 (79.9 - 100.0)	49/65	73.1 (59.9 - 86.2)	13/14	91.7 (75.2 - 100.0)
45+	8/8	100.0 (82.4 - 100.0)	14/16	86.2 (64.9 - 100.0)	6/6	100.0 (96.0 - 100.0)	0/0	-
<b>Highest level of education</b>								
Never attended school <sup>c</sup>	0/1	0.0 (0.0 - 52.2)	2/4	51.0 (0.0 - 100.0)	0/0	-	0/0	-
Nursery school/pre-school <sup>c</sup>	2/5	21.6 (0.0 - 58.3)	0/1	0.0 (0.0 - 97.5)	0/1	0.0 (0.0 - 13.7)	0/1	0.0 (0.0 - 84.2)
Primary school	22/30	62.2 (40.5 - 79.2)	46/69	67.0 (54.3 - 79.6)	32/42	70.5 (52.5 - 87.5)	7/11	63.8 (33.0 - 94.3)
Secondary school	56/76	69.5 (57.5 - 78.7)	51/70	75.6 (62.0 - 91.2)	89/114	74.1 (65.5 - 82.6)	22/28	82.9 (67.9 - 99.7)
Post-secondary <sup>a</sup>	39/53	75.0 (61.8 - 88.7)	40/48	78.3 (65.7 - 88.0)	87/121	66.8 (56.7 - 76.7)	24/37	56.0 (38.7 - 69.7)
<b>Current marital status</b>								
Single/never married	46/66	65.6 (53.0 - 76.0)	61/88	66.7 (53.3 - 78.7)	137/185	69.5 (61.7 - 77.1)	39/58	68.8 (55.9 - 82.9)
Married/cohabiting	40/49	72.6 (58.9 - 81.7)	42/56	71.9 (57.7 - 84.2)	39/51	74.5 (61.6 - 87.5)	7/9	54.6 (5.3 - 92.1)
Divorced/separated	32/49	58.9 (39.4 - 74.4)	36/48	80.7 (69.0 - 95.5)	32/42	68.5 (51.3 - 85.3)	7/10	64.4 (35.0 - 87.1)
Widowed	1/1	100.0 (15.8 - 100.0)	0/0	-	0/0	-	0/0	-
<b>Main source of income</b>								
Formal employment	23/30	74.9 (58.1 - 90.1)	33/45	70.5 (50.5 - 88.9)	63/84	67.7 (55.2 - 79.9)	20/25	78.0 (53.0 - 100.0)
Informal work	48/60	73.7 (60.5 - 84.0)	29/44	74.6 (62.2 - 90.7)	48/69	70.2 (57.9 - 82.9)	9/17	57.3 (28.1 - 88.3)
Self-employment <sup>b</sup>	34/53	56.2 (39.3 - 67.7)	48/60	76.5 (62.3 - 89.2)	72/90	71.3 (59.3 - 82.9)	16/21	79.9 (63.5 - 97.4)
Sex work	7/10	61.4 (19.5 - 92.9)	19/26	70.3 (48.9 - 89.7)	13/20	68.5 (46.7 - 90.4)	3/3	100.0 (47.8 - 100.0)
Spouse/partner/friends	0/0	-	1/2	49.9 (0.0 - 100.0)	0/0	-	0/0	-
None	7/12	47.1 (8.4 - 81.4)	9/15	53.9 (23.4 - 82.0)	12/15	79.4 (55.1 - 100.0)	5/11	34.6 (1.5 - 63.2)
<b>Monthly income (KSh.)</b>								
<5000	12/19	45.3 (15.7 - 68.1)	17/25	69.8 (50.6 - 91.1)	14/21	61.3 (38.6 - 84.1)	2/10	18.2 (0.0 - 46.5)
5000 to <20000	41/60	67.6 (55.4 - 79.3)	38/47	77.0 (59.4 - 91.9)	84/111	69.9 (59.6 - 79.9)	24/28	89.4 (77.0 - 100.0)
20000 to <50000	61/81	69.8 (57.2 - 79.2)	75/105	73.3 (62.2 - 85.4)	98/131	70.9 (61.5 - 80.1)	24/35	70.7 (58.2 - 84.1)
50000 and above <sup>c</sup>	5/5	100.0 (66.4 - 100.0)	6/8	76.5 (47.3 - 100.0)	10/13	68.5 (39.4 - 97.1)	3/4	48.9 (0.0 - 100.0)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent - Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Post-secondary education includes vocational or technician training, college, university, graduate and above.

<sup>b</sup> Self-employment includes businesses and selling drugs

<sup>c</sup> Estimates with a sample numerator of zero were calculated using binomial approximation. Meta analysis for overall estimates were restricted to include estimates with a non-zero sample numerator.

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; Ksh., Kenya shillings; VL, viral load

Table 6.3B: Viral Load Suppression (VL < 200 copies/ml) Among Men Who Have Sex with Men by Location, BBS, Kenya, 2024

	Overall Estimate (N=1151)		Kiambu (N=265)		Kilifi (N=68)		Kisumu (N=106)	
	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)
<b>Overall</b>	932/1151	77.1 (74.1 - 80.1)	210/265	77.9 (70.6 - 84.7)	55/68	75.6 (63.2 - 87.5)	86/106	73.7 (63.1 - 81.8)
<b>Age (years)</b>								
18-24	201/278	64.6 (58.9 - 70.3)	51/75	65.4 (53.1 - 77.0)	8/10	61.6 (40.9 - 80.9)	15/21	59.1 (39.1 - 74.7)
25-34	224/265	81.8 (75.2 - 88.3)	49/57	81.5 (68.5 - 93.4)	15/18	78.7 (55.8 - 100.0)	21/25	71.3 (53.0 - 84.9)
35-44	451/549	80.4 (76.5 - 84.3)	102/124	83.9 (76.2 - 92.2)	27/34	79.7 (67.6 - 91.5)	36/46	73.4 (59.3 - 85.9)
45+	56/59	99.1 (97.6 - 100.0)	8/9	95.7 (88.7 - 100.0)	5/6	73.4 (32.6 - 100.0)	14/14	100.0 (93.9 - 100.0)
<b>Highest level of education</b>								
Never attended school <sup>c</sup>	6/8	100.0 (98.8 - 100.0)	1/1	100.0 (39.8 - 100.0)	2/2	100.0 (78.2 - 100.0)	0/1	0.0 (0.0 - 60.2)
Nursery school/pre-school <sup>c</sup>	18/25	97.6 (92.5 - 100.0)	4/4	100.0 (81.5 - 100.0)	8/12	63.3 (36.8 - 89.6)	2/3	76.3 (19.5 - 100.0)
Primary school	202/246	81.1 (75.5 - 86.8)	38/45	86.2 (76.5 - 96.2)	17/20	84.7 (64.0 - 100.0)	24/29	76.8 (57.8 - 94.2)
Secondary school	369/465	75.6 (69.5 - 81.7)	88/119	70.4 (60.2 - 79.3)	12/16	58.0 (35.9 - 78.2)	35/42	71.7 (56.9 - 82.6)
Post-secondary <sup>a</sup>	337/404	79.2 (73.3 - 85.0)	79/96	81.7 (69.3 - 93.7)	16/18	88.1 (71.5 - 100.0)	25/31	75.6 (59.0 - 89.3)
<b>Current marital status</b>								
Single/never married	527/664	75.6 (71.8 - 79.3)	138/176	76.5 (68.1 - 84.0)	29/35	79.0 (66.7 - 90.9)	43/56	69.1 (56.2 - 79.8)
Married/cohabiting	209/251	79.6 (72.1 - 87.1)	43/54	78.5 (66.5 - 90.4)	11/16	53.0 (27.5 - 76.1)	15/16	93.1 (81.1 - 100.0)
Divorced/separated	190/230	82.5 (76.6 - 88.3)	28/34	85.0 (71.8 - 98.7)	14/16	81.8 (61.1 - 100.0)	25/31	72.6 (53.0 - 89.6)
Widowed	5/5	100.0 (98.9 - 100.0)	0/0	-	1/1	100.0 (54.1 - 100.0)	3/3	100.0 (59.0 - 100.0)
<b>Main source of income</b>								
Formal employment	213/260	78.3 (71.4 - 85.1)	39/52	72.6 (52.6 - 90.9)	10/11	86.9 (63.7 - 100.0)	9/13	43.5 (5.4 - 75.9)
Informal work	248/312	75.5 (68.0 - 83.1)	50/60	78.3 (63.2 - 92.0)	8/14	47.1 (27.8 - 65.3)	38/48	76.7 (63.2 - 89.3)
Self-employment <sup>b</sup>	321/385	82.0 (76.3 - 87.6)	83/103	79.8 (70.2 - 89.1)	20/23	88.2 (74.6 - 100.0)	31/35	90.1 (77.9 - 100.0)
Sex work	71/81	99.4 (97.4 - 100.0)	8/8	100.0 (85.8 - 100.0)	10/11	88.6 (64.0 - 100.0)	3/3	100.0 (39.8 - 100.0)
Spouse/partner/friends	4/5	100.0 (98.6 - 100.0)	0/0	-	2/2	100.0 (54.1 - 100.0)	1/1	100.0 (29.2 - 100.0)
None	75/108	63.2 (51.2 - 75.2)	30/42	74.8 (61.2 - 89.4)	5/7	43.9 (7.2 - 80.5)	4/6	48.0 (0.0 - 96.3)
<b>Monthly income (KSh.)</b>								
<5000	95/139	56.3 (41.7 - 70.9)	30/45	69.1 (54.5 - 84.6)	2/5	19.3 (0.0 - 49.3)	11/14	63.4 (33.6 - 88.0)
5000 to <20000	461/578	78.1 (74.1 - 82.1)	87/115	74.3 (63.7 - 84.6)	31/39	79.8 (66.9 - 92.7)	58/72	75.9 (64.5 - 85.9)
20000 to <50000 <sup>c</sup>	39/45	89.3 (76.7 - 100.0)	9/10	80.7 (43.4 - 100.0)	4/5	86.3 (48.1 - 100.0)	0/1	0.0 (0.0 - 41.0)
50000 and above	326/375	84.7 (80.1 - 89.3)	82/93	88.8 (78.7 - 98.7)	16/17	85.7 (73.0 - 95.9)	17/19	85.7 (63.3 - 100.0)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Post-secondary education includes vocational or technician training, college, university, graduate and above.

<sup>b</sup> Self-employment includes businesses and selling drugs

<sup>c</sup> Estimates with a sample numerator of zero were calculated using binomial approximation. Meta analysis for overall estimates were restricted to include estimates with a non-zero sample numerator.

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; Ksh., Kenya shillings; VL, viral load

Table 6.3B cont: Viral Load Suppression (VL<200 copies/ml) Among Men Who Have Sex with Men by Location, BBS, Kenya, 2024

	Machakos (N=165)		Mombasa (N=192)		Nairobi (N=278)		Nakuru (N=77)	
	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)
<b>Overall</b>	132/165	75.0 (66.2 - 81.1)	156/192	79.1 (71.3 - 86.1)	234/278	79.5 (73.5 - 85.3)	59/77	72.3 (59.9 - 82.5)
<b>Age (years)</b>								
18-24	23/30	71.1 (54.6 - 85.1)	25/38	56.3 (40.1 - 68.3)	60/74	74.5 (61.6 - 87.5)	19/30	55.5 (34.9 - 72.6)
25-34	33/41	69.2 (45.7 - 88.5)	41/45	91.5 (80.4 - 100.0)	52/65	77.2 (64.5 - 89.8)	13/14	91.9 (76.0 - 100.0)
35-44	68/86	77.6 (68.3 - 85.9)	75/93	79.8 (68.1 - 91.0)	116/133	83.3 (74.4 - 92.0)	27/33	78.7 (62.9 - 92.9)
45+	8/8	100.0 (82.4 - 100.0)	15/16	97.8 (99.2 - 99.8)	6/6	100.0 (96.0 - 100.0)	0/0	-
<b>Highest level of education</b>								
Never attended school <sup>c</sup>	1/1	100.0 (47.8 - 100.0)	2/4	51.2 (0.0 - 100.0)	0/0	-	0/0	-
Nursery school/pre-school <sup>c</sup>	3/5	32.1 (0.0 - 74.0)	1/1	100.0 (2.5 - 100.0)	0/1	0.0 (0.0 - 13.7)	0/1	0.0 (0.0 - 84.2)
Primary school	25/30	79.0 (62.2 - 93.8)	54/69	77.8 (65.5 - 90.0)	37/42	81.5 (65.3 - 97.5)	7/11	63.9 (33.5 - 94.1)
Secondary school	58/76	71.5 (58.6 - 81.0)	55/70	78.8 (65.1 - 93.0)	98/114	83.6 (74.6 - 92.5)	23/28	87.0 (73.8 - 100.0)
Post-secondary <sup>a</sup>	45/53	84.7 (71.8 - 97.2)	44/48	85.4 (73.7 - 93.0)	99/121	75.5 (66.3 - 84.4)	29/37	64.2 (48.9 - 74.5)
<b>Current marital status</b>								
Single/never married	52/66	75.4 (64.4 - 84.8)	70/88	75.2 (62.4 - 85.8)	153/185	77.6 (70.2 - 84.8)	42/58	71.3 (58.2 - 83.8)
Married/cohabiting	42/49	75.7 (63.2 - 83.6)	45/56	76.8 (62.4 - 88.9)	45/51	86.1 (75.8 - 96.1)	8/9	66.7 (13.4 - 100.0)
Divorced/separated	37/49	73.2 (56.5 - 87.8)	41/48	87.5 (76.5 - 99.7)	36/42	80.8 (64.4 - 97.4)	9/10	89.4 (71.5 - 100.0)
Widowed	1/1	100.0 (15.8 - 100.0)	0/0	-	0/0	-	0/0	-
<b>Main source of income</b>								
Formal employment	25/30	80.9 (65.0 - 95.2)	38/45	79.1 (59.3 - 96.6)	72/84	80.4 (68.5 - 92.4)	20/25	78.0 (53.0 - 100.0)
Informal work	52/60	83.1 (71.3 - 93.2)	34/44	82.6 (71.8 - 95.6)	55/69	76.8 (65.1 - 88.8)	11/17	70.4 (48.6 - 94.3)
Self-employment <sup>b</sup>	39/53	63.5 (45.0 - 75.5)	52/60	82.1 (68.3 - 94.1)	78/90	80.3 (68.9 - 91.7)	18/21	87.0 (74.7 - 99.6)
Sex work	8/10	76.7 (44.2 - 100.0)	22/26	80.6 (60.3 - 97.8)	17/20	83.0 (65.0 - 100.0)	3/3	100.0 (47.8 - 100.0)
Spouse/partner/friends	0/0	-	1/2	48.9 (0.0 - 100.0)	0/0	-	0/0	-
None	8/12	61.6 (28.4 - 93.8)	9/15	53.9 (22.6 - 82.2)	12/15	79.3 (55.6 - 100.0)	7/11	40.4 (6.6 - 67.7)
<b>Monthly income (KSh.)</b>								
<5000	13/19	52.5 (27.1 - 74.0)	18/25	71.4 (52.3 - 91.3)	17/21	74.8 (52.0 - 97.6)	4/10	25.0 (0.0 - 51.5)
5000 to <20000	65/81	77.4 (67.2 - 85.9)	84/105	80.5 (69.4 - 91.9)	109/131	80.1 (71.0 - 89.1)	27/35	79.3 (68.4 - 91.4)
20000 to <50000 <sup>c</sup>	5/5	100.0 (66.4 - 100.0)	7/8	82.5 (50.2 - 100.0)	11/13	80.5 (56.5 - 100.0)	3/4	48.5 (0.0 - 100.0)
50000 and above	49/60	79.5 (66.7 - 91.1)	42/47	84.4 (67.5 - 97.8)	95/111	78.8 (68.9 - 88.4)	25/28	92.1 (80.2 - 100.0)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Post-secondary education includes vocational or technician training, college, university, graduate and above.

<sup>b</sup> Self-employment includes businesses and selling drugs

<sup>c</sup> Estimates with a sample numerator of zero were calculated using binomial approximation. Meta analysis for overall estimates were restricted to include estimates with a non-zero sample numerator.

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; Ksh., Kenya shillings; VL, viral load

Table 6.3C: Viral Load Suppression (VL<1000 copies/ml) Among Men Who Have Sex with Men by Location, BBS, Kenya, 2024

	Overall Estimate (N=1151)		Kiambu (N=265)		Kilifi (N=68)		Kisumu (N=106)	
	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)
<b>Overall</b>	966/1151	80.8 (77.7 - 83.9)	215/265	80.0 (72.7 - 86.8)	57/68	79.6 (66.8 - 91.8)	90/106	79.5 (68.4 - 88.9)
<b>Age (years)</b>								
18-24	211/278	70.5 (64.9 - 76.2)	53/75	67.5 (55.3 - 79.1)	8/10	61.6 (40.9 - 80.9)	16/21	64.9 (45.6 - 80.4)
25-34	469/549	84.6 (80.9 - 88.4)	105/124	87.0 (79.6 - 94.9)	29/34	87.4 (76.7 - 98.1)	39/46	84.3 (72.9 - 95.4)
35-44	230/265	83.5 (77.2 - 89.7)	49/57	81.6 (68.7 - 93.3)	15/18	78.8 (55.8 - 100.0)	21/25	71.1 (52.6 - 84.9)
45+	56/59	99.0 (97.6 - 100.0)	8/9	95.9 (90.8 - 100.0)	5/6	73.5 (29.7 - 100.0)	14/14	100.0 (93.9 - 100.0)
<b>Highest level of education</b>								
Never attended school <sup>c</sup>	7/8	100.0 (98.9 - 100.0)	1/1	100.0 (39.8 - 100.0)	2/2	100.0 (78.2 - 100.0)	0/1	0.0 (0.0 - 60.2)
Nursery school/pre-school <sup>c</sup>	19/25	98.2 (93.6 - 100.0)	4/4	100.0 (81.5 - 100.0)	9/12	76.6 (53.6 - 99.1)	2/3	76.7 (17.2 - 100.0)
Primary school	212/246	86.9 (82.1 - 91.7)	40/45	91.0 (83.1 - 99.6)	17/20	84.8 (64.1 - 100.0)	25/29	79.7 (61.5 - 96.5)
Secondary school	382/465	79.2 (73.6 - 84.8)	91/119	72.9 (62.5 - 81.6)	13/16	65.1 (43.4 - 84.5)	37/42	82.3 (68.2 - 95.0)
Post-secondary <sup>a</sup>	346/404	82.6 (78.3 - 86.9)	79/96	81.7 (69.3 - 93.7)	16/18	88.1 (71.4 - 100.0)	26/31	77.6 (62.2 - 89.8)
<b>Current marital status</b>								
Single/never married	550/664	79.8 (76.1 - 83.4)	142/176	78.8 (70.7 - 86.3)	30/35	81.7 (69.5 - 93.4)	45/56	76.7 (64.6 - 87.8)
Married/cohabiting	213/251	81.6 (69.8 - 93.4)	44/54	80.8 (69.0 - 92.3)	11/16	52.9 (27.1 - 75.9)	16/16	100.0 (93.5 - 100.0)
Divorced/separated	197/230	85.0 (79.6 - 90.4)	28/34	84.8 (71.5 - 98.6)	15/16	92.7 (77.6 - 100.0)	26/31	74.2 (55.6 - 89.8)
Widowed	5/5	100.0 (98.9 - 100.0)	0/0	-	1/1	100.0 (54.1 - 100.0)	3/3	100.0 (59.0 - 100.0)
<b>Main source of income</b>								
Formal employment	219/260	84.3 (73.6 - 95.1)	39/52	72.6 (53.6 - 90.9)	11/11	100.0 (96.7 - 100.0)	10/13	64.7 (27.0 - 100.0)
Informal work	260/312	79.5 (71.9 - 87.2)	51/60	80.0 (65.0 - 93.5)	8/14	47.3 (28.0 - 65.0)	39/48	79.3 (66.0 - 91.9)
Self-employment <sup>b</sup>	328/385	84.9 (78.5 - 91.2)	83/103	79.9 (69.9 - 89.2)	21/23	92.7 (80.5 - 100.0)	33/35	94.7 (85.2 - 100.0)
Sex work	72/81	99.5 (97.7 - 100.0)	8/8	100.0 (85.8 - 100.0)	10/11	88.6 (63.3 - 100.0)	3/3	100.0 (39.8 - 100.0)
Spouse/partner/friends	5/5	100.0 (98.9 - 100.0)	0/0	-	2/2	100.0 (54.1 - 100.0)	1/1	100.0 (29.2 - 100.0)
None	82/108	70.8 (55.8 - 85.8)	34/42	83.8 (71.6 - 96.7)	5/7	44.5 (6.4 - 79.8)	4/6	48.0 (0.0 - 95.4)
<b>Monthly income (KSh.)</b>								
<5000	102/139	63.1 (49.7 - 76.4)	34/45	77.5 (64.8 - 90.5)	2/5	18.7 (0.0 - 50.4)	11/14	63.1 (35.0 - 88.7)
5000 to <20000	479/578	82.2 (78.3 - 86.1)	88/115	75.1 (64.6 - 85.5)	33/39	86.1 (73.2 - 99.3)	61/72	83.4 (72.4 - 93.9)
20000 to <50000	335/375	87.3 (82.9 - 91.6)	82/93	88.8 (78.6 - 98.5)	16/17	85.5 (73.6 - 96.5)	18/19	89.7 (70.2 - 100.0)
50000 and above <sup>c</sup>	39/45	89.3 (76.7 - 100.0)	9/10	80.7 (42.7 - 100.0)	4/5	86.4 (46.9 - 100.0)	0/1	0.0 (0.0 - 41.0)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent - Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Post-secondary education includes vocational or technician training, college, university, graduate and above.

<sup>b</sup> Self-employment includes businesses and selling drugs

<sup>c</sup> Estimates with a sample numerator of zero were calculated using binomial approximation. Meta analysis for overall estimates were restricted to include estimates with a non-zero sample numerator.

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; Ksh., Kenya shillings; VL, viral load

Table 6.3C cont: Viral Load Suppression (VL<1000 copies/ml) Among Men Who Have Sex with Men by Location, BBS, Kenya, 2024

	Machakos (N=165)		Mombasa (N=192)		Nairobi (N=278)		Nakuru (N=77)	
	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)
<b>Overall</b>	135/165	77.4 (68.7 - 83.7)	162/192	83.2 (75.5 - 90.5)	244/278	83.2 (77.0 - 89.4)	63/77	79.7 (66.6 - 91.4)
<b>Age (years)</b>								
18-24	24/30	76.6 (60.3 - 91.1)	27/38	69.6 (55.5 - 83.7)	62/74	77.4 (65.0 - 89.9)	21/30	69.4 (48.9 - 89.8)
25-34	70/86	80.2 (70.6 - 89.1)	78/93	81.7 (70.2 - 92.0)	119/133	86.1 (77.2 - 94.8)	29/33	83.7 (68.8 - 96.9)
35-44	33/41	69.3 (45.3 - 88.2)	42/45	93.1 (82.5 - 100.0)	57/65	84.1 (74.8 - 93.4)	13/14	91.8 (75.1 - 100.0)
45+	8/8	100.0 (82.4 - 100.0)	15/16	97.8 (99.2 - 99.8)	6/6	100.0 (96.0 - 100.0)	0/0	-
<b>Highest level of education</b>								
Never attended school <sup>c</sup>	1/1	100.0 (47.8 - 100.0)	3/4	65.0 (11.1 - 100.0)	0/0	-	0/0	-
Nursery school/pre-school <sup>c</sup>	3/5	31.8 (0.0 - 72.4)	1/1	100.0 (2.5 - 100.0)	0/1	0.0 (0.0 - 13.7)	0/1	0.0 (0.0 - 84.2)
Primary school	26/30	83.0 (66.4 - 96.8)	56/69	83.6 (73.9 - 94.6)	38/42	83.2 (67.0 - 99.5)	10/11	92.5 (79.1 - 100.0)
Secondary school	59/76	72.7 (60.4 - 82.2)	58/70	82.9 (69.7 - 96.8)	101/114	86.3 (77.1 - 95.3)	23/28	87.0 (73.9 - 100.0)
Post-secondary <sup>a</sup>	46/53	88.2 (77.8 - 99.5)	44/48	85.3 (73.9 - 92.7)	105/121	81.2 (72.6 - 89.4)	30/37	72.5 (56.0 - 86.0)
<b>Current marital status</b>								
Single/never married	53/66	78.0 (67.7 - 87.1)	74/88	79.4 (67.9 - 88.4)	160/185	82.1 (74.5 - 89.5)	46/58	80.8 (67.6 - 94.4)
Married/cohabiting	42/49	75.8 (63.6 - 83.6)	46/56	83.4 (72.1 - 95.0)	46/51	87.8 (78.0 - 97.6)	8/9	66.4 (14.9 - 100.0)
Divorced/separated	39/49	78.0 (63.0 - 91.9)	42/48	88.9 (77.8 - 100.0)	38/42	83.5 (69.2 - 97.8)	9/10	89.4 (71.7 - 100.0)
Widowed	1/1	100.0 (15.8 - 100.0)	0/0	-	0/0	-	0/0	-
<b>Main source of income</b>								
Formal employment	26/30	83.9 (68.5 - 97.4)	39/45	87.4 (75.1 - 100.0)	74/84	82.2 (69.6 - 94.1)	20/25	77.8 (53.6 - 100.0)
Informal work	53/60	85.0 (73.3 - 95.1)	36/44	85.6 (74.7 - 97.8)	59/69	82.5 (72.0 - 93.0)	14/17	86.6 (72.3 - 100.0)
Self-employment <sup>b</sup>	40/53	67.1 (49.8 - 79.2)	53/60	85.2 (71.1 - 97.7)	80/90	83.2 (71.7 - 94.5)	18/21	86.9 (74.9 - 99.7)
Sex work	8/10	76.9 (42.2 - 100.0)	23/26	83.0 (63.1 - 99.1)	17/20	82.9 (64.9 - 100.0)	3/3	100.0 (47.8 - 100.0)
Spouse/partner/friends	0/0	-	2/2	100.0 (15.8 - 100.0)	0/0	-	0/0	-
None	8/12	61.6 (28.2 - 93.6)	9/15	54.1 (23.4 - 81.5)	14/15	94.0 (81.6 - 100.0)	8/11	62.9 (23.3 - 99.4)
<b>Monthly income (KSh.)</b>								
<5000	13/19	52.4 (26.5 - 73.6)	18/25	71.4 (52.1 - 91.0)	18/21	76.9 (53.9 - 99.3)	6/10	57.3 (16.7 - 96.5)
5000 to <20000	67/81	80.0 (70.0 - 88.3)	88/105	85.5 (75.1 - 96.8)	113/131	82.9 (73.9 - 91.5)	29/35	84.7 (74.3 - 95.9)
20000 to <50000	50/60	82.9 (70.6 - 94.8)	44/47	90.4 (76.9 - 100.0)	100/111	84.8 (75.5 - 93.9)	25/28	92.1 (79.9 - 100.0)
50000 and above <sup>c</sup>	5/5	100.0 (66.4 - 100.0)	7/8	81.7 (50.6 - 100.0)	11/13	80.6 (55.8 - 100.0)	3/4	48.7 (0.0 - 100.0)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent - Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Post-secondary education includes vocational or technician training, college, university, graduate and above.

<sup>b</sup> Self-employment includes businesses and selling drugs

<sup>c</sup> Estimates with a sample numerator of zero were calculated using binomial approximation. Meta analysis for overall estimates were restricted to include estimates with a non-zero sample numerator.

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; Ksh., Kenya shillings; VL, viral load

## 6.4: HIV Incidence

Testing is underway and will be added to this report as an addendum.

## 6.5: UNAIDS 95-95-95 Cascade

### **Conditional:**

At the <50 copies/mL threshold, 87.3% of MSM living with HIV knew their status, 97.6% were on ART, and 80.6% were virally suppressed, with suppression rising to 92.3% among those aged  $\geq 35$  years. As the threshold increased to <200 and <1000 copies/mL, overall suppression improved to 91.8% and 93.7%, respectively, with consistently high awareness and ART coverage, and markedly higher suppression among older MSM compared to younger ones.

### **Unconditional:**

Among MSM living with HIV, 87.3% were aware of their status and 85.7% were on ART across all viral load thresholds. At <50 copies/mL, overall viral suppression was 69.0%, ranging 63–72% by county, with 65.8% suppression among those aged 18–34 and 78.5% among those 35 and older. At <200 copies/mL, suppression increased to 77.9% overall, 75.7% for ages 18–34, and 84.9% for ages 35+. At <1000 copies/mL, overall suppression reached 81.4%, with 79.5% among younger MSM and 86.5% among older MSM, while county estimates were mostly 77–83%.

Table 6.5.1: Conditional UNAIDS 95-95-95 Cascade Among Men Who Have Sex with Men by Location and Age, BBS, Kenya, 2024

	Overall Estimate (N=5242)		Kiambu (N=705)		Kilifi (N=560)		Kisumu (N=826)	
	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)
<b>VL &lt;50 copies/mL</b>								
Aware of HIV status	1031/1150	87.3 (84.1 - 90.5)	228/265	84.3 (78.0 - 90.0)	59/68	84.7 (76.8 - 92.3)	94/105	83.2 (72.7 - 91.7)
On ART among those aware	1019/1031	97.6 (96.5 - 98.6)	226/228	99.0 (97.4 - 100.0)	58/59	94.5 (93.1 - 95.7)	93/94	98.9 (98.5 - 99.3)
Virally suppressed among those on ART	826/1019	80.6 (77.3 - 83.9)	181/226	81.1 (75.2 - 87.5)	50/58	87.2 (48.0 - 100.0)	75/93	77.0 (55.0 - 97.5)
<b>18-34 years</b>								
Aware of HIV status	717/728	98.2 (96.8 - 99.7)	162/164	98.6 (96.8 - 100.0)	38/39	92.4 (82.2 - 100.0)	58/59	98.3 (96.7 - 99.8)
On ART among those aware	728/825	86.6 (83.6 - 89.6)	164/199	81.0 (73.5 - 88.0)	39/44	87.7 (79.1 - 96.2)	59/66	84.0 (71.6 - 94.5)
Virally suppressed among those on ART	568/717	79.6 (76.0 - 83.3)	132/162	83.2 (76.3 - 90.8)	30/38	81.9 (60.3 - 100.0)	43/58	66.9 (43.5 - 87.7)
<b>35 years and above</b>								
Aware of HIV status	303/325	93.8 (89.9 - 97.8)	64/66	95.8 (90.2 - 100.0)	20/24	77.7 (58.2 - 96.6)	35/39	82.0 (63.9 - 97.8)
On ART among those aware	302/303	100.0 (99.7 - 100.0)	64/64	100.0 (100.0 - 100.0)	20/20	100.0 (100.0 - 100.0)	35/35	100.0 (100.0 - 100.0)
Virally suppressed among those on ART	258/302	92.3 (87.6 - 96.9)	49/64	75.3 (63.6 - 86.6)	20/20	100.0 (100.0 - 100.0)	32/35	93.9 (87.8 - 100.0)
<b>VL &lt;200 copies/mL</b>								
Aware of HIV status	1031/1150	87.3 (84.1 - 90.5)	228/265	84.3 (78.0 - 90.0)	59/68	84.7 (76.8 - 92.3)	94/105	83.2 (72.7 - 91.7)
On ART among those aware	1019/1031	97.6 (96.5 - 98.6)	226/228	99.0 (97.4 - 100.0)	58/59	94.5 (93.1 - 95.7)	93/94	98.9 (98.5 - 99.3)
Virally suppressed among those on ART	932/1019	91.8 (89.4 - 94.3)	210/226	93.1 (88.8 - 97.5)	55/58	94.7 (93.8 - 95.5)	85/93	89.4 (79.4 - 98.7)
<b>18-34 years</b>								
Aware of HIV status	717/728	98.2 (96.8 - 99.7)	162/164	98.6 (96.8 - 100.0)	38/39	92.4 (82.2 - 100.0)	58/59	98.3 (96.7 - 99.8)
On ART among those aware	728/825	86.6 (83.6 - 89.6)	164/199	81.0 (73.5 - 88.0)	39/44	87.7 (79.1 - 96.2)	59/66	84.0 (71.6 - 94.5)
Virally suppressed among those on ART	651/717	90.8 (87.9 - 93.8)	153/162	95.0 (92.1 - 98.0)	35/38	92.5 (86.7 - 98.4)	50/58	83.2 (69.1 - 96.0)
<b>35 years and above</b>								
Aware of HIV status	303/325	93.8 (89.9 - 97.8)	64/66	95.8 (90.2 - 100.0)	20/24	77.7 (58.2 - 96.6)	35/39	82.0 (63.9 - 97.8)
On ART among those aware	302/303	100.0 (99.7 - 100.0)	64/64	100.0 (100.0 - 100.0)	20/20	100.0 (100.0 - 100.0)	35/35	100.0 (100.0 - 100.0)
Virally suppressed among those on ART	281/302	98.8 (97.3 - 100.0)	57/64	87.7 (79.2 - 95.8)	20/20	100.0 (100.0 - 100.0)	35/35	100.0 (100.0 - 100.0)
<b>VL &lt;1000 copies/mL</b>								
Aware of HIV status	1031/1150	87.3 (84.1 - 90.5)	228/265	84.3 (78.0 - 90.0)	59/68	84.7 (76.8 - 92.3)	94/105	83.2 (72.7 - 91.7)
On ART among those aware	1019/1031	97.6 (96.5 - 98.6)	226/228	99.0 (97.4 - 100.0)	58/59	94.5 (93.1 - 95.7)	93/94	98.9 (98.5 - 99.3)
Virally suppressed among those on ART	950/1019	93.7 (91.4 - 96.1)	210/226	93.1 (88.8 - 97.4)	56/58	96.7 (96.1 - 97.4)	88/93	92.5 (83.6 - 100.0)
<b>18-34 years</b>								
Aware of HIV status	717/728	98.2 (96.8 - 99.7)	162/164	98.6 (96.8 - 100.0)	38/39	92.4 (82.2 - 100.0)	58/59	98.3 (96.7 - 99.8)
On ART among those aware	728/825	86.6 (83.6 - 89.6)	164/199	81.0 (73.5 - 88.0)	39/44	87.7 (79.1 - 96.2)	59/66	84.0 (71.6 - 94.5)
Virally suppressed among those on ART	665/717	93.5 (91.7 - 95.4)	153/162	95.0 (92.2 - 98.0)	36/38	95.4 (91.2 - 99.7)	53/58	88.1 (74.2 - 100.0)
<b>35 years and above</b>								
Aware of HIV status	303/325	93.8 (89.9 - 97.8)	64/66	95.8 (90.2 - 100.0)	20/24	77.7 (58.2 - 96.6)	35/39	82.0 (63.9 - 97.8)
On ART among those aware	302/303	100.0 (99.7 - 100.0)	64/64	100.0 (100.0 - 100.0)	20/20	100.0 (100.0 - 100.0)	35/35	100.0 (100.0 - 100.0)
Virally suppressed among those on ART	285/302	98.9 (97.6 - 100.0)	57/64	87.7 (79.3 - 95.7)	20/20	100.0 (100.0 - 100.0)	35/35	100.0 (100.0 - 100.0)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; mL, milliliters; VL, viral load, ART, antiretroviral therapy.

Table 6.5.1 cont: Conditional UNAIDS 95-95-95 Cascade Among Men Who Have Sex with Men by Location and Age, BBS, Kenya, 2024

	Machakos (N=822)		Mombasa (N=937)		Nairobi (N=743)		Nakuru (N=649)	
	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)
<b>VL&lt;50 copies/mL</b>								
Aware of HIV status	144/165	81.8 (68.4 - 92.3)	177/192	91.1 (85.0 - 96.5)	264/278	91.8 (87.4 - 96.2)	65/77	84.6 (75.3 - 93.9)
On ART among those aware	143/144	99.1 (97.6 - 100.0)	172/177	95.6 (94.2 - 96.3)	263/264	99.2 (99.0 - 99.4)	64/65	95.2 (91.6 - 97.1)
Virally suppressed among those on ART	119/143	81.8 (72.0 - 90.6)	139/172	82.6 (76.1 - 90.2)	208/263	77.1 (70.8 - 83.4)	54/64	83.9 (72.5 - 95.1)
<b>18-34 years</b>								
Aware of HIV status	100/101	98.7 (97.0 - 100.0)	114/119	93.4 (88.2 - 97.1)	194/194	100.0 (100.0 - 100.0)	51/52	93.9 (86.3 - 99.7)
On ART among those aware	101/116	84.5 (70.1 - 97.2)	119/131	88.4 (81.4 - 94.2)	194/206	90.2 (84.4 - 95.9)	52/63	82.9 (72.3 - 93.7)
Virally suppressed among those on ART	84/100	82.9 (74.4 - 90.6)	86/114	77.2 (68.7 - 86.5)	152/194	76.0 (68.4 - 83.4)	41/51	79.6 (65.3 - 93.5)
<b>35 years and above</b>								
Aware of HIV status	43/49	76.2 (55.9 - 91.3)	58/61	96.7 (93.9 - 100.0)	70/72	96.6 (92.3 - 100.0)	13/14	91.7 (75.2 - 100.0)
On ART among those aware	43/43	100.0 (100.0 - 100.0)	58/58	100.0 (100.0 - 100.0)	69/70	97.0 (92.0 - 100.0)	13/13	100.0 (100.0 - 100.0)
Virally suppressed among those on ART	35/43	79.2 (61.6 - 95.0)	53/58	92.0 (85.0 - 100.0)	56/69	80.5 (70.4 - 90.6)	13/13	100.0 (100.0 - 100.0)
<b>VL &lt;200 copies/mL</b>								
Aware of HIV status	144/165	81.8 (68.4 - 92.3)	177/192	91.1 (85.0 - 96.5)	264/278	91.8 (87.4 - 96.2)	65/77	84.6 (75.3 - 93.9)
On ART among those aware	143/144	99.1 (97.6 - 100.0)	172/177	95.6 (94.2 - 96.3)	263/264	99.2 (99.0 - 99.4)	64/65	95.2 (91.6 - 97.1)
Virally suppressed among those on ART	132/143	92.6 (87.9 - 97.6)	156/172	90.6 (85.7 - 95.6)	234/263	87.4 (82.6 - 92.1)	60/64	90.6 (86.0 - 94.1)
<b>18-34 years</b>								
Aware of HIV status	100/101	98.7 (97.0 - 100.0)	114/119	93.4 (88.2 - 97.1)	194/194	100.0 (100.0 - 100.0)	51/52	93.9 (86.3 - 99.7)
On ART among those aware	101/116	84.5 (70.1 - 97.2)	119/131	88.4 (81.4 - 94.2)	194/206	90.2 (84.4 - 95.9)	52/63	82.9 (72.3 - 93.7)
Virally suppressed among those on ART	91/100	90.8 (84.4 - 97.1)	100/114	87.4 (80.5 - 94.1)	175/194	88.4 (82.8 - 94.0)	47/51	88.2 (79.1 - 95.4)
<b>35 years and above</b>								
Aware of HIV status	43/49	76.2 (55.9 - 91.3)	58/61	96.7 (93.9 - 100.0)	70/72	96.6 (92.3 - 100.0)	13/14	91.7 (75.2 - 100.0)
On ART among those aware	43/43	100.0 (100.0 - 100.0)	58/58	100.0 (100.0 - 100.0)	69/70	97.0 (92.0 - 100.0)	13/13	100.0 (100.0 - 100.0)
Virally suppressed among those on ART	41/43	96.9 (93.6 - 100.0)	56/58	96.3 (91.0 - 100.0)	59/69	84.6 (74.9 - 94.1)	13/13	100.0 (100.0 - 100.0)
<b>VL &lt;1000 copies/mL</b>								
Aware of HIV status	144/165	81.8 (68.4 - 92.3)	177/192	91.1 (85.0 - 96.5)	264/278	91.8 (87.4 - 96.2)	65/77	84.6 (75.3 - 93.9)
On ART among those aware	143/144	99.1 (97.6 - 100.0)	172/177	95.6 (94.2 - 96.3)	263/264	99.2 (99.0 - 99.4)	64/65	95.2 (91.6 - 97.1)
Virally suppressed among those on ART	134/143	94.6 (91.0 - 98.9)	159/172	92.3 (88.0 - 96.7)	241/263	89.7 (85.1 - 94.2)	62/64	93.6 (89.3 - 96.6)
<b>18-34 years</b>								
Aware of HIV status	100/101	98.7 (97.0 - 100.0)	114/119	93.4 (88.2 - 97.1)	194/194	100.0 (100.0 - 100.0)	51/52	93.9 (86.3 - 99.7)
On ART among those aware	101/116	84.5 (70.1 - 97.2)	119/131	88.4 (81.4 - 94.2)	194/206	90.2 (84.4 - 95.9)	52/63	82.9 (72.3 - 93.7)
Virally suppressed among those on ART	93/100	93.6 (88.6 - 99.1)	103/114	90.1 (84.0 - 95.9)	178/194	89.8 (84.1 - 95.4)	49/51	92.0 (83.7 - 98.2)
<b>35 years and above</b>								
Aware of HIV status	43/49	76.2 (55.9 - 91.3)	58/61	96.7 (93.9 - 100.0)	70/72	96.6 (92.3 - 100.0)	13/14	91.7 (75.2 - 100.0)
On ART among those aware	43/43	100.0 (100.0 - 100.0)	58/58	100.0 (100.0 - 100.0)	69/70	97.0 (92.0 - 100.0)	13/13	100.0 (100.0 - 100.0)
Virally suppressed among those on ART	41/43	96.9 (93.6 - 100.0)	56/58	96.3 (90.9 - 100.0)	63/69	89.3 (81.2 - 97.4)	13/13	100.0 (100.0 - 100.0)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; mL, milliliters; VL, viral load, ART, antiretroviral therapy.

Table 6.5.2: Unconditional UNAIDS 95-95-95 Cascade Among Men Who Have Sex with Men by Location and Age, BBS, Kenya, 2024

	Overall Estimate (N=5242)		Kiambu (N=705)		Kilifi (N=560)		Kisumu (N=826)	
	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)
<b>VL &lt;50 copies/mL</b>								
Aware of HIV status	1031/1150	87.3 (84.1 - 90.5)	228/265	84.3 (78.0 - 90.0)	59/68	84.7 (76.8 - 92.3)	94/105	83.2 (72.7 - 91.7)
On ART	1019/1150	85.7 (82.1 - 89.3)	226/265	83.5 (77.1 - 89.1)	58/68	80.0 (69.5 - 89.9)	93/105	82.3 (71.9 - 90.7)
Virally suppressed	826/1150	69.0 (65.2 - 72.7)	181/265	67.7 (60.5 - 74.6)	50/68	69.8 (18.6 - 100.0)	75/105	63.3 (44.9 - 79.1)
<b>18-34 years</b>								
Aware of HIV status	728/825	86.6 (83.6 - 89.6)	164/199	81.0 (73.5 - 88.0)	39/44	87.7 (79.1 - 96.2)	59/66	84.0 (71.6 - 94.5)
On ART	717/825	84.5 (81.1 - 87.8)	162/199	79.9 (72.2 - 86.9)	38/44	81.0 (68.2 - 93.3)	58/66	82.5 (70.2 - 92.9)
Virally suppressed	568/825	65.8 (61.4 - 70.3)	132/199	66.4 (57.2 - 75.7)	30/44	66.4 (36.1 - 96.5)	43/66	55.2 (35.4 - 71.6)
<b>35 years and above</b>								
Aware of HIV status	303/325	93.8 (89.9 - 97.8)	64/66	95.8 (90.2 - 100.0)	20/24	77.7 (58.2 - 96.6)	35/39	82.0 (63.9 - 97.8)
On ART	302/325	92.6 (88.1 - 97.1)	64/66	95.8 (90.2 - 100.0)	20/24	77.7 (58.3 - 96.4)	35/39	81.9 (64.3 - 97.6)
Virally suppressed	258/325	78.5 (70.9 - 86.0)	49/66	72.1 (60.3 - 83.4)	20/24	77.7 (58.0 - 96.4)	32/39	76.9 (60.0 - 92.4)
<b>VL &lt;200 copies/mL</b>								
Aware of HIV status	1031/1150	87.3 (84.1 - 90.5)	228/265	84.3 (78.0 - 90.0)	59/68	84.7 (76.8 - 92.3)	94/105	83.2 (72.7 - 91.7)
On ART	1019/1150	85.7 (82.1 - 89.3)	226/265	83.5 (77.1 - 89.1)	58/68	80.0 (69.5 - 89.9)	93/105	82.3 (71.9 - 90.7)
Virally suppressed	932/1150	77.9 (74.6 - 81.3)	210/265	77.7 (70.0 - 84.7)	55/68	75.8 (18.8 - 100.0)	85/105	73.6 (62.0 - 83.1)
<b>18-34 years</b>								
Aware of HIV status	728/825	86.6 (83.6 - 89.6)	164/199	81.0 (73.5 - 88.0)	39/44	87.7 (79.1 - 96.2)	59/66	84.0 (71.6 - 94.5)
On ART	717/825	84.5 (81.1 - 87.8)	162/199	79.9 (72.2 - 86.9)	38/44	81.0 (68.2 - 93.3)	58/66	82.5 (70.2 - 92.9)
Virally suppressed	651/825	75.7 (71.6 - 79.8)	153/199	75.9 (66.7 - 84.6)	35/44	75.0 (45.8 - 100.0)	50/66	68.6 (53.7 - 81.1)
<b>35 years and above</b>								
Aware of HIV status	303/325	93.8 (89.9 - 97.8)	64/66	95.8 (90.2 - 100.0)	20/24	77.7 (58.2 - 96.6)	35/39	82.0 (63.9 - 97.8)
On ART	302/325	92.6 (88.1 - 97.1)	64/66	95.8 (90.2 - 100.0)	20/24	77.7 (58.3 - 96.4)	35/39	81.9 (64.3 - 97.6)
Virally suppressed	281/325	84.9 (79.1 - 90.6)	57/66	84.1 (74.6 - 92.9)	20/24	77.7 (58.3 - 96.3)	35/39	81.9 (64.0 - 97.7)
<b>VL &lt;1000 copies/mL</b>								
Aware of HIV status	1031/1150	87.3 (84.1 - 90.5)	228/265	84.3 (78.0 - 90.0)	59/68	84.7 (76.8 - 92.3)	94/105	83.2 (72.7 - 91.7)
On ART	1019/1150	85.7 (82.1 - 89.3)	226/265	83.5 (77.1 - 89.1)	58/68	80.0 (69.5 - 89.9)	93/105	82.3 (71.9 - 90.7)
Virally suppressed	966/1150	81.4 (78.4 - 84.5)	215/265	79.8 (72.0 - 86.9)	57/68	79.8 (29.5 - 100.0)	89/105	79.4 (69.3 - 87.7)
<b>18-34 years</b>								
Aware of HIV status	728/825	86.6 (83.6 - 89.6)	164/199	81.0 (73.5 - 88.0)	39/44	87.7 (79.1 - 96.2)	59/66	84.0 (71.6 - 94.5)
On ART	717/825	84.5 (81.1 - 87.8)	162/199	79.9 (72.2 - 86.9)	38/44	81.0 (68.2 - 93.3)	58/66	82.5 (70.2 - 92.9)
Virally suppressed	679/825	79.5 (75.8 - 83.3)	158/199	78.5 (69.5 - 87.1)	37/44	80.7 (54.1 - 100.0)	54/66	77.9 (65.5 - 88.9)
<b>35 years and above</b>								
Aware of HIV status	303/325	93.8 (89.9 - 97.8)	64/66	95.8 (90.2 - 100.0)	20/24	77.7 (58.2 - 96.6)	35/39	82.0 (63.9 - 97.8)
On ART	302/325	92.6 (88.1 - 97.1)	64/66	95.8 (90.2 - 100.0)	20/24	77.7 (58.3 - 96.4)	35/39	81.9 (64.3 - 97.6)
Virally suppressed	287/325	86.5 (81.0 - 91.9)	57/66	84.1 (74.6 - 92.9)	20/24	77.7 (58.4 - 96.2)	35/39	81.9 (64.1 - 97.7)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; mL, milliliters; VL, viral load, ART,

Table 6.5.2 cont: Unconditional UNAIDS 95-95-95 Cascade Among Men Who Have Sex with Men by Location and Age, BBS, Kenya, 2024

	Machakos (N=822)		Mombasa (N=937)		Nairobi (N=743)		Nakuru (N=649)	
	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)
<b>VL&lt;50 copies/mL</b>								
Aware of HIV status	144/165	81.8 (68.4 - 92.3)	177/192	91.1 (85.0 - 96.5)	264/278	91.8 (87.4 - 96.2)	65/77	84.6 (75.3 - 93.9)
On ART	143/165	81.1 (66.1 - 93.0)	172/192	87.1 (80.1 - 92.8)	263/278	91.1 (86.7 - 95.4)	64/77	80.4 (55.6 - 100.0)
Virally suppressed	119/165	66.3 (52.8 - 76.6)	139/192	71.9 (63.5 - 80.3)	208/278	70.3 (63.3 - 77.1)	54/77	67.6 (51.8 - 82.2)
<b>18-34 years</b>								
Aware of HIV status	101/116	84.5 (70.1 - 97.2)	119/131	88.4 (81.4 - 94.2)	194/206	90.2 (84.4 - 95.9)	52/63	82.9 (72.3 - 93.7)
On ART	100/116	83.3 (67.7 - 97.2)	114/131	82.5 (73.9 - 88.7)	194/206	90.2 (84.4 - 95.9)	51/63	77.9 (54.0 - 100.0)
Virally suppressed	84/116	69.1 (55.3 - 80.7)	86/131	63.7 (52.9 - 73.4)	152/206	68.6 (60.2 - 76.7)	41/63	62.1 (45.7 - 77.1)
<b>35 years and above</b>								
Aware of HIV status	43/49	76.2 (55.9 - 91.3)	58/61	96.7 (93.9 - 100.0)	70/72	96.6 (92.3 - 100.0)	13/14	91.7 (75.2 - 100.0)
On ART	43/49	76.2 (56.0 - 91.2)	58/61	96.7 (93.9 - 100.0)	69/72	93.7 (87.2 - 100.0)	13/14	91.8 (75.1 - 100.0)
Virally suppressed	35/49	60.3 (39.1 - 76.3)	53/61	89.0 (81.0 - 98.7)	56/72	75.5 (64.7 - 86.2)	13/14	91.7 (75.6 - 100.0)
<b>VL &lt;200 copies/mL</b>								
Aware of HIV status	144/165	81.8 (68.4 - 92.3)	177/192	91.1 (85.0 - 96.5)	264/278	91.8 (87.4 - 96.2)	65/77	84.6 (75.3 - 93.9)
On ART	143/165	81.1 (66.1 - 93.0)	172/192	87.1 (80.1 - 92.8)	263/278	91.1 (86.7 - 95.4)	64/77	80.4 (55.6 - 100.0)
Virally suppressed	132/165	75.1 (63.5 - 84.0)	156/192	79.0 (71.3 - 85.5)	234/278	79.7 (74.1 - 85.2)	60/77	73.0 (42.7 - 100.0)
<b>18-34 years</b>								
Aware of HIV status	101/116	84.5 (70.1 - 97.2)	119/131	88.4 (81.4 - 94.2)	194/206	90.2 (84.4 - 95.9)	52/63	82.9 (72.3 - 93.7)
On ART	100/116	83.3 (67.7 - 97.2)	114/131	82.5 (73.9 - 88.7)	194/206	90.2 (84.4 - 95.9)	51/63	77.9 (54.0 - 100.0)
Virally suppressed	91/116	75.7 (62.5 - 87.2)	100/131	72.2 (61.8 - 80.3)	175/206	79.8 (72.8 - 86.6)	47/63	68.7 (40.8 - 94.0)
<b>35 years and above</b>								
Aware of HIV status	43/49	76.2 (55.9 - 91.3)	58/61	96.7 (93.9 - 100.0)	70/72	96.6 (92.3 - 100.0)	13/14	91.7 (75.2 - 100.0)
On ART	43/49	76.2 (56.0 - 91.2)	58/61	96.7 (93.9 - 100.0)	69/72	93.7 (87.2 - 100.0)	13/14	91.8 (75.1 - 100.0)
Virally suppressed	41/49	73.8 (54.0 - 89.2)	56/61	93.1 (86.9 - 100.0)	59/72	79.3 (68.8 - 89.6)	13/14	91.7 (75.3 - 100.0)
<b>VL &lt;1000 copies/mL</b>								
Aware of HIV status	144/165	81.8 (68.4 - 92.3)	177/192	91.1 (85.0 - 96.5)	264/278	91.8 (87.4 - 96.2)	65/77	84.6 (75.3 - 93.9)
On ART	143/165	81.1 (66.1 - 93.0)	172/192	87.1 (80.1 - 92.8)	263/278	91.1 (86.7 - 95.4)	64/77	80.4 (55.6 - 100.0)
Virally suppressed	135/165	77.5 (66.3 - 86.3)	162/192	83.1 (76.1 - 89.2)	244/278	83.4 (77.9 - 88.7)	64/77	80.5 (68.6 - 91.2)
<b>18-34 years</b>								
Aware of HIV status	101/116	84.5 (70.1 - 97.2)	119/131	88.4 (81.4 - 94.2)	194/206	90.2 (84.4 - 95.9)	52/63	82.9 (72.3 - 93.7)
On ART	100/116	83.3 (67.7 - 97.2)	114/131	82.5 (73.9 - 88.7)	194/206	90.2 (84.4 - 95.9)	51/63	77.9 (54.0 - 100.0)
Virally suppressed	94/116	79.2 (67.8 - 89.5)	105/131	77.6 (68.6 - 85.2)	180/206	82.6 (75.6 - 89.4)	51/63	77.9 (64.4 - 90.1)
<b>35 years and above</b>								
Aware of HIV status	43/49	76.2 (55.9 - 91.3)	58/61	96.7 (93.9 - 100.0)	70/72	96.6 (92.3 - 100.0)	13/14	91.7 (75.2 - 100.0)
On ART	43/49	76.2 (56.0 - 91.2)	58/61	96.7 (93.9 - 100.0)	69/72	93.7 (87.2 - 100.0)	13/14	91.8 (75.1 - 100.0)
Virally suppressed	41/49	73.8 (54.2 - 89.0)	57/61	94.3 (88.2 - 100.0)	64/72	85.7 (76.2 - 95.0)	13/14	91.7 (75.3 - 100.0)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; mL, milliliters; VL, viral load, ART, antiretroviral

## 6.6: HIV and STI Knowledge and Attitudes

### **HIV:**

Among MSM in Kenya, awareness of HIV prevention was high, with most recognizing that consistent condom use (96.7%) and faithfulness to an uninfected partner (94.9%) reduce HIV risk, and identifying unprotected sex (97.4%) and needle sharing (65.1%) as major transmission routes. Knowledge of prevention methods was strong—97.7% mentioned condoms and 49.3% cited PrEP—though fewer noted abstinence, being faithful, or PEP, and just over half (54.1%) perceived themselves at risk of HIV.

### **STI:**

Most MSM (95.9%) were aware of STIs. In the past year, 38.0% reported STI symptoms, of whom 79.7% sought treatment and 20.2% had a provider-confirmed STI diagnosis. Among affected individuals, 72.8% informed partners, 80.3% abstained from anal sex, and 52.7% used condoms during infection. Overall, these findings reflect high STI/HIV awareness and strong treatment-seeking and partner-notification behaviors among MSM in Kenya.

Table 6.6: HIV Knowledge and Attitudes Among Men Who Have Sex with Men by Location, BBS, Kenya, 2024

	Overall Estimate (N=5242)		Kiambu (N=705)		Kilifi (N=560)		Kisumu (N=826)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Can reduce the risk of getting HIV by using a condom every time<sup>a</sup></b>								
Yes	5066	96.7 (95.4 - 97.9)	687	97.0 (95.2 - 98.8)	534	95.7 (93.9 - 97.5)	801	96.9 (95.3 - 98.4)
No	160	3.3 (2.1 - 4.6)	17	3.0 (1.2 - 4.8)	24	4.3 (2.5 - 6.1)	23	3.1 (1.6 - 4.7)
<b>Can reduce their chance of getting HIV by having just one uninfected sex partner who has no other sex partners<sup>a</sup></b>								
Yes	4948	94.9 (93.0 - 96.8)	654	93.6 (91.6 - 95.7)	527	95.0 (93.0 - 97.0)	765	92.5 (91.0 - 94.2)
No	281	5.1 (3.2 - 7.0)	47	6.4 (4.3 - 8.4)	31	5.0 (3.0 - 7.0)	60	7.4 (5.8 - 9.0)
<b>Routes of HIV transmission<sup>b</sup></b>								
Blood and body fluids	784	15.9 (8.4 - 23.5)	252	33.6 (29.2 - 38.0)	77	17.9 (13.8 - 21.9)	239	30.4 (26.7 - 34.1)
Blood transfusion	2482	44.8 (31.2 - 58.3)	297	40.3 (35.6 - 45.0)	211	33.0 (28.6 - 37.4)	447	52.3 (48.3 - 56.2)
Breast feeding by HIV+ mothers	1035	16.9 (10.7 - 23.2)	76	9.1 (6.8 - 11.4)	76	9.8 (7.2 - 12.3)	149	16.1 (13.3 - 18.9)
During delivery by HIV+ mothers	905	14.5 (10.5 - 18.5)	145	17.8 (14.6 - 21.0)	59	8.9 (6.2 - 11.6)	146	14.8 (12.2 - 17.4)
Sharing of needles	3506	65.1 (58.3 - 71.9)	394	53.7 (49.1 - 58.4)	367	66.9 (62.2 - 71.5)	654	78.5 (75.3 - 81.7)
Unprotected anal sex	2425	42.6 (29.9 - 55.3)	193	29.0 (24.7 - 33.2)	76	13.0 (9.5 - 16.5)	409	44.4 (40.4 - 48.5)
Unprotected sex	5108	97.4 (96.3 - 98.5)	667	94.8 (93.0 - 96.7)	545	97.6 (96.3 - 98.9)	806	97.3 (95.8 - 98.8)
Other	4	0.1 (0.0 - 0.2)	1	0.1 (0.0 - 0.2)	1	0.3 (0.0 - 0.8)	1	0.1 (0.0 - 0.4)
<b>HIV prevention methods<sup>b</sup></b>								
Abstinence	1721	31.8 (21.1 - 42.4)	190	24.2 (20.4 - 27.9)	86	15.5 (11.9 - 19.0)	335	41.9 (38.1 - 45.7)
ART for HIV prevention	35	0.6 (0.1 - 1.0)	22	2.6 (1.4 - 3.8)	2	0.3 (0.0 - 0.7)	9	0.5 (0.1 - 0.9)
Being faithful to one partner	1807	34.6 (23.0 - 46.2)	219	28.0 (24.2 - 31.9)	124	23.2 (18.7 - 27.7)	340	38.2 (34.6 - 41.7)
Circumcision	9	0.3 (0.0 - 0.7)	3	0.6 (0.0 - 1.6)	0	0.0 (0.0 - 0.0)	5	0.6 (0.1 - 1.0)
Condoms	5123	97.7 (96.8 - 98.6)	680	95.0 (92.7 - 97.3)	542	96.2 (94.0 - 98.4)	795	96.4 (95.0 - 97.7)
PEP	1466	25.0 (16.2 - 33.8)	122	15.8 (12.3 - 19.3)	67	13.9 (10.2 - 17.6)	194	21.9 (18.7 - 25.1)
PMTCT	21	1.2 (0.0 - 2.6)	8	1.1 (0.1 - 2.2)	11	3.2 (1.2 - 5.2)	2	0.1 (0.0 - 0.2)
PrEP	2809	49.3 (40.4 - 58.2)	346	44.7 (40.1 - 49.2)	301	46.7 (41.9 - 51.6)	394	44.2 (40.3 - 48.1)
Safe needles	1888	35.2 (26.2 - 44.2)	99	13.9 (10.8 - 16.9)	173	37.0 (32.1 - 41.8)	311	37.2 (33.6 - 40.9)
<b>Feel at risk of being infected with HIV<sup>a</sup></b>								
Yes	2633	54.1 (49.5 - 58.6)	297	47.4 (42.7 - 52.1)	333	58.4 (54.2 - 62.6)	435	52.2 (48.9 - 55.5)
No	2042	45.9 (41.4 - 50.5)	296	52.6 (47.9 - 57.3)	204	41.6 (37.4 - 45.8)	348	47.8 (44.5 - 51.1)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent - Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sum of sample numerator is higher than the sample denominator as multiple responses could be selected

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; ART, antiretroviral therapy; PEP, post-exposure prophylaxis; PMTCT, prevention of mother to child transmission of HIV; PrEP, Pre-exposure prophylaxis

Table 6.6 cont: HIV Knowledge and Attitudes Among Men Who Have Sex with Men by Location, BBS, Kenya, 2024

	Machakos (N=822)		Mombasa (N=937)		Nairobi (N=743)		Nakuru (N=649)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Can reduce the risk of getting HIV by using a condom every time<sup>a</sup></b>								
Yes	768	94.2 (92.4 - 96.0)	920	98.6 (98.0 - 99.2)	725	96.3 (93.7 - 99.0)	631	97.3 (95.9 - 98.7)
No	46	5.8 (4.0 - 7.6)	16	1.4 (0.8 - 2.0)	17	3.6 (1.0 - 6.3)	17	2.7 (1.3 - 4.1)
<b>Can reduce their chance of getting HIV by having just one uninfected sex partner who has no other sex partners<sup>a</sup></b>								
Yes	747	91.6 (90.0 - 93.2)	919	98.0 (97.1 - 99.0)	712	96.3 (95.3 - 97.4)	624	96.7 (95.2 - 98.3)
No	72	8.4 (6.8 - 10.0)	18	1.9 (1.0 - 2.9)	30	3.7 (2.6 - 4.7)	23	3.3 (1.7 - 4.8)
<b>Routes of HIV transmission<sup>b</sup></b>								
Blood and body fluids	110	17.6 (14.3 - 20.9)	70	7.2 (5.5 - 8.9)	7	0.9 (0.1 - 1.7)	29	5.2 (3.2 - 7.2)
Blood transfusion	478	54.6 (50.6 - 58.7)	237	21.8 (19.2 - 24.4)	556	73.8 (69.4 - 78.1)	256	37.7 (33.9 - 41.5)
Breast feeding by HIV+ mothers	209	20.4 (16.9 - 23.9)	89	6.3 (5.2 - 7.5)	321	40.3 (35.4 - 45.2)	115	18.3 (15.2 - 21.5)
During delivery by HIV+ mothers	207	20.6 (16.9 - 24.4)	104	8.0 (6.5 - 9.5)	115	11.5 (8.8 - 14.2)	129	21.0 (17.5 - 24.4)
Sharing of needles	566	65.4 (61.6 - 69.2)	578	56.0 (52.3 - 59.6)	490	63.9 (59.4 - 68.4)	457	70.9 (67.0 - 74.9)
Unprotected anal sex	423	44.5 (40.4 - 48.7)	520	50.9 (47.5 - 54.4)	479	64.5 (59.0 - 70.0)	325	52.3 (48.1 - 56.4)
Unprotected sex	806	97.0 (95.4 - 98.6)	927	99.1 (98.5 - 99.7)	728	98.1 (96.4 - 99.8)	629	96.8 (95.3 - 98.2)
Other	1	0.3 (0.0 - 0.9)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
<b>HIV prevention methods<sup>b</sup></b>								
Abstinence	290	32.2 (27.9 - 36.5)	206	18.1 (15.6 - 20.6)	273	34.3 (29.7 - 38.9)	341	56.5 (52.3 - 60.7)
ART for HIV prevention	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	2	0.1 (0.0 - 0.2)
Being faithful to one partner	244	30.8 (26.6 - 35.0)	183	15.5 (13.2 - 17.9)	356	50.0 (45.0 - 54.9)	341	56.6 (52.6 - 60.6)
Circumcision	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	0.1 (0.0 - 0.1)
Condoms	804	98.1 (97.3 - 98.8)	927	98.6 (97.7 - 99.5)	738	99.3 (98.6 - 99.9)	637	98.3 (97.3 - 99.3)
PEP	321	31.9 (27.4 - 36.3)	147	12.4 (10.4 - 14.4)	456	56.0 (50.8 - 61.3)	159	24.1 (20.6 - 27.6)
PMTCT	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
PrEP	398	40.4 (35.6 - 45.2)	426	40.8 (37.3 - 44.2)	608	78.4 (73.5 - 83.4)	336	50.1 (45.8 - 54.5)
Safe needles	335	38.9 (34.7 - 43.0)	431	40.0 (36.5 - 43.5)	248	32.2 (27.8 - 36.6)	291	47.3 (43.3 - 51.4)
<b>Feel at risk of being infected with HIV<sup>a</sup></b>								
Yes	342	46.2 (42.3 - 50.2)	529	60.6 (57.3 - 64.0)	370	62.4 (57.7 - 67.0)	327	51.2 (47.5 - 54.9)
No	368	53.8 (49.8 - 57.7)	311	39.4 (36.0 - 42.7)	231	37.6 (33.0 - 42.3)	284	48.8 (45.1 - 52.5)
All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.								
<sup>a</sup> Non-responses and missing data were excluded from the analysis.								
<sup>b</sup> Sum of sample numerator is higher than the sample denominator as multiple responses could be selected								
Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; ART, antiretroviral therapy; PEP, post-exposure prophylaxis; PMTCT, prevention of mother to child transmission of HIV; PrEP, Pre-exposure prophylaxis								

Table 6.6B: Sexually Transmitted Infection Knowledge and Attitudes Among Men Who Have Sex with Men by Location, BBS, Kenya, 2024

	Overall Estimate (N=5242)		Kiambu (N=705)		Kilifi (N=560)		Kisumu (N=826)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Heard of diseases that can be transmitted sexually</b>								
Yes	5025	95.9 (94.0 - 97.8)	655	91.9 (88.1 - 95.7)	538	95.9 (94.0 - 97.9)	788	95.0 (93.4 - 96.7)
No	217	4.1 (2.2 - 6.0)	50	8.1 (4.3 - 11.9)	22	4.1 (2.1 - 6.0)	38	5.0 (3.3 - 6.6)
<b>Had symptoms of STI (abnormal discharge from penis/</b>								
Yes	2055	38.0 (33.2 - 42.8)	315	41.8 (38.0 - 45.6)	246	42.3 (38.5 - 46.2)	351	43.7 (40.7 - 46.7)
No	3171	62.0 (57.2 - 66.8)	389	58.2 (54.4 - 62.0)	313	57.7 (53.8 - 61.5)	474	56.3 (53.3 - 59.3)
<b>Sought treatment for any of these symptoms<sup>a,b</sup></b>								
Yes	1179	79.7 (71.8 - 87.6)	176	89.0 (81.3 - 96.6)	139	72.0 (64.9 - 79.2)	182	84.4 (77.3 - 91.4)
No	287	20.3 (12.4 - 28.2)	24	11.0 (3.4 - 18.7)	54	28.0 (20.9 - 35.1)	42	15.6 (8.6 - 22.7)
<b>Told by health provider had STI in the last 12 months<sup>a</sup></b>								
Yes	1123	20.2 (16.7 - 23.8)	174	21.8 (18.0 - 25.6)	128	22.1 (17.9 - 26.4)	169	20.5 (15.8 - 25.2)
No	4105	79.8 (76.2 - 83.3)	531	78.2 (74.4 - 82.0)	426	77.9 (73.6 - 82.1)	656	79.5 (74.8 - 84.2)
<b>Informed sexual partner last time had an STI<sup>a,b</sup></b>								
Yes	811	72.8 (64.9 - 80.7)	125	66.5 (58.7 - 74.3)	101	75.1 (66.8 - 83.4)	95	53.0 (45.4 - 60.6)
No	310	27.2 (19.3 - 35.1)	49	33.5 (25.7 - 41.3)	27	24.9 (16.6 - 33.2)	74	47.0 (39.4 - 54.6)
<b>Stopped having anal sex during that last time had STI<sup>a</sup></b>								
Yes	926	80.3 (63.8 - 96.8)	156	89.2 (79.3 - 99.2)	101	80.5 (71.9 - 89.0)	90	42.3 (35.9 - 48.6)
No	197	19.7 (3.2 - 36.2)	18	10.8 (0.8 - 20.7)	27	19.5 (11.0 - 28.1)	79	57.7 (51.4 - 64.1)
<b>Used condoms last time had STI<sup>a,b</sup></b>								
Yes	119	52.7 (39.9 - 65.5)	12	54.3 (33.8 - 74.8)	19	64.8 (47.2 - 82.5)	52	64.3 (54.2 - 74.3)
No	76	47.3 (34.5 - 60.1)	6	45.7 (25.2 - 66.2)	8	35.2 (17.6 - 52.8)	26	35.7 (25.7 - 45.8)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent - Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sample denominator is based on the previous question

Abbreviations: N, sample denominator; n, sample numerator; CI, confidence interval; HPV, humanpapillomavirus, STI, sexually transmitted infections

Table 6.6B cont: Sexually Transmitted Infection Knowledge and Attitudes Among Men Who Have Sex with Men by Location, BBS, Kenya, 2024

	Machakos (N=822)		Mombasa (N=937)		Nairobi (N=743)		Nakuru (N=649)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Heard of diseases that can be transmitted sexually</b>								
Yes	786	95.6 (94.2 - 97.1)	886	93.2 (91.2 - 95.1)	728	98.3 (97.3 - 99.3)	644	99.4 (98.9 - 99.9)
No	36	4.4 (2.9 - 5.8)	51	6.8 (4.9 - 8.8)	15	1.7 (0.7 - 2.7)	5	0.6 (0.1 - 1.1)
<b>Had symptoms of STI (abnormal discharge from penis)</b>								
Yes	259	30.1 (26.5 - 33.6)	405	43.7 (40.9 - 46.5)	287	36.8 (33.0 - 40.5)	192	27.1 (22.7 - 31.5)
No	560	70.0 (66.3 - 73.5)	527	56.3 (53.5 - 59.1)	453	63.2 (59.5 - 67.0)	455	72.9 (68.5 - 77.3)
<b>Sought treatment for any of these symptoms<sup>a,b</sup></b>								
Yes	142	70.9 (64.3 - 77.6)	197	65.3 (59.5 - 71.1)	222	94.2 (83.6 - 100.0)	121	85.3 (76.2 - 94.3)
No	41	29.1 (22.4 - 35.7)	89	34.7 (28.9 - 40.5)	16	5.8 (0.0 - 16.4)	21	14.7 (5.7 - 23.8)
<b>Told by health provider had STI in the last 12 months</b>								
Yes	129	13.4 (9.5 - 17.3)	169	16.9 (13.1 - 20.7)	225	29.6 (25.1 - 34.2)	129	18.0 (15.0 - 21.0)
No	692	86.6 (82.7 - 90.5)	762	83.1 (79.3 - 86.9)	518	70.4 (65.8 - 74.9)	520	82.0 (79.0 - 85.0)
<b>Informed sexual partner last time had an STI<sup>a,b</sup></b>								
Yes	100	80.0 (70.8 - 89.3)	126	80.7 (71.9 - 89.5)	158	72.2 (65.2 - 79.3)	106	83.6 (73.8 - 93.4)
No	29	19.9 (10.7 - 29.2)	42	19.3 (10.5 - 28.1)	67	27.8 (20.7 - 34.8)	22	16.4 (6.6 - 26.2)
<b>Stopped having anal sex during that last time had</b>								
Yes	99	74.5 (66.1 - 83.0)	154	92.5 (82.8 - 100.0)	211	92.5 (81.7 - 100.0)	115	92.2 (81.8 - 100.0)
No	30	25.5 (17.0 - 33.9)	15	7.5 (0.0 - 17.2)	14	7.5 (0.0 - 18.3)	14	7.8 (0.0 - 18.2)
<b>Used condoms last time had STI<sup>a,b</sup></b>								
Yes	18	58.6 (41.4 - 75.9)	4	22.9 (7.5 - 38.4)	7	49.1 (17.2 - 81.0)	7	53.0 (27.3 - 78.6)
No	11	41.4 (24.1 - 58.6)	11	77.1 (61.6 - 92.5)	7	50.9 (19.0 - 82.8)	7	47.0 (21.4 - 72.7)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

## 6.7: STI, hepatitis B, and hepatitis C Biomarkers

Among MSM in Kenya, active hepatitis B prevalence was 5.1%, ranging from 1.0% in Kisumu to 15.4% in Kilifi, while hepatitis C was rare (0.3%). Active syphilis affected 4.8% of participants (2.2% in Mombasa to 11.2% in Nairobi), chlamydia 8.9% (3.7%–16.0%), and gonorrhoea 5.6% (1.2%–13.2%). These findings indicate a notable burden of bacterial STIs and hepatitis B among MSM, with hepatitis C being uncommon.

Table 6.7: Prevalence of STI, Hepatitis B and Hepatitis C Among Men Who Have Sex with Men by Location, BBS, Kenya, 2024

	Overall Estimate		Kiambu		Kisumu		Kilifi	
	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)
Active hepatitis B	91/1357	5.1 (3.4 - 6.7)	16/281	2.3 (1.0 - 4.2)	11/97	15.4 (2.4 - 36.0)	5/128	1.0 (0.2 - 2.3)
Active hepatitis C	7/642	0.3 (0.0 - 0.7)	1/290	0.1 (0.0 - 0.2)	3/129	0.5 (0.0 - 1.2)	0/153	0.0 (0.0 - 0.0)
Active syphilis	260/5093	4.8 (3.1 - 6.6)	54/697	7.3 (5.0 - 9.9)	14/555	2.5 (1.1 - 4.1)	21/820	3.5 (1.8 - 5.2)
Chlamydia	291/3236	8.9 (5.8 - 11.9)	69/468	16.0 (12.2 - 20.7)	16/345	5.1 (2.3 - 8.3)	20/507	3.7 (2.1 - 5.9)
Gonorrhoea	194/3236	5.6 (3.1 - 8.2)	59/468	13.2 (9.3 - 17.1)	9/345	2.7 (0.9 - 5.3)	7/507	1.2 (0.3 - 2.2)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent - Driven Sampling package in R, applying Gile's Sequential Sampling estimator  
Abbreviations: N, sample denominator; n, sample numerator; CI, confidence interval; STI, sexually transmitted infections

Table 6.7 cont: Prevalence of STI, Hepatitis B and Hepatitis C Among Men Who Have Sex with Men by Location, BBS, Kenya, 2024

	Machakos		Mombasa		Nairobi		Nakuru	
	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)
Active hepatitis B	20/302	4.2 (1.8 - 8.3)	8/106	7.9 (0.5 - 23.4)	19/210	2.3 (0.8 - 5.0)	12/233	2.6 (0.6 - 5.9)
Active hepatitis C	0/307	0.0 (0.0 - 0.0)	0/151	0.0 (0.0 - 0.0)	0/239	0.0 (0.0 - 0.0)	3/223	0.6 (0.0 - 1.6)
Active syphilis	88/718	11.2 (8.7 - 13.9)	23/604	4.2 (2.3 - 6.5)	38/769	3.4 (2.3 - 4.8)	22/930	2.2 (1.2 - 3.4)
Chlamydia	68/554	12.6 (9.3 - 16.2)	39/380	10.6 (6.9 - 14.6)	29/421	5.9 (3.7 - 8.4)	50/561	8.5 (6.0 - 11.5)
Gonorrhoea	47/554	8.4 (5.6 - 11.1)	9/380	1.5 (0.6 - 2.6)	30/421	7.2 (4.4 - 10.4)	33/561	5.5 (3.5 - 7.7)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent - Driven Sampling package in R, applying Gile's Sequential Sampling estimator  
Abbreviations: N, sample denominator; n, sample numerator; CI, confidence interval; STI, sexually transmitted infections

## 6.8: Sexual Behavior

In Kenya, MSM typically begin same-sex activity around age 19, usually with a friend. In the past six months, they report about 1–2 main partners and 2–3 casual partners, with anal sex predominant and many men practicing role versatility. Condom use is highest with casual and paying partners but remains inconsistent, especially with main partners. Partners are met both offline (bars, streets) and online (WhatsApp, Facebook, dating apps in urban areas). Among those engaged in transactional sex, partner counts average two over six months, anal sex is frequent, and condom use is high but not universal; typical payments are KSh 1,500–2,000 for anal sex and KSh 1,000–1,500 for oral sex. Over half reported sex with women in the past year, and male circumcision coverage is near universal.

Table 6.8.1: Sexual Behavior Characteristics Among Men Who Have Sex with Men by Location and Partner Type, BBS, Kenya, 2024

	Overall Estimate (N=5242)		Kiambu (N=705)		Kiilifi (N=560)		Kisumu (N=826)		Machakos (N=822)		Mombasa (N=937)		Nairobi (N=743)		Nakuru (N=649)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Median age first time having sex with a man, years (IQR)<sup>a</sup></b>	5226	19 (17 - 21)	705	19 (17 - 20)	553	19 (17 - 22)	823	19 (17 - 21)	822	20 (17 - 23)	934	19 (17 - 24)	740	19 (17 - 21)	649	19 (17 - 21)
<b>Relationship to man you had sex with for the first time<sup>a</sup></b>																
Boss/supervisor/police officer	78	1.4 (0.6 - 2.3)	3	0.2 (0.0 - 0.5)	21	3.4 (1.6 - 5.2)	10	0.9 (0.3 - 1.5)	8	1.1 (0.2 - 2.0)	24	2.8 (1.6 - 4.0)	5	0.7 (0.0 - 1.3)	7	1.1 (0.4 - 1.8)
Boyfriend/partner/spouse	474	8.8 (5.1 - 12.5)	112	15.1 (11.0 - 19.2)	71	11.1 (8.1 - 14.0)	44	5.7 (3.8 - 7.7)	55	5.4 (3.9 - 6.8)	26	2.4 (1.6 - 3.1)	117	14.9 (11.7 - 19.0)	49	6.9 (4.9 - 9.0)
Co-worker	75	1.7 (0.5 - 2.9)	4	0.6 (0.1 - 1.2)	6	1.5 (0.2 - 2.9)	8	1.0 (0.3 - 1.8)	29	5.4 (0.0 - 12.2)	10	1.0 (0.4 - 1.5)	13	1.5 (0.5 - 2.5)	5	0.9 (0.0 - 1.8)
Friend	3220	61.1 (58.1 - 64.1)	416	61.2 (55.7 - 66.7)	292	53.4 (48.2 - 58.6)	505	61.9 (57.9 - 65.9)	552	65.5 (58.5 - 72.5)	600	63.8 (60.3 - 67.4)	434	58.9 (53.6 - 64.2)	421	63.0 (59.0 - 67.0)
Neighbor	314	6.1 (3.1 - 9.1)	13	1.1 (0.5 - 1.8)	72	12.7 (9.3 - 16.1)	53	5.9 (4.2 - 7.6)	32	3.7 (2.4 - 5.0)	79	8.5 (6.4 - 10.6)	22	2.5 (1.3 - 3.7)	43	8.1 (5.5 - 10.9)
Prison inmate	41	0.8 (0.2 - 1.4)	0	0.0 (0.0 - 0.0)	1	0.1 (0.0 - 0.3)	11	1.6 (0.4 - 2.7)	11	1.7 (0.0 - 5.2)	13	1.7 (0.5 - 2.8)	0	0.0 (0.0 - 0.0)	5	0.8 (0.1 - 1.4)
Religious leader/member	12	0.2 (0.08 - 0.3)	3	0.3 (0.0 - 0.7)	0	0.0 (0.0 - 0.0)	2	0.4 (0.0 - 1.1)	1	0.06 (0.0 - 0.1)	1	0.07 (0.0 - 0.2)	3	0.3 (0.0 - 0.7)	2	0.2 (0.0 - 0.5)
Relative	232	4.8 (3.3 - 6.2)	27	5.4 (1.2 - 9.5)	26	4.8 (2.6 - 7.1)	21	2.5 (1.3 - 3.7)	31	3.6 (2.3 - 4.8)	52	5.3 (3.9 - 6.7)	30	3.4 (0.9 - 5.8)	45	8.7 (5.9 - 11.6)
Stranger	430	8.1 (5.9 - 10.4)	79	9.9 (6.9 - 12.9)	55	10.9 (7.2 - 14.6)	58	7.0 (5.0 - 9.0)	54	6.7 (1.9 - 11.5)	109	12.6 (10.0 - 15.1)	47	5.8 (3.6 - 7.9)	28	4.2 (2.6 - 5.8)
Teacher	104	1.9 (1.0 - 2.8)	22	2.6 (0.7 - 4.6)	8	1.0 (0.3 - 1.7)	6	0.6 (0.07 - 1.1)	13	1.3 (0.6 - 1.9)	15	1.2 (0.7 - 1.7)	22	4.0 (1.9 - 6.1)	18	2.5 (1.3 - 3.8)
Other	15	0.3 (0.08 - 0.5)	2	0.3 (0.0 - 0.7)	2	0.3 (0.0 - 0.6)	2	0.2 (0.0 - 0.5)	4	1.0 (0.0 - 2.1)	4	0.3 (0.05 - 0.6)	0	0.0 (0.0 - 0.0)	1	0.05 (0.01 - 0.09)
<b>Median number of main male sex partners in the last 6 months (IQR)<sup>a</sup></b>	4770	2 (1 - 3)	591	1 (1 - 2)	513	2 (1 - 3)	795	2 (1 - 2)	736	1 (1 - 2)	864	2 (1 - 3)	678	2 (1 - 3)	593	1 (1 - 2)
<b>Type of sex at last time with main male partner<sup>a,b</sup></b>																
Anal	2897	63.1 (54.4 - 71.9)	377	65.9 (60.8 - 71.1)	204	44.3 (38.9 - 49.6)	587	73.7 (70.1 - 77.4)	543	77.9 (75.0 - 80.7)	413	51.5 (47.4 - 55.6)	422	66.4 (62.0 - 70.9)	351	62.0 (57.7 - 66.2)
Oral	177	4.1 (2.5 - 5.7)	40	7.9 (5.5 - 10.3)	12	2.3 (1.0 - 3.6)	40	6.1 (4.0 - 8.3)	23	2.9 (1.7 - 4.1)	23	3.1 (1.5 - 4.7)	12	2.1 (0.6 - 3.6)	27	4.5 (2.8 - 6.2)
Both	1706	32.8 (23.3 - 42.2)	172	26.2 (21.2 - 31.1)	304	53.4 (48.3 - 58.6)	169	20.1 (17.0 - 23.3)	170	19.2 (16.3 - 22.2)	432	45.3 (41.3 - 49.4)	244	31.5 (27.1 - 35.9)	215	33.5 (29.4 - 37.6)
<b>Type of anal sex at last time with main male partner<sup>a,b</sup></b>																
Insertive	2460	53.2 (44.3 - 62.2)	198	35.0 (29.7 - 40.2)	313	60.0 (54.3 - 65.7)	471	62.6 (58.2 - 66.9)	440	65.7 (61.7 - 69.7)	480	59.9 (55.7 - 64.1)	257	39.3 (34.0 - 44.6)	301	50.1 (45.2 - 54.9)
Receptive	1231	28.8 (23.1 - 34.4)	207	40.3 (34.8 - 45.8)	111	23.2 (18.2 - 28.1)	167	20.5 (17.0 - 24.1)	145	20.5 (17.0 - 24.1)	226	25.2 (21.8 - 28.6)	223	35.2 (30.3 - 40.0)	152	33.9 (28.8 - 39.0)
Both	910	18.1 (14.4 - 21.7)	143	24.7 (20.4 - 29.1)	84	16.8 (12.8 - 20.9)	118	14.4 (11.8 - 17.0)	128	13.8 (11.4 - 16.1)	138	14.9 (11.6 - 18.2)	186	25.6 (21.2 - 29.9)	113	16.0 (12.6 - 19.4)
<b>Used condom with main male partner in the last sexual encounter<sup>a</sup></b>																
Yes	2703	58.4 (50.6 - 66.3)	269	48.6 (43.2 - 53.8)	304	61.4 (56.3 - 66.5)	552	73.6 (69.5 - 77.7)	384	53.1 (48.8 - 57.5)	419	49.8 (45.6 - 54.0)	469	71.8 (67.4 - 76.2)	306	50.5 (45.8 - 55.2)
No	1895	41.6 (33.7 - 49.5)	280	51.4 (46.2 - 56.7)	204	38.6 (33.5 - 43.6)	203	26.4 (22.5 - 30.4)	326	46.9 (42.5 - 51.1)	426	50.2 (45.9 - 54.5)	196	28.2 (23.8 - 32.7)	260	49.5 (44.8 - 54.2)
<b>Frequency of condom use with main male partner in the last 6 months<sup>a</sup></b>																
Always	1597	33.2 (27.1 - 39.3)	155	27.4 (22.9 - 32.0)	176	34.7 (29.6 - 39.7)	375	46.5 (42.0 - 51.1)	253	34.1 (30.1 - 38.0)	215	24.4 (20.7 - 28.1)	261	40.2 (34.7 - 45.7)	162	25.0 (21.4 - 28.5)
Most of the time	477	10.0 (5.9 - 14.1)	69	10.2 (7.5 - 13.0)	41	8.7 (5.7 - 11.7)	104	12.8 (10.2 - 15.4)	51	6.9 (4.6 - 9.1)	41	5.6 (3.3 - 7.9)	39	4.9 (2.2 - 7.5)	132	21.2 (17.8 - 24.5)
Sometimes	1335	27.1 (21.1 - 33.2)	124	20.1 (16.2 - 24.0)	153	30.4 (25.6 - 35.3)	171	22.1 (18.3 - 25.9)	179	24.2 (20.9 - 27.6)	362	40.4 (36.6 - 44.2)	236	34.2 (29.3 - 39.2)	110	18.3 (14.8 - 21.8)
Rarely	390	8.8 (5.7 - 12.0)	75	14.5 (9.8 - 19.2)	37	6.4 (3.8 - 9.1)	50	5.9 (4.4 - 7.4)	47	5.9 (4.4 - 7.4)	49	5.7 (3.9 - 9.6)	49	6.7 (3.9 - 9.5)	75	15.5 (11.9 - 19.1)
Never	983	20.8 (16.3 - 25.3)	168	27.7 (22.5 - 33.0)	113	19.8 (16.0 - 23.6)	96	13.1 (9.9 - 16.3)	206	28.9 (25.1 - 32.7)	193	22.1 (18.8 - 25.4)	93	14.0 (10.4 - 17.6)	114	20.0 (16.4 - 23.7)
<b>Median number of casual male sex partners in the last 6 months (IQR)<sup>a</sup></b>	3649	2 (2 - 4)	541	2 (1 - 4)	359	2 (1 - 3)	556	2 (1 - 3)	578	2 (1 - 3)	653	3 (2 - 6)	551	3 (2 - 5)	411	2 (1 - 3)
<b>Type of sex at last time with casual male partner<sup>a,b</sup></b>																
Anal	2249	63.0 (55.4 - 70.6)	362	68.2 (62.9 - 73.5)	155	50.0 (43.8 - 56.2)	404	72.6 (68.1 - 77.2)	425	75.2 (71.5 - 78.9)	321	49.1 (44.4 - 53.9)	339	64.4 (59.4 - 69.3)	243	61.1 (55.8 - 66.4)
Oral	185	5.6 (4.2 - 7.0)	38	8.3 (5.2 - 11.4)	11	3.8 (1.2 - 6.3)	35	8.2 (4.5 - 11.8)	24	4.7 (2.6 - 6.8)	36	5.3 (3.1 - 7.5)	18	3.9 (1.8 - 5.9)	23	5.5 (3.2 - 7.7)
Both	1240	31.4 (23.0 - 39.8)	141	23.5 (19.0 - 28.0)	202	46.2 (40.4 - 52.0)	117	19.2 (15.3 - 23.1)	129	20.1 (16.8 - 23.5)	312	45.6 (41.1 - 50.0)	194	31.8 (27.0 - 36.5)	145	33.4 (28.4 - 38.4)
<b>Type of anal sex at last time with casual male partner<sup>a,b</sup></b>																
Insertive	1812	53.1 (45.1 - 61.1)	200	41.7 (36.3 - 47.1)	217	60.5 (54.1 - 67.0)	309	58.7 (54.0 - 63.3)	337	65.5 (60.7 - 70.3)	330	54.0 (49.2 - 58.8)	202	35.3 (30.1 - 40.6)	217	55.8 (50.0 - 61.5)
Receptive	954	27.7 (23.7 - 31.6)	173	34.6 (29.1 - 40.1)	90	26.2 (20.1 - 32.3)	122	26.0 (21.3 - 30.6)	115	19.0 (15.3 - 22.7)	198	30.5 (26.3 - 34.7)	167	32.7 (27.5 - 37.8)	89	24.4 (19.4 - 29.4)
Both	719	19.3 (14.4 - 24.3)	129	23.7 (19.5 - 27.9)	49	13.3 (8.7 - 17.9)	90	15.3 (12.4 - 18.3)	102	15.5 (12.0 - 19.0)	105	15.5 (12.1 - 18.8)	162	32.0 (26.9 - 37.1)	82	19.9 (15.6 - 24.1)
<b>Used condom with casual partner in the last sexual encounter<sup>a</sup></b>																
Yes	2608	75.6 (70.2 - 81.0)	346	70.6 (65.8 - 75.4)	253	71.8 (66.6 - 76.9)	426	82.1 (78.6 - 85.7)	421	76.1 (72.4 - 79.9)	415	66.6 (62.5 - 70.8)	457	87.7 (84.5 - 90.9)	290	73.7 (68.6 - 78.7)
No	874	24.5 (19.1 - 29.8)	147	29.4 (24.6 - 34.2)	103	28.2 (23.0 - 33.5)	95	17.9 (14.3 - 21.4)	131	23.9 (20.2 - 27.6)	216	33.4 (29.1 - 37.6)	74	12.3 (9.0 - 15.5)	98	26.3 (21.4 - 31.3)
<b>Frequency of condom use with casual male partner in the last 6 months</b>																
Always	1800	48.6 (44.8 - 52.3)	252	45.9 (40.7 - 51.1)	160	42.0 (35.7 - 48.2)	323	55.8 (51.2 - 60.4)	313	53.9 (49.6 - 58.2)	294	45.3 (40.7 - 49.9)	256	46.4 (41.2 - 51.6)	202	50.9 (45.3 - 56.5)
Most of the time	348	10.0 (7.0 - 13.1)	65	12.4 (8.7 - 16.0)	31	8.7 (4.8 - 12.5)	67	12.8 (9.6 - 15.9)	42	7.8 (5.5 - 10.2)	36	6.4 (4.2 - 8.6)	34	5.4 (2.9 - 8.0)	73	17.0 (13.2 - 20.8)
Sometimes	995	26.2 (18.7 - 33.7)	106	19.3 (15.5 - 23.1)	117	32.6 (26.6 - 38.6)	90	16.6 (13.1 - 20.0)	138	23.3 (19.5 - 27.2)	256	36.4 (32.3 - 40.5)	215	40.2 (35.1 - 45.1)	73	15.0 (11.6 - 18.3)
Rarely	205	5.5 (4.4 - 6.6)	44	7.4 (4.4 - 10.3)	19	5.8 (2.9 - 8.7)	40	6.6 (4.6 - 8.7)	24	4.3 (2.3 - 6.2)	26	4.4 (2.2 - 4.7)	27	6.9 (3.9 - 9.9)	27	6.9 (3.9 - 9.9)
Never	325	9.6 (7.0 - 12.2)	74	15.0 (10.2 - 19.7)	41	11.0 (7.6 - 14.4)	36	8.2 (4.7 - 11.7)	60	10.7 (8.0 - 13.3)	56	8.4 (6.1 - 10.8)	22	3.6 (2.0 - 5.2)	36	10.2 (6.6 - 13.7)
<b>Places meet/pick up casual male partners<sup>c</sup></b>																
Bar/restaurant with/without lodging	2355	67.3 (54.9 - 79.8)	334	85.8 (81.7 - 90.0)	150	40.0 (34.2 - 45.8)	383	65.1 (60.2 - 70.0)	410	72.9 (68.3 - 77.6)	366	49.9 (45.4 - 54.5)	400	80.7 (75.7 - 85.8)	312	76.5 (71.8 - 81.1)
Brothel/massage parlour/saloon/barbershop	124	4.1 (1.7 - 6.4)	7	1.8 (0.4 - 3.2)	25	5.7 (3.4 - 8.1)	16	2.4 (1.1 - 3.6)	14	2.4 (1.1 - 3.6)	5	0.3 (0.2 - 0.5)	27	6.1 (2.6 - 9.7)	26	9.7 (5.9 - 13.5)
Call	34	1.1 (0.1 - 2.0)	0	0.0 (0.0 - 0.0)	3	0.8 (0.0 - 1.9)	8	3.9 (1.8 - 6.0)	5	1.5 (0.3 - 2.7)	3	0.4 (0.0 - 0.7)	2	0.4 (0.0 - 0.9)	3	0.7 (0.0 - 1.3)
Highways	30	0.8 (0.3 - 1.2)	2	0.3 (0.0 - 0.7)	7	1.8 (0.0 - 3.6)	18	3.0 (0.3 - 1.7)	7	1.0 (0.3 - 1.7)	1	0.2 (0.0 - 0.4)	2	0.1 (0.0 - 0.3)	3	1.1 (0.0 - 3.1)
Mangweni/Changaa den	99	3.2 (0.6 - 5.8)	9	3.2 (0.8 - 5.5)	44	10.9 (7.3 - 14.5)	7	1.3 (0.0 - 2.6)	1	0.06 (0.0 - 0.1)	20	2.7 (1.6 - 3.8)	15	2.8 (0.6 - 4.9)	3	1.3 (0.0 - 3.1)
Networking																

Table 6.8.1 cont: Sexual Behavior Characteristics Among Men Who Have Sex with Men by Location and Partner Type, BBS, Kenya, 2024

	Overall Estimate(N=5242)		Kiambu (N=705)		Kilifi (N=560)		Kisumu (N=826)		Machakos (N=822)		Mombasa (N=937)		Nairobi (N=743)		Nakuru (N=649)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Median number of male partners that have given you money/goods/services in exchange for sex in the last 6 months (IQR)</b>	1520	2 (1 - 3)	123	2 (1 - 3)	117	2 (1 - 3)	265	2 (1 - 3)	383	2 (1 - 3)	258	2 (1 - 3)	243	2 (1 - 3)	131	2 (1 - 2)
<b>Type of sex at last time with paying partner</b>																
Anal	1670	66.9 (58.8 - 74.9)	200	71.3 (64.6 - 77.8)	150	51.1 (44.2 - 58.1)	282	75.6 (70.5 - 80.5)	280	79.5 (75.4 - 83.6)	324	55.0 (50.5 - 59.6)	319	73.0 (68.4 - 77.5)	115	62.0 (55.4 - 68.6)
Oral	112	5.2 (3.0 - 7.4)	24	8.7 (4.7 - 12.8)	6	2.5 (0.4 - 4.7)	24	7.9 (4.4 - 11.3)	12	3.0 (1.4 - 4.6)	24	4.9 (2.8 - 7.0)	7	1.6 (0.4 - 2.9)	15	8.5 (4.2 - 12.7)
Both	842	28.0 (19.4 - 36.5)	54	20.0 (14.2 - 25.9)	175	46.3 (39.5 - 53.2)	74	16.6 (12.7 - 20.5)	78	17.5 (13.7 - 21.3)	255	40.1 (35.6 - 44.6)	138	25.4 (21.0 - 29.9)	68	29.5 (23.3 - 35.7)
<b>Type of anal sex at last time with paying partner<sup>a,b</sup></b>																
Insertive	1093	44.8 (35.7 - 53.8)	67	27.5 (20.8 - 34.4)	184	58.9 (52.2 - 65.5)	179	48.6 (42.5 - 54.7)	147	44.5 (38.5 - 50.5)	292	52.0 (46.9 - 57.1)	136	28.8 (23.8 - 33.9)	88	53.2 (45.1 - 61.1)
Receptive	941	38.5 (30.5 - 46.5)	144	56.6 (49.2 - 64.0)	94	26.7 (21.0 - 32.4)	112	34.9 (28.9 - 40.8)	144	41.5 (35.7 - 47.3)	191	32.4 (28.0 - 36.8)	200	48.1 (42.5 - 53.6)	56	29.2 (22.6 - 35.9)
Both	477	16.8 (14.4 - 19.2)	43	15.9 (11.2 - 20.5)	47	14.4 (9.6 - 19.2)	65	16.5 (12.5 - 20.5)	67	14.0 (10.4 - 17.6)	95	15.6 (12.3 - 18.9)	121	23.1 (17.7 - 27.6)	39	17.7 (12.4 - 22.9)
<b>Used condom with paying partner in the last sexual encounter</b>																
Yes	1866	74.8 (69.5 - 80.1)	196	76.8 (70.9 - 82.8)	220	69.3 (63.3 - 75.3)	288	81.1 (76.4 - 85.9)	253	68.4 (62.8 - 74.1)	383	65.1 (60.5 - 69.6)	386	83.7 (79.6 - 87.8)	140	78.4 (72.6 - 84.2)
No	642	25.3 (20.0 - 30.6)	58	23.2 (17.2 - 29.1)	104	30.7 (25.0 - 36.4)	68	18.9 (14.2 - 23.5)	103	31.6 (26.1 - 37.0)	195	34.9 (30.3 - 39.6)	71	16.3 (11.9 - 20.7)	43	21.6 (15.7 - 27.5)
<b>Frequency of condom use with a paying partner in the last 6 months</b>																
Always	1198	45.4 (41.4 - 49.4)	151	52.2 (45.3 - 59.1)	133	42.8 (36.1 - 49.5)	210	52.9 (47.2 - 58.6)	174	47.4 (41.6 - 53.1)	245	40.9 (36.7 - 45.1)	202	41.6 (36.4 - 46.9)	83	39.6 (33.2 - 46.2)
Most of the time	226	9.9 (4.8 - 15.0)	24	7.4 (4.5 - 10.3)	29	7.8 (4.5 - 11.1)	57	16.1 (11.8 - 20.3)	32	8.5 (5.6 - 11.3)	23	3.8 (2.1 - 5.5)	22	3.6 (1.7 - 5.5)	39	22.9 (16.6 - 29.1)
Sometimes	823	29.4 (22.2 - 36.6)	57	22.3 (16.6 - 28.0)	104	31.0 (25.2 - 36.8)	61	17.9 (13.2 - 22.5)	102	25.6 (21.0 - 30.2)	256	40.6 (36.3 - 44.8)	196	43.8 (38.2 - 49.4)	47	24.0 (18.0 - 30.0)
Rarely	141	5.2 (4.2 - 6.2)	13	3.8 (1.7 - 5.8)	19	4.4 (2.1 - 6.7)	29	7.4 (4.4 - 10.4)	19	4.5 (2.3 - 6.8)	25	4.8 (2.8 - 6.7)	18	5.0 (2.6 - 7.4)	18	7.9 (4.0 - 11.8)
Never	238	9.9 (6.8 - 13.0)	33	14.3 (8.8 - 19.8)	46	14.0 (9.7 - 18.3)	24	5.7 (3.0 - 8.4)	43	14.0 (9.5 - 18.6)	54	10.0 (7.0 - 12.9)	27	6.0 (3.2 - 8.8)	11	5.5 (2.6 - 8.5)
<b>Median number of male partners you given money/goods/services in exchange for sex in the last 6 months</b>	2608	2 (1 - 4)	277	2 (1 - 4)	320	2 (1 - 3)	381	2 (1 - 3)	370	2 (1 - 3)	597	3 (2 - 5)	465	2 (1 - 4)	198	2 (1 - 3)
<b>Type of sex at last time paid for sex with male partner<sup>b</sup></b>																
Anal	1030	67.9 (57.7 - 78.0)	95	76.6 (66.7 - 86.6)	52	48.4 (38.6 - 58.2)	198	76.3 (70.5 - 82.0)	308	84.8 (81.3 - 88.3)	128	50.8 (44.1 - 57.6)	165	71.2 (64.6 - 77.4)	84	66.1 (57.8 - 74.4)
Oral	52	4.7 (2.0 - 7.4)	7	9.6 (2.0 - 17.2)	5	6.8 (1.5 - 12.0)	17	8.2 (3.8 - 12.6)	6	0.9 (0.3 - 1.5)	8	2.5 (0.8 - 4.2)	1	0.4 (0.0 - 1.1)	8	5.2 (2.2 - 8.2)
Both	440	27.5 (17.1 - 37.8)	20	13.8 (6.9 - 20.7)	63	44.8 (35.3 - 54.4)	49	15.5 (11.0 - 20.0)	68	14.2 (10.8 - 17.6)	124	46.7 (39.8 - 53.5)	77	28.4 (22.4 - 34.7)	39	28.7 (21.0 - 36.4)
<b>Type of anal sex at last time paid for sex with male partner<sup>b</sup></b>																
Insertive	1009	68.2 (61.2 - 75.1)	83	74.2 (65.1 - 83.1)	68	60.2 (49.2 - 71.0)	171	65.5 (59.0 - 72.0)	303	84.5 (80.7 - 88.3)	156	62.5 (55.9 - 69.1)	140	58.7 (51.2 - 66.1)	88	71.1 (62.1 - 80.0)
Receptive	214	16.0 (12.2 - 19.9)	16	13.5 (5.5 - 21.7)	21	17.7 (9.1 - 26.4)	41	21.6 (15.4 - 27.7)	27	7.3 (4.0 - 10.5)	57	21.9 (16.4 - 27.3)	38	16.0 (10.5 - 21.5)	14	13.8 (7.8 - 20.0)
Both	246	16.0 (11.6 - 20.5)	16	12.3 (6.7 - 17.9)	25	22.1 (13.8 - 30.6)	35	12.9 (8.8 - 17.1)	46	8.2 (5.8 - 10.6)	39	15.7 (10.6 - 20.7)	64	25.3 (19.2 - 31.6)	21	15.1 (8.9 - 21.2)
<b>Used condom with male partner you paid for sex in the last sexual encounter</b>																
Yes	1065	74.0 (66.6 - 81.4)	96	85.6 (76.9 - 94.2)	72	63.3 (52.9 - 73.4)	198	80.9 (75.6 - 86.1)	236	61.8 (56.3 - 67.2)	160	65.5 (59.2 - 71.9)	204	81.6 (74.9 - 88.3)	99	78.9 (71.5 - 86.2)
No	402	26.2 (18.8 - 33.5)	19	14.4 (5.9 - 23.1)	41	36.7 (26.8 - 46.9)	49	19.1 (13.7 - 24.6)	139	38.2 (32.8 - 43.7)	92	34.5 (28.1 - 40.8)	38	18.4 (11.9 - 24.9)	24	21.1 (13.4 - 28.9)
<b>Frequency of condom use with male partner you paid for sex in last 6 months</b>																
Always	652	41.9 (36.0 - 47.7)	64	52.8 (42.7 - 62.7)	40	34.0 (23.7 - 44.1)	145	53.8 (46.8 - 60.7)	146	38.0 (32.7 - 43.4)	102	38.3 (32.1 - 44.5)	99	37.6 (30.7 - 44.8)	56	39.0 (30.7 - 47.2)
Most of the time	162	11.0 (5.3 - 16.7)	14	8.4 (3.4 - 13.4)	12	9.3 (4.2 - 14.5)	37	13.9 (9.6 - 18.3)	48	11.8 (8.6 - 15.1)	7	3.6 (0.4 - 6.7)	13	3.7 (1.1 - 6.4)	31	26.9 (19.3 - 34.5)
Sometimes	462	29.3 (19.8 - 38.7)	21	16.4 (9.7 - 23.0)	35	27.9 (19.8 - 36.1)	41	15.6 (10.4 - 20.8)	112	29.8 (24.8 - 34.8)	117	44.5 (37.8 - 51.1)	106	47.5 (40.2 - 54.6)	30	22.3 (15.3 - 29.2)
Rarely	89	5.1 (3.7 - 6.5)	9	4.9 (1.8 - 8.1)	7	6.1 (0.5 - 11.6)	20	7.7 (4.5 - 10.9)	23	5.4 (3.3 - 7.6)	11	3.6 (1.4 - 5.9)	16	6.0 (2.7 - 9.4)	3	1.5 (0.0 - 3.2)
Never	158	12.7 (8.3 - 17.2)	14	17.5 (7.1 - 28.1)	26	22.7 (15.0 - 30.4)	22	8.9 (5.1 - 12.8)	53	14.9 (10.8 - 19.1)	23	10.0 (5.8 - 14.2)	9	5.2 (1.1 - 9.2)	11	10.3 (4.9 - 15.8)
<b>Places meet/pick up men you pay for sex<sup>c</sup></b>																
Bar/restaurant with/without lodging	1004	64.1 (54.3 - 73.8)	80	65.4 (55.2 - 75.6)	50	42.1 (32.3 - 51.8)	192	71.1 (64.4 - 77.9)	277	69.4 (63.5 - 75.2)	133	50.1 (43.3 - 56.9)	177	69.8 (62.8 - 76.7)	95	79.9 (72.9 - 86.9)
Brothel/massage parlour/saloon/barbershop	41	2.3 (1.1 - 3.6)	2	0.9 (0.08 - 1.8)	5	2.3 (0.2 - 4.3)	7	2.0 (0.4 - 3.7)	5	1.4 (0.3 - 2.5)	2	0.5 (0.0 - 1.0)	16	4.3 (1.5 - 7.2)	4	5.7 (0.8 - 10.4)
Highways	19	0.9 (0.2 - 1.5)	1	0.3 (0.1 - 0.5)	3	1.4 (0.0 - 3.6)	7	2.3 (0.6 - 3.9)	7	1.2 (0.5 - 1.9)	0	0.0 (0.0 - 0.0)	1	0.8 (0.0 - 2.3)	1	0.8 (0.0 - 2.3)
Mangweni/chang'aa den	39	3.5 (0.2 - 6.9)	0	0.0 (0.0 - 0.0)	16	13.4 (6.4 - 20.3)	9	3.1 (0.7 - 5.5)	1	0.08 (0.03 - 0.1)	7	2.4 (0.5 - 4.3)	3	1.5 (0.0 - 3.2)	3	4.5 (0.0 - 9.1)
Sex den	69	3.9 (2.1 - 5.8)	1	0.5 (0.0 - 1.2)	8	6.4 (2.2 - 10.6)	26	7.1 (4.3 - 9.9)	6	1.3 (0.3 - 2.3)	10	3.8 (1.6 - 6.0)	13	5.4 (1.9 - 8.9)	5	2.8 (0.4 - 5.2)
Street	418	29.4 (18.1 - 40.7)	17	15.3 (7.3 - 23.3)	69	59.6 (49.2 - 70.1)	56	24.9 (18.4 - 31.4)	98	28.7 (23.3 - 34.1)	83	34.7 (28.4 - 41.1)	77	28.2 (22.2 - 34.3)	18	13.8 (8.0 - 19.5)
Strip-clubs	55	2.7 (0.2 - 5.2)	0	0.0 (0.0 - 0.0)	1	0.5 (0.0 - 1.2)	12	3.5 (1.6 - 5.5)	2	0.2 (0.06 - 0.3)	22	8.9 (4.6 - 13.3)	17	5.7 (2.9 - 8.6)	1	0.3 (0.1 - 0.5)
Parks/beach/bush/laga	228	14.1 (4.4 - 23.9)	12	8.2 (3.3 - 13.2)	17	11.1 (5.3 - 16.9)	9	2.9 (0.8 - 4.9)	18	5.1 (2.8 - 7.4)	100	40.6 (33.8 - 47.4)	62	22.3 (16.8 - 28.0)	10	8.3 (3.7 - 12.9)
Other	271	21.0 (12.2 - 29.8)	50	43.5 (32.9 - 54.1)	25	23.4 (14.5 - 32.3)	41	17.1 (11.7 - 22.4)	75	20.9 (15.8 - 25.9)	11	4.0 (1.6 - 6.4)	50	23.6 (17.1 - 30.0)	19	14.7 (6.9 - 22.4)
<b>Online platforms used to meet/pick up men you pay for sex</b>																
Dating apps (Grindr, Tinder, etc)	452	35.7 (23.9 - 47.6)	65	47.7 (37.5 - 57.9)	23	27.6 (15.2 - 40.1)	43	18.0 (12.1 - 23.9)	72	21.8 (16.5 - 27.2)	55	28.4 (20.3 - 36.5)	121	45.0 (38.0 - 52.3)	73	61.8 (53.6 - 69.9)
Facebook	715	59.9 (46.5 - 73.3)	65	63.8 (53.7 - 73.8)	54	71.2 (59.0 - 83.2)	114	59.7 (51.0 - 68.5)	196	74.4 (68.6 - 80.3)	109	73.8 (65.3 - 82.1)	145	52.6 (45.1 - 60.5)	32	22.8 (15.9 - 29.6)
Social media apps (X, Tiktok, Telegram, Instagram, etc)	111	9.1 (3.7 - 14.6)	6	6.3 (1.9 - 10.5)	19	23.9 (13.1 - 34.6)	11	6.7 (2.2 - 11.1)	40	14.1 (10.0 - 18.4)	8	3.1 (0.9 - 5.2)	21	6.9 (3.9 - 10.0)	6	2.9 (1.3 - 4.4)
WhatsApp	762	63.4 (51.1 - 75.7)	41	33.8 (24.5 - 43.0)	46	54.7 (42.3 - 66.9)	103	55.0 (46.6 - 63.4)	186	73.6 (68.0 - 79.2)	101	66.1 (57.9 - 74.4)	192	80.1 (73.6 - 86.6)	93	79.5 (72.7 - 86.3)
<b>Average amount of money paid per sexual act - Anal (Ksh.)</b>	2552	1636 (838 - 2997)	265	2000 (1000 - 5000)	320	1500 (500 - 2500)	370	1500 (1000 - 3000)	363	1000 (500 - 2500)	585	1500 (500 - 3000)	459	2000 (1000 - 3000)	190	2000 (1200 - 4000)
<b>Average amount of money paid per sexual act - Oral (Ksh.)</b>	676	1290 (551 - 2610)	76	2500 (1000 - 5000)	108	1000 (500 - 2500)	67	1500 (800 - 3000)	63	1204 (500 - 2500)	197	1000 (500 - 2000)	91	1000 (500 - 2500)	74	1000 (500 - 2500)
<b>Had either anal or vaginal sex with a woman in the last 12 months</b>																
Yes	2057	54.2 (47.5 - 60.8)	232	51.6 (46.3 - 56.9)	324	71.2 (65.7 - 76.7)	349	56.0 (51.2 - 60.8)	274	44.8 (40.0 - 49.6)	433	58.1 (53.9 - 62.3)	244	50.7 (45.3 - 56.0)	201	46.4 (40.9 - 51.8)
No	1736	45.9 (39.3 - 52.5)	229	48.4 (43.2 - 53.6)	108	28.8 (23.1 - 34.5)	284									

## 6.9: Uptake of Prevention and Treatment Services

### **Condoms:**

About 75.2% of MSM in Kenya received free condoms in the past year, with highest access in Nakuru (88.1%) and Kisumu (83.8%) and lowest in Mombasa (61.2%). Condoms were mainly obtained from supermarkets/pharmacies (56.7%), drop-in centers (44.7%), and clinics/hospitals (36.0%), with fewer using dispensers (16.2%) or peer educators (10.5%). Overall, 62.6% reported always having access, though 34.6% experienced occasional shortages, especially in Kisumu (39.1%) and Nakuru (47.2%), indicating regional disparities.

### **Lubricants:**

About 77% of MSM in Kenya reported using lubricants during sex, with highest use in Kiambu (89.8%), Nakuru (84.7%), and Kisumu (78.9%), and lower use in Mombasa and Machakos (66.2%). The main water-based lubricants were KY Jelly (24.9%) and Sure Lube (21.9%), though 37.2% used oil-based products, especially in Mombasa (61.9%), raising condom safety concerns. Lubricants were mainly obtained from supermarkets/pharmacies (63.6%), followed by drop-in centers (26.8%) and clinics/hospitals (3.7%), reflecting good retail access and continued reliance on community sources.

Table 6.9.1: Condom Use and Accessibility Among Men Who Have Sex with Men by Location, BBS, Kenya, 2024

	Overall Estimate(N=5242)		Kiambu (N=705)		Kilifi (N=560)		Kisumu (N=826)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Places usually get condoms<sup>a</sup></b>								
Bars/clubs	25	0.5 (0.0 - 1.0)	10	1.6 (0.0 - 3.3)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Clients	14	0.5 (0.01 - 1.0)	6	1.8 (0.0 - 6.9)	3	0.9 (0.0 - 2.1)	3	0.5 (0.0 - 1.3)
Clinic/hospital	1767	36.0 (28.4 - 43.6)	165	23.5 (18.0 - 29.1)	177	34.6 (29.7 - 39.4)	193	27.6 (23.7 - 31.6)
Condom dispensers	858	16.2 (9.9 - 22.4)	42	5.9 (2.5 - 9.3)	170	28.4 (23.7 - 33.1)	70	7.5 (5.4 - 9.5)
Drop-in centre	2623	44.7 (33.5 - 55.9)	298	37.1 (31.2 - 43.0)	249	40.9 (35.7 - 46.0)	577	63.7 (58.2 - 69.1)
Friend/peer	5	0.08 (0.0 - 0.2)	2	0.3 (0.0 - 0.7)	2	0.3 (0.08 - 0.4)	1	0.1 (0.0 - 0.2)
Peer educators	664	10.5 (3.5 - 17.5)	68	6.8 (4.5 - 9.1)	90	11.1 (8.5 - 13.7)	73	6.3 (4.8 - 7.7)
Sex venues	189	3.5 (0.6 - 6.4)	11	1.0 (0.4 - 1.6)	73	10.2 (7.5 - 12.8)	14	1.0 (0.4 - 1.7)
Supermarket/pharmacy/kiosk)	2759	56.7 (45.5 - 67.9)	405	59.5 (53.2 - 65.8)	307	60.8 (55.8 - 65.7)	278	36.7 (32.7 - 40.7)
Never obtained condom	152	3.0 (1.4 - 4.7)	21	3.8 (0.2 - 7.5)	15	1.7 (0.8 - 2.5)	19	2.4 (1.2 - 3.5)
Other	13	0.3 (0.1 - 0.4)	3	0.6 (0.0 - 1.4)	2	0.3 (0.0 - 0.9)	4	0.4 (0.1 - 0.7)
<b>Received free condoms in the last 12 months<sup>b</sup></b>								
Yes	4048	75.2 (68.6 - 81.9)	513	68.6 (63.0 - 74.2)	419	75.6 (71.3 - 79.9)	711	83.8 (80.3 - 87.3)
No	1150	24.8 (18.1 - 31.4)	190	31.4 (25.6 - 37.3)	133	24.4 (20.1 - 28.7)	110	16.2 (12.6 - 19.9)
<b>Unable to get condoms when needed in the las</b>								
Always	150	2.8 (1.8 - 3.9)	5	1.3 (0.0 - 2.8)	27	3.2 (1.9 - 4.5)	41	4.8 (3.2 - 6.4)
Sometimes	1769	34.6 (27.1 - 42.2)	172	22.5 (17.9 - 27.1)	267	44.0 (39.0 - 49.0)	322	39.1 (35.0 - 43.2)
Never obtained condom	3150	62.6 (54.7 - 70.4)	519	76.3 (71.3 - 81.2)	237	52.8 (47.6 - 58.2)	442	56.1 (51.7 - 60.5)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent - Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Sum of sample numerator is higher than the sample denominator as multiple responses could be selected

<sup>b</sup> Non-responses and missing data were excluded from the analysis.

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; IQR, interquartile range; Ksh., Kenya shillings

Table 6.9.1 cont: Condom Use and Accessibility Among Men Who Have Sex with Men by Location, BBS, Kenya, 2024

	Machakos (N=822)		Mombasa (N=937)		Nairobi (N=743)		Nakuru (N=649)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Places usually get condoms<sup>a</sup></b>								
Bars/clubs	13	1.6 (0.0 - 3.3)	1	0.08 (0.0 - 0.2)	0	0.0 (0.0 - 0.0)	1	0.1 (0.0 - 0.3)
Clients	1	0.06 (0.0 - 0.2)	1	0.2 (0.0 - 0.5)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Clinic/hospital	273	34.8 (27.6 - 41.9)	363	41.7 (38.2 - 45.3)	255	34.5 (28.9 - 40.1)	341	55.2 (51.2 - 59.1)
Condom dispensers	135	14.0 (9.3 - 18.7)	126	13.0 (10.9 - 15.1)	172	24.7 (20.4 - 29.1)	143	19.5 (16.6 - 22.6)
Drop-in centre	261	24.5 (19.8 - 29.2)	467	46.9 (43.1 - 50.7)	514	65.4 (59.2 - 71.5)	257	34.6 (30.5 - 38.9)
Friend/peer	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Peer educators	70	6.0 (3.6 - 8.4)	95	7.7 (6.2 - 9.3)	238	31.3 (26.6 - 36.1)	30	3.9 (2.6 - 5.3)
Sex venues	56	8.3 (0.1 - 16.6)	13	1.3 (0.5 - 2.1)	12	1.4 (0.4 - 2.4)	10	1.2 (0.5 - 1.9)
Supermarket/pharmacy/kiosk)	458	57.8 (50.9 - 64.6)	343	37.3 (33.8 - 40.8)	482	65.7 (60.4 - 71.1)	486	79.0 (75.8 - 82.1)
Never obtained condom	55	7.5 (5.6 - 9.5)	24	3.4 (1.9 - 4.9)	5	0.7 (0.0 - 1.4)	13	1.9 (0.9 - 2.8)
Other	2	0.3 (0.0 - 0.6)	1	0.2 (0.0 - 0.5)	0	0.0 (0.0 - 0.0)	1	0.07 (0.0 - 0.2)
<b>Received free condoms in the last 12 months<sup>b</sup></b>								
Yes	548	61.2 (52.7 - 69.8)	728	75.4 (72.0 - 78.8)	638	88.1 (85.0 - 91.3)	491	73.7 (69.7 - 77.7)
No	268	38.8 (30.1 - 47.4)	203	24.6 (21.1 - 28.1)	90	11.9 (8.7 - 15.0)	156	26.3 (22.1 - 30.5)
<b>Unable to get condoms when needed in the las</b>								
Always	18	2.7 (1.4 - 4.0)	21	2.6 (1.3 - 3.9)	7	1.1 (0.2 - 2.1)	31	4.3 (2.9 - 5.7)
Sometimes	213	25.1 (19.2 - 31.1)	211	24.8 (21.4 - 28.2)	325	47.2 (41.1 - 53.3)	259	39.3 (35.1 - 43.5)
Never obtained condom	567	72.2 (66.0 - 78.4)	652	72.6 (69.1 - 76.1)	388	51.6 (45.5 - 57.7)	345	56.4 (52.4 - 60.4)
All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent -Driven Sampling package in R, applying Gile's Sequential Sampling estimator.								
<sup>a</sup> Sum of sample numerator is higher than the sample denominator as multiple responses could be selected								
<sup>b</sup> Non-responses and missing data were excluded from the analysis.								
Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; IQR, interquartile range; Ksh., Kenya shillings								

Table 6.9.2: Lubricant Use Among Men Who Have Sex with Men by Location, BBS, Kenya, 2024

	Overall Estimate(N=5242)		Kiambu (N=705)		Kilifi (N=560)		Kisumu (N=826)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Use lubricant<sup>a</sup></b>								
Yes	4209	76.8 (70.5 - 83.0)	656	89.8 (85.5 - 94.2)	416	68.8 (63.8 - 73.7)	680	78.9 (74.7 - 83.1)
No	1027	23.3 (17.0 - 29.5)	49	10.2 (5.6 - 14.7)	143	31.2 (26.1 - 36.4)	146	21.1 (16.9 - 25.3)
<b>Type of lubricant used<sup>a,b</sup></b>								
KY jelly	1162	24.9 (20.8 - 29.0)	197	24.4 (19.1 - 29.6)	88	19.8 (15.0 - 24.6)	175	22.9 (18.6 - 27.1)
Sure lube/govt. lube	993	21.9 (14.5 - 29.3)	106	14.9 (10.0 - 19.8)	123	28.9 (23.2 - 34.5)	278	39.6 (35.0 - 44.2)
Other oil-based products	1352	37.2 (27.3 - 47.1)	187	33.7 (25.0 - 42.4)	139	34.7 (28.2 - 41.0)	113	20.7 (16.3 - 25.1)
Other water-based products	474	11.0 (7.0 - 15.0)	93	16.3 (10.1 - 22.4)	55	13.8 (9.8 - 17.8)	61	7.2 (5.4 - 8.9)
Don't know	197	5.0 (1.5 - 8.6)	71	10.7 (6.4 - 15.0)	9	2.9 (0.8 - 4.9)	49	9.6 (6.6 - 12.6)
<b>Places usually get lubricant<sup>a,b</sup></b>								
Clients	2	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	0.1 (0.0 - 0.4)	0	0.0 (0.0 - 0.0)
Clinic/hospital	147	3.7 (2.1 - 5.4)	25	3.6 (0.5 - 6.6)	12	4.1 (1.5 - 6.7)	25	5.2 (2.8 - 7.5)
Drop-in centre	1257	26.8 (14.7 - 38.9)	149	22.0 (16.7 - 27.3)	85	20.0 (14.6 - 25.4)	439	60.2 (55.2 - 65.2)
Friends/peers	62	1.8 (0.8 - 2.7)	15	3.0 (0.7 - 5.2)	11	3.8 (1.0 - 6.5)	10	1.2 (0.6 - 1.9)
Partners	40	1.4 (0.4 - 2.5)	5	1.1 (0.0 - 2.3)	10	3.8 (1.4 - 6.3)	13	3.0 (1.3 - 4.7)
Peer educators	120	2.2 (1.3 - 3.2)	18	2.1 (1.1 - 3.1)	16	3.0 (1.5 - 4.5)	13	1.7 (0.7 - 2.7)
Sex venues	13	0.3 (0.04 - 0.6)	1	0.05 (0.01 - 0.09)	3	0.5 (0.02 - 1.0)	5	1.1 (0.3 - 1.9)
Supermarket/pharmacy/chemist/kiosk	2477	63.6 (49.7 - 77.6)	413	68.1 (61.6 - 74.6)	269	64.7 (58.6 - 70.7)	168	27.6 (23.0 - 32.2)
Other	1	0.0 (0.0 - 0.0)	1	0.1 (0.0 - 0.2)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sample denominator is based on the previous question

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval.

Table 6.9.2 cont: Lubricant Use Among Men Who Have Sex with Men by Location, BBS, Kenya, 2024

	Machakos (N=822)		Mombasa (N=937)		Nairobi (N=743)		Nakuru (N=649)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Use lubricant<sup>a</sup></b>								
Yes	608	66.2 (56.5 - 75.9)	719	75.3 (72.0 - 78.7)	656	84.7 (79.1 - 90.2)	474	73.4 (69.5 - 77.3)
No	214	33.8 (24.3 - 43.3)	216	24.7 (21.3 - 28.0)	86	15.3 (9.8 - 20.8)	173	26.6 (22.7 - 30.5)
<b>Type of lubricant used<sup>a,b</sup></b>								
KY jelly	150	22.0 (18.5 - 25.5)	184	24.2 (20.1 - 28.2)	257	36.6 (31.6 - 41.6)	111	24.1 (19.7 - 28.6)
Sure lube/govt. lube	82	12.2 (9.4 - 14.9)	202	23.8 (20.2 - 27.4)	85	12.6 (9.6 - 15.6)	117	21.5 (17.6 - 25.3)
Other oil-based products	343	61.9 (57.7 - 66.2)	183	29.0 (24.6 - 33.5)	186	33.3 (28.1 - 38.5)	201	46.8 (41.3 - 52.3)
Other water-based products	29	3.6 (2.4 - 4.8)	78	13.1 (9.8 - 16.4)	126	17.3 (13.4 - 21.1)	32	5.9 (3.7 - 8.1)
Don't know	2	0.3 (0.04 - 0.6)	58	9.9 (7.0 - 12.9)	1	0.2 (0.0 - 0.5)	7	1.7 (0.2 - 3.2)
<b>Places usually get lubricant<sup>a,b</sup></b>								
Clients	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	0.09 (0.0 - 0.2)
Clinic/hospital	26	3.8 (2.5 - 5.0)	45	7.4 (5.2 - 9.7)	5	0.5 (0.03 - 1.1)	9	1.7 (0.7 - 2.6)
Drop-in centre	66	9.5 (7.1 - 11.9)	256	34.0 (29.7 - 38.4)	155	21.9 (17.6 - 26.2)	107	20.0 (16.1 - 23.9)
Friends/peers	11	1.7 (0.6 - 2.8)	10	1.9 (0.4 - 3.3)	1	0.1 (0.0 - 0.4)	4	0.7 (0.1 - 1.2)
Partners	2	0.3 (0.0 - 0.8)	7	1.1 (0.4 - 1.9)	0	0.0 (0.0 - 0.0)	3	0.4 (0.02 - 0.9)
Peer educators	19	2.3 (1.3 - 3.3)	36	4.6 (2.8 - 6.5)	13	1.6 (0.7 - 2.4)	5	0.6 (0.1 - 1.1)
Sex venues	2	0.6 (0.0 - 1.2)	2	0.2 (0.03 - 0.4)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Supermarket/pharmacy/chemist/kiosk	477	81.9 (78.8 - 85.0)	335	50.7 (46.1 - 55.3)	480	75.9 (71.7 - 80.1)	335	76.5 (72.5 - 80.5)
Other	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sample denominator is based on the previous question

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval.

**PrEP:**

About 87.2% of MSM in Kenya were aware of PrEP, with highest awareness in Kisumu (96.7%) and Nakuru (95.6%), and lowest in Mombasa (71.8%). Overall, 39.0% had ever used PrEP, led by Kisumu (46.9%) and Nakuru (43.1%). Among non-users, common reasons included feeling not at risk (27.8%), dislike of daily pills (17.0%), and trust in partners (9.3%). Of those who had ever used PrEP, 59.0% used it in the past six months, mostly taking it daily (93.6%), indicating good adherence. Main reasons for using PrEP were multiple partners (23.5%), distrust in partners (23.7%), and unprotected sex (22.5%), while drug fatigue (23.8%) and side effects (21.0%) were leading causes of discontinuation.

**PEP:**

There was high awareness of PEP among MSM, with 95.7% overall reporting that they had heard of it. Awareness was nearly universal in most counties, including Kiambu (98.6%), Kilifi (97.1%), and Nakuru (96.0%), though slightly lower in Nairobi (87.3%).

In terms of uptake, 18.8% of MSM had ever used PEP, with the highest proportions in Nakuru (30.7%), Kiambu (23.3%), and Kilifi (21.4%). Among those ever on PEP, 29.4% had used it within the past six months, suggesting relatively recent engagement with PEP services, particularly in Mombasa (39.4%) and Machakos (32.8%).

The main reason cited for PEP use was unprotected sex (65.5%), followed by condom breakage or slippage (39.2%), with minimal reporting of other exposure types such as needle sharing (0.04%) or sexual assault (0.08%). Overall, the results demonstrate widespread awareness but moderate uptake of PEP among MSM, highlighting an opportunity to strengthen consistent use following potential HIV exposure, especially in regions with lower utilization such as Nairobi and Mombasa.

Table 6.9.3: Pre-Exposure Prophylaxis (PrEP) Among Men Who Have Sex with Men by Location, BBS, Kenya, 2024

Variable	Overall Estimate		Kiambu		Kilifi		Kisumu	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Ever heard of PrEP<sup>a</sup></b>								
Yes	4641	87.2 (80.5 - 93.9)	677	94.2 (89.4 - 99.0)	499	86.5 (82.7 - 90.2)	797	96.7 (95.5 - 97.8)
No	596	12.9 (6.2 - 19.6)	28	5.8 (1.1 - 10.6)	61	13.5 (9.7 - 17.4)	28	3.3 (2.1 - 4.5)
<b>Ever taken PrEP<sup>b</sup></b>								
Yes	1988	39.0 (35.2 - 42.8)	273	37.0 (30.1 - 43.9)	209	36.0 (31.1 - 40.8)	407	46.9 (42.0 - 51.7)
No	2653	61.0 (57.2 - 64.9)	404	63.0 (56.4 - 69.6)	290	64.0 (59.2 - 68.9)	390	53.1 (48.2 - 58.0)
<b>Reasons for never taking PrEP</b>								
Don't feel at risk	658	27.8 (19.9 - 35.7)	100	28.1 (22.3 - 34.0)	116	45.1 (38.1 - 52.2)	112	30.9 (25.5 - 36.3)
Don't know where to go	192	8.7 (3.7 - 13.8)	37	12.2 (8.4 - 16.1)	23	7.6 (4.5 - 10.7)	18	4.8 (2.2 - 7.3)
Don't want to/don't trust it	50	1.9 (1.0 - 2.8)	9	1.8 (0.6 - 3.1)	7	1.8 (0.3 - 3.4)	11	2.5 (0.9 - 4.0)
Don't want others to know	25	1.1 (0.4 - 1.8)	2	0.9 (0.0 - 1.9)	6	2.4 (0.3 - 4.6)	3	0.7 (0.0 - 1.5)
Don't want to take pill every day	400	17.0 (12.6 - 21.3)	50	12.8 (9.2 - 16.5)	52	16.0 (11.1 - 20.9)	40	11.5 (7.8 - 15.2)
Don't qualify/healthcare worker won't prescribe	55	2.7 (0.0 - 6.6)	1	0.07 (0.06 - 0.07)	4	2.7 (0.3 - 5.0)	47	14.7 (10.4 - 18.9)
Fear of side effects	49	1.9 (1.0 - 2.7)	11	2.0 (0.8 - 3.3)	3	0.3 (0.0 - 0.5)	9	3.1 (1.0 - 5.2)
Lack of information on PrEP	119	4.9 (1.4 - 8.5)	32	9.4 (5.6 - 13.2)	8	2.1 (0.6 - 3.7)	9	2.5 (0.7 - 4.3)
Lack permission from spouse/partner	10	0.3 (0.08 - 0.5)	2	0.5 (0.0 - 1.1)	0	0.0 (0.0 - 0.0)	3	0.5 (0.0 - 1.1)
Stigma/discrimination by HCW for having sex with men	25	1.0 (0.1 - 1.9)	1	0.2 (0.0 - 0.4)	1	0.5 (0.0 - 1.6)	4	1.1 (0.06 - 2.1)
Tested HIV-Positive	649	21.0 (12.3 - 29.8)	126	26.7 (21.5 - 31.8)	31	10.9 (5.8 - 15.9)	69	13.4 (9.5 - 17.3)
Too many HIV tests/appointments	46	2.0 (0.0 - 4.6)	1	0.1 (0.0 - 0.3)	0	0.0 (0.0 - 0.0)	3	0.7 (0.0 - 1.4)
Trust partners	226	9.3 (5.7 - 12.9)	20	5.1 (2.2 - 8.0)	33	10.6 (6.5 - 14.6)	41	12.6 (8.2 - 17.1)
Plan to start PrEP	4	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	3	1.2 (0.0 - 2.6)
<b>Taken PrEP in the last 6 months<sup>b</sup></b>								
Yes	1187	59.0 (53.2 - 64.8)	153	60.1 (53.1 - 67.0)	127	58.7 (50.9 - 66.5)	295	73.2 (68.1 - 78.3)
No	800	41.1 (35.3 - 46.9)	120	39.9 (33.2 - 46.7)	82	41.3 (33.7 - 48.9)	112	26.8 (21.6 - 31.9)
<b>Main reason for taking PrEP<sup>a,b</sup></b>								
At risks of Infection	20	1.6 (0.2 - 2.9)	3	2.1 (0.0 - 4.5)	1	0.8 (0.0 - 2.0)	11	3.9 (1.8 - 6.0)
Benefits of PrEP	11	1.1 (0.06 - 2.1)	3	3.5 (0.0 - 8.1)	1	1.0 (0.0 - 3.2)	5	1.0 (0.0 - 2.1)
Fear of condom burst/slippage/breakage	162	17.5 (7.8 - 27.1)	18	10.8 (3.5 - 18.0)	19	16.0 (8.2 - 23.7)	24	9.5 (4.8 - 14.2)
I don't trust my partners	259	23.7 (20.1 - 27.2)	34	25.7 (16.9 - 34.5)	27	27.2 (17.0 - 37.0)	69	25.9 (19.5 - 32.2)
I have multiple sex partners	336	23.5 (17.5 - 29.5)	26	14.3 (8.2 - 20.4)	28	19.2 (11.0 - 27.3)	84	22.1 (17.0 - 27.1)
I am a sex worker (MSW)	118	8.7 (3.9 - 13.5)	5	3.4 (0.6 - 6.1)	29	20.4 (12.9 - 28.1)	36	14.8 (9.9 - 19.8)
Sexual partner has HIV	15	1.2 (0.7 - 1.8)	2	0.8 (0.0 - 1.8)	1	1.5 (0.0 - 3.9)	4	1.7 (0.2 - 3.2)
Unprotected sex	257	22.5 (14.0 - 31.0)	60	39.5 (29.5 - 49.5)	21	14.1 (7.2 - 21.2)	56	21.2 (15.5 - 26.8)
<b>Currently taking PrEP daily as prescribed<sup>a,b</sup></b>								
Yes	1105	93.6 (90.4 - 96.7)	132	84.7 (77.2 - 92.2)	119	94.5 (90.5 - 98.5)	275	93.2 (90.3 - 96.1)
No	81	6.6 (3.4 - 9.7)	21	15.3 (7.4 - 23.2)	8	5.5 (1.4 - 9.7)	20	6.8 (3.9 - 9.7)
<b>Reasons for stopping PrEP<sup>a,b</sup></b>								
Adherence issue	15	13.9 (3.9 - 24.0)	2	4.5 (0.0 - 8.9)	3	30.2 (0.0 - 63.2)	5	21.5 (3.9 - 39.0)
Can't get PrEP anymore/don't qualify	4	1.6 (0.0 - 3.4)	1	4.5 (0.0 - 13.5)	0	0.0 (0.0 - 0.0)	1	2.2 (0.0 - 5.3)
Drug fatigue/too many pills	16	23.8 (8.6 - 38.9)	4	15.2 (0.0 - 29.6)	2	36.9 (0.0 - 74.0)	5	25.8 (7.2 - 44.5)
Fear of/had side effects	14	21.0 (8.0 - 34.0)	3	18.8 (0.0 - 36.9)	1	11.4 (0.0 - 33.2)	1	4.4 (0.0 - 12.4)
Fear of stigma/don't want others to know	2	0.2 (0.0 - 1.2)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Lack permission from spouse/partner	1	0.06 (0.0 - 1.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Not at risk anymore	6	4.7 (0.0 - 10.7)	3	20.9 (0.0 - 47.7)	0	0.0 (0.0 - 0.0)	2	6.9 (0.0 - 15.1)
Not refilled	6	3.4 (0.6 - 6.2)	2	6.9 (0.0 - 14.6)	1	3.0 (0.0 - 8.4)	1	5.7 (0.0 - 16.2)
Tested HIV-Positive	10	22.9 (0.5 - 45.4)	2	17.9 (0.0 - 45.7)	0	0.0 (0.0 - 0.0)	3	25.8 (0.2 - 50.9)
Too many HIV tests/appointments	1	0.2 (0.0 - 1.2)	0	0.0 (0.0 - 0.0)	1	18.4 (0.0 - 50.7)	0	0.0 (0.0 - 0.0)
Trust partners	3	1.3 (0.0 - 3.3)	1	4.5 (0.0 - 13.5)	0	0.0 (0.0 - 0.0)	2	7.9 (0.0 - 18.7)
Using condoms	2	0.2 (0.0 - 1.3)	2	6.8 (0.0 - 16.4)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sample denominator is based on the previous question

Abbreviations: N, sample denominator; n, sample numerator; CI, confidence interval; PrEP: post-exposure prophylaxis

Table 6.9.3 cont: Pre-Exposure Prophylaxis (PrEP) Among Men Who Have Sex with Men by Location, BBS, Kenya, 2024

Variable	Machakos		Mombasa		Nairobi		Nakuru	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Ever heard of PrEP<sup>a</sup></b>								
Yes	619	71.8 (62.4 - 81.2)	787	81.7 (78.5 - 85.0)	715	95.6 (91.5 - 99.7)	547	83.4 (80.0 - 86.8)
No	203	28.2 (18.5 - 37.8)	150	18.3 (15.1 - 21.4)	27	4.4 (0.3 - 8.5)	99	16.6 (12.9 - 20.3)
<b>Ever taken PrEP<sup>b</sup></b>								
Yes	219	30.7 (26.9 - 34.6)	321	39.1 (35.1 - 43.2)	319	40.1 (35.0 - 45.2)	240	43.1 (38.2 - 47.9)
No	400	69.3 (65.4 - 73.2)	466	60.9 (56.8 - 64.9)	396	59.9 (54.9 - 64.9)	307	56.9 (52.1 - 61.8)
<b>Reasons for never taking PrEP</b>								
Don't feel at risk	114	30.5 (25.1 - 35.8)	80	19.2 (15.0 - 23.5)	45	11.0 (7.8 - 14.3)	91	29.9 (24.0 - 35.7)
Don't know where to go	63	22.2 (16.4 - 28.1)	28	7.6 (4.5 - 10.7)	5	0.9 (0.2 - 1.5)	18	6.0 (3.1 - 8.8)
Don't want to/don't trust it	11	4.2 (2.0 - 6.5)	6	1.1 (0.3 - 1.9)	1	0.1 (0.0 - 0.4)	5	1.8 (0.0 - 4.1)
Don't want others to know	4	0.9 (0.05 - 1.7)	1	0.1 (0.0 - 0.3)	2	0.2 (0.0 - 0.5)	7	2.3 (0.8 - 3.9)
Don't want to take pill every day	42	12.4 (8.6 - 16.2)	81	18.3 (14.4 - 22.3)	77	28.0 (22.1 - 33.9)	58	19.5 (14.8 - 24.2)
Don't qualify/healthcare worker won't prescribe	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	3	1.5 (0.0 - 3.1)
Fear of side effects	3	1.0 (0.0 - 2.2)	9	2.8 (1.0 - 4.6)	10	2.9 (1.3 - 4.5)	4	1.1 (0.1 - 2.0)
Lack of information on PrEP	17	5.4 (3.0 - 7.8)	45	13.5 (9.6 - 17.4)	5	1.5 (0.3 - 2.6)	3	0.5 (0.09 - 0.9)
Lack permission from spouse/partner	0	0.0 (0.0 - 0.0)	1	0.2 (0.0 - 0.5)	1	0.3 (0.0 - 0.9)	3	0.8 (0.0 - 1.6)
Stigma/discrimination by HCW for having sex with men	4	0.7 (0.1 - 1.3)	1	0.1 (0.0 - 0.3)	12	3.6 (1.0 - 6.2)	2	0.8 (0.0 - 1.9)
Tested HIV-Positive	88	17.1 (13.2 - 21.0)	101	23.5 (18.4 - 28.5)	197	44.1 (37.9 - 50.3)	37	11.5 (7.3 - 15.7)
Too many HIV tests/appointments	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	13	4.6 (1.8 - 7.4)	29	9.1 (6.1 - 12.2)
Trust partners	20	5.6 (2.6 - 8.7)	63	13.3 (9.9 - 16.7)	14	2.8 (0.8 - 4.8)	35	15.3 (10.2 - 20.4)
Plan to start PrEP	0	0.0 (0.0 - 0.0)	1	0.3 (0.0 - 0.7)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
<b>Taken PrEP in the last 6 months<sup>b</sup></b>								
Yes	119	56.9 (49.9 - 63.9)	190	61.9 (56.0 - 67.8)	164	49.4 (42.3 - 56.4)	139	52.4 (44.9 - 60.2)
No	100	43.1 (35.9 - 50.3)	131	38.1 (32.3 - 43.9)	154	50.6 (43.4 - 57.9)	101	47.6 (39.6 - 55.3)
<b>Main reason for taking PrEP<sup>a,b</sup></b>								
At risks of Infection	4	4.7 (0.0 - 9.9)	1	0.3 (0.0 - 0.8)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Benefits of PrEP	2	3.2 (0.0 - 7.3)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Fear of condom burst/slippage/breakage	26	23.5 (15.6 - 31.4)	10	2.8 (1.2 - 4.4)	46	42.8 (32.9 - 53.1)	19	16.4 (8.8 - 23.8)
I don't trust my partners	19	14.8 (8.2 - 21.5)	50	29.1 (21.5 - 36.6)	36	20.7 (13.6 - 27.7)	24	21.8 (13.9 - 29.8)
I have multiple sex partners	23	16.5 (10.9 - 22.3)	72	36.9 (29.1 - 44.7)	49	23.7 (16.8 - 30.4)	54	32.1 (24.3 - 39.9)
I am a sex worker (MSW)	8	5.2 (1.6 - 8.9)	16	7.2 (2.9 - 11.6)	18	6.7 (2.7 - 10.8)	6	2.9 (0.7 - 5.1)
Sexual partner has HIV	0	0.0 (0.0 - 0.0)	3	1.1 (0.2 - 2.1)	3	1.5 (0.0 - 3.2)	2	2.6 (0.0 - 6.9)
Unprotected sex	36	32.0 (22.7 - 41.3)	38	22.6 (15.6 - 29.4)	12	4.6 (1.8 - 7.2)	34	24.1 (17.2 - 31.2)
<b>Currently taking PrEP daily as prescribed<sup>a,b</sup></b>								
Yes	115	97.0 (94.2 - 99.8)	176	91.5 (86.2 - 96.9)	160	98.0 (96.2 - 99.8)	128	94.6 (91.7 - 97.5)
No	4	3.0 (0.2 - 5.8)	14	8.5 (3.2 - 13.7)	4	2.0 (0.3 - 3.8)	10	5.4 (2.6 - 8.2)
<b>Reasons for stopping PrEP<sup>a,b</sup></b>								
Adherence issue	0	0.0 (0.0 - 0.0)	4	31.9 (2.8 - 60.7)	0	0.0 (0.0 - 0.0)	1	9.5 (0.0 - 22.5)
Can't get PrEP anymore/don't qualify	0	0.0 (0.0 - 0.0)	2	11.7 (0.0 - 26.8)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Drug fatigue/too many pills	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	52.3 (0.0 - 100.0)	4	36.9 (13.7 - 59.8)
Fear of/had side effects	0	0.0 (0.0 - 0.0)	4	35.9 (6.2 - 65.9)	2	47.7 (0.0 - 100.0)	3	29.9 (8.1 - 51.6)
Fear of stigma/don't want others to know	0	0.0 (0.0 - 0.0)	1	2.1 (0.7 - 3.5)	0	0.0 (0.0 - 0.0)	1	4.9 (1.1 - 9.0)
Lack permission from spouse/partner	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	5.1 (0.7 - 9.6)
Not at risk anymore	1	10.5 (0.0 - 28.5)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Not refilled	0	0.0 (0.0 - 0.0)	2	7.9 (0.0 - 19.3)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Tested HIV-Positive	3	89.5 (70.3 - 100.0)	1	10.6 (0.0 - 27.3)	0	0.0 (0.0 - 0.0)	1	13.7 (0.0 - 33.8)
Too many HIV tests/appointments	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Trust partners	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Using condoms	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sample denominator is based on the previous question

Abbreviations: N, sample denominator; n, sample numerator; CI, confidence interval; PrEP: post-exposure prophylaxis

Table 6.9.3B: Post-Exposure Prophylaxis (PEP) Among Men Who Have Sex with Men by Location, BBS, Kenya, 2024

	Overall Estimate		Kiambu		Kilifi		Kisumu	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Ever heard of PEP</b>								
Yes	4380	95.7 (92.9 - 98.4)	570	98.6 (97.7 - 99.4)	513	97.1 (95.4 - 98.8)	727	95.6 (93.9 - 97.3)
No	215	4.4 (1.6 - 7.1)	11	1.4 (0.6 - 2.3)	17	2.9 (1.3 - 4.6)	30	4.4 (2.7 - 6.1)
<b>Ever taken PEP<sup>b</sup></b>								
Yes	911	18.8 (13.3 - 24.2)	166	23.3 (19.0 - 27.5)	111	21.4 (17.1 - 25.7)	133	14.8 (12.0 - 17.6)
No	3469	81.3 (75.8 - 86.7)	404	76.7 (72.5 - 80.9)	402	78.6 (74.5 - 82.7)	594	85.2 (82.4 - 87.9)
<b>Taken PEP in the last 6 months<sup>a,b</sup></b>								
Yes	255	29.4 (19.7 - 39.2)	48	26.2 (17.8 - 34.6)	28	24.8 (15.6 - 33.8)	41	32.8 (23.5 - 42.1)
No	654	70.8 (61.1 - 80.4)	118	73.8 (65.2 - 82.4)	83	75.2 (66.1 - 84.5)	92	67.2 (58.0 - 76.4)
<b>Reasons for taking PEP<sup>a,b</sup></b>								
Condom burst/slippage/breakage	90	39.2 (31.2 - 47.1)	20	43.6 (26.0 - 61.9)	15	52.4 (31.4 - 72.5)	8	23.0 (7.9 - 38.3)
Exposure to blood	2	0.8 (0.0 - 2.0)	0	0.0 (0.0 - 0.0)	1	5.6 (0.0 - 15.9)	1	2.3 (0.0 - 6.3)
Rape/ sexual assault	1	0.08 (0.0 - 0.4)	0	0.0 (0.0 - 0.0)	1	2.3 (0.0 - 6.9)	0	0.0 (0.0 - 0.0)
Sharing needles	1	0.04 (0.0 - 0.4)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	3.0 (0.0 - 8.0)
Unprotected sex	172	65.5 (57.2 - 73.7)	28	56.4 (38.2 - 73.8)	13	49.1 (29.0 - 69.9)	33	75.9 (60.2 - 91.5)
Others	1	0.03 (0.0 - 0.3)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sample denominator is based on the previous question

<sup>c</sup> Sum of sample numerator is higher than the sample denominator, as multiple responses could be selected

Abbreviations: N, sample denominator; n, sample numerator; CI, confidence interval; PEP: post-exposure prophylaxis

Table 6.9.3B cont.: Post-Exposure Prophylaxis (PEP) Among Men Who Have Sex with Men by Location, BBS, Kenya, 2024

	Machakos		Mombasa		Nairobi		Nakuru	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Ever heard of PEP</b>								
Yes	714	96.9 (95.4 - 98.4)	738	87.3 (84.7 - 89.8)	524	96.0 (93.8 - 98.3)	594	97.8 (96.8 - 98.8)
No	22	3.1 (1.5 - 4.6)	98	12.7 (10.2 - 15.3)	21	4.0 (1.7 - 6.2)	16	2.2 (1.2 - 3.2)
<b>Ever taken PEP<sup>b</sup></b>								
Yes	106	11.4 (9.3 - 13.5)	79	9.4 (6.8 - 12.1)	132	20.4 (16.4 - 24.3)	184	30.7 (26.4 - 35.1)
No	608	88.6 (86.5 - 90.7)	659	90.6 (88.0 - 93.2)	392	79.6 (75.7 - 83.6)	410	69.3 (64.8 - 73.6)
<b>Taken PEP in the last 6 months<sup>a,b</sup></b>								
Yes	40	39.4 (29.9 - 48.7)	32	52.4 (40.5 - 64.4)	21	12.4 (5.9 - 19.0)	45	19.3 (13.9 - 24.8)
No	66	60.6 (51.4 - 70.0)	47	47.6 (35.5 - 59.6)	110	87.6 (81.0 - 94.1)	138	80.7 (75.1 - 86.2)
<b>Reasons for taking PEP<sup>a,b</sup></b>								
Condom burst/slippage/breakage	11	30.8 (17.8 - 43.9)	11	36.3 (19.3 - 53.5)	9	49.4 (23.5 - 74.6)	16	36.1 (23.3 - 49.5)
Exposure to blood	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Rape/ sexual assault	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Sharing needles	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Unprotected sex	32	76.3 (64.4 - 88.4)	23	74.8 (60.3 - 89.5)	13	57.6 (32.0 - 83.8)	30	66.8 (53.9 - 79.0)
Others	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	1.2 (0.07 - 2.4)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sample denominator is based on the previous question

<sup>c</sup> Sum of sample numerator is higher than the sample denominator, as multiple responses could be selected

Abbreviations: N, sample denominator; n, sample numerator; CI, confidence interval; PEP: post-exposure prophylaxis

### **Peer Educators/Outreach Workers:**

About 52.4% of MSM in Kenya had ever been contacted by a peer educator or outreach worker, with highest engagement in Kilifi (75.1%) and Machakos (71.1%), and lowest in Nakuru (32.1%) and Nairobi (39.2%). Among those reached, nearly 80% had recent contact (within three months), especially in Nairobi (93.2%) and Nakuru (91.8%). Peer educators mainly provided health education materials (83.1%) and condoms (69.3%), while distribution of lubricants (28.5%), HIV testing referrals (25.1%), and STI treatment referrals (15.6%) was moderate. Support for violence, MAT, or needle exchange was minimal. Overall, peer outreach plays a key role in HIV prevention among MSM but shows regional gaps and limited specialized services.

### **Clinic/DICEs:**

Over half (56.7%) of MSM visited a clinic or drop-in center (DICE) in the past year, with the highest attendance in Kisumu (79.6%) and Nairobi (68.6%), and the lowest in Mombasa (39.2%). At their most recent visit, the most common services received were HIV testing and counseling (51.4%), condoms (71.9%), and STI/HIV prevention information (33.8%). Lubricant distribution (36.6%) was also notable, particularly in Nairobi (64.2%) and Kisumu (48.4%), though PrEP provision (2.6%) and PEP ( $\leq 1\%$ ) remained very low. Access to broader health care—such as sexual and reproductive health (8.1%), TB (4.9%), and MAT (2.5%)—was limited, suggesting opportunities to expand the range and integration of services available through clinics and DICEs.

Table 6.9.4: Service Uptake Through Peer Educators/Outreach Workers Among Men Who Have Sex With Men By Location, BBS, Kenya, 2024

	Overall		Kiambu (N=705)		Kilifi (N=560)		Kisumu (N=826)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Ever had contact with a peer educator/outreach worker in the community<sup>a</sup></b>								
Yes	3069	52.4 (47- 57.8)	428	52.3 (45.8- 58.7)	672	75.1 (69.9- 80.3)	356	61.9 (56.9- 67)
No	2169	47.6 (42.2- 53)	277	47.7 (41.2- 54.3)	153	24.9 (19.9- 29.8)	204	38.1 (32.8- 43.3)
<b>Contact with peer educator/outreach worker in the last 3 months<sup>b</sup></b>								
Yes	2583	79.5 (71.7 - 87.3)	316	68.9 (62.7 - 74.9)	306	77.7 (71.3 - 84.0)	584	84.4 (80.8 - 87.9)
No	486	20.6 (12.7 - 28.4)	112	31.1 (25.2 - 37.2)	50	22.3 (15.6 - 29.1)	88	15.6 (12.2 - 19.1)
<b>Services or information received from peer educator/outreach workers<sup>b,c</sup></b>								
Condoms	1822	69.3 (58.1 - 80.4)	135	40.8 (34.7 - 46.9)	215	69.4 (63.1 - 75.7)	377	61.9 (56.8 - 66.9)
Health education/IECs	2173	83.1 (76.3 - 89.9)	204	63.5 (57.3 - 69.8)	261	86.9 (82.4 - 91.3)	467	81.2 (77.8 - 84.6)
Lubricant	816	28.5 (18.1 - 38.8)	46	11.8 (7.9 - 15.7)	77	20.9 (16.0 - 25.6)	171	31.3 (26.5 - 36.0)
MAT Information	29	1.1 (0.4 - 1.7)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	11	2.2 (0.7 - 3.6)
Needle/syringe exchange	12	0.6 (0.03 - 1.2)	0	0.0 (0.0 - 0.0)	1	0.1 (0.0 - 0.3)	1	0.2 (0.0 - 0.5)
Referral for ART	95	3.8 (1.8 - 5.8)	3	2.0 (0.0 - 4.4)	38	8.8 (6.1 - 11.4)	7	1.3 (0.3 - 2.3)
Referral for drug treatment	143	5.8 (3.3 - 8.2)	11	3.0 (1.2 - 4.8)	23	6.6 (3.1 - 10.0)	9	1.9 (0.3 - 3.4)
Referral for HIV testing	598	25.1 (21.9 - 28.4)	64	21.6 (16.0 - 27.1)	93	27.7 (21.7 - 33.7)	126	24.4 (19.9 - 28.9)
Referral for STI treatment	395	15.6 (11.8 - 19.4)	24	7.0 (3.5 - 10.6)	77	18.9 (14.3 - 23.4)	76	16.5 (12.5 - 20.4)
Referral for Tambua Afya	25	1.0 (0.3 - 1.8)	9	2.9 (0.2 - 5.5)	2	0.9 (0.0 - 2.1)	11	2.2 (0.7 - 3.7)
Violence support	112	4.1 (1.9 - 6.4)	12	2.8 (1.3 - 4.3)	37	9.4 (6.4 - 12.2)	6	0.9 (0.1 - 1.6)
Other	33	1.5 (0.5 - 2.5)	12	3.0 (0.9 - 5.2)	8	3.5 (0.7 - 6.4)	7	1.0 (0.2 - 1.8)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent - Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sample denominator is based on the previous question

<sup>c</sup> Sum of sample numerator is higher than the sample denominator, as multiple responses could be selected

Abbreviations: N, sample denominator; n, sample numerator; CI, confidence interval; IEC: information education and communication ;MSM,men who have sex with men

Table 6.9.4 cont: Service Uptake Through Peer Educators/Outreach Workers Among Men Who Have Sex With Men By Location, BBS, Kenya, 2024

	Machakos (N=822)		Mombasa (N=937)		Nairobi (N=743)		Nakuru (N=649)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Ever had contact with a peer educator/outreach worker in the community<sup>a</sup></b>								
Yes	558	71.1 (65.7 - 77.1)	285	39.2 (34.8 - 43.6)	452	43.9 (39.7 - 48.1)	318	32.1 (25.5 - 38.7)
No	184	28.9 (22.9 - 34.9)	362	60.8 (56.5 - 65.1)	485	56.1 (51.7 - 60.5)	504	67.9 (61.2 - 74.6)
<b>Contact with peer educator/outreach worker in the last 3 months<sup>b</sup></b>								
Yes	244	71.7 (65.5 - 77.7)	420	93.2 (90.6 - 95.7)	509	91.8 (89.4 - 94.2)	204	68.0 (61.4 - 74.8)
No	74	28.3 (22.4 - 34.3)	32	6.8 (4.4 - 9.3)	49	8.2 (5.8 - 10.6)	81	32.0 (25.3 - 38.5)
<b>Services or information received from peer educator/outreach workers<sup>b,c</sup></b>								
Condoms	177	72.1 (66.0 - 78.0)	321	73.8 (68.9 - 78.6)	440	89.8 (87.0 - 92.7)	157	76.5 (69.4 - 83.5)
Health education/IECs	200	81.3 (75.9 - 86.7)	378	89.0 (85.3 - 92.7)	476	89.2 (84.8 - 93.6)	187	89.7 (85.0 - 94.4)
Lubricant	42	17.4 (11.9 - 22.8)	234	51.0 (45.6 - 56.2)	191	42.0 (36.5 - 47.5)	55	24.6 (18.8 - 30.5)
MAT Information	4	1.2 (0.2 - 2.2)	5	1.3 (0.2 - 2.3)	5	1.8 (0.2 - 3.5)	4	0.9 (0.4 - 1.4)
Needle/syringe exchange	4	1.2 (0.0 - 2.5)	2	1.3 (0.0 - 2.6)	0	0.0 (0.0 - 0.0)	4	2.4 (0.0 - 4.9)
Referral for ART	5	2.0 (0.3 - 3.7)	13	3.2 (1.5 - 4.9)	21	5.9 (3.2 - 8.6)	8	3.2 (0.9 - 5.5)
Referral for drug treatment	11	4.4 (0.6 - 8.3)	41	11.0 (6.9 - 15.2)	37	9.1 (5.7 - 12.4)	11	4.2 (1.4 - 6.9)
Referral for HIV testing	53	24.8 (18.5 - 31.2)	88	22.3 (17.4 - 27.2)	130	33.1 (27.5 - 38.8)	44	20.6 (14.6 - 26.8)
Referral for STI treatment	27	14.2 (8.3 - 20.0)	82	19.8 (15.3 - 24.4)	85	21.2 (16.4 - 26.0)	24	11.2 (6.2 - 16.2)
Referral for Tambua Afya	1	0.5 (0.0 - 1.2)	0	0.0 (0.0 - 0.0)	1	0.2 (0.0 - 0.5)	1	0.6 (0.0 - 1.7)
Violence support	7	2.7 (0.2 - 5.3)	9	1.7 (0.6 - 2.7)	23	5.3 (2.7 - 7.9)	18	6.3 (3.5 - 9.2)
Other	1	0.5 (0.0 - 1.3)	2	0.2 (0.07 - 0.4)	2	0.3 (0.01 - 0.5)	1	1.6 (0.0 - 3.6)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sample denominator is based on the previous question

<sup>c</sup> Sum of sample numerator is higher than the sample denominator, as multiple responses could be selected

Abbreviations: N, sample denominator; n, sample numerator; CI, confidence interval; IEC: information education and communication; MSM, men who have sex with men

Table 6.9.4B: Service Uptake Through Clinic or Drop-in Centre Among Men Who Have Sex with Men, by Location, BBS, Kenya, 2024

	Overall		Kiambu (N=705)		Kilifi (N=560)		Kisumu (N=826)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Visited clinic/DICE that provides KP information or services in the last 12 months<sup>a</sup></b>								
Yes	3269	56.7 (46.4 - 66.9)	460	57.2 (50.7 - 63.7)	332	55.8 (50.6 - 61.1)	690	79.6 (75.1 - 84.1)
No	1969	43.4 (33.2 - 53.6)	245	42.8 (36.5 - 49.1)	228	44.2 (38.7 - 49.6)	135	20.4 (15.9 - 24.8)
<b>Services received when last visited clinic or drop-in centers<sup>b,c</sup></b>								
Addiction counseling	84	2.6 (0.8 - 4.3)	0	0.0 (0.0 - 0.0)	13	3.6 (1.2 - 6.0)	8	0.8 (0.3 - 1.2)
General treatment	28	1.8 (0.0 - 4.4)	1	0.3 (0.0 - 0.6)	17	10.0 (4.8 - 15.1)	2	0.4 (0.0 - 0.9)
Hepatitis B/C test	11	0.2 (0.0 - 0.4)	0	0.0 (0.0 - 0.0)	1	0.2 (0.0 - 0.4)	1	0.08 (0.0 - 0.2)
HIV testing & counseling	1238	51.4 (43.5 - 59.3)	139	64.9 (57.7 - 71.9)	106	44.8 (36.9 - 52.7)	326	55.0 (50.0 - 60.0)
Information on ART	431	15.7 (9.2 - 22.1)	18	7.7 (4.2 - 11.3)	30	10.1 (6.2 - 14.1)	57	10.8 (7.5 - 14.1)
Information on hepatitis	18	0.4 (0.07 - 0.8)	0	0.0 (0.0 - 0.0)	2	0.7 (0.0 - 1.8)	2	0.3 (0.0 - 0.6)
Information on MAT	61	2.5 (0.2 - 4.8)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	13	2.1 (0.8 - 3.4)
Information on STI or HIV prevention	917	33.8 (25.1 - 42.5)	39	15.1 (10.7 - 19.5)	108	36.2 (29.5 - 42.9)	212	37.4 (32.8 - 42.0)
Information on TB	153	4.9 (1.5 - 8.3)	3	2.5 (0.0 - 5.4)	15	5.9 (2.3 - 9.6)	18	2.1 (0.8 - 3.4)
Medically assisted therapy	23	0.6 (0.2 - 1.0)	0	0.0 (0.0 - 0.0)	2	0.5 (0.0 - 1.1)	1	0.2 (0.0 - 0.4)
Needles/syringe exchange	23	0.8 (0.2 - 1.3)	0	0.0 (0.0 - 0.0)	5	1.5 (0.2 - 2.8)	2	0.3 (0.0 - 0.7)
Received condoms	1887	71.9 (59.2 - 84.7)	102	39.8 (32.3 - 47.4)	165	58.1 (51.1 - 65.2)	438	76.1 (71.8 - 80.4)
Received lubricants	1018	36.6 (23.9 - 49.3)	35	12.7 (8.1 - 17.4)	83	27.0 (20.7 - 33.3)	272	48.4 (43.4 - 53.5)
Received PEP	4	0.05 (0.0 - 0.2)	4	1.3 (0.3 - 2.3)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Received PrEP	58	2.6 (0.9 - 4.4)	20	7.0 (3.6 - 10.3)	8	4.3 (1.1 - 7.5)	13	2.8 (1.0 - 4.5)
Safe injection counseling	21	0.8 (0.0 - 1.5)	0	0.0 (0.0 - 0.0)	3	0.7 (0.0 - 1.4)	1	0.1 (0.0 - 0.1)
Sexual reproductive health services	219	8.1 (3.6 - 12.6)	15	5.2 (2.2 - 8.1)	7	3.1 (0.4 - 5.9)	19	3.5 (1.9 - 5.0)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent - Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sum of sample numerator is higher than the sample denominator, as multiple responses could be selected

<sup>c</sup> Sample denominator is based on the previous question

Abbreviations: N, sample denominator; n, sample numerator; CI, confidence interval; IEC: information, education, and communication; STI, sexually transmitted infections; MAT, medication -assisted treatment; TB, tuberculosis

Table 6.9.4B cont: Service Uptake Through Clinic or Drop-in Centre Among Men Who Have Sex with Men, by Location, BBS, Kenya, 2024

	Machakos (N=822)		Mombasa (N=937)		Nairobi (N=743)		Nakuru (N=649)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Visited clinic/DICE that provides KP information or services in the last 12 months<sup>a</sup></b>								
Yes	393	39.2 (31.5 - 46.9)	505	50.1 (46.0 - 54.3)	555	68.6 (62.6 - 74.7)	334	45.8 (41.0 - 50.5)
No	429	60.8 (53.2 - 68.5)	432	49.9 (45.6 - 54.2)	187	31.4 (25.5 - 37.3)	313	54.2 (49.5 - 59.0)
<b>Services received when last visited clinic or drop-in centers<sup>b,c</sup></b>								
Addiction counseling	6	1.6 (0.6 - 2.7)	38	6.9 (4.1 - 9.7)	7	1.5 (0.1 - 2.9)	12	4.0 (1.6 - 6.5)
General treatment	2	0.6 (0.0 - 1.2)	4	1.0 (0.1 - 1.9)	2	0.4 (0.0 - 0.9)	0	0.0 (0.0 - 0.0)
Hepatitis B/C test	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	8	0.9 (0.1 - 1.6)	1	0.2 (0.0 - 0.4)
HIV testing & counseling	89	35.4 (29.3 - 41.5)	229	52.5 (47.1 - 57.8)	188	43.9 (38.1 - 49.5)	161	63.3 (57.4 - 69.1)
Information on ART	46	15.6 (10.8 - 20.4)	96	23.2 (18.5 - 27.9)	154	31.5 (26.3 - 36.8)	30	10.3 (6.5 - 14.2)
Information on hepatitis	1	0.1 (0.1 - 0.2)	0	0.0 (0.0 - 0.0)	11	1.4 (0.4 - 2.3)	2	0.4 (0.1 - 0.6)
Information on MAT	8	4.7 (1.3 - 8.1)	33	8.7 (4.8 - 12.6)	2	0.8 (0.0 - 1.6)	5	1.4 (0.2 - 2.6)
Information on STI or HIV prevention	63	24.7 (19.0 - 30.3)	234	51.5 (46.0 - 57.1)	149	30.6 (25.4 - 35.8)	112	40.9 (34.3 - 47.6)
Information on TB	6	1.7 (0.2 - 3.1)	21	3.6 (2.0 - 5.2)	80	14.9 (11.1 - 18.7)	10	3.4 (1.4 - 5.4)
Medically assisted therapy	2	0.8 (0.0 - 2.2)	3	0.5 (0.03 - 1.0)	11	1.3 (0.3 - 2.4)	4	1.1 (0.1 - 2.2)
Needles/syringe exchange	2	0.5 (0.02 - 0.9)	4	0.6 (0.1 - 1.2)	2	0.5 (0.0 - 1.2)	8	2.5 (0.6 - 4.4)
Received condoms	206	75.5 (69.5 - 81.5)	402	90.9 (87.9 - 93.9)	373	81.5 (77.6 - 85.4)	201	80.9 (75.8 - 85.9)
Received lubricants	57	23.6 (18.1 - 29.1)	295	64.2 (59.0 - 69.4)	171	38.7 (33.1 - 44.3)	105	41.6 (34.7 - 48.5)
Received PEP	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Received PrEP	10	3.5 (1.3 - 5.7)	1	0.2 (0.0 - 0.5)	3	0.1 (0.0 - 0.2)	3	1.2 (0.05 - 2.4)
Safe injection counseling	1	0.1 (0.1 - 0.2)	1	0.2 (0.0 - 0.6)	5	1.2 (0.02 - 2.5)	10	3.7 (1.3 - 6.0)
Sexual reproductive health services	20	7.0 (4.1 - 9.9)	33	6.7 (4.2 - 9.2)	73	10.8 (7.8 - 13.7)	52	21.0 (15.7 - 26.2)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sum of sample numerator is higher than the sample denominator, as multiple responses could be selected

<sup>c</sup> Sample denominator is based on the previous question

Abbreviations: N, sample denominator; n, sample numerator; CI, confidence interval; IEC: information, education, and communication; STI, sexually transmitted infections; MAT, medication-assisted treatment; TB, tuberculosis

## **HIV Testing:**

HIV testing among MSM in Kenya was very high (94.7%), with near-universal coverage in Kisumu (97.5%) and Nakuru (97.4%), but lower in Mombasa (88.9%). Nearly half (48.6%) had tested within the past three months and 20.9% within four to six months, though 17.5% had not tested for over a year. HIV positivity at last test was 15.9%, highest in Nakuru (31.3%) and Kiambu (25.1%), indicating ongoing transmission risks. HIV self-testing was reported by 25.9%, led by Kiambu (36.9%) and Kisumu (32.0%); 10.2% of self-tests were positive, and 60.6% were confirmed at a facility. Among HIV-negative MSM, all had tested before, with 48.3% tested in the past three months and 24.3% having ever self-tested, showing high testing frequency but moderate self-testing uptake.

Table 6.9.5: HIV Testing Among Men Who Have Sex with Men by Location, BBS, Kenya, 2024

	Overall Estimate (N=5242)		Kiambu (N=705)		Kilifi (N=560)		Kisumu (N=826)	
	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)
<b>VL&lt;50 copies/mL</b>								
Aware of HIV status	1031/1150	87.3 (84.1 - 90.5)	228/265	84.3 (78.0 - 90.0)	59/68	84.7 (76.8 - 92.3)	94/105	83.2 (72.7 - 91.7)
On ART among those aware	1019/1031	97.6 (96.5 - 98.6)	226/228	99.0 (97.4 - 100.0)	58/59	94.5 (93.1 - 95.7)	93/94	98.9 (98.5 - 99.3)
Virally suppressed among those on ART	826/1019	80.6 (77.3 - 83.9)	181/226	81.1 (75.2 - 87.5)	50/58	87.2 (48.0 - 100.0)	75/93	77.0 (55.0 - 97.5)
<b>18-34 years</b>								
Aware of HIV status	717/728	98.2 (96.8 - 99.7)	162/164	98.6 (96.8 - 100.0)	38/39	92.4 (82.2 - 100.0)	58/59	98.3 (96.7 - 99.8)
On ART among those aware	728/825	86.6 (83.6 - 89.6)	164/199	81.0 (73.5 - 88.0)	39/44	87.7 (79.1 - 96.2)	59/66	84.0 (71.6 - 94.5)
Virally suppressed among those on ART	568/717	79.6 (76.0 - 83.3)	132/162	83.2 (76.3 - 90.8)	30/38	81.9 (60.3 - 100.0)	43/58	66.9 (43.5 - 87.7)
<b>35 years and above</b>								
Aware of HIV status	303/325	93.8 (89.9 - 97.8)	64/66	95.8 (90.2 - 100.0)	20/24	77.7 (58.2 - 96.6)	35/39	82.0 (63.9 - 97.8)
On ART among those aware	302/303	100.0 (99.7 - 100.0)	64/64	100.0 (100.0 - 100.0)	20/20	100.0 (100.0 - 100.0)	35/35	100.0 (100.0 - 100.0)
Virally suppressed among those on ART	258/302	92.3 (87.6 - 96.9)	49/64	75.3 (63.6 - 86.6)	20/20	100.0 (100.0 - 100.0)	32/35	93.9 (87.8 - 100.0)
<b>VL &lt;200 copies/mL</b>								
Aware of HIV status	1031/1150	87.3 (84.1 - 90.5)	228/265	84.3 (78.0 - 90.0)	59/68	84.7 (76.8 - 92.3)	94/105	83.2 (72.7 - 91.7)
On ART among those aware	1019/1031	97.6 (96.5 - 98.6)	226/228	99.0 (97.4 - 100.0)	58/59	94.5 (93.1 - 95.7)	93/94	98.9 (98.5 - 99.3)
Virally suppressed among those on ART	932/1019	91.8 (89.4 - 94.3)	210/226	93.1 (88.8 - 97.5)	55/58	94.7 (93.8 - 95.5)	85/93	89.4 (79.4 - 98.7)
<b>18-34 years</b>								
Aware of HIV status	717/728	98.2 (96.8 - 99.7)	162/164	98.6 (96.8 - 100.0)	38/39	92.4 (82.2 - 100.0)	58/59	98.3 (96.7 - 99.8)
On ART among those aware	728/825	86.6 (83.6 - 89.6)	164/199	81.0 (73.5 - 88.0)	39/44	87.7 (79.1 - 96.2)	59/66	84.0 (71.6 - 94.5)
Virally suppressed among those on ART	651/717	90.8 (87.9 - 93.8)	153/162	95.0 (92.1 - 98.0)	35/38	92.5 (86.7 - 98.4)	50/58	83.2 (69.1 - 96.0)
<b>35 years and above</b>								
Aware of HIV status	303/325	93.8 (89.9 - 97.8)	64/66	95.8 (90.2 - 100.0)	20/24	77.7 (58.2 - 96.6)	35/39	82.0 (63.9 - 97.8)
On ART among those aware	302/303	100.0 (99.7 - 100.0)	64/64	100.0 (100.0 - 100.0)	20/20	100.0 (100.0 - 100.0)	35/35	100.0 (100.0 - 100.0)
Virally suppressed among those on ART	281/302	98.8 (97.3 - 100.0)	57/64	87.7 (79.2 - 95.8)	20/20	100.0 (100.0 - 100.0)	35/35	100.0 (100.0 - 100.0)
<b>VL &lt;1000 copies/mL</b>								
Aware of HIV status	1031/1150	87.3 (84.1 - 90.5)	228/265	84.3 (78.0 - 90.0)	59/68	84.7 (76.8 - 92.3)	94/105	83.2 (72.7 - 91.7)
On ART among those aware	1019/1031	97.6 (96.5 - 98.6)	226/228	99.0 (97.4 - 100.0)	58/59	94.5 (93.1 - 95.7)	93/94	98.9 (98.5 - 99.3)
Virally suppressed among those on ART	950/1019	93.7 (91.4 - 96.1)	210/226	93.1 (88.8 - 97.4)	56/58	96.7 (96.1 - 97.4)	88/93	92.5 (83.6 - 100.0)
<b>18-34 years</b>								
Aware of HIV status	717/728	98.2 (96.8 - 99.7)	162/164	98.6 (96.8 - 100.0)	38/39	92.4 (82.2 - 100.0)	58/59	98.3 (96.7 - 99.8)
On ART among those aware	728/825	86.6 (83.6 - 89.6)	164/199	81.0 (73.5 - 88.0)	39/44	87.7 (79.1 - 96.2)	59/66	84.0 (71.6 - 94.5)
Virally suppressed among those on ART	665/717	93.5 (91.7 - 95.4)	153/162	95.0 (92.2 - 98.0)	36/38	95.4 (91.2 - 99.7)	53/58	88.1 (74.2 - 100.0)
<b>35 years and above</b>								
Aware of HIV status	303/325	93.8 (89.9 - 97.8)	64/66	95.8 (90.2 - 100.0)	20/24	77.7 (58.2 - 96.6)	35/39	82.0 (63.9 - 97.8)
On ART among those aware	302/303	100.0 (99.7 - 100.0)	64/64	100.0 (100.0 - 100.0)	20/20	100.0 (100.0 - 100.0)	35/35	100.0 (100.0 - 100.0)
Virally suppressed among those on ART	285/302	98.9 (97.6 - 100.0)	57/64	87.7 (79.3 - 95.7)	20/20	100.0 (100.0 - 100.0)	35/35	100.0 (100.0 - 100.0)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; mL, milliliters; VL, viral load, ART, antiretroviral therapy.

Table 6.9.5 cont: HIV Testing Among Men Who Have Sex with Men by Location, BBS, Kenya, 2024

	Machakos (N=822)		Mombasa (N=937)		Nairobi (N=743)		Nakuru (N=649)	
	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)
<b>VL&lt;50 copies/mL</b>								
Aware of HIV status	144/165	81.8 (68.4 - 92.3)	177/192	91.1 (85.0 - 96.5)	264/278	91.8 (87.4 - 96.2)	65/77	84.6 (75.3 - 93.9)
On ART among those aware	143/144	99.1 (97.6 - 100.0)	172/177	95.6 (94.2 - 96.3)	263/264	99.2 (99.0 - 99.4)	64/65	95.2 (91.6 - 97.1)
Virally suppressed among those on ART	119/143	81.8 (72.0 - 90.6)	139/172	82.6 (76.1 - 90.2)	208/263	77.1 (70.8 - 83.4)	54/64	83.9 (72.5 - 95.1)
<b>18-34 years</b>								
Aware of HIV status	100/101	98.7 (97.0 - 100.0)	114/119	93.4 (88.2 - 97.1)	194/194	100.0 (100.0 - 100.0)	51/52	93.9 (86.3 - 99.7)
On ART among those aware	101/116	84.5 (70.1 - 97.2)	119/131	88.4 (81.4 - 94.2)	194/206	90.2 (84.4 - 95.9)	52/63	82.9 (72.3 - 93.7)
Virally suppressed among those on ART	84/100	82.9 (74.4 - 90.6)	86/114	77.2 (68.7 - 86.5)	152/194	76.0 (68.4 - 83.4)	41/51	79.6 (65.3 - 93.5)
<b>35 years and above</b>								
Aware of HIV status	43/49	76.2 (55.9 - 91.3)	58/61	96.7 (93.9 - 100.0)	70/72	96.6 (92.3 - 100.0)	13/14	91.7 (75.2 - 100.0)
On ART among those aware	43/43	100.0 (100.0 - 100.0)	58/58	100.0 (100.0 - 100.0)	69/70	97.0 (92.0 - 100.0)	13/13	100.0 (100.0 - 100.0)
Virally suppressed among those on ART	35/43	79.2 (61.6 - 95.0)	53/58	92.0 (85.0 - 100.0)	56/69	80.5 (70.4 - 90.6)	13/13	100.0 (100.0 - 100.0)
<b>VL &lt;200 copies/mL</b>								
Aware of HIV status	144/165	81.8 (68.4 - 92.3)	177/192	91.1 (85.0 - 96.5)	264/278	91.8 (87.4 - 96.2)	65/77	84.6 (75.3 - 93.9)
On ART among those aware	143/144	99.1 (97.6 - 100.0)	172/177	95.6 (94.2 - 96.3)	263/264	99.2 (99.0 - 99.4)	64/65	95.2 (91.6 - 97.1)
Virally suppressed among those on ART	132/143	92.6 (87.9 - 97.6)	156/172	90.6 (85.7 - 95.6)	234/263	87.4 (82.6 - 92.1)	60/64	90.6 (86.0 - 94.1)
<b>18-34 years</b>								
Aware of HIV status	100/101	98.7 (97.0 - 100.0)	114/119	93.4 (88.2 - 97.1)	194/194	100.0 (100.0 - 100.0)	51/52	93.9 (86.3 - 99.7)
On ART among those aware	101/116	84.5 (70.1 - 97.2)	119/131	88.4 (81.4 - 94.2)	194/206	90.2 (84.4 - 95.9)	52/63	82.9 (72.3 - 93.7)
Virally suppressed among those on ART	91/100	90.8 (84.4 - 97.1)	100/114	87.4 (80.5 - 94.1)	175/194	88.4 (82.8 - 94.0)	47/51	88.2 (79.1 - 95.4)
<b>35 years and above</b>								
Aware of HIV status	43/49	76.2 (55.9 - 91.3)	58/61	96.7 (93.9 - 100.0)	70/72	96.6 (92.3 - 100.0)	13/14	91.7 (75.2 - 100.0)
On ART among those aware	43/43	100.0 (100.0 - 100.0)	58/58	100.0 (100.0 - 100.0)	69/70	97.0 (92.0 - 100.0)	13/13	100.0 (100.0 - 100.0)
Virally suppressed among those on ART	41/43	96.9 (93.6 - 100.0)	56/58	96.3 (91.0 - 100.0)	59/69	84.6 (74.9 - 94.1)	13/13	100.0 (100.0 - 100.0)
<b>VL &lt;1000 copies/mL</b>								
Aware of HIV status	144/165	81.8 (68.4 - 92.3)	177/192	91.1 (85.0 - 96.5)	264/278	91.8 (87.4 - 96.2)	65/77	84.6 (75.3 - 93.9)
On ART among those aware	143/144	99.1 (97.6 - 100.0)	172/177	95.6 (94.2 - 96.3)	263/264	99.2 (99.0 - 99.4)	64/65	95.2 (91.6 - 97.1)
Virally suppressed among those on ART	134/143	94.6 (91.0 - 98.9)	159/172	92.3 (88.0 - 96.7)	241/263	89.7 (85.1 - 94.2)	62/64	93.6 (89.3 - 96.6)
<b>18-34 years</b>								
Aware of HIV status	100/101	98.7 (97.0 - 100.0)	114/119	93.4 (88.2 - 97.1)	194/194	100.0 (100.0 - 100.0)	51/52	93.9 (86.3 - 99.7)
On ART among those aware	101/116	84.5 (70.1 - 97.2)	119/131	88.4 (81.4 - 94.2)	194/206	90.2 (84.4 - 95.9)	52/63	82.9 (72.3 - 93.7)
Virally suppressed among those on ART	93/100	93.6 (88.6 - 99.1)	103/114	90.1 (84.0 - 95.9)	178/194	89.8 (84.1 - 95.4)	49/51	92.0 (83.7 - 98.2)
<b>35 years and above</b>								
Aware of HIV status	43/49	76.2 (55.9 - 91.3)	58/61	96.7 (93.9 - 100.0)	70/72	96.6 (92.3 - 100.0)	13/14	91.7 (75.2 - 100.0)
On ART among those aware	43/43	100.0 (100.0 - 100.0)	58/58	100.0 (100.0 - 100.0)	69/70	97.0 (92.0 - 100.0)	13/13	100.0 (100.0 - 100.0)
Virally suppressed among those on ART	41/43	96.9 (93.6 - 100.0)	56/58	96.3 (90.9 - 100.0)	63/69	89.3 (81.2 - 97.4)	13/13	100.0 (100.0 - 100.0)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; mL, milliliters; VL, viral load, ART, antiretroviral therapy.

Table 6.9.5B: HIV Testing Among Self Reported HIV-Negative Men Who Have Sex With Men By Location, BBS, Kenya, 2024

	Machakos (N=822)		Mombasa (N=937)		Nairobi (N=743)		Nakuru (N=649)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Ever tested for HIV<sup>a</sup></b>								
Yes	752	88.9 (83.3 - 94.5)	896	95.1 (93.5 - 96.7)	726	97.4 (95.9 - 98.9)	610	93.9 (90.8 - 96.9)
No	70	11.1 (5.3 - 16.9)	41	4.9 (3.3 - 6.5)	17	2.6 (1.1 - 4.1)	39	6.1 (3.2 - 9.0)
<b>Last time tested for HIV<sup>a,b</sup></b>								
Less than 3 months	279	43.1 (38.5 - 47.7)	317	44.3 (39.8 - 48.7)	265	53.9 (48.0 - 59.7)	251	45.2 (39.9 - 50.4)
4-6 months	131	19.5 (16.2 - 22.8)	137	17.5 (14.6 - 20.3)	74	13.7 (9.9 - 17.5)	150	27.2 (22.6 - 31.8)
7-12 months	72	13.3 (10.2 - 16.4)	132	18.5 (15.3 - 21.7)	51	12.0 (8.4 - 15.7)	73	14.4 (10.9 - 17.8)
More than 12 months	126	24.1 (20.0 - 28.2)	130	19.7 (16.3 - 23.2)	87	20.3 (15.6 - 25.1)	72	13.2 (9.8 - 16.6)
<b>Result of most recent HIV test<sup>a,b</sup></b>								
Positive	127	13.6 (10.7 - 16.4)	143	14.9 (11.9 - 17.8)	246	31.3 (25.9 - 36.7)	53	8.2 (5.8 - 10.5)
Negative	582	86.4 (83.7 - 89.2)	720	85.1 (82.2 - 88.1)	453	68.7 (63.0 - 74.3)	522	91.8 (89.4 - 94.2)
<b>Reasons for not testing for HIV<sup>b</sup></b>								
Don't want to know if I have HIV	6	32.6 (6.8 - 57.7)	6	10 ( 2.6 - 17.3)	20	26.2 (15.5 - 37.0)	3	7.9 ( 0.0 - 16.0)
Don't need tests/low risk	2	24.1 ( 0.0 - 53.7)	6	12.3 ( 3.7 - 20.8)	19	24.8 (14.8 - 34.8)	10	13.6 ( 6.7 - 20.5)
Afraid of others knowing results	6	28.4 ( 4.2 - 53.4)	11	34.2 (18.0 - 50.3)	12	17.9 ( 8.6 - 27.2)	5	13.8 ( 1.6 - 25.9)
Don't know where to test	*	*	4	8 ( 0.0 - 16.0)	9	10.3 ( 3.9 - 16.6)	5	17.2 ( 3.6 - 30.6)
Test kits not available	3	15 ( 0.0 - 32.7)	4	9.4 ( 1.3 - 17.6)	*	*	*	*
Too far away	*	*	2	5 ( 0.0 - 13.0)	1	0.7 ( 0.0 - 1.7)	1	2.6 ( 0.0 - 7.1)
Afraid spouse/partner will know	1	6.7 ( 0.0 - 19.1)	*	*	1	0.8 ( 0.0 - 2.2)	*	*
Lacked spousal/partner consent	*	*	*	*	*	*	1	1.7 ( 0.0 - 4.1)
Cannot get treatment for HIV	*	*	*	*	*	*	1	1.4 ( 0.0 - 3.7)
Judgement/ stigma	*	*	*	*	*	*	*	*
Other	4	25.4 ( 0.0 - 49.8)	10	32.4 (15.2 - 49.5)	12	22.3 (11.0 - 33.6)	18	47.5 (30.8 - 64.0)
<b>Ever self- tested for HIV</b>								
Yes	204	23.3 (19.9 - 26.7)	199	19.3 (16.4 - 22.3)	222	26.0 (21.6 - 30.5)	134	18.0 (15.0 - 21.0)
No	548	76.7 (73.3 - 80.1)	697	80.7 (77.6 - 83.7)	504	74.0 (69.5 - 78.4)	476	82.0 (79.0 - 84.9)
<b>Result of last HIV self-test<sup>a,b</sup></b>								
Positive	32	12.0 (6.9 - 16.9)	31	15.6 (9.6 - 21.6)	22	9.4 (4.6 - 14.2)	10	9.2 (3.1 - 15.3)
Negative	172	88.0 (83.3 - 92.8)	167	84.4 (78.2 - 90.6)	199	90.6 (85.9 - 95.3)	123	90.8 (84.5 - 97.1)
<b>Confirmed HIV positive self-test resu</b>								
Yes	17	57.4 (41.5 - 73.1)	17	47.8 (29.8 - 65.5)	16	61.9 (37.1 - 86.3)	8	64.8 (25.2 - 100.0)
No	15	42.6 (27.1 - 58.3)	14	52.2 (34.4 - 70.3)	6	38.1 (13.6 - 63.1)	2	35.2 (0.0 - 73.3)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sample denominator is based on the previous question

<sup>c</sup> Computed using weighted average due to small numbers

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval.

Table 6.9.5B cont.: HIV Testing Among Self Reported HIV-Negative Men Who Have Sex With Men By Location, BBS, Kenya, 2024

	Machakos (N=822)		Mombasa (N=937)		Nairobi (N=743)		Nakuru (N=649)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Ever tested for HIV<sup>a</sup></b>								
Yes	582	100.0 (99.8 - 100.0)	720	100.0 (99.8 - 100.0)	453	100.0 (100.0 - 100.0)	522	100.0 (99.8 - 100.0)
<b>Last time tested for HIV<sup>a,b</sup></b>								
Less than 3 months	259	42.5 (37.7 - 47.4)	304	44.6 (40.3 - 48.9)	248	53.4 (47.8 - 59.1)	237	45.4 (40.0 - 50.9)
4-6 months	122	19.1 (15.8 - 22.5)	129	16.9 (13.8 - 19.9)	70	13.8 (9.7 - 17.8)	142	27.1 (22.4 - 31.8)
7-12 months	70	13.6 (10.4 - 16.9)	129	18.9 (15.5 - 22.3)	49	12.1 (8.2 - 16.0)	70	14.3 (10.7 - 17.8)
More than 12 months	122	24.7 (20.4 - 28.9)	123	19.6 (16.0 - 23.2)	84	20.7 (15.5 - 25.8)	68	13.2 (9.8 - 16.6)
<b>Result of most recent HIV test<sup>b</sup></b>								
Negative	582	100.0 (99.8 - 100.0)	720	100.0 (99.8 - 100.0)	453	100.0 (100.0 - 100.0)	522	100.0 (99.8 - 100.0)
<b>Reasons for not testing for HIV<sup>b</sup></b>								
Don't want to know if I have HIV	6	32.6 ( 6.8- 57.7)	6	10 ( 2.6- 17.3)	20	26.2 (15.5- 37.0)	3	7.9 ( 0.0- 16.0)
Don't need tests/low risk	2	24.1 ( 0.0- 53.7)	6	12.3 ( 3.7- 20.8)	19	24.8 (14.8- 34.8)	10	13.6 ( 6.7- 20.5)
Afraid of others knowing results	6	28.4 ( 4.2- 53.4)	11	34.2 (18.0- 50.3)	12	17.9 ( 8.6- 27.2)	5	13.8 ( 1.6- 25.9)
Don't know where to test	*	*	4	8 ( 0.0- 16.0)	9	10.3 ( 3.9- 16.6)	5	17.2 ( 3.6- 30.6)
Test kits not available	3	15 ( 0.0- 32.7)	4	9.4 ( 1.3- 17.6)	*	*	*	*
Too far away	*	*	2	5 ( 0.0- 13.0)	1	0.7 ( 0.0- 1.7)	1	2.6 ( 0.0- 7.1)
Afraid spouse/partner will know	1	6.7 ( 0.0- 19.1)	*	*	1	0.8 ( 0.0- 2.2)	*	*
Lacked spousal/partner consent	*	*	*	*	*	*	1	1.7 ( 0.0- 4.1)
Cannot get treatment for HIV	*	*	*	*	*	*	1	1.4 ( 0.0- 3.7)
Judgement/ stigma	*	*	*	*	*	*	*	*
Other	4	25.4 ( 0.0- 49.8)	10	32.4 (15.2- 49.5)	12	22.3 (11.0- 33.6)	18	47.5 (30.8- 64.0)
<b>Ever self- tested for HIV</b>								
Yes	136	20.3 (17.1 - 23.4)	135	16.8 (13.5 - 20.2)	160	29.5 (24.3 - 34.6)	101	15.3 (11.9 - 18.6)
No	446	79.7 (76.8 - 82.7)	585	83.2 (80.0 - 86.3)	293	70.5 (65.7 - 75.4)	421	84.7 (81.5 - 88.0)
<b>Result of last HIV self-test<sup>a,b</sup></b>								
Positive	0	0.0 (0.0 - 0.0)	1	2.6 (0.0 - 6.7)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Negative	136	100.0 (99.2 - 100.0)	134	97.4 (93.2 - 100.0)	160	100.0 (99.9 - 100.0)	101	100.0 (98.9 - 100.0)
<b>Confirmed HIV positive self-test res<sup>c</sup></b>								
Yes	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
No	0	0.0 (0.0 - 0.0)	1	100.0 (39.8 - 100.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sample denominator is based on the previous question

<sup>c</sup> Computed using weighted average due to small numbers

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval.

**ART:**

ART uptake among MSM living with HIV in Kenya was nearly universal (98.6%), with several counties, including Nairobi, Nakuru, and Kisumu, reporting 100% coverage. Most had been on ART for over five years (37.0%), while 13.9% were recent initiates (<6 months). Current ART use was 99.2%, showing excellent retention across regions. Drop-in centers (52.0%) and private clinics (35.2%) were the main service points, with regional differences—Kisumu and Nakuru relying more on drop-in centers, and Machakos and Nakuru on private clinics. Most (82.4%) had refilled ART within the past three months, and 63.4% reported full adherence, though 36.9% missed at least one dose, with Nakuru (45.3%) and Kiambu (37.5%) showing the highest non-adherence, highlighting the need for stronger adherence support.

Table 6.9.6: Uptake and Adherence to ART Among Men Who Have Sex with Men by Location, BBS, Kenya, 2024

	Overall Estimate (N=5242)		Kiambu (N=705)		Kilifi (N=560)		Kisumu (N=826)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Ever been on ART<sup>a</sup></b>								
Yes	882	98.6 (97.0 - 100.0)	180	98.9 (97.3 - 100.0)	43	93.2 (82.9 - 100.0)	88	97.4 (94.2 - 100.0)
No	5	1.6 (0.0 - 3.2)	1	1.1 (0.0 - 2.7)	1	6.8 (0.0 - 17.3)	2	2.6 (0.0 - 5.9)
<b>When started taking ART</b>								
<6 months	114	13.9 (10.0 - 17.7)	26	14.7 (8.1 - 21.3)	2	4.9 (0.0 - 10.9)	16	21.0 (12.4 - 29.8)
6-12 months	86	11.8 (8.4 - 15.1)	17	11.4 (6.7 - 16.2)	8	21.5 (5.1 - 37.7)	9	9.1 (2.9 - 15.2)
1-3 yrs	192	22.1 (20.1 - 24.0)	39	22.2 (16.1 - 28.3)	8	20.9 (2.2 - 39.5)	15	16.7 (8.5 - 25.1)
3-5 yrs	128	14.9 (10.6 - 19.1)	30	14.9 (8.9 - 20.7)	7	23.4 (8.7 - 38.9)	5	4.3 (0.9 - 7.8)
>5 yrs	323	37.0 (32.5 - 41.5)	59	36.9 (27.6 - 46.2)	10	29.4 (10.7 - 47.6)	41	48.9 (36.7 - 60.7)
<b>Currently on ART<sup>b</sup></b>								
Yes	875	99.2 (98.4 - 100.0)	179	99.4 (98.6 - 100.0)	43	100.0 (99.1 - 100.0)	88	100.0 (99.1 - 100.0)
No	7	0.9 (0.06 - 1.7)	1	0.6 (0.0 - 1.4)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
<b>Places receive ART<sup>a,b</sup></b>								
Community ART	7	0.8 (0.05 - 1.5)	0	0.0 (0.0 - 0.0)	1	0.9 (0.0 - 2.1)	0	0.0 (0.0 - 0.0)
Drop-in centre	516	52.0 (41.8 - 62.2)	97	46.4 (38.3 - 54.6)	23	54.9 (33.8 - 75.9)	60	63.6 (51.0 - 76.4)
NGO/FBO facility	23	2.6 (1.2 - 4.0)	10	5.5 (1.6 - 9.5)	1	3.8 (0.0 - 11.4)	2	1.0 (0.03 - 1.9)
Private clinic/hospital pharmacy	252	35.2 (27.2 - 43.3)	60	39.7 (31.2 - 48.2)	17	38.9 (18.6 - 59.4)	21	31.0 (20.5 - 41.4)
Public clinic/hospital pharmacy	74	8.3 (4.3 - 12.3)	12	8.4 (2.5 - 14.2)	1	1.6 (0.0 - 4.0)	5	4.4 (0.0 - 9.1)
Private pharmacy	2	0.2 (0.0 - 0.4)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
<b>Time of last clinic visit to facility for ART refill<sup>a,b</sup></b>								
< 3 months ago	724	82.4 (75.9 - 89.0)	136	78.4 (72.1 - 84.6)	29	63.5 (43.8 - 83.1)	75	87.7 (80.4 - 94.9)
3-5 months ago	115	14.2 (9.5 - 19.0)	30	16.7 (10.6 - 22.7)	10	27.2 (10.2 - 44.3)	12	12.3 (5.0 - 19.8)
6-11 months	29	3.3 (0.8 - 5.7)	10	4.3 (1.3 - 7.4)	2	9.3 (0.0 - 25.1)	0	0.0 (0.0 - 0.0)
1-2 years ago	2	0.0 (0.0 - 0.03)	2	0.6 (0.09 - 1.2)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
<b>Missed taking one or more ART pills in the last one month<sup>a,b</sup></b>								
Yes	366	36.9 (32.5 - 41.3)	74	37.5 (29.6 - 45.5)	14	33.1 (14.8 - 51.5)	36	34.4 (23.7 - 45.4)
No	507	63.4 (59.0 - 67.9)	103	62.5 (54.4 - 70.5)	29	66.9 (48.2 - 85.5)	52	65.6 (54.4 - 76.6)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sample denominator is based on the previous question

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; ART, antiretroviral therapy; NGO, non-government organization; FBO, faith-based organization.

Table 6.9.6 cont: Uptake and Adherence to ART Among Men Who Have Sex with Men by Location, BBS, Kenya, 2024

	Machakos (N=822)		Mombasa (N=937)		Nairobi (N=743)		Nakuru (N=649)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Ever been on ART<sup>a</sup></b>								
Yes	128	98.5 (95.8 - 100.0)	141	100.0 (99.2 - 100.0)	249	100.0 (99.9 - 100.0)	53	100.0 (98.0 - 100.0)
No	1	1.5 (0.0 - 4.2)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
<b>When started taking ART</b>								
<6 months	16	16.6 (9.5 - 23.8)	14	14.2 (7.0 - 21.5)	34	15.9 (9.8 - 22.1)	6	9.4 (3.0 - 15.8)
6-12 months	19	14.2 (8.8 - 19.6)	10	7.7 (1.9 - 13.7)	18	10.4 (5.4 - 15.3)	5	8.0 (2.1 - 14.0)
1-3 yrs	28	20.6 (13.4 - 27.8)	26	25.0 (16.5 - 33.6)	62	22.5 (16.3 - 28.6)	14	30.0 (15.4 - 44.5)
3-5 yrs	19	16.0 (8.9 - 23.2)	24	14.6 (9.1 - 20.0)	37	16.6 (11.0 - 22.2)	6	13.7 (3.8 - 23.4)
>5 yrs	45	32.6 (23.7 - 41.4)	56	38.4 (29.3 - 47.3)	94	34.7 (27.2 - 42.2)	18	38.9 (24.9 - 53.1)
<b>Currently on ART<sup>b</sup></b>								
Yes	127	98.9 (97.5 - 100.0)	138	96.3 (91.8 - 100.0)	247	98.3 (96.3 - 100.0)	53	100.0 (98.0 - 100.0)
No	1	1.1 (0.0 - 2.6)	3	3.7 (0.0 - 8.0)	2	1.7 (0.0 - 3.6)	0	0.0 (0.0 - 0.0)
<b>Places receive ART<sup>a,b</sup></b>								
Community ART	1	1.5 (0.0 - 3.4)	0	0.0 (0.0 - 0.0)	3	1.5 (0.0 - 3.3)	2	5.0 (0.0 - 11.0)
Drop-in centre	77	55.1 (46.2 - 64.0)	78	51.7 (42.8 - 60.6)	168	66.0 (58.7 - 73.4)	13	23.7 (12.7 - 34.8)
NGO/FBO facility	1	1.5 (0.0 - 3.5)	1	0.6 (0.0 - 1.4)	6	2.1 (0.0 - 4.4)	2	4.8 (0.0 - 11.3)
Private clinic/hospital pharmacy	42	36.8 (27.8 - 46.0)	34	27.9 (19.9 - 36.0)	46	19.5 (14.1 - 24.8)	32	54.6 (41.4 - 68.3)
Public clinic/hospital pharmacy	6	5.1 (1.6 - 8.6)	24	18.4 (11.6 - 25.2)	22	9.6 (5.3 - 13.8)	4	11.9 (0.3 - 22.9)
Private pharmacy	0	0.0 (0.0 - 0.0)	1	1.4 (0.0 - 3.3)	1	0.4 (0.0 - 1.0)	0	0.0 (0.0 - 0.0)
<b>Time of last clinic visit to facility for ART refill<sup>a,b</sup></b>								
< 3 months ago	112	89.9 (85.9 - 94.0)	118	85.9 (79.7 - 92.1)	210	85.3 (79.1 - 91.5)	44	85.2 (76.4 - 93.8)
3-5 months ago	12	8.5 (4.5 - 12.3)	13	7.8 (3.5 - 12.1)	29	12.2 (6.2 - 18.3)	9	14.8 (6.2 - 23.6)
6-11 months	3	1.6 (0.5 - 2.7)	7	6.3 (1.5 - 11.1)	7	2.5 (0.4 - 4.6)	0	0.0 (0.0 - 0.0)
1-2 years ago	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
<b>Missed taking one or more ART pills in the last one month<sup>a,b</sup></b>								
Yes	48	31.4 (23.6 - 39.2)	49	31.3 (23.6 - 39.0)	122	45.3 (37.9 - 52.8)	23	44.2 (30.3 - 58.4)
No	79	68.6 (60.9 - 76.3)	89	68.7 (60.7 - 76.8)	125	54.7 (47.2 - 62.1)	30	55.8 (41.4 - 69.9)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sample denominator is based on the previous question

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; ART, antiretroviral therapy; NGO, non-government organization; FBO, faith-based organization.

## TB:

Among MSM living with HIV in Kenya, 100% were screened for TB symptoms during their last clinic visit, showing strong integration of TB screening into HIV care. However, among the 16.6% who reported TB symptoms in the past year, 64.6% did not receive diagnostic testing, and only 11.7% underwent both a chest X-ray and sputum test, revealing major gaps in follow-up evaluation. Of those tested, 23.3% were diagnosed with TB, and all received treatment, indicating effective care linkage. Overall, while screening is universal, diagnostic testing and active case finding need to be strengthened, underscoring the need to improve TB diagnostic access and follow-up among MSM living with HIV.

Table 6.9.7: Tuberculosis Screening And Treatment Among Men Who Have Sex With Men By Location, BBS, Kenya, 2024

	Overall Estimate	
	n	% (95% CI)
<b>Self-reported HIV status</b>		
Positive	894	15.8 (10.0 - 21.6)
Negative	3894	84.1 (78.3 - 89.9)
Indeterminate	5	0.1 (0.0 - 0.2)
<b>Asked about TB symptoms at last HIV clinic visit<sup>b</sup></b>		
Yes	894	100.0 (100.0 - 100.0)
No	0	0.0 (0.0 - 0.0)
Currently on TB treatment	0	0.0 (0.0 - 0.0)
<b>Experienced TB symptoms in last 12 months<sup>a,b</sup></b>		
Yes	139	16.6 (10.6 - 22.7)
No	751	83.4 (77.3 - 89.4)
<b>Received chest x-ray or sputum test in last 12 months<sup>a,b</sup></b>		
Chest x-ray and sputum test	14	11.7 (2.4 - 21.0)
Chest x-ray	8	4.0 (0.0 - 8.1)
Sputum test	29	19.8 (8.1 - 31.4)
None	86	64.6 (49.3 - 79.8)
<b>Result of last TB test<sup>a,b</sup></b>		
Positive	8	23.3 (5.3 - 41.2)
Negative	30	76.7 (58.8 - 94.7)
Did not received results	0	0.0 (0.0 - 0.0)
<b>Received treatment last time had TB<sup>b</sup></b>		
Yes	8	100.0 (100.0 - 100.0)
No	0	0.0 (0.0 - 0.0)
<i>All proportions and confidence intervals are weighted population estimates.</i>		
<i><sup>a</sup> Non-responses and missing data were not included in the analysis</i>		
<i><sup>b</sup> Sample denominator is based on the previous question</i>		
<i>Abbreviations: N, sample denominator; n, sample numerator; CI, 95% confidence</i>		

## 6.10: Stigma and Discrimination

Overall, the majority of MSM in Kenya reported low levels of internalized stigma and shame, with over 75% disagreeing that they felt ashamed of having sex with men. Most participants also felt comfortable being open among other MSM and with community health workers, though smaller groups—particularly in Mombasa and Kilifi—still expressed some discomfort. Disclosure was most common among MSM peers (82.5%) and less so to family (22.1%) or partners (19.0%), highlighting reliance on peer networks for social support. Despite this, discrimination and violence remain present: 12.4% experienced verbal harassment and 8.1% were blackmailed in the past six months, with the highest rates in Nairobi. Most who experienced violence (71.3%) did not report it, reflecting limited access to justice or fear of further stigma. Arrest due to same-sex behavior was rare (1.3% in past six months), but when it occurred, support most often came from NGOs or networks (≈28%), underscoring the critical protection role of community-based organizations.

Most MSM (over 85%) did not avoid health services, but a notable minority reported doing so because of fear of being outed or discriminated against, especially in Nakuru (17.2%) and Kilifi (15.2%). Avoidance of HIV services mirrored this pattern, suggesting persistent stigma even in healthcare settings. Around 9.4% avoided disclosing their MSM status to HIV providers in the last six months, with higher nondisclosure in Kisumu (14.1%) and Kiambu (11.8%), reflecting lingering concerns about confidentiality. Direct discrimination by HIV service providers was uncommon (1.6% in past six months), yet nearly half of respondents admitted they concealed their sexual identity (“No, because I hid”), especially in Mombasa (58.7%) and Kiambu (52.1%). Together, these findings point to overall improvement in access and provider sensitivity but reveal enduring fears around disclosure that continue to shape how MSM engage with Kenya’s health system.

Table 6.10: Stigma And Discrimination Among Men Who Have Sex With Men By Location, BBS, Kenya , 2024

	Overall Estimate (N=5242)		Kiambu (N=705)		Kilifi (N=560)		Kisumu (N=826)		Machakos (N=822)		Mombasa (N=937)		Nairobi (N=743)		Nakuru (N=649)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Ashamed to have sex with men<sup>a</sup></b>																
Strongly agree	172	4.0 (1.4 - 6.6)	15	2.4 (0.0 - 5.1)	45	9.8 (6.6 - 13.0)	12	1.4 (0.6 - 2.3)	58	8.2 (1.9 - 14.5)	25	3.2 (1.6 - 4.8)	11	1.7 (0.0 - 4.4)	6	1.5 (0.2 - 2.7)
Agree	585	12.4 (9.5 - 15.3)	49	7.6 (3.4 - 11.9)	83	14.3 (10.8 - 17.8)	94	12.0 (9.5 - 14.4)	90	11.4 (8.7 - 14.0)	101	11.8 (9.4 - 14.2)	110	19.8 (14.6 - 25.0)	58	9.7 (7.2 - 12.2)
Neutral	407	8.1 (4.5 - 11.6)	124	17.9 (13.7 - 22.0)	55	10.7 (7.6 - 13.8)	64	7.3 (5.2 - 9.4)	37	3.6 (1.4 - 5.8)	41	4.5 (3.1 - 5.9)	50	6.4 (4.4 - 8.5)	36	6.2 (4.1 - 8.4)
Disagree	2159	40.9 (27.2 - 54.5)	269	39.6 (33.9 - 45.4)	166	25.6 (21.3 - 29.9)	527	65.7 (61.9 - 69.4)	165	17.5 (14.3 - 20.6)	220	27.3 (23.9 - 30.7)	487	60.4 (54.6 - 66.1)	325	49.9 (45.8 - 54.1)
Strongly disagree	1909	34.7 (21.3 - 48.0)	244	32.5 (27.2 - 37.8)	211	39.6 (34.8 - 44.5)	127	13.6 (11.1 - 16.2)	471	59.4 (52.3 - 66.4)	549	53.2 (49.7 - 56.7)	84	11.8 (7.2 - 16.3)	223	32.7 (28.7 - 36.7)
<b>Ashamed to disclose having sex with men when among other men who have sex with men<sup>a</sup></b>																
Strongly agree	177	3.5 (0.9 - 6.0)	16	2.1 (0.03 - 4.2)	31	7.4 (4.5 - 10.3)	16	2.0 (0.9 - 3.1)	84	9.4 (4.7 - 14.1)	11	1.2 (0.5 - 1.9)	13	1.5 (0.6 - 2.4)	6	0.7 (0.2 - 1.3)
Agree	535	10.9 (8.3 - 13.5)	63	9.7 (5.8 - 13.7)	62	9.6 (6.7 - 12.5)	127	18.0 (14.8 - 21.1)	90	12.1 (6.1 - 18.0)	47	6.4 (4.2 - 8.6)	79	9.9 (6.2 - 13.6)	67	10.8 (8.2 - 13.3)
Neutral	285	5.6 (4.4 - 6.9)	51	7.8 (4.7 - 10.8)	33	5.4 (3.3 - 7.4)	53	6.7 (4.3 - 9.2)	40	4.2 (1.1 - 7.3)	30	3.6 (2.2 - 5.1)	33	4.4 (2.6 - 6.2)	45	7.6 (5.3 - 9.9)
Disagree	2196	42.0 (27.7 - 56.2)	306	46.2 (40.2 - 52.2)	165	25.3 (21.0 - 29.5)	496	60.0 (56.1 - 63.9)	195	20.8 (17.3 - 24.4)	225	27.0 (23.7 - 30.3)	533	72.6 (67.0 - 78.2)	276	41.6 (37.4 - 45.7)
Strongly disagree	2035	38.0 (23.4 - 52.6)	264	34.1 (28.8 - 39.5)	267	52.3 (47.5 - 57.1)	130	13.3 (10.9 - 15.7)	413	53.5 (46.2 - 60.9)	624	61.7 (58.2 - 65.2)	84	11.7 (6.2 - 17.2)	253	39.3 (35.1 - 43.6)
<b>Ashamed to disclose about having sex with men to community social or health worker<sup>a</sup></b>																
Strongly agree	184	3.9 (2.3 - 5.4)	23	3.6 (0.5 - 6.7)	21	4.7 (2.3 - 7.1)	18	2.3 (0.6 - 4.1)	56	7.1 (3.6 - 10.6)	18	2.4 (1.3 - 3.5)	10	1.3 (0.0 - 3.5)	38	5.8 (3.9 - 7.7)
Agree	658	14.2 (11.2 - 17.1)	69	10.1 (6.7 - 13.6)	80	14.0 (10.4 - 17.5)	121	16.1 (13.1 - 19.1)	112	14.4 (8.8 - 20.0)	69	9.5 (6.9 - 12.0)	86	13.7 (8.9 - 18.5)	121	21.4 (17.7 - 25.2)
Neutral	430	8.8 (5.9 - 11.8)	83	11.6 (7.6 - 15.5)	41	7.9 (5.1 - 10.7)	78	10.3 (7.7 - 12.8)	33	3.6 (0.7 - 6.6)	50	5.5 (3.9 - 7.0)	53	7.5 (5.0 - 10.0)	92	15.8 (12.6 - 19.0)
Disagree	2248	42.2 (28.0 - 56.4)	317	48.6 (43.0 - 54.1)	168	25.5 (21.4 - 29.6)	544	64.9 (60.9 - 68.9)	209	23.1 (19.2 - 27.1)	218	26.0 (22.6 - 29.5)	526	68.9 (62.5 - 75.3)	266	38.2 (34.3 - 42.1)
Strongly disagree	1713	30.9 (15.3 - 46.5)	212	26.1 (21.3 - 30.9)	250	48.0 (43.1 - 52.9)	62	6.3 (4.5 - 8.2)	409	51.7 (44.8 - 58.6)	582	56.6 (53.0 - 60.2)	67	8.6 (3.8 - 13.5)	131	18.7 (15.5 - 22.0)
<b>Disclosed having sex with men to the following people<sup>b</sup></b>																
Colleagues	223	3.5 (1.3 - 5.7)	12	1.6 (0.4 - 2.7)	48	6.7 (4.3 - 9.1)	13	1.0 (0.4 - 1.6)	75	8.7 (4.3 - 13.2)	25	1.8 (1.1 - 2.4)	31	2.6 (1.3 - 3.9)	19	2.2 (1.3 - 3.1)
Family	1267	22.1 (18.8 - 25.4)	215	27.8 (22.7 - 33.0)	135	21.5 (17.4 - 25.6)	138	15.2 (12.3 - 18.1)	207	25.2 (18.8 - 31.6)	250	22.4 (19.6 - 25.2)	204	24.9 (20.7 - 29.1)	118	17.5 (14.4 - 20.7)
Friends/acquaintances who have sex with men	4436	82.5 (75.5 - 89.6)	579	81.4 (76.9 - 85.9)	391	71.4 (66.9 - 75.9)	606	70.4 (66.4 - 74.3)	733	87.9 (83.5 - 92.4)	915	97.2 (95.9 - 98.5)	666	87.9 (82.7 - 93.0)	546	81.4 (77.8 - 84.9)
Friends/acquaintances who are do not have sex with men	1344	23.6 (18.9 - 28.3)	247	32.1 (26.8 - 37.4)	143	24.0 (19.7 - 28.3)	158	17.5 (14.6 - 20.5)	281	32.4 (26.6 - 38.2)	215	21.4 (18.6 - 24.2)	175	20.7 (16.1 - 25.3)	125	17.1 (14.1 - 20.1)
Healthcare/ HIV care providers	1675	30.6 (19.0 - 42.2)	108	13.8 (10.0 - 17.6)	275	50.5 (45.4 - 55.5)	92	9.8 (7.5 - 12.0)	391	44.0 (36.0 - 52.0)	277	25.4 (22.4 - 28.4)	326	42.5 (36.8 - 48.3)	206	28.3 (24.9 - 31.7)
Partner/spouse	1025	19.0 (9.2 - 28.8)	49	8.0 (3.8 - 12.1)	224	44.7 (39.5 - 49.9)	83	9.1 (6.9 - 11.3)	251	25.9 (20.5 - 31.3)	261	21.7 (19.3 - 24.2)	87	9.7 (7.2 - 12.2)	70	14.2 (10.8 - 17.6)
No one	313	7.0 (3.3 - 10.7)	24	3.3 (0.6 - 6.1)	96	13.6 (10.3 - 16.9)	91	13.7 (10.4 - 17.0)	42	6.6 (2.1 - 11.1)	9	1.4 (0.3 - 2.4)	10	2.7 (0.7 - 4.7)	41	7.7 (4.9 - 10.6)
Other	8	0.08 (0.0 - 0.2)	4	0.5 (0.05 - 0.9)	0	0.0 (0.0 - 0.0)	2	0.2 (0.0 - 0.3)	0	0.0 (0.0 - 0.0)	1	0.06 (0.0 - 0.1)	0	0.0 (0.0 - 0.0)	1	0.06 (0.004 - 0.1)
<b>Felt excluded from family activities because of having sex with men<sup>a</sup></b>																
Yes, in the last 6 months	385	6.6 (4.5 - 8.8)	45	5.2 (3.0 - 7.4)	55	8.6 (5.8 - 11.5)	47	6.0 (3.9 - 8.2)	38	4.0 (2.7 - 5.4)	118	11.9 (9.7 - 14.1)	33	3.5 (1.7 - 5.2)	49	7.1 (5.1 - 9.2)
Yes, but not in the last 6 months	351	6.3 (4.4 - 8.2)	45	6.6 (3.1 - 10.0)	59	8.4 (6.1 - 10.8)	57	6.0 (4.3 - 7.7)	27	3.8 (2.2 - 5.5)	42	3.6 (2.4 - 4.7)	84	10.8 (7.2 - 14.3)	37	5.0 (3.4 - 6.5)
No	4493	87.1 (84.9 - 89.3)	613	88.2 (84.8 - 91.7)	443	82.9 (79.5 - 86.4)	720	88.0 (85.3 - 90.7)	757	92.1 (89.9 - 94.4)	776	84.6 (82.1 - 87.0)	622	85.8 (81.9 - 89.7)	562	87.9 (85.4 - 90.4)
<b>Family members made unfair comments or gossiped because of having sex with men<sup>a</sup></b>																
Yes, in the last 6 months	592	10.0 (7.9 - 12.1)	87	10.7 (7.7 - 13.8)	69	10.5 (7.5 - 13.5)	87	10.4 (7.8 - 13.1)	85	10.6 (8.0 - 13.1)	152	14.6 (12.3 - 17.0)	51	5.4 (2.7 - 8.2)	61	8.1 (5.9 - 10.3)
Yes, but not in the last 6 months	475	8.6 (5.8 - 11.5)	88	11.2 (7.7 - 14.7)	62	8.4 (6.0 - 10.7)	79	8.6 (6.6 - 10.7)	40	5.3 (3.5 - 7.1)	48	4.2 (2.9 - 5.4)	107	15.7 (12.3 - 19.2)	51	7.0 (5.1 - 9.0)
No	4166	81.3 (79.5 - 83.1)	530	78.1 (74.0 - 82.2)	429	81.2 (77.4 - 84.8)	658	80.9 (77.6 - 84.3)	696	84.2 (81.0 - 87.3)	737	81.2 (78.6 - 83.8)	582	78.9 (74.1 - 83.6)	534	84.9 (81.9 - 87.8)
<b>Ever verbally harassed/scolded<sup>a</sup></b>																
Yes, in the last 6 months	756	12.4 (8.4 - 16.5)	115	13.5 (10.3 - 16.7)	87	13.8 (10.6 - 17.1)	107	12.3 (9.5 - 15.1)	79	9.7 (5.9 - 13.4)	236	23.0 (20.2 - 25.8)	58	5.9 (3.3 - 8.5)	74	8.8 (6.7 - 10.9)
Yes, but not in the last 6 months	577	10.1 (6.9 - 13.2)	116	15.7 (11.4 - 20.0)	96	15.2 (11.7 - 18.7)	95	10.2 (8.0 - 12.4)	75	8.1 (4.8 - 11.3)	57	4.5 (3.2 - 5.7)	93	10.7 (8.1 - 13.4)	45	6.1 (4.4 - 7.9)
No	3903	77.5 (73.0 - 82.1)	474	70.8 (66.0 - 75.7)	376	70.9 (66.2 - 75.7)	622	77.5 (74.1 - 80.9)	668	82.3 (77.4 - 87.1)	644	72.5 (69.5 - 75.6)	590	83.4 (79.7 - 87.0)	529	85.0 (82.4 - 87.8)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the respondent driven sampling package in R, using Gile's sequential sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sum of sample numerator is higher than the sample denominator, as multiple responses could be selected

<sup>c</sup> Sample denominator is based on the previous question

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; CBO, community-based organization; DICE, drop-in center; NGO, non-governmental organization; AIDS, acquired immunodeficiency syndrome.

Table 6.10 cont: Stigma And Discrimination Among Men Who Have Sex With Men By Location, BBS, Kenya , 2024

	Overall Estimate (N=5242)		Kiambu (N=705)		Kilifi (N=560)		Kisumu (N=826)		Machakos (N=822)		Mombasa (N=937)		Nairobi (N=743)		Nakuru (N=649)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Ever blackmailed<sup>a</sup></b>																
Yes, in the last 6 months	477	8.1 (5.9 - 10.3)	61	8.1 (5.1 - 11.1)	70	10.5 (7.7 - 13.4)	84	9.5 (7.2 - 11.8)	54	6.1 (4.3 - 7.9)	125	12.8 (10.5 - 15.0)	47	5.3 (2.7 - 7.9)	36	4.6 (3.0 - 6.1)
Yes, but not in the last 6 months	568	9.8 (6.6 - 13.1)	116	15.1 (10.9 - 19.4)	81	13.4 (10.1 - 16.7)	80	8.7 (6.6 - 10.7)	76	8.2 (5.0 - 11.4)	65	5.1 (3.9 - 6.3)	113	14.0 (10.9 - 17.1)	37	4.3 (3.0 - 5.7)
No	4190	82.1 (78.2 - 85.9)	527	76.8 (71.8 - 81.8)	408	76.1 (72.0 - 80.1)	660	81.8 (78.8 - 84.7)	692	85.7 (81.9 - 89.5)	746	82.2 (79.7 - 84.6)	582	80.7 (76.9 - 84.5)	575	91.1 (89.1 - 93.1)
<b>Ever forced to have sex<sup>a</sup></b>																
Yes, in the last 6 months	297	5.0 (3.5 - 6.5)	61	8.8 (5.6 - 12.0)	31	4.5 (2.6 - 6.3)	53	5.5 (4.0 - 7.0)	25	2.5 (1.5 - 3.5)	65	6.4 (4.7 - 8.2)	36	4.1 (2.4 - 5.8)	26	3.3 (2.1 - 4.4)
Yes, but not in the last 6 months	375	6.5 (3.9 - 9.2)	96	12.1 (8.7 - 15.6)	42	5.6 (3.7 - 7.4)	62	6.2 (4.4 - 7.9)	49	5.0 (3.5 - 6.6)	20	2.1 (1.0 - 3.2)	78	10.7 (7.8 - 13.5)	28	4.1 (2.6 - 5.5)
No	4566	88.5 (84.9 - 92.1)	547	79.1 (74.9 - 83.3)	487	90.0 (87.4 - 92.6)	710	88.3 (86.0 - 90.6)	748	92.5 (90.6 - 94.4)	852	91.5 (89.4 - 93.6)	628	85.2 (82.1 - 88.4)	594	92.7 (90.8 - 94.5)
<b>Experiences of forced sex believed to be related to having sex with men<sup>a,c</sup></b>																
Yes	496	75.7 (69.3 - 82.0)	100	64.2 (55.0 - 73.3)	58	79.4 (68.6 - 90.1)	74	66.4 (57.0 - 75.8)	54	77.3 (68.7 - 85.7)	74	81.3 (71.5 - 91.3)	88	71.9 (61.5 - 82.5)	48	88.0 (79.3 - 96.5)
No	174	24.7 (18.4 - 30.9)	57	35.8 (26.3 - 45.4)	14	20.6 (9.7 - 31.7)	41	33.6 (24.0 - 43.2)	20	22.7 (14.3 - 31.3)	11	18.7 (8.6 - 28.6)	25	28.1 (17.5 - 38.5)	6	12.0 (3.0 - 21.3)
<b>Been physically harassed or hurt because of having sex with men</b>																
Yes, in the last 6 months	401	6.6 (4.2 - 9.0)	59	8.4 (5.6 - 11.3)	52	6.9 (4.8 - 9.1)	58	8.0 (5.7 - 10.4)	31	2.9 (0.9 - 4.9)	123	12.1 (10.0 - 14.2)	40	3.9 (1.6 - 6.1)	38	4.2 (3.0 - 5.3)
Yes, but not in the last 6 months	392	6.6 (4.5 - 8.7)	86	10.6 (7.5 - 13.6)	60	10.3 (7.3 - 13.4)	37	3.8 (2.3 - 5.4)	55	5.1 (3.7 - 6.5)	55	5.1 (3.6 - 6.5)	66	7.3 (5.0 - 9.6)	33	4.1 (2.7 - 5.5)
No	4445	86.8 (83.4 - 90.1)	560	81.0 (76.7 - 85.2)	447	82.7 (79.1 - 86.3)	730	88.2 (85.4 - 90.9)	736	92.0 (89.3 - 94.6)	759	82.8 (80.3 - 85.4)	636	88.9 (85.6 - 92.1)	577	91.7 (90.0 - 93.5)
<b>Actions after experiencing violence to:<sup>a,c</sup></b>																
Did not report	1118	71.3 (65.1 - 77.5)	216	70.1 (64.4 - 75.8)	119	63.5 (55.5 - 71.6)	186	77.8 (72.3 - 83.1)	156	83.6 (79.2 - 88.0)	197	76.7 (72.0 - 81.2)	165	65.8 (58.9 - 72.7)	79	60.6 (51.5 - 69.5)
Informed the local chief	10	0.4 (0.05 - 0.7)	2	0.8 (0.0 - 1.7)	0	0.0 (0.0 - 0.0)	1	0.2 (0.0 - 0.7)	0	0.0 (0.0 - 0.0)	5	1.2 (0.4 - 1.9)	2	0.8 (0.0 - 2.0)	0	0.0 (0.0 - 0.0)
Reported to NGO/CBO	91	5.6 (1.9 - 9.2)	27	8.2 (5.0 - 11.3)	14	9.2 (3.5 - 14.9)	15	3.7 (1.5 - 6.0)	4	1.1 (0.1 - 2.0)	4	1.0 (0.0 - 2.0)	5	1.9 (0.06 - 3.8)	22	14.5 (8.2 - 20.7)
Reported to peer/outreach worker	53	2.6 (1.7 - 3.5)	10	1.4 (0.6 - 2.3)	10	4.5 (1.3 - 7.7)	9	2.7 (0.0 - 5.4)	5	2.2 (0.6 - 3.9)	3	0.9 (0.0 - 1.8)	13	3.4 (0.8 - 6.0)	3	2.8 (0.0 - 5.6)
Reported to police	176	9.2 (6.8 - 11.6)	27	7.2 (4.1 - 10.3)	25	13.2 (6.7 - 19.6)	22	6.1 (2.8 - 9.3)	16	5.4 (3.2 - 7.7)	49	13.7 (9.9 - 17.6)	23	9.2 (4.9 - 13.4)	14	9.7 (4.5 - 15.0)
Shared with friends/family	85	4.3 (2.4 - 6.2)	23	5.8 (3.6 - 7.9)	5	1.7 (0.0 - 3.4)	12	3.6 (1.4 - 5.8)	16	5.9 (3.1 - 8.6)	3	0.4 (0.2 - 0.6)	18	7.4 (3.2 - 11.5)	8	5.2 (1.7 - 8.7)
Went to clinic	27	1.4 (0.6 - 2.3)	9	3.0 (1.0 - 4.9)	3	0.9 (0.0 - 2.3)	1	0.09 (0.07 - 0.1)	3	1.3 (0.1 - 2.5)	4	1.1 (0.0 - 2.3)	6	3.0 (0.7 - 5.2)	1	0.4 (0.0 - 0.8)
Went to DICE	146	8.0 (4.3 - 11.8)	7	2.9 (0.0 - 5.8)	25	12.2 (6.9 - 17.4)	24	7.3 (3.4 - 11.1)	10	2.6 (1.3 - 3.9)	32	8.1 (5.3 - 10.9)	39	16.7 (11.0 - 22.3)	9	6.1 (2.0 - 10.3)
Went to violence center	27	1.3 (0.6 - 1.9)	5	1.4 (0.1 - 2.7)	5	1.7 (0.0 - 3.7)	4	1.4 (0.07 - 2.7)	3	0.6 (0.4 - 0.8)	0	0.0 (0.0 - 0.0)	5	1.3 (0.1 - 2.5)	5	3.8 (0.0 - 7.7)
Other	31	1.7 (0.8 - 2.6)	6	3.0 (0.07 - 5.9)	4	2.5 (0.0 - 6.1)	8	2.3 (0.4 - 4.1)	1	0.2 (0.04 - 0.3)	10	1.9 (0.8 - 3.1)	0	0.0 (0.0 - 0.0)	2	2.1 (0.0 - 4.8)
<b>Been arrested because of having sex with men<sup>a</sup></b>																
Yes, in the last 6 months	77	1.3 (0.7 - 1.9)	7	1.6 (0.0 - 3.2)	10	1.1 (0.4 - 1.9)	9	1.5 (0.4 - 2.5)	3	0.2 (0.01 - 0.4)	28	3.0 (1.9 - 4.1)	10	0.8 (0.0 - 1.9)	10	1.1 (0.5 - 1.7)
Yes, but not in the last 6 months	120	1.5 (0.9 - 2.0)	17	1.4 (0.4 - 2.5)	10	1.2 (0.4 - 2.0)	16	1.1 (0.6 - 1.7)	15	1.0 (0.6 - 1.4)	20	1.4 (0.7 - 2.1)	31	3.1 (1.5 - 4.6)	11	1.0 (0.5 - 1.6)
No	5042	97.2 (96.4 - 98.1)	681	97.0 (94.5 - 99.5)	540	97.7 (96.6 - 98.7)	800	97.4 (96.3 - 98.6)	804	98.8 (98.3 - 99.3)	889	95.6 (94.1 - 97.0)	701	96.1 (94.1 - 98.1)	627	97.9 (97.0 - 98.8)
<b>Received help dealing with the authorities last time arrested from:<sup>a,c</sup></b>																
AIDS tribunal	1	0.01 (0.0 - 0.3)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	7.6 (0.0 - 20.5)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Did not receive help	26	17.0 (5.1 - 28.9)	3	27.1 (5.3 - 49.1)	2	10.2 (0.0 - 26.0)	0	0.0 (0.0 - 0.0)	1	6.7 (0.0 - 13.7)	13	45.5 (26.4 - 63.8)	6	22.3 (6.3 - 38.3)	1	2.7 (0.6 - 4.6)
Family/regular partner	27	21.3 (11.5 - 31.1)	3	34.6 (8.0 - 62.1)	6	37.2 (13.3 - 61.3)	3	17.7 (0.3 - 35.7)	0	0.0 (0.0 - 0.0)	4	18.3 (4.7 - 32.2)	8	26.0 (10.1 - 41.6)	3	12.5 (1.6 - 23.3)
Legal support	28	18.8 (9.8 - 27.9)	2	16.2 (0.0 - 34.2)	0	0.0 (0.0 - 0.0)	4	18.0 (0.7 - 35.5)	4	25.7 (13.3 - 36.8)	6	14.3 (5.2 - 23.4)	7	24.5 (8.0 - 40.8)	5	36.1 (15.5 - 57.0)
Network	30	26.8 (15.5 - 38.1)	2	13.8 (0.0 - 27.8)	4	21.8 (4.2 - 38.6)	3	35.2 (4.2 - 65.5)	4	39.7 (16.6 - 62.7)	3	15.3 (2.6 - 28.2)	3	12.9 (0.0 - 28.6)	11	53.3 (34.8 - 71.7)
NGO/CBO/DICE	42	27.8 (16.6 - 38.9)	3	12.7 (7.3 - 17.6)	7	46.9 (20.5 - 73.9)	6	21.4 (0.0 - 43.1)	6	49.4 (28.6 - 71.0)	4	11.7 (3.4 - 20.4)	8	19.4 (5.8 - 32.6)	8	33.9 (17.4 - 50.6)
Other	1	0.0 (0.0 - 0.3)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	6.4 (2.3 - 10.1)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the respondent driven sampling package in R, using Gile's sequential sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sum of sample numerator is higher than the sample denominator, as multiple responses could be selected

<sup>c</sup> Sample denominator is based on the previous question

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; CBO, community-based organization; DICE, drop-in center; NGO, non-governmental organization; AIDS, acquired immunodeficiency syndrome.

Table 6.10B: Avoidance of Health Services Among Men Who Have Sex With Men By Location, BBS, Kenya, 2024

	Overall Estimates (N=5242)		Kiambu (N=705)		Kilifi (N=560)		Kisumu (N=826)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Avoided seeking health services due to concerns someone may find out about having sex with men</b>								
Yes, in the last 6 months	345	6.5 (4.9 - 8.1)	57	7.0 (4.4 - 9.6)	44	8.1 (5.4 - 10.7)	51	5.9 (4.0 - 7.9)
Yes, but not in the last 6 months	375	8.3 (3.8 - 12.8)	65	9.7 (6.6 - 12.8)	82	15.2 (11.5 - 18.9)	30	3.2 (1.7 - 4.8)
No	4517	85.2 (80.1 - 90.4)	583	83.2 (79.1 - 87.4)	434	76.7 (72.6 - 80.8)	744	90.8 (88.5 - 93.2)
<b>Avoided seeking HIV services due to fear of discrimination for having sex with men<sup>a</sup></b>								
Yes, in the last 6 months	354	6.6 (5.2 - 8.1)	59	7.3 (4.4 - 10.2)	45	8.3 (5.6 - 11.0)	54	6.8 (4.4 - 9.1)
Yes, but not in the last 6 months	369	7.9 (3.5 - 12.3)	55	8.3 (4.5 - 12.1)	77	14.2 (10.5 - 17.8)	27	2.9 (1.8 - 4.1)
No	4513	85.5 (80.3 - 90.6)	591	84.4 (80.1 - 88.8)	437	77.5 (73.4 - 81.6)	744	90.3 (87.8 - 92.7)
<b>Avoided disclosing to the HIV service provider about having sex with men<sup>a</sup></b>								
Yes, in the last 6 months	469	9.4 (7.0 - 11.8)	80	11.8 (7.7 - 15.9)	43	8.2 (5.4 - 10.9)	100	14.1 (10.8 - 17.4)
Yes, but not in the last 6 months	397	8.3 (4.6 - 12.0)	90	11.5 (7.8 - 15.3)	69	13.1 (9.7 - 16.6)	52	5.8 (4.1 - 7.5)
No	4367	82.3 (77.9 - 86.7)	533	76.6 (71.3 - 82.0)	447	78.7 (74.8 - 82.6)	673	80.1 (76.7 - 83.4)
<b>Discriminated by HIV service provider because of having sex with men<sup>a</sup></b>								
Yes, in the last 6 months	102	1.6 (1.2 - 2.0)	19	2.3 (0.9 - 3.6)	12	1.7 (0.7 - 2.7)	8	1.1 (0.1 - 2.1)
Yes, but not in the last 6 months	172	2.8 (0.9 - 4.7)	25	2.6 (1.2 - 3.9)	27	3.0 (1.8 - 4.2)	12	0.7 (0.3 - 1.1)
No because I hid	2295	47.1 (35.8 - 58.3)	318	52.1 (46.4 - 57.8)	121	26.9 (21.7 - 32.0)	375	48.5 (44.4 - 52.7)
No, even though they knew	2654	48.5 (36.5 - 60.4)	342	43.1 (37.5 - 48.7)	392	68.4 (63.7 - 73.2)	428	49.6 (45.5 - 53.8)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the respondent driven sampling package in R, using Gile's sequential sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval

Table 6.10B cont: Avoidance of Health Services Among Men Who Have Sex With Men By Location, BBS, Kenya, 2024

	Machakos (N=822)		Mombasa (N=937)		Nairobi (N=743)		Nakuru (N=649)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Avoided seeking health services due to concerns someone may find out about having sex with men</b>								
Yes, in the last 6 months	37	6.0 (3.8 - 8.2)	68	8.3 (6.2 - 10.3)	25	2.4 (0.1 - 4.7)	63	8.0 (6.1 - 9.9)
Yes, but not in the last 6 months	29	3.8 (2.2 - 5.3)	16	1.7 (0.7 - 2.7)	52	7.3 (3.9 - 10.7)	101	17.2 (13.7 - 20.7)
No	755	90.2 (87.7 - 92.8)	853	90.0 (87.7 - 92.4)	664	90.3 (86.4 - 94.3)	484	74.8 (71.1 - 78.6)
<b>Avoided seeking HIV services due to fear of discrimination for having sex with men<sup>a</sup></b>								
Yes, in the last 6 months	39	5.3 (3.4 - 7.2)	66	7.5 (5.7 - 9.4)	26	3.0 (0.3 - 5.7)	65	8.5 (6.4 - 10.6)
Yes, but not in the last 6 months	30	3.6 (0.8 - 6.4)	14	1.7 (0.5 - 2.8)	53	7.3 (3.4 - 11.3)	113	17.3 (14.0 - 20.6)
No	752	91.1 (87.5 - 94.8)	857	90.8 (88.6 - 93.0)	662	89.7 (85.4 - 93.9)	470	74.1 (70.5 - 77.8)
<b>Avoided disclosing to the HIV service provider about having sex with men<sup>a</sup></b>								
Yes, in the last 6 months	67	8.9 (6.5 - 11.4)	79	9.5 (7.4 - 11.6)	29	3.9 (0.9 - 6.8)	71	9.5 (7.3 - 11.7)
Yes, but not in the last 6 months	35	4.5 (2.8 - 6.2)	16	1.7 (0.6 - 2.8)	43	6.4 (2.7 - 10.1)	92	15.2 (12.0 - 18.6)
No	719	86.6 (83.5 - 89.6)	842	88.8 (86.3 - 91.3)	668	89.8 (85.6 - 93.9)	485	75.3 (71.7 - 78.8)
<b>Discriminated by HIV service provider because of having sex with men<sup>a</sup></b>								
Yes, in the last 6 months	10	1.1 (0.3 - 1.8)	22	2.2 (1.2 - 3.2)	14	1.2 (0.0 - 2.6)	17	2.0 (1.2 - 2.9)
Yes, but not in the last 6 months	10	1.1 (0.4 - 1.8)	18	1.6 (0.8 - 2.5)	15	2.3 (0.6 - 4.0)	65	8.6 (6.4 - 10.8)
No because I hid	469	58.7 (50.6 - 66.8)	481	57.2 (53.7 - 60.7)	179	24.7 (19.1 - 30.4)	352	61.3 (57.4 - 65.2)
No, even though they knew	332	39.1 (31.4 - 46.9)	414	39.0 (35.6 - 42.5)	534	71.8 (66.2 - 77.4)	212	28.1 (24.7 - 31.5)
<i>All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the respondent driven sampling package in R, using Gile's sequential sampling estimator.</i>								
<i><sup>a</sup> Non-responses and missing data were excluded from the analysis.</i>								
<i>Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval</i>								

## 6.11: Alcohol and Drug Use

Alcohol use among MSM in Kenya is common but varies widely by county. About one-third never drink, while nearly a quarter drink at least weekly. Most consume moderate amounts on a typical day, though heavy-episode drinking is notable: nearly half had  $\geq 6$  drinks on one occasion in the past year, with a quarter doing so monthly and 16% weekly or daily. Nairobi shows the heaviest drinking patterns, whereas Nakuru exhibits lower-risk use. Although most did not report dependence symptoms, notable minorities experienced inability to stop, morning drinking, blackouts, or alcohol-related injuries. Concern from others about one's drinking was reported by about one in five, highest in Kisumu and Mombasa. Injection drug use was generally rare but substantially higher in Mombasa.

By AUDIT screening, about half of MSM were low-risk drinkers (Zone I: 51.4%), 27.2% exceeded low-risk levels (Zone II), 8.0% had harmful/hazardous use (Zone III), and 13.4% screened in the dependence-suggestive range (Zone IV). Risk clustered geographically: Nairobi had the highest probable dependence (Zone IV: 28.7%) and fewer low-risk drinkers (38.3%), while Nakuru showed the most favorable profile (Zone I: 68.5%, Zone IV: 3.7%). Kisumu also showed elevated dependence (18.7%), with Mombasa (12.8%) and Kilifi (11.1%) intermediate, and Kiambu (10.7%) closer to the national pattern. Overall, the data point to substantial heterogeneity, with urban centers like Nairobi bearing a heavier burden of high-risk drinking.

Table 6.11: Alcohol And Drug Use Among Men Who Have Sex with Men by Location, BBS, Kenya, 2024

Variable	Overall Estimate (N=5242)		Kiambu (N=705)		Kilifi (N=560)		Kisumu (N=826)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Frequency of alcohol consumption<sup>a</sup></b>								
Never	1819	36.8 (31.6 - 42.0)	160	26.1 (19.9 - 32.3)	175	31.1 (26.3 - 35.9)	281	35.9 (31.7 - 40.2)
Monthly or less	1060	20.9 (15.5 - 26.2)	220	32.7 (27.0 - 38.4)	109	21.2 (16.9 - 25.4)	161	20.3 (16.8 - 23.7)
2-4 times per month	1022	19.2 (14.0 - 24.4)	172	22.9 (18.2 - 27.6)	138	26.2 (21.5 - 30.8)	173	19.7 (16.3 - 23.0)
2-3 times per week	988	17.1 (11.8 - 22.5)	92	11.4 (8.0 - 14.8)	96	16.3 (12.7 - 19.8)	153	17.6 (14.6 - 20.5)
4 or more times per week	350	6.0 (4.3 - 7.6)	61	6.9 (4.2 - 9.6)	42	5.3 (3.6 - 7.0)	57	6.5 (4.7 - 8.4)
<b>Number of alcoholic drinks consumed on a typical day<sup>b</sup></b>								
1 or 2	1489	46.6 (44.6 - 48.6)	149	33.4 (27.7 - 39.2)	161	47.8 (41.9 - 53.6)	319	59.1 (54.2 - 64)
3 or 4	1020	28.4 (26.5 - 30.3)	150	23.3 (19 - 27.5)	151	37.2 (31.4 - 42.9)	148	27.4 (22.8 - 31.9)
5 or 6	609	17.6 (16 - 19.1)	136	25.4 (20.9 - 29.9)	54	11.7 (8.2 - 15.2)	55	9.4 (6.6 - 12.1)
7 to 9	207	5.2 (4.3 - 6.1)	65	10.9 (7.6 - 14.2)	16	3.1 (1.5 - 4.7)	9	1.9 (0.3 - 3.5)
10 or more	95	2.2 (1.5 - 2.8)	45	6.9 (3.9 - 10)	3	0.3 (0 - 0.7)	13	2.2 (0.9 - 3.5)
<b>Frequency of consuming six or more drinks on one occasion in the last year<sup>b</sup></b>								
Never	1787	55.0 (48.6 - 61.5)	249	49.1 (43.7 - 54.6)	190	54.0 (48.2 - 59.6)	318	61.2 (56.3 - 66.1)
Less than monthly	583	16.5 (11.1 - 22.0)	139	24.0 (19.0 - 28.9)	102	25.5 (20.5 - 30.5)	64	10.3 (7.6 - 13.0)
Monthly	467	12.1 (10.2 - 14.1)	82	14.7 (10.9 - 18.5)	47	10.6 (7.2 - 13.9)	83	13.3 (9.9 - 16.8)
Weekly	495	13.6 (6.8 - 20.4)	63	10.4 (7.4 - 13.5)	39	8.7 (5.6 - 11.9)	67	13.1 (9.7 - 16.6)
Daily/almost daily	88	2.7 (1.5 - 3.8)	12	1.8 (0.3 - 3.2)	7	1.2 (0.08 - 2.4)	12	2.1 (0.6 - 3.5)
<b>Unable to stop drinking once started in the last year<sup>b</sup></b>								
Never	2155	65.0 (59.3 - 70.8)	351	67.8 (62.7 - 73.0)	216	62.3 (56.6 - 67.9)	326	58.3 (53.6 - 63.1)
Less than monthly	452	12.7 (8.5 - 16.8)	75	12.8 (9.2 - 16.3)	92	20.9 (16.4 - 25.4)	67	12.6 (9.5 - 15.7)
Monthly	399	10.9 (9.7 - 12.1)	62	10.6 (7.4 - 13.7)	40	9.0 (5.9 - 12.1)	76	13.8 (10.3 - 17.3)
Weekly	342	9.7 (4.0 - 15.3)	43	6.6 (3.9 - 9.3)	26	6.0 (3.4 - 8.6)	57	12.2 (8.8 - 15.5)
Daily/almost daily	72	1.8 (1.1 - 2.5)	14	2.2 (1.0 - 3.5)	11	1.9 (0.6 - 3.3)	18	3.2 (1.6 - 4.7)
<b>Frequency of times failed to do what is expected because of drinking in the last year<sup>b</sup></b>								
Never	2116	63.1 (56.2 - 70.1)	330	60.9 (55.7 - 66.2)	195	55.6 (49.4 - 61.8)	291	52.4 (47.4 - 57.4)
Less than monthly	554	16.2 (10.9 - 21.4)	125	23.7 (18.8 - 28.6)	110	27.8 (22.6 - 33.1)	77	14.2 (10.5 - 17.9)
Monthly	396	10.8 (8.6 - 12.9)	57	9.4 (6.4 - 12.4)	51	10.7 (7.6 - 13.9)	88	16.5 (12.7 - 20.4)
Weekly	301	8.5 (2.7 - 14.4)	25	5.1 (2.7 - 7.5)	20	4.6 (2.4 - 6.8)	75	14.6 (11.0 - 18.2)
Daily/almost daily	53	1.4 (0.9 - 2.0)	8	0.9 (0.3 - 1.5)	9	1.3 (0.3 - 2.2)	13	2.3 (0.7 - 3.8)
<b>Need a drink in the morning after heavy drinking in the last year<sup>b</sup></b>								
Never	2199	66.2 (58.3 - 74.1)	369	69.1 (64.2 - 74.1)	219	62.4 (56.6 - 68.2)	276	49.5 (44.6 - 54.5)
Less than monthly	436	12.1 (8.1 - 16.2)	94	17.1 (12.5 - 21.7)	84	20.7 (16.0 - 25.5)	73	12.5 (9.0 - 15.9)
Monthly	310	8.7 (6.8 - 10.6)	28	5.5 (2.8 - 8.2)	38	7.8 (5.0 - 10.6)	77	13.2 (9.9 - 16.5)
Weekly	372	10.2 (4.5 - 15.9)	37	6.0 (3.6 - 8.3)	26	6.0 (3.4 - 8.7)	98	19.8 (15.8 - 23.9)
Daily/almost daily	103	2.8 (1.9 - 3.6)	17	2.3 (1.3 - 3.4)	18	3.0 (1.4 - 4.6)	20	4.9 (2.5 - 7.4)
<b>Feel remorse/guilt after drinking in the last year<sup>b</sup></b>								
Never	2004	59.5 (54.3 - 64.7)	298	56.5 (51.0 - 62.1)	186	49.7 (43.4 - 55.9)	292	54.3 (49.3 - 59.3)
Less than monthly	590	17.9 (12.0 - 23.7)	135	25.2 (20.1 - 30.3)	103	28.7 (22.9 - 34.4)	74	12.3 (9.0 - 15.7)
Monthly	425	11.7 (9.4 - 14.1)	48	8.9 (5.7 - 12.1)	59	14.0 (10.1 - 17.9)	87	15.4 (11.6 - 19.1)
Weekly	323	8.8 (2.9 - 14.7)	45	6.4 (3.9 - 9.0)	24	4.9 (2.8 - 7.1)	77	15.2 (11.5 - 18.9)
Daily/almost daily	78	2.1 (1.5 - 2.7)	19	2.9 (1.2 - 4.6)	13	2.7 (1.2 - 4.2)	14	2.8 (1.3 - 4.3)
<b>Unable to remember what happened the night before<sup>b</sup></b>								
Never	2032	60.8 (53.8 - 67.9)	308	57.2 (51.8 - 62.6)	204	56.2 (49.8 - 62.4)	280	52.0 (46.9 - 57.1)
Less than monthly	588	17.5 (12.8 - 22.2)	136	25.8 (20.9 - 30.7)	102	26.9 (21.3 - 32.5)	86	15.6 (11.9 - 19.3)
Monthly	416	11.0 (9.0 - 13.0)	60	10.7 (7.1 - 14.4)	42	8.7 (5.7 - 11.8)	89	14.7 (11.2 - 18.2)
Weekly	326	9.1 (3.6 - 14.6)	31	4.8 (3.0 - 6.7)	29	6.7 (4.1 - 9.4)	77	15.2 (11.5 - 19.0)
Daily/almost daily	58	1.5 (1.2 - 1.8)	10	1.4 (0.6 - 2.2)	8	1.5 (0.4 - 2.6)	12	2.4 (1.1 - 3.7)
<b>Injuries to self or someone else as a result of drinking<sup>b</sup></b>								
Yes, during the last year	594	16.5 (13.1 - 20.0)	85	17.0 (12.5 - 21.6)	86	18.6 (14.4 - 22.8)	116	20.0 (16.1 - 24.0)
Yes, but not in the last year	427	12.7 (10.2 - 15.2)	53	11.8 (8.5 - 15.2)	41	9.3 (6.3 - 12.4)	70	13.4 (9.9 - 16.9)
No	2399	70.8 (68.7 - 72.9)	407	71.1 (66.2 - 76.1)	258	72.1 (67.1 - 77.1)	358	66.6 (61.8 - 71.3)
<b>Others have concerns about your drinking<sup>b</sup></b>								
Yes, during the last year	777	22.5 (16.2 - 28.8)	110	19.6 (15.1 - 24.0)	71	19.0 (14.2 - 23.8)	159	31.6 (26.8 - 36.4)
Yes, but not in the last year	387	10.2 (7.9 - 12.4)	58	9.7 (6.6 - 12.7)	28	8.1 (4.4 - 11.8)	104	16.8 (13.5 - 20.2)
No	2256	67.4 (59.4 - 75.3)	377	70.8 (65.7 - 75.8)	286	72.9 (67.3 - 78.6)	281	51.6 (46.4 - 56.8)
<b>Ever injected drugs (heroin, cocaine, morphine)</b>								
Yes	254	4.5 (1.3 - 7.7)	17	2.5 (0.8 - 4.2)	18	3.3 (1.5 - 5.2)	41	4.1 (2.4 - 5.9)
No	4985	95.5 (92.3 - 98.7)	688	97.5 (95.8 - 99.2)	542	96.7 (94.9 - 98.4)	784	95.9 (94.2 - 97.5)
<b>Time last injected drugs<sup>a,b</sup></b>								
Less than one month	71	27.7 (16.9 - 38.4)	1	2.4 (0.1 - 4.5)	7	41.0 (14.0 - 68.4)	11	21.6 (11.0 - 31.7)
1 to 3 months	31	8.7 (1.4 - 16.0)	0	0.0 (0.0 - 0.0)	2	6.3 (0.0 - 16.3)	5	10.6 (0.0 - 22.1)
More than 3 months	147	64.4 (50.2 - 78.6)	15	97.6 (95.4 - 99.9)	8	52.7 (24.8 - 80.0)	24	67.8 (53.7 - 82.1)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the respondent driven sampling package in R, using Gile's sequential sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sample denominator is based on the previous question

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval

Table 6.11 cont: Alcohol And Drug Use Among Men Who Have Sex with Men by Location, BBS, Kenya, 2024

Variable	Machakos (N=822)		Mombasa (N=937)		Nairobi (N=743)		Nakuru (N=649)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Frequency of alcohol consumption<sup>a</sup></b>								
Never	276	34.1 (26.3 - 41.8)	392	44.7 (40.8 - 48.5)	258	41.3 (35.8 - 46.9)	277	44.6 (40.2 - 49.0)
Monthly or less	116	13.9 (10.0 - 17.8)	146	12.5 (10.6 - 14.5)	134	17.7 (13.2 - 22.2)	174	27.8 (23.8 - 31.9)
2-4 times per month	209	25.3 (19.0 - 31.6)	55	5.5 (4.0 - 7.0)	152	17.7 (14.3 - 21.1)	123	17.1 (14.0 - 20.1)
2-3 times per week	149	17.2 (11.1 - 23.2)	280	30.4 (27.1 - 33.7)	168	19.9 (15.7 - 24.2)	50	7.2 (5.2 - 9.3)
4 or more times per week	72	9.6 (7.1 - 12.2)	64	6.9 (5.0 - 8.8)	30	3.3 (1.0 - 5.7)	24	3.3 (1.9 - 4.6)
<b>Number of alcoholic drinks consumed on a typical day<sup>b</sup></b>								
1 or 2	211	41.2 (36.4 - 46)	171	27.9 (23.7 - 32.1)	281	61.8 (56.1 - 67.4)	197	58.9 (53.6 - 64.4)
3 or 4	207	36.2 (31.9 - 40.5)	137	25.3 (21.2 - 29.6)	138	27.2 (22.3 - 32)	89	19.7 (15.7 - 23.7)
5 or 6	97	18 (14 - 21.9)	166	33.7 (29.3 - 38)	46	8.6 (4.9 - 12.2)	55	14.2 (10.3 - 18.1)
7 to 9	26	3.8 (2.2 - 5.4)	48	9.1 (6.2 - 11.9)	18	2.4 (0.9 - 4)	25	6.3 (3.6 - 9)
10 or more	5	0.8 (0.1 - 1.5)	23	3.9 (1.9 - 6)	1	0.1 (0 - 0.3)	5	0.8 (0.1 - 1.5)
<b>Frequency of consuming six or more drinks on one occasion in the last year<sup>b</sup></b>								
Never	298	55.9 (51.4 - 60.4)	248	43.2 (38.4 - 48.1)	321	70.1 (64.6 - 75.5)	163	51.3 (45.3 - 57.2)
Less than monthly	94	17.6 (13.7 - 21.6)	55	8.9 (6.3 - 11.4)	40	8.6 (5.7 - 11.5)	89	21.1 (16.8 - 25.3)
Monthly	75	12.6 (9.6 - 15.7)	62	10.2 (7.2 - 13.1)	50	8.4 (5.6 - 11.2)	68	15.6 (11.9 - 19.3)
Weekly	70	12.0 (9.1 - 14.9)	165	34.1 (29.3 - 39.1)	47	7.3 (4.4 - 10.2)	44	9.7 (6.8 - 12.6)
Daily/almost daily	9	1.8 (0.6 - 3.0)	15	3.6 (1.7 - 5.6)	26	5.7 (3.0 - 8.3)	7	2.4 (0.5 - 4.3)
<b>Unable to stop drinking once started in the last year<sup>b</sup></b>								
Never	333	61.5 (56.8 - 66.2)	328	56.8 (52.0 - 61.5)	365	79.4 (75.1 - 83.7)	236	68.5 (63.2 - 73.8)
Less than monthly	90	16.7 (13.1 - 20.2)	28	5.0 (3.0 - 7.0)	38	6.4 (3.9 - 9.0)	62	14.3 (10.9 - 17.8)
Monthly	63	12.2 (8.9 - 15.5)	53	9.9 (6.8 - 12.9)	58	10.7 (7.6 - 13.8)	47	10.3 (7.0 - 13.7)
Weekly	52	8.7 (6.5 - 10.9)	125	25.9 (21.6 - 30.3)	18	2.9 (1.1 - 4.7)	21	5.5 (3.0 - 8.0)
Daily/almost daily	8	0.9 (0.3 - 1.4)	11	2.4 (0.7 - 4.0)	5	0.6 (0.1 - 1.0)	5	1.3 (0.1 - 2.5)
<b>Frequency of times failed to do what is expected because of drinking in the last year<sup>b</sup></b>								
Never	347	65.2 (60.8 - 69.7)	331	56.7 (51.7 - 61.6)	362	76.7 (72.4 - 81.0)	260	74.0 (69.3 - 78.7)
Less than monthly	84	15.2 (11.7 - 18.7)	40	7.7 (5.0 - 10.4)	68	13.2 (9.9 - 16.5)	50	11.2 (8.0 - 14.4)
Monthly	72	12.3 (9.0 - 15.5)	49	9.8 (6.4 - 13.2)	38	7.5 (4.4 - 10.7)	41	9.3 (6.0 - 12.7)
Weekly	39	6.5 (4.4 - 8.6)	117	23.9 (19.6 - 28.3)	12	1.9 (0.7 - 3.1)	13	3.1 (1.5 - 4.8)
Daily/almost daily	4	0.8 (0.0 - 1.7)	8	2.0 (0.5 - 3.4)	4	0.6 (0.0 - 1.2)	7	2.4 (0.5 - 4.3)
<b>Need a drink in the morning after heavy drinking in the last year<sup>b</sup></b>								
Never	347	64.8 (60.1 - 69.6)	352	61.1 (56.3 - 65.8)	387	83.7 (80.0 - 87.4)	249	72.4 (67.3 - 77.5)
Less than monthly	69	11.7 (8.6 - 14.7)	31	6.5 (3.9 - 9.1)	33	5.1 (2.8 - 7.3)	52	11.4 (8.1 - 14.8)
Monthly	48	9.4 (6.0 - 12.8)	43	8.0 (5.2 - 10.8)	36	6.9 (4.2 - 9.7)	40	10.2 (6.7 - 13.8)
Weekly	61	10.6 (7.8 - 13.5)	109	21.8 (17.9 - 25.7)	18	2.6 (1.1 - 4.1)	23	4.5 (2.6 - 6.4)
Daily/almost daily	21	3.5 (2.0 - 5.0)	10	2.6 (1.1 - 4.1)	10	1.7 (0.5 - 2.8)	7	1.4 (0.3 - 2.5)
<b>Feel remorse/guilt after drinking in the last year<sup>b</sup></b>								
Never	299	58.0 (53.3 - 62.7)	351	61.1 (56.2 - 66.1)	334	68.8 (63.6 - 73.9)	244	67.8 (62.5 - 73.1)
Less than monthly	107	18.8 (14.8 - 22.8)	27	4.8 (2.2 - 7.5)	76	18.5 (14.5 - 22.4)	68	16.7 (12.3 - 21.1)
Monthly	90	15.0 (11.7 - 18.3)	45	7.6 (5.1 - 10.1)	53	9.4 (6.1 - 12.6)	43	11.8 (7.8 - 15.8)
Weekly	41	6.6 (4.8 - 8.5)	112	24.1 (19.6 - 28.7)	13	2.4 (0.9 - 4.0)	11	2.2 (1.0 - 3.4)
Daily/almost daily	9	1.5 (0.3 - 2.7)	10	2.3 (0.7 - 4.0)	8	1.0 (0.03 - 1.9)	5	1.5 (0.3 - 2.7)
<b>Unable to remember what happened the night before<sup>b</sup></b>								
Never	328	60.9 (56.5 - 65.3)	306	51.4 (46.5 - 56.3)	352	74.4 (69.4 - 79.3)	254	73.4 (68.6 - 78.2)
Less than monthly	93	17.2 (13.5 - 20.8)	61	12.0 (8.8 - 15.2)	56	13.5 (9.9 - 17.1)	54	11.7 (8.1 - 15.3)
Monthly	81	14.3 (10.8 - 17.7)	59	11.5 (8.0 - 15.0)	46	8.0 (4.9 - 11.1)	39	9.2 (6.2 - 12.2)
Weekly	38	6.5 (4.6 - 8.5)	112	23.6 (19.5 - 27.7)	22	2.9 (1.3 - 4.6)	17	4.0 (2.3 - 5.7)
Daily/almost daily	6	1.1 (0.2 - 2.1)	7	1.5 (0.4 - 2.6)	8	1.2 (0.0 - 2.5)	7	1.7 (0.5 - 2.9)
<b>Injuries to self or someone else as a result of drinking<sup>b</sup></b>								
Yes, during the last year	99	17.5 (14.0 - 21.0)	114	22.3 (18.1 - 26.6)	48	10.6 (6.9 - 14.3)	46	9.8 (7.0 - 12.7)
Yes, but not in the last year	52	9.6 (7.1 - 12.2)	66	10.5 (8.1 - 13.0)	72	15.5 (11.3 - 19.8)	73	18.8 (14.4 - 23.3)
No	395	72.8 (68.8 - 76.8)	365	67.1 (62.7 - 71.6)	364	73.9 (68.8 - 79.0)	252	71.3 (66.5 - 76.2)
<b>Others have concerns about your drinking<sup>b</sup></b>								
Yes, during the last year	152	28.1 (23.6 - 32.6)	164	32.6 (27.8 - 37.5)	52	9.2 (6.3 - 12.1)	69	17.5 (13.1 - 22.0)
Yes, but not in the last year	50	8.8 (6.1 - 11.5)	61	10.7 (7.9 - 13.6)	50	8.5 (5.6 - 11.5)	36	8.6 (5.3 - 11.8)
No	344	63.2 (58.5 - 67.8)	320	56.6 (51.8 - 61.4)	382	82.3 (78.3 - 86.3)	266	73.9 (68.7 - 79.1)
<b>Ever injected drugs (heroin, cocaine, morphine)</b>								
Yes	110	14.1 (6.7 - 21.5)	45	4.8 (3.0 - 6.5)	9	1.3 (0.4 - 2.3)	14	1.6 (0.9 - 2.3)
No	712	85.9 (78.6 - 93.3)	892	95.2 (93.5 - 97.0)	733	98.7 (97.7 - 99.6)	634	98.4 (97.7 - 99.2)
<b>Time last injected drugs<sup>a,b</sup></b>								
Less than one month	35	31.0 (22.5 - 39.5)	11	21.2 (11.0 - 31.9)	3	44.7 (6.1 - 83.3)	3	28.6 (7.3 - 49.8)
1 to 3 months	20	21.5 (13.2 - 29.7)	1	1.7 (0.0 - 4.4)	0	0.0 (0.0 - 0.0)	3	26.6 (6.1 - 46.4)
More than 3 months	54	47.5 (38.5 - 56.5)	33	77.0 (65.7 - 87.9)	5	55.3 (17.7 - 92.9)	8	44.8 (24.1 - 66.3)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the respondent driven sampling package in R, using Gile's sequential sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sample denominator is based on the previous question

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval

Table 6.11B: Alcohol Assessment Score Among Men Who Have Sex with Men by Location, BBS, Kenya, 2024

	Overall Estimate (N=5242)		Kiambu (N=705)		Kilifi (N=560)		Kisumu (N=826)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Zones based on AUDIT scores</b>								
Zone I - low risk drinking (score 0 -7)	1664	51.4 (43.3 - 59.5)	257	49.8 (44.2 - 55.4)	180	52.4 (46.3 - 58.3)	222	40.3 (35.4 - 45.3)
Zone II - use in excess of low -risk (score 8 -15)	975	27.2 (24.5 - 30.0)	176	30.3 (25.2 - 35.4)	115	28.2 (22.8 - 33.6)	176	32.7 (27.8 - 37.6)
Zone III - harmful & hazardous drinking (score 16 -19)	298	8.0 (6.3 - 9.6)	48	9.2 (6.0 - 12.4)	41	8.4 (5.7 - 11.0)	49	8.3 (5.8 - 10.8)
Zone IV - suggested dependence (score 20 -40)	483	13.4 (7.4 - 19.4)	64	10.7 (7.4 - 14.0)	49	11.1 (7.7 - 14.5)	97	18.7 (14.5 - 22.9)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the respondent driven  
<sup>a</sup> AUDIT score and zones adopted from World Health Organization guidelines ([https://iris.who.int/bitstream/handle/10665/67205/WHO\\_MSD\\_MSB\\_01.6a-](https://iris.who.int/bitstream/handle/10665/67205/WHO_MSD_MSB_01.6a-)  
Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; AUDIT, Alcohol Use Disorder Identification Test

Table 6.11B cont: Alcohol Assessment Score Among Men Who Have Sex with Men by Location, BBS, Kenya, 2024

	Machakos (N=822)		Mombasa (N=937)		Nairobi (N=743)		Nakuru (N=649)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Zones based on AUDIT scores</b>								
Zone I - low risk drinking (score 0 -7)	252	48.1 (43.2 - 52.9)	226	38.3 (33.5 - 43.1)	315	68.5 (63.0 - 74.1)	212	62.1 (56.5 - 67.8)
Zone II - use in excess of low -risk (score 8 -15)	165	28.6 (24.4 - 32.9)	131	23.7 (19.5 - 27.8)	118	23.9 (18.9 - 28.9)	94	23.1 (18.6 - 27.6)
Zone III - harmful & hazardous drinking (score 16 -19)	52	10.5 (7.1 - 13.9)	51	9.3 (6.4 - 12.2)	26	3.9 (2.2 - 5.6)	31	6.6 (3.9 - 9.3)
Zone IV - suggested dependence (score 20 -40)	77	12.8 (9.7 - 16.0)	137	28.7 (24.1 - 33.3)	25	3.7 (1.9 - 5.5)	34	8.2 (5.1 - 11.2)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the respondent  
<sup>a</sup> AUDIT score and zones adopted from World Health Organization guidelines ([https://iris.who.int/bitstream/handle/10665/67205/WHO\\_MSD\\_MSB\\_01.6a-](https://iris.who.int/bitstream/handle/10665/67205/WHO_MSD_MSB_01.6a-)  
Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; AUDIT, Alcohol Use Disorder Identification

## 6.12: Mental Health

Across Kenya's MSM, most respondents endorsed "not at all" on PHQ-9 items (typically ~50–66% by symptom), with "several days" reported by about 27–38% depending on the item. More frequent symptoms clustered in a few counties: Nairobi and Kisumu showed higher rates of anhedonia and low mood  $\geq$  half the days (e.g., Nairobi anhedonia 24.4%, low mood 23.0%), and Nairobi also had more sleep problems and fatigue at higher frequencies; Nakuru showed notable psychomotor symptoms ( $\geq$  half the days 13.0%, nearly daily 6.4%). Suicidal ideation was present overall in ~15% (at least "several days": 11.2%;  $\geq$  half the days: 3.6%), highest in Nairobi ("several days" 20.0%) and Kisumu (any frequency ~18.5%), and lowest in Machakos/Mombasa.

Table 6.12B: Depression Scores Among Men Who Have Sex with Men by Location, BBS, Kenya, 2024

	Overall Estimate (N=5242)		Kiambu (N=705)		Kilifi (N=560)		Kisumu (N=826)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Little interest or pleasure in doing things<sup>a</sup></b>								
Not at all	2646	53.0 (46.7 - 59.3)	347	50.6 (44.5 - 56.8)	269	55.4 (50.4 - 60.3)	387	46.9 (42.7 - 51.1)
Several days	1973	36.3 (29.2 - 43.4)	258	35.8 (30.1 - 41.6)	266	41.3 (36.5 - 46.2)	352	44.7 (40.7 - 48.7)
More than half of days	497	8.5 (2.7 - 14.2)	58	7.3 (4.8 - 9.9)	16	2.1 (1.0 - 3.2)	65	6.8 (4.9 - 8.8)
Nearly every day	123	2.2 (1.0 - 3.5)	42	6.2 (3.7 - 8.8)	9	1.2 (0.3 - 2.0)	21	1.6 (0.9 - 2.2)
<b>Felt down, depressed, or hopeless<sup>a</sup></b>								
Not at all	2550	51.1 (45.8 - 56.4)	299	44.4 (38.6 - 50.1)	267	54.6 (49.7 - 59.5)	379	44.9 (40.7 - 49.1)
Several days	2039	37.6 (31.8 - 43.4)	302	42.5 (36.8 - 48.3)	260	41.2 (36.4 - 46.0)	360	45.5 (41.4 - 49.7)
More than half of days	538	9.5 (4.3 - 14.7)	61	8.3 (5.4 - 11.2)	21	2.6 (1.4 - 3.9)	70	7.8 (5.5 - 10.0)
Nearly every day	112	1.8 (0.8 - 2.8)	43	4.8 (2.8 - 6.7)	12	1.6 (0.6 - 2.5)	16	1.8 (0.8 - 2.9)
<b>Trouble falling asleep, staying asleep or sleeping too much<sup>a</sup></b>								
Not at all	2952	58.5 (54.3 - 62.6)	355	53.2 (47.5 - 58.9)	307	61.8 (57.1 - 66.6)	418	51.8 (47.7 - 56.0)
Several days	1717	31.8 (28.6 - 35.0)	220	31.0 (25.7 - 36.2)	208	31.7 (27.2 - 36.2)	338	40.0 (36.1 - 43.9)
More than half of days	376	6.6 (4.9 - 8.3)	52	6.5 (4.0 - 9.1)	30	4.2 (2.6 - 5.8)	49	5.7 (3.9 - 7.5)
Nearly every day	194	3.2 (1.2 - 5.1)	78	9.2 (6.4 - 12.1)	15	2.3 (1.0 - 3.6)	20	2.5 (1.3 - 3.6)
<b>Feeling tired or having little energy<sup>a</sup></b>								
Not at all	2774	55.6 (52.3 - 58.8)	344	51.9 (46.0 - 57.7)	298	59.1 (54.3 - 64.0)	431	53.4 (49.1 - 57.7)
Several days	1806	32.7 (27.8 - 37.7)	268	36.7 (31.0 - 42.3)	232	36.2 (31.4 - 41.0)	329	39.0 (35.0 - 43.0)
More than half of days	562	10.1 (3.6 - 16.7)	52	6.6 (4.1 - 9.2)	21	3.5 (1.8 - 5.2)	52	6.3 (4.1 - 8.5)
Nearly every day	97	1.6 (0.5 - 2.7)	41	4.8 (2.5 - 7.2)	9	1.2 (0.3 - 2.0)	13	1.4 (0.6 - 2.1)
<b>Poor appetite or overeating<sup>a</sup></b>								
Not at all	3350	65.6 (62.4 - 68.8)	427	62.6 (57.1 - 68.1)	341	64.0 (58.9 - 69.0)	470	59.1 (55.0 - 63.2)
Several days	1453	26.7 (23.5 - 29.9)	175	25.1 (20.1 - 30.1)	173	29.8 (24.9 - 34.6)	296	34.2 (30.4 - 38.0)
More than half of days	315	5.8 (3.5 - 8.1)	60	8.0 (4.9 - 11.1)	34	4.6 (2.9 - 6.2)	47	5.7 (3.6 - 7.7)
Nearly every day	121	1.9 (1.0 - 2.8)	43	4.3 (2.9 - 5.6)	12	1.6 (0.7 - 2.6)	12	1.0 (0.4 - 1.6)
<b>Feeling bad about self<sup>a</sup></b>								
Not at all	3257	63.2 (59.8 - 66.5)	433	64.1 (58.9 - 69.4)	337	63.9 (59.0 - 68.8)	500	59.5 (55.3 - 63.6)
Several days	1352	25.5 (20.8 - 30.2)	178	24.1 (19.4 - 28.9)	187	31.3 (26.5 - 36.2)	271	32.8 (28.9 - 36.8)
More than half of days	406	6.7 (4.3 - 9.2)	36	4.6 (2.5 - 6.8)	23	3.0 (1.8 - 4.2)	42	6.1 (3.8 - 8.3)
Nearly every day	224	4.6 (0.8 - 8.4)	58	7.1 (4.3 - 9.9)	13	1.8 (0.7 - 2.8)	12	1.6 (0.5 - 2.7)
<b>Trouble concentrating on things<sup>a</sup></b>								
Not at all	3868	74.9 (69.1 - 80.7)	435	62.4 (56.8 - 68.0)	410	76.1 (71.9 - 80.3)	567	68.0 (64.2 - 71.9)
Several days	1059	19.7 (14.8 - 24.7)	192	27.3 (22.2 - 32.3)	128	21.1 (17.0 - 25.2)	214	26.3 (22.6 - 29.9)
More than half of days	233	4.0 (2.5 - 5.5)	41	5.4 (2.6 - 8.2)	19	2.3 (1.3 - 3.3)	37	5.1 (3.2 - 6.9)
Nearly every day	79	1.3 (0.2 - 2.5)	37	5.0 (2.4 - 7.6)	3	0.5 (0.0 - 1.1)	7	0.7 (0.1 - 1.2)
<b>Moving or speaking so slowly that other people could have noticed or being restless<sup>a</sup></b>								
Not at all	4071	78.5 (73.3 - 83.7)	506	74.6 (70.3 - 78.8)	452	83.8 (80.3 - 87.3)	573	68.0 (64.0 - 72.1)
Several days	839	14.8 (10.7 - 19.0)	131	17.6 (13.4 - 21.8)	97	15.0 (11.6 - 18.4)	207	25.4 (21.8 - 29.1)
More than half of days	238	4.9 (1.6 - 8.1)	28	3.9 (1.5 - 6.2)	10	1.2 (0.4 - 1.9)	43	6.2 (3.7 - 8.7)
Nearly every day	91	1.8 (0.04 - 3.6)	40	4.0 (2.4 - 5.6)	1	0.03 (0.0 - 0.07)	2	0.3 (0.0 - 0.7)
<b>Thoughts that one would be better off dead or of hurting self<sup>a</sup></b>								
Not at all	4430	85.3 (81.9 - 88.7)	612	87.3 (83.5 - 91.1)	482	88.6 (85.6 - 91.5)	676	81.5 (78.2 - 84.8)
Several days	635	11.2 (7.8 - 14.5)	73	9.5 (6.0 - 13.1)	66	9.8 (7.1 - 12.6)	114	13.3 (10.5 - 16.2)
More than half of days	131	2.8 (1.6 - 4.0)	14	2.6 (0.7 - 4.4)	5	0.7 (0.02 - 1.3)	26	4.0 (2.2 - 5.7)
Nearly every day	43	0.8 (0.6 - 1.0)	6	0.6 (0.0 - 1.4)	7	0.9 (0.2 - 1.7)	9	1.2 (0.2 - 2.2)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the respondent driven sampling package in R, using Gile's sequential sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval

Table 6.12B cont: Depression Scores Among Men Who Have Sex with Men by Location, BBS, Kenya, 2024

	Machakos (N=822)		Mombasa (N=937)		Nairobi (N=743)		Nakuru (N=649)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Little interest or pleasure in doing things<sup>a</sup></b>								
Not at all	522	67.4 (61.5 - 73.4)	379	40.0 (36.6 - 43.5)	394	54.8 (48.9 - 60.6)	348	55.8 (51.6 - 60.1)
Several days	266	28.5 (22.9 - 34.0)	399	46.2 (42.5 - 49.8)	172	19.3 (15.2 - 23.3)	260	38.2 (33.8 - 42.6)
More than half of days	17	2.4 (1.1 - 3.7)	144	11.9 (9.9 - 13.8)	165	24.4 (20.0 - 28.7)	32	4.3 (2.8 - 5.7)
Nearly every day	17	1.7 (0.8 - 2.6)	15	2.0 (1.0 - 2.9)	11	1.6 (0.0 - 4.1)	8	1.7 (0.4 - 3.0)
<b>Felt down, depressed, or hopeless<sup>a</sup></b>								
Not at all	459	59.5 (52.2 - 66.8)	393	42.2 (38.7 - 45.8)	393	53.6 (48.1 - 59.2)	360	58.5 (54.5 - 62.5)
Several days	331	36.3 (29.5 - 43.2)	370	42.3 (38.8 - 45.8)	192	22.9 (18.4 - 27.5)	224	32.2 (28.2 - 36.2)
More than half of days	22	3.3 (1.7 - 4.9)	161	13.8 (11.7 - 15.9)	151	23.0 (19.0 - 26.9)	52	7.5 (5.5 - 9.5)
Nearly every day	10	0.9 (0.3 - 1.4)	13	1.7 (0.8 - 2.6)	6	0.4 (0.0 - 1.7)	12	1.8 (0.7 - 2.8)
<b>Trouble falling asleep, staying asleep or sleeping too much<sup>a</sup></b>								
Not at all	531	68.4 (63.0 - 73.8)	546	57.1 (53.6 - 60.6)	429	57.2 (51.9 - 62.6)	366	59.4 (55.3 - 63.6)
Several days	235	25.7 (20.6 - 30.9)	297	33.6 (30.0 - 37.2)	210	31.0 (26.2 - 35.8)	209	29.8 (26.0 - 33.6)
More than half of days	35	4.0 (2.6 - 5.4)	72	7.3 (5.4 - 9.1)	87	10.4 (7.1 - 13.7)	51	7.9 (5.6 - 10.1)
Nearly every day	21	1.9 (1.1 - 2.8)	22	2.0 (1.2 - 2.8)	16	1.3 (0.0 - 3.0)	22	2.9 (1.7 - 4.2)
<b>Feeling tired or having little energy<sup>a</sup></b>								
Not at all	483	63.6 (57.5 - 69.6)	507	56.1 (52.6 - 59.7)	383	51.5 (46.0 - 57.1)	328	53.2 (49.2 - 57.3)
Several days	302	32.4 (26.6 - 38.1)	268	29.2 (25.9 - 32.5)	163	19.6 (15.1 - 24.0)	244	36.1 (32.2 - 40.0)
More than half of days	31	3.5 (2.2 - 4.8)	150	13.4 (11.3 - 15.5)	191	28.6 (24.1 - 33.1)	65	9.0 (6.9 - 11.2)
Nearly every day	6	0.5 (0.1 - 0.9)	12	1.3 (0.6 - 2.0)	5	0.3 (0.0 - 1.3)	11	1.7 (0.6 - 2.7)
<b>Poor appetite or overeating<sup>a</sup></b>								
Not at all	580	73.0 (67.9 - 78.0)	628	67.7 (64.4 - 71.0)	495	66.0 (60.7 - 71.2)	409	66.6 (63.1 - 70.1)
Several days	206	23.2 (18.5 - 27.9)	262	27.8 (24.6 - 30.9)	155	21.4 (16.9 - 26.0)	186	25.5 (22.0 - 28.9)
More than half of days	18	2.3 (1.1 - 3.5)	38	3.5 (2.4 - 4.7)	85	11.5 (8.2 - 14.9)	33	4.8 (3.2 - 6.5)
Nearly every day	18	1.5 (0.9 - 2.2)	9	1.0 (0.4 - 1.6)	7	1.0 (0.0 - 2.1)	20	3.1 (1.6 - 4.6)
<b>Feeling bad about self<sup>a</sup></b>								
Not at all	549	67.8 (62.4 - 73.3)	536	58.6 (55.0 - 62.2)	456	58.4 (53.1 - 63.7)	446	69.9 (66.1 - 73.7)
Several days	217	26.1 (20.9 - 31.3)	257	29.0 (25.6 - 32.4)	110	14.9 (10.4 - 19.4)	132	20.1 (16.7 - 23.6)
More than half of days	41	4.4 (3.0 - 5.7)	130	11.0 (9.1 - 13.0)	90	11.3 (8.3 - 14.4)	44	6.6 (4.7 - 8.5)
Nearly every day	15	1.7 (0.8 - 2.6)	14	1.4 (0.7 - 2.1)	86	15.3 (10.3 - 20.3)	26	3.3 (2.2 - 4.5)
<b>Trouble concentrating on things<sup>a</sup></b>								
Not at all	650	80.9 (76.5 - 85.3)	719	75.7 (72.5 - 78.8)	615	86.1 (82.6 - 89.6)	472	75.0 (71.4 - 78.6)
Several days	148	16.7 (13.3 - 20.0)	185	21.4 (18.3 - 24.4)	68	7.5 (4.7 - 10.2)	124	18.2 (15.0 - 21.4)
More than half of days	13	1.3 (0.0 - 3.1)	25	2.1 (1.2 - 3.0)	55	6.0 (3.8 - 8.2)	43	6.0 (4.3 - 7.6)
Nearly every day	11	1.1 (0.3 - 1.9)	8	0.8 (0.3 - 1.4)	4	0.4 (0.0 - 1.0)	9	0.9 (0.4 - 1.3)
<b>Moving or speaking so slowly that other people could have noticed or being restless<sup>a</sup></b>								
Not at all	676	83.7 (79.5 - 88.0)	811	87.3 (84.8 - 89.8)	563	72.5 (67.9 - 77.0)	490	79.5 (76.5 - 82.4)
Several days	128	14.4 (10.4 - 18.5)	106	11.0 (8.8 - 13.2)	67	8.1 (5.9 - 10.3)	103	12.3 (10.0 - 14.6)
More than half of days	8	1.0 (0.2 - 1.8)	16	1.4 (0.6 - 2.2)	86	13.0 (9.7 - 16.3)	47	7.4 (5.2 - 9.5)
Nearly every day	10	0.8 (0.3 - 1.3)	4	0.3 (0.06 - 0.6)	26	6.4 (3.6 - 9.2)	8	0.9 (0.3 - 1.4)
<b>Thoughts that one would be better off dead or of hurting self<sup>a</sup></b>								
Not at all	717	89.2 (86.0 - 92.3)	731	76.9 (73.8 - 80.0)	666	88.9 (84.6 - 93.2)	546	84.6 (81.7 - 87.5)
Several days	88	9.4 (6.3 - 12.5)	177	20.0 (16.9 - 23.0)	43	5.2 (3.1 - 7.2)	74	11.0 (8.4 - 13.6)
More than half of days	10	0.8 (0.3 - 1.3)	24	2.5 (1.2 - 3.9)	27	5.0 (1.3 - 8.8)	25	4.0 (2.4 - 5.6)
Nearly every day	7	0.6 (0.2 - 1.0)	5	0.6 (0.1 - 1.1)	6	0.9 (0.0 - 2.0)	3	0.4 (0.01 - 0.7)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the respondent driven sampling package in R, using Gile's sequential sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval

## **Chapter 7: Transgender Persons**

## 7.1: Sociodemographic Characteristics

Transgender population was predominantly young, with a median age of 26 years and nearly nine in ten aged between 18 and 34 years.

Gender distribution varied by region, with males accounting for 63% overall, while females formed the majority in Nairobi at 51%.

Educational attainment was relatively high, with over three-quarters having completed secondary or post-secondary education, and 54.5% in Nairobi achieving higher education. Most participants were single (78%), with 15% married or cohabiting.

Economic participation was mainly informal, as 15% reported formal employment, 31% were self-employed, and 64% earned below KSh 20,000 per month.

Table 7.1: Sociodemographic Characteristics of Transgender Persons By Location, BBS, Kenya, 2024

	Overall Estimate (N=1042)		Kilifi (N=251)		Mombasa (N=317)		Nairobi (N=474)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Median age, years (IQR)</b>	1042	26 (22 - 31)	251	27 (22 - 33)	317	26 (23 - 33)	474	24 (21 - 28)
<b>Sex</b>								
Female	383	37.1 (23.6 - 50.5)	82	32.5 (27.3 - 37.7)	77	26.9 (14.6 - 39.1)	224	50.9 (42.5 - 59.4)
Male	659	62.9 (49.5 - 76.4)	169	67.5 (62.3 - 72.7)	240	73.1 (60.9 - 85.4)	250	49.1 (40.6 - 57.5)
<b>Age (years)</b>								
18-24	501	48.8 (37.4 - 60.1)	96	40.3 (35.9 - 44.6)	137	47.6 (40.7 - 54.6)	268	58.4 (52.8 - 64.1)
25-34	394	37.3 (31.9 - 42.6)	108	41.8 (37.7 - 46.0)	112	33.2 (27.5 - 38.8)	174	35.8 (30.3 - 41.3)
35-44	120	10.8 (4.1 - 17.4)	37	13.9 (11.1 - 16.7)	53	13.8 (9.9 - 17.6)	30	4.9 (3.0 - 6.9)
45+	27	3.2 (0.5 - 5.9)	10	4.0 (2.4 - 5.6)	15	5.4 (2.4 - 8.5)	2	0.8 (0.0 - 2.1)
<b>Highest level of education<sup>a</sup></b>								
Never attended school	14	1.5 (0.0 - 3.2)	10	4.4 (2.4 - 6.5)	3	0.8 (0.0 - 1.8)	1	0.2 (0.0 - 0.5)
Nursery/pre-school	9	1.2 (0.0 - 2.8)	2	0.7 (0.2 - 1.1)	7	2.4 (0.2 - 4.6)	0	0.0 (0.0 - 0.0)
Primary school	197	20.0 (4.7 - 35.2)	83	31.0 (27.2 - 34.8)	75	20.9 (15.8 - 26.0)	39	7.8 (5.1 - 10.6)
Secondary school	420	41.8 (35.4 - 48.1)	97	39.1 (35.0 - 43.2)	150	49.2 (43.1 - 55.3)	173	37.4 (32.6 - 42.2)
Post-secondary <sup>b</sup>	400	35.6 (15.8 - 55.4)	59	24.8 (20.2 - 29.3)	81	26.7 (20.7 - 32.8)	260	54.5 (49.8 - 59.3)
<b>Current marital status<sup>a</sup></b>								
Single/never married	834	78.2 (64.3 - 92.0)	165	57.5 (63.7 - 71.4)	248	76.4 (71.7 - 81.2)	421	89.2 (86.1 - 92.3)
Married/cohabiting	153	15.3 (10.0 - 20.5)	40	14.4 (12.1 - 16.7)	62	22.0 (17.1 - 26.8)	51	10.4 (7.4 - 13.4)
Divorced/separated	53	6.0 (0.8 - 11.3)	44	17.4 (14.2 - 20.6)	7	1.6 (0.5 - 2.6)	2	0.3 (0.0 - 1.1)
Widowed	2	0.7 (0.2 - 1.2)	2	0.7 (0.2 - 1.2)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
<b>Has biological children<sup>a</sup></b>								
Yes	130	10.8 (8.4 - 13.3)	26	9.7 (7.4 - 12.0)	48	14.8 (10.1 - 19.6)	56	10.2 (7.3 - 13.0)
No	908	89.2 (86.7 - 91.6)	224	90.3 (88.0 - 92.6)	267	85.2 (80.4 - 90.0)	417	89.8 (87.0 - 92.7)
<b>Main source of income<sup>a</sup></b>								
Formal employment	177	15.0 (8.1 - 22.0)	24	9.0 (6.8 - 11.3)	61	18.9 (14.5 - 23.3)	92	17.7 (13.6 - 21.7)
Informal work	256	28.3 (11.9 - 44.6)	106	42.7 (38.6 - 46.8)	69	23.6 (17.5 - 29.7)	81	18.0 (13.8 - 22.1)
Self-employment <sup>c</sup>	345	31.0 (23.9 - 38.1)	69	25.4 (22.2 - 28.6)	103	30.8 (25.5 - 36.1)	173	37.1 (32.0 - 42.1)
Sex work	89	7.6 (3.0 - 12.3)	27	10.7 (7.9 - 13.5)	38	8.8 (5.9 - 11.7)	24	3.7 (1.9 - 5.4)
Spouse/partner/friends	7	0.8 (0.0 - 2.1)	1	0.3 (0.0 - 0.6)			6	1.7 (0.3 - 3.0)
None	168	17.1 (10.8 - 23.5)	24	11.8 (8.2 - 15.5)	46	17.9 (12.6 - 23.1)	98	21.9 (17.6 - 26.3)
<b>Monthly income (KSh.)<sup>a</sup></b>								
<5000	87	11.3 (7.0 - 15.5)	14	7.9 (4.7 - 11.2)	39	15.2 (9.8 - 20.6)	34	11.8 (7.1 - 16.5)
5000 to <20000	587	64.0 (60.0 - 68.0)	151	56.1 (61.5 - 70.6)	199	64.9 (59.0 - 70.8)	237	59.4 (53.4 - 65.3)
20000 to <50000	195	20.9 (16.8 - 25.0)	54	22.2 (18.5 - 26.0)	52	16.6 (12.0 - 21.2)	89	23.7 (18.5 - 28.8)
50000 and above	49	3.8 (2.8 - 4.9)	9	3.7 (2.2 - 5.3)	13	3.3 (1.5 - 5.1)	27	5.2 (2.6 - 7.7)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Post-secondary education includes vocational or technician training, college, university, graduate and above.

<sup>c</sup> Self-employment includes businesses and selling drugs

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; IQR, interquartile range; KSh., Kenya shillings

## 7.2: HIV Prevalence

The overall HIV prevalence among transgender persons was 22.5%, with slightly higher rates in Mombasa (25.7%) compared to Kilifi (22.2%) and Nairobi (20.0%).

Prevalence increased with age, rising from 12.4% among those aged 18–24 years to 64.4% among those aged 45 years and older, indicating a cumulative risk over time.

By education level, HIV prevalence was highest among those who never attended school (75.4%) and lowest among those with post-secondary education (17.7%).

Marital status showed minimal variation, with 22.2% of single individuals and 23.3% of married or cohabiting individuals living with HIV.

Occupation-wise, sex workers recorded the highest HIV prevalence (32.0%), followed by those self-employed (27.6%), while those in informal or formal employment had lower rates (18–19%).

Across income levels, HIV prevalence ranged from 18.1% among those earning <KSh 5,000 to 26.2% among those earning between KSh 20,000–50,000.

These results highlight significant socioeconomic and regional disparities in HIV burden among transgender individuals, particularly among older, less-educated, and economically vulnerable groups.

Table 7.2: Prevalence of HIV Among Transgender Persons By Location, BBS, Kenya, 2024

	Overall Estimate		Kilifi		Mombasa		Nairobi	
	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)
<b>Overall estimate</b>	243/999	22.5 (20.5 - 24.5)	51/227	22.2 (19.8 - 24.5)	91/310	25.7 (20.7 - 30.7)	101/462	20.0 (13.7 - 26.3)
<b>Age (years)</b>								
18-24	75/479	12.4 (2.0 - 22.9)	3/83	4.4 (3.9 - 5.3)	24/135	15.6 (8.8 - 22.3)	48/261	18.1 (13.4 - 22.9)
25-34	107/378	27.3 (19.0 - 35.6)	26/99	27.0 (25.7 - 28.5)	44/110	37.6 (30.5 - 44.8)	37/169	17.7 (10.9 - 24.4)
35-44	47/115	39.1 (33.3 - 44.8)	15/35	41.4 (34.0 - 48.3)	18/50	31.7 (20.2 - 42.9)	14/30	42.8 (24.4 - 60.9)
45+ <sup>c</sup>	14/27	64.4 (17.2 - 100.0)	7/10	63.8 (41.9 - 87.2)	5/15	27.0 (6.1 - 48.4)	2/2	100.0 (79.4 - 100.0)
<b>Highest level of education</b>								
Never attended school	9/14	75.4 (39.2 - 100.0)	6/10	57.6 (32.5 - 83.4)	2/3	54.2 (0.0 - 100.0)	1/1	100.0 (71.5 - 100.0)
Nursery/pre-school	3/7	26.7 (0.0 - 61.8)	0/2	0.0 (0.0 - 84.2)	3/7	26.7 (0.0 - 61.8)	0/0	0.0 (0.0 - 0.0)
Primary school	63/191	31.7 (30.2 - 33.3)	25/79	31.8 (30.3 - 33.5)	25/73	30.7 (22.0 - 39.2)	13/39	30.0 (16.3 - 43.9)
Secondary school	92/407	19.6 (14.1 - 25.1)	16/90	15.8 (13.8 - 17.3)	39/148	23.9 (17.6 - 30.3)	37/169	21.2 (14.5 - 27.8)
Post-secondary <sup>a</sup>	76/376	17.7 (11.7 - 23.8)	4/46	12.0 (4.8 - 20.8)	22/78	24.7 (15.0 - 34.3)	50/252	17.8 (12.4 - 23.0)
<b>Current marital status</b>								
Single/never married	194/805	22.2 (16.3 - 28.2)	27/149	18.6 (15.4 - 22.1)	76/244	28.3 (22.8 - 33.8)	91/412	20.5 (14.5 - 26.6)
Married/cohabiting	37/147	23.3 (7.3 - 39.4)	15/39	36.7 (32.6 - 39.9)	13/60	16.6 (8.2 - 25.0)	9/48	15.2 (4.2 - 26.0)
Divorced/separated	12/45	19.0 (9.9 - 28.2)	9/37	25.9 (15.6 - 36.9)	2/6	24.0 (0.0 - 55.2)	1/2	14.4 (11.7 - 17.5)
Widowed <sup>c</sup>	0/2	0.0 (0.0 - 0.0)	0/2	0.0 (0.0 - 84.2)	0/0	0.0 (0.0 - 0.0)	0/0	0.0 (0.0 - 0.0)
<b>Main source of income</b>								
Formal employment	41/163	19.5 (10.3 - 28.6)	3/21	12.9 (7.9 - 15.1)	15/56	25.4 (14.6 - 36.2)	23/86	23.6 (12.9 - 34.2)
Informal work	45/253	18.0 (12.2 - 23.7)	22/104	21.5 (20.3 - 22.7)	11/69	14.1 (6.9 - 21.4)	12/80	14.7 (4.8 - 24.5)
Self-employment <sup>b</sup>	90/329	27.6 (20.4 - 34.9)	17/58	30.0 (22.1 - 38.0)	35/101	33.0 (24.2 - 42.0)	38/170	21.0 (13.9 - 28.1)
Sex work	35/86	32.0 (15.8 - 48.3)	6/25	21.7 (14.3 - 29.2)	20/38	47.8 (30.5 - 65.7)	9/23	30.7 (10.5 - 49.7)
Spouse/partner/friend	1/6	12.3 (0.0 - 35.4)	0/1	0.0 (0.0 - 97.5)	0/0	0.0 (0.0 - 0.0)	1/6	12.3 (0.0 - 35.4)
None <sup>c</sup>	31/161	18.1 (11.9 - 24.3)	3/18	17.1 (0.0 - 35.8)	10/46	17.7 (5.8 - 29.5)	18/97	18.5 (10.7 - 26.6)
<b>Monthly income (KSh.)</b>								
<5000	41/202	18.1 (12.1 - 24.1)	6/32	20.0 (5.7 - 34.5)	13/52	21.9 (9.3 - 34.4)	22/118	16.1 (8.4 - 23.9)
5000 to <20000	139/566	22.5 (19.6 - 25.3)	30/141	21.4 (20.4 - 22.5)	56/193	26.7 (21.5 - 31.9)	53/232	21.4 (16.4 - 26.4)
20000 to <50000	50/184	26.2 (20.4 - 32.1)	14/46	29.5 (20.0 - 37.9)	18/52	28.4 (15.9 - 40.9)	18/86	20.8 (10.8 - 30.8)
50000 and above	12/44	14.3 (6.0 - 22.6)	1/8	11.4 (5.6 - 15.8)	3/12	12.2 (1.2 - 22.3)	8/24	33.4 (11.7 - 54.9)
<b>Ever pregnant</b>								
Yes	19/86	18.5 (0.0 - 38.5)	9/20	44.0 (29.4 - 59.0)	1/17	2.7 (0.6 - 4.6)	9/49	12.4 (2.2 - 22.4)
No	35/314	11.8 (5.3 - 18.2)	14/61	21.8 (14.4 - 28.5)	6/69	7.7 (3.8 - 11.5)	15/184	8.3 (5.2 - 11.5)
<b>Currently pregnant</b>								
Yes	0/1	0.0 (0.0 - 0.0)	0/0	0.0 (0.0 - 0.0)	0/0	0.0 (0.0 - 0.0)	0/1	0.0 (0.0 - 28.5)
No	19/85	18.4 (0.0 - 38.1)	9/20	44.1 (28.2 - 60.2)	1/17	2.6 (0.6 - 4.6)	9/48	13.1 (2.7 - 23.4)
<b>ANC visit during last live birth</b>								
Yes	14/65	16.0 (0.0 - 32.7)	5/14	33.7 (18.2 - 48.9)	1/14	2.9 (0.3 - 5.6)	8/37	15.6 (4.6 - 26.2)
No	1/4	28.5 (0.0 - 73.6)	0/0	0.0 (0.0 - 0.0)	0/1	0.0 (0.0 - 60.2)	1/4	28.5 (0.0 - 73.6)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent - Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Post-secondary education includes vocational or technician training, college, university, graduate and above.

<sup>c</sup> Self-employment includes businesses and selling drugs

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; IQR, interquartile range; KSh., Kenya shillings

### 7.3: Population-level Viral Suppression

Among all transgender persons, 72.3% achieved viral load suppression at <50 copies/ml, indicating good ART outcomes nationally. Viral suppression varied by region, with Mombasa recording the highest rate at 78.5%, followed by Kilifi at 74.2% and Nairobi at 64.1%. Suppression was highest among those aged 45 years and older (90.8%) and lowest among those aged 25–34 years (68.5%). By education, suppression increased with higher education, reaching 74.8% among post-secondary graduates, while those with only primary education recorded 72.9%. Sex workers showed the highest suppression (93%), while those without employment or income had comparatively lower rates (67.6%).

At a less stringent threshold (VL <200 copies/ml), 83.9% of transgender persons living with HIV were virally suppressed. Suppression remained highest in Kilifi (85.2%) and Mombasa (83.5%), with Nairobi recording 83.6%. By age, suppression exceeded 90% among those aged 35 years and older, and 91.9% among youth aged 18–24 years, demonstrating broad ART effectiveness across age groups. Education showed a similar trend, with post-secondary participants (91.9%) and those with primary or secondary schooling (81–83%) maintaining high suppression levels. Sex workers (98.9%) and those in formal employment (92%) had the highest suppression, while those earning below KSh 5,000 showed slightly lower rates (89%).

Using the WHO-recommended threshold for viral suppression (<1000 copies/ml), 86.9% of transgender individuals achieved successful viral suppression overall. Mombasa recorded the highest suppression level (89.4%), followed closely by Nairobi (85.2%) and Kilifi (85.2%). Suppression was highest among those aged 35–44 years (98.0%) and 45 years and above (100%), while younger participants aged 18–24 years also showed strong outcomes (93.8%). Viral suppression increased with educational attainment—participants with post-secondary education (92.4%) and primary or secondary schooling (84–88%) demonstrated high levels of control. Across socioeconomic indicators, those engaged in sex work exhibited the highest suppression (99%), while participants in formal (91.8%), informal (88.6%), and self-employment (90.1%) also maintained strong viral control. Suppression remained high across income categories, peaking at 96.8% among individuals earning KSh. 20,000–<50,000 per month. These findings highlight robust ART adherence and treatment success across most demographic and socioeconomic subgroups.

Table 7.3: Viral Load Suppression (VL <50 copies/ml) Among Transgender Persons By Location, BBS, Kenya, 2024

	Overall Estimate (N=242)		Kilifi (N=50)		Mombasa (N=91)		Nairobi (N=101)	
	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)
<b>Overall</b>	175/242	72.3 (63.1 - 81.5)	36/50	74.2 (62.0 - 89.0)	72/91	78.5 (69.3 - 87.6)	67/101	64.1 (53.7 - 73.8)
<b>Age (years)</b>								
18-24	50/75	72.0 (61.1 - 82.9)	2/3	74.5 (23.9 - 100.0)	18/24	82.0 (65.2 - 100.0)	30/48	65.0 (51.1 - 80.0)
25-34	78/106	68.5 (52.3 - 84.7)	16/25	68.2 (53.6 - 88.6)	37/44	80.4 (69.9 - 90.1)	25/37	54.3 (35.7 - 67.3)
35-44	36/47	74.9 (62.7 - 87.0)	12/15	79.8 (59.3 - 99.5)	14/18	72.0 (53.8 - 90.3)	10/14	72.1 (43.8 - 99.3)
45+	11/14	90.8 (74.0 - 100.0)	6/7	85.2 (63.9 - 100.0)	3/5	64.2 (23.7 - 100.0)	2/2	100.0 (79.4 - 100.0)
<b>Highest level of education</b>								
Never attended school <sup>c</sup>	7/8	99.9 (98.0 - 100.0)	5/6	81.5 (45.3 - 100.0)	2/2	100.0 (54.1 - 100.0)	0/1	0.0 (0.0 - 28.5)
Nursery school/pre-school <sup>c</sup>	2/3	64.2 (9.2 - 100.0)	0/0	0.0 (0.0 - 0.0)	2/3	64.2 (9.2 - 100.0)	0/0	0.0 (0.0 - 0.0)
Primary school	47/62	72.9 (62.7 - 83.1)	18/24	76.5 (59.9 - 94.7)	19/25	71.8 (56.9 - 85.1)	10/13	67.9 (38.6 - 94.2)
Secondary school	64/92	70.1 (58.4 - 81.7)	11/16	68.8 (45.2 - 89.6)	30/39	77.1 (65.6 - 88.5)	23/37	58.1 (39.0 - 76.6)
Post-secondary <sup>a</sup>	55/76	74.8 (61.2 - 88.4)	2/4	70.4 (34.9 - 100.0)	19/22	87.7 (67.8 - 100.0)	34/50	68.2 (56.3 - 80.1)
<b>Current marital status</b>								
Single/never married	141/193	75.0 (63.3 - 86.8)	21/26	83.4 (72.0 - 97.4)	60/76	78.9 (68.6 - 89.4)	60/91	63.6 (52.7 - 74.1)
Married/cohabiting	26/37	69.9 (55.6 - 84.3)	10/15	67.2 (45.7 - 89.8)	10/13	73.7 (49.8 - 96.6)	6/9	68.7 (37.0 - 100.0)
Divorced/separated	8/12	99.8 (97.3 - 100.0)	5/9	57.8 (18.0 - 96.9)	2/2	100.0 (47.8 - 100.0)	1/1	100.0 (2.5 - 100.0)
Widowed	0/0	0.0 (0.0 - 0.0)	0/0	0.0 (0.0 - 0.0)	0/0	0.0 (0.0 - 0.0)	0/0	0.0 (0.0 - 0.0)
<b>Main source of income</b>								
Formal employment	29/41	82.7 (59.5 - 100.0)	3/3	100.0 (29.2 - 100.0)	11/15	73.0 (53.0 - 93.7)	15/23	69.7 (50.4 - 91.8)
Informal work	31/45	76.6 (64.8 - 88.3)	13/22	65.9 (51.8 - 91.1)	8/11	75.7 (53.2 - 99.0)	10/12	87.2 (68.4 - 100.0)
Self-employment <sup>b</sup>	66/90	72.3 (58.3 - 86.4)	13/17	75.8 (49.1 - 95.1)	30/35	80.7 (67.1 - 92.9)	23/38	58.7 (40.9 - 76.3)
Sex work	29/34	93.0 (78.1 - 100.0)	5/5	100.0 (54.1 - 100.0)	16/20	77.9 (49.3 - 100.0)	8/9	81.5 (44.3 - 100.0)
Spouse/partner/friends	0/1	0.0 (0.0 - 0.0)	0/0	0.0 (0.0 - 0.0)	0/0	0.0 (0.0 - 0.0)	0/1	0.0 (0.0 - 60.2)
None	20/31	67.6 (45.2 - 89.9)	2/3	74.3 (15.8 - 100.0)	7/10	82.5 (59.8 - 100.0)	11/18	52.5 (30.9 - 73.3)
<b>Monthly income (KSh.)</b>								
<5000	26/41	69.6 (41.5 - 97.7)	4/6	78.6 (55.6 - 100.0)	11/13	86.6 (69.7 - 100.0)	11/22	44.3 (24.3 - 63.4)
5000 to <20000	108/138	76.4 (70.0 - 82.7)	22/29	76.5 (58.6 - 93.4)	47/56	80.5 (71.3 - 89.0)	39/53	70.3 (59.3 - 80.6)
20000 to <50000	34/50	72.4 (57.9 - 86.9)	10/14	72.0 (47.3 - 97.0)	12/18	66.9 (40.1 - 94.1)	12/18	77.0 (54.5 - 100.0)
50000 and above <sup>c</sup>	7/11	51.2 (20.5 - 81.9)	0/1	0.0 (0.0 - 97.5)	2/3	65.9 (9.3 - 100.0)	5/8	44.5 (1.2 - 75.3)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Post-secondary education includes vocational or technician training, college, university, graduate and above.

<sup>c</sup> Self-employment includes businesses and selling drugs

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; IQR, interquartile range; KSh., Kenya shillings

Table 7.3B: Viral Load Suppression (VL<200 copies/ml) Among Transgender Persons By Location, BBS, Kenya, 2024

	Overall Estimate (N=242)		Kilifi (N=50)		Mombasa (N=91)		Nairobi (N=101)	
	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)
<b>Overall</b>	203/242	83.9 (78.0 - 89.8)	42/50	85.2 (72.7 - 98.8)	77/91	83.5 (74.4 - 92.3)	84/101	83.6 (74.0 - 93.5)
<b>Age (years)</b>								
18-24	61/75	91.9 (80.3 - 100.0)	3/3	100.0 (47.8 - 100.0)	19/24	85.9 (74.0 - 99.5)	39/48	85.3 (72.1 - 99.9)
25-34	85/106	81.0 (75.5 - 86.5)	18/25	74.2 (57.2 - 92.7)	38/44	83.3 (76.7 - 89.3)	29/37	72.5 (56.3 - 87.0)
35-44	45/47	95.6 (90.3 - 100.0)	14/15	94.3 (95.2 - 98.0)	17/18	87.1 (75.0 - 96.5)	14/14	100.0 (91.2 - 100.0)
45+	12/14	99.9 (98.0 - 100.0)	7/7	100.0 (66.4 - 100.0)	3/5	63.9 (24.2 - 100.0)	2/2	100.0 (79.4 - 100.0)
<b>Highest level of education</b>								
Never attended school <sup>f</sup>	7/8	99.9 (98.0 - 100.0)	5/6	81.4 (46.6 - 100.0)	2/2	100.0 (54.1 - 100.0)	0/1	0.0 (0.0 - 28.5)
Nursery school/pre-school <sup>f</sup>	2/3	65.2 (7.1 - 100.0)	0/0	0.0 (0.0 - 0.0)	2/3	65.2 (7.1 - 100.0)	0/0	0.0 (0.0 - 0.0)
Primary school	53/62	83.0 (70.7 - 95.2)	22/24	92.0 (80.9 - 100.0)	21/25	78.8 (65.9 - 90.3)	10/13	67.9 (38.7 - 94.0)
Secondary school	75/92	81.3 (73.4 - 89.2)	12/16	77.1 (59.1 - 99.0)	31/39	78.6 (67.5 - 89.7)	32/37	87.4 (74.1 - 100.0)
Post-secondary <sup>a</sup>	66/76	91.9 (80.8 - 100.0)	3/4	83.0 (46.7 - 100.0)	21/22	97.8 (94.7 - 100.0)	42/50	84.8 (74.1 - 95.6)
<b>Current marital status</b>								
Single/never married	161/193	84.5 (78.3 - 90.7)	22/26	86.9 (76.3 - 100.0)	65/76	84.9 (75.1 - 94.6)	74/91	82.2 (71.9 - 93.1)
Married/cohabiting	33/37	95.2 (88.8 - 100.0)	14/15	93.6 (94.0 - 97.5)	10/13	73.6 (50.4 - 96.1)	9/9	100.0 (87.2 - 100.0)
Divorced/separated	9/12	99.9 (98.1 - 100.0)	6/9	69.5 (35.2 - 100.0)	2/2	100.0 (47.8 - 100.0)	1/1	100.0 (2.5 - 100.0)
Widowed	0/0	0.0 (0.0 - 0.0)	0/0	0.0 (0.0 - 0.0)	0/0	0.0 (0.0 - 0.0)	0/0	0.0 (0.0 - 0.0)
<b>Main source of income</b>								
Formal employment	35/41	92.0 (79.8 - 100.0)	3/3	100.0 (29.2 - 100.0)	13/15	83.6 (66.9 - 99.5)	19/23	86.0 (71.1 - 100.0)
Informal work	36/45	86.6 (73.4 - 99.8)	17/22	80.1 (65.5 - 98.7)	8/11	75.6 (52.8 - 99.1)	11/12	95.7 (87.5 - 100.0)
Self-employment <sup>b</sup>	76/90	84.9 (77.7 - 92.1)	14/17	82.9 (61.8 - 100.0)	32/35	88.1 (78.0 - 97.0)	30/38	79.4 (66.0 - 92.9)
Sex work	31/34	98.9 (95.4 - 100.0)	5/5	100.0 (54.1 - 100.0)	17/20	79.5 (64.3 - 92.9)	9/9	100.0 (83.9 - 100.0)
Spouse/partner/friends	1/1	00.0 (39.8 - 100.0)	0/0	0.0 (0.0 - 0.0)	0/0	0.0 (0.0 - 0.0)	1/1	100.0 (39.8 - 100.0)
None	24/31	89.4 (72.6 - 100.0)	3/3	100.0 (47.8 - 100.0)	7/10	82.9 (60.0 - 100.0)	14/18	76.1 (54.0 - 98.5)
<b>Monthly income (KSh.)</b>								
<5000	33/41	89.1 (73.0 - 100.0)	6/6	100.0 (69.2 - 100.0)	11/13	86.5 (69.2 - 100.0)	16/22	74.3 (55.8 - 94.4)
5000 to <20000	118/138	84.9 (78.9 - 90.8)	25/29	86.5 (72.1 - 99.4)	48/56	82.8 (73.6 - 91.4)	45/53	86.6 (76.8 - 97.0)
20000 to <50000 <sup>c</sup>	43/50	85.7 (75.9 - 95.5)	11/14	78.5 (54.9 - 99.8)	16/18	87.1 (72.8 - 100.0)	16/18	88.0 (70.4 - 100.0)
50000 and above	9/11	75.3 (45.0 - 100.0)	0/1	0.0 (0.0 - 97.5)	2/3	65.5 (11.2 - 100.0)	7/8	79.9 (41.0 - 100.0)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent -

Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Post-secondary education includes vocational or technician training, college, university, graduate and above.

<sup>c</sup> Self-employment includes businesses and selling drugs

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; IQR, interquartile range; KSh., Kenya shillings

Table 7.3C: Viral Load Suppression (VL<1000 copies/ml) Among Transgender Persons By Location, BBS, Kenya, 2024

	Overall Estimate (N=242)		Kilifi (N=50)		Mombasa (N=91)		Nairobi (N=101)	
	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)
<b>Overall</b>	175/242	72.3 (63.1, 81.5)	36/50	74.2 (62.0, 89.0)	72/91	78.5 (69.3, 87.6)	67/101	64.1 (53.7, 73.8)
<b>Age (years)</b>								
18-24	50/75	72.0 (61.1, 82.9)	2/3	74.5 (23.9, 100.0)	18/24	82.0 (65.2, 100.0)	30/48	65.0 (51.1, 80.0)
25-34	78/106	68.5 (52.3, 84.7)	16/25	68.2 (53.6, 88.6)	37/44	80.4 (69.9, 90.1)	25/37	54.3 (35.7, 67.3)
35-44	36/47	74.9 (62.7, 87.0)	12/15	79.8 (59.3, 99.5)	14/18	72.0 (53.8, 90.3)	10/14	72.1 (43.8, 99.3)
45+	11/14	90.8 (74.0, 100.0)	6/7	85.2 (63.9, 100.0)	3/5	64.2 (23.7, 100.0)	2/2	100.0 (79.4, 100.0)
<b>Highest level of education</b>								
Never attended school <sup>f</sup>	7/8	99.9 (98.0, 100.0)	5/6	81.5 (45.3, 100.0)	2/2	100.0 (54.1, 100.0)	0/1	0.0 (0.0, 28.5)
Nursery school/pre-school <sup>f</sup>	2/3	64.2 (9.2, 100.0)	0/0	0.0 (0.0 - 0.0)	2/3	64.2 (9.2, 100.0)	0/0	0.0 (0.0 - 0.0)
Primary school	47/62	72.9 (62.7, 83.1)	18/24	76.5 (59.9, 94.7)	19/25	71.8 (56.9, 85.1)	10/13	67.9 (38.6, 94.2)
Secondary school	64/92	70.1 (58.4, 81.7)	11/16	68.8 (45.2, 89.6)	30/39	77.1 (65.6, 88.5)	23/37	58.1 (39.0, 76.6)
Post-secondary <sup>a</sup>	55/76	74.8 (61.2, 88.4)	2/4	70.4 (34.9, 100.0)	19/22	87.7 (67.8, 100.0)	34/50	68.2 (56.3, 80.1)
<b>Current marital status</b>								
Single/never married	141/193	75.0 (63.3, 86.8)	21/26	83.4 (72.0, 97.4)	60/76	78.9 (68.6, 89.4)	60/91	63.6 (52.7, 74.1)
Married/cohabiting	26/37	69.9 (55.6, 84.3)	10/15	67.2 (45.7, 89.8)	10/13	73.7 (49.8, 96.6)	6/9	68.7 (37.0, 100.0)
Divorced/separated	8/12	99.8 (97.3, 100.0)	5/9	57.8 (18.0, 96.9)	2/2	100.0 (47.8, 100.0)	1/1	100.0 (2.5, 100.0)
Widowed	0/0	0.0 (0.0 - 0.0)	0/0	0.0 (0.0 - 0.0)	0/0	0.0 (0.0 - 0.0)	0/0	0.0 (0.0 - 0.0)
<b>Main source of income</b>								
Formal employment	29/41	82.7 (59.5, 100.0)	3/3	100.0 (29.2, 100.0)	11/15	73.0 (53.0, 93.7)	15/23	69.7 (50.4, 91.8)
Informal work	31/45	76.6 (64.8, 88.3)	13/22	65.9 (51.8, 91.1)	8/11	75.7 (53.2, 99.0)	10/12	87.2 (68.4, 100.0)
Self-employment <sup>b</sup>	66/90	72.3 (58.3, 86.4)	13/17	75.8 (49.1, 95.1)	30/35	80.7 (67.1, 92.9)	23/38	58.7 (40.9, 76.3)
Sex work	29/34	93.0 (78.1, 100.0)	5/5	100.0 (54.1, 100.0)	16/20	77.9 (49.3, 100.0)	8/9	81.5 (44.3, 100.0)
Spouse/partner/friends	0/1	-	0/0	0.0 (0.0 - 0.0)	0/0	-	0/1	0.0 (0.0, 60.2)
None	20/31	67.6 (45.2, 89.9)	2/3	74.3 (15.8, 100.0)	7/10	82.5 (59.8, 100.0)	11/18	52.5 (30.9, 73.3)
<b>Monthly income (KSh.)</b>								
<5000	26/41	69.6 (41.5, 97.7)	4/6	78.6 (55.6, 100.0)	11/13	86.6 (69.7, 100.0)	11/22	44.3 (24.3, 63.4)
5000 to <20000	108/138	76.4 (70.0, 82.7)	22/29	76.5 (58.6, 93.4)	47/56	80.5 (71.3, 89.0)	39/53	70.3 (59.3, 80.6)
20000 to <50000	34/50	72.4 (57.9, 86.9)	10/14	72.0 (47.3, 97.0)	12/18	66.9 (40.1, 94.1)	12/18	77.0 (54.5, 100.0)
50000 and above <sup>c</sup>	7/11	51.2 (20.5, 81.9)	0/1	0.0 (0.0, 97.5)	2/3	65.9 (9.3, 100.0)	5/8	44.5 (1.2, 75.3)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent - Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Post-secondary education includes vocational or technician training, college, university, graduate and above.

<sup>b</sup> Self-employment includes businesses and selling drugs

<sup>c</sup> Estimates with a sample numerator of zero were calculated using binomial approximation. Meta analysis for overall estimates were restricted to include estimates with a non-zero sample numerator.

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; Ksh., Kenya shillings; VL, viral load

## 7.4: HIV Incidence

Testing is underway and will be added to this report as an addendum.

## 7.5: UNAIDS 95-95-95 Cascade

### **Conditonal:**

Overall, 92.7% of transgender individuals living with HIV were aware of their HIV status, with awareness levels slightly higher in Kilifi (94.4%) and Mombasa (94.3%) compared to Nairobi (86.7%).

Among those aware of their status, 98.9% were on ART, showing excellent linkage to treatment, with Mombasa achieving full ART coverage (100%) and similarly high rates in Kilifi (97.4%) and Nairobi (97.8%).

Viral load suppression among those on ART (VL <200 copies/ml) reached 93.8% nationally, with the highest suppression in Nairobi (97.7%), followed by Kilifi (92.6%) and Mombasa (88.6%). These findings indicate that Kenya's transgender population is approaching the global UNAIDS 95-95-95 targets, with particularly strong ART adherence and viral suppression outcomes across all surveyed regions.

### **Unconditonal:**

Overall, 92.7% of transgender individuals living with HIV were aware of their HIV status, with awareness levels comparable across Kilifi (94.4%) and Mombasa (94.3%), and slightly lower in Nairobi (86.7%).

Among all transgender persons living with HIV, 91.1% were on ART, with regional variation ranging from 84.9% in Nairobi to 94.3% in Mombasa, reflecting high treatment coverage nationally.

Viral load suppression (VL <200 copies/ml) was achieved by 83.6% of all HIV-positive transgender individuals, with suppression rates of 85.2% in Kilifi, 83.5% in Mombasa, and 82.9% in Nairobi. These results indicate that Kenya's transgender population demonstrates strong ART coverage and high viral suppression, though continued efforts are needed to close remaining gaps to fully meet the UNAIDS 95-95-95 targets.

Table 7.5.1: Conditional UNAIDS 95-95-95 Cascade Among Transgender Persons, BBS, Kenya, 2024

	Overall Estimate (N=242)		Kilifi (N=50)		Mombasa (N=91)		Nairobi(N=101)	
	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)
<b>VL&lt;50 copies/mL</b>								
Aware of HIV status	220/242	92.7 (88.7 - 96.6)	47/50	94.4 (88.9 - 99.8)	85/91	94.3 (91.9 - 96.8)	88/101	86.7 (79.8 - 93.3)
On ART among those aware	217/220	98.9 (97.0 - 100.0)	46/47	97.4 (90.3 - 100.0)	85/85	100.0 (100.0 - 100.0)	86/88	97.8 (96.3 - 99.3)
Virally suppressed among those on ART	175/217	80.6 (75.1 - 86.1)	36/46	80.7 (72.8 - 92.5)	72/85	83.2 (75.1 - 91.1)	67/86	75.0 (62.8 - 86.2)
<b>18-34 years</b>								
Aware of HIV status	160/181	90.4 (84.6 - 96.3)	25/28	90.5 (82.4 - 99.7)	63/68	93.9 (91.5 - 96.6)	72/85	84.3 (76.4 - 92.1)
On ART among those aware	157/160	98.7 (96.3 - 100.0)	24/25	95.5 (86.2 - 100.0)	63/63	100.0 (100.0 - 100.0)	70/72	97.3 (95.2 - 99.6)
Virally suppressed among those on ART	128/157	82.0 (75.8 - 88.1)	18/24	80.0 (72.3 - 95.9)	55/63	86.2 (77.5 - 94.6)	55/70	73.8 (59.5 - 86.8)
<b>35 years and above</b>								
Aware of HIV status	60/61	99.9 (98.4 - 100.0)	22/22	100.0 (100.0 - 100.0)	22/23	95.8 (87.1 - 100.0)	16/16	100.0 (100.0 - 100.0)
On ART among those aware	60/60	100.0 (99.1 - 100.0)	22/22	100.0 (100.0 - 100.0)	22/22	100.0 (100.0 - 100.0)	16/16	100.0 (100.0 - 100.0)
Virally suppressed among those on ART	47/60	79.2 (69.0 - 89.5)	18/22	81.6 (66.7 - 95.6)	17/22	72.9 (51.7 - 93.4)	12/16	80.5 (60.3 - 100.0)
<b>VL &lt;200 copies/mL</b>								
Aware of HIV status	220/242	92.7 (88.7 - 96.6)	47/50	94.4 (88.9 - 99.8)	85/91	94.3 (91.9 - 96.8)	88/101	86.7 (79.8 - 93.3)
On ART among those aware	217/220	98.9 (97.0 - 100.0)	46/47	97.4 (90.3 - 100.0)	85/85	100.0 (100.0 - 100.0)	86/88	97.8 (96.3 - 99.3)
Virally suppressed among those on ART	203/217	93.9 (88.7 - 99.1)	42/46	92.6 (89.3 - 98.3)	77/85	88.6 (80.8 - 95.8)	84/86	97.7 (96.2 - 99.1)
<b>18-34 years</b>								
Aware of HIV status	160/181	90.4 (84.6 - 96.3)	25/28	90.5 (82.4 - 99.7)	63/68	93.9 (91.5 - 96.6)	72/85	84.3 (76.4 - 92.1)
On ART among those aware	157/160	98.7 (96.3 - 100.0)	24/25	95.5 (86.2 - 100.0)	63/63	100.0 (100.0 - 100.0)	70/72	97.3 (95.2 - 99.6)
Virally suppressed among those on ART	146/157	93.1 (87.3 - 98.9)	21/24	89.7 (83.2 - 99.0)	57/63	89.7 (82.7 - 96.6)	68/70	97.1 (94.9 - 99.4)
<b>35 years and above</b>								
Aware of HIV status	60/61	99.9 (98.4 - 100.0)	22/22	100.0 (100.0 - 100.0)	22/23	95.8 (87.1 - 100.0)	16/16	100.0 (100.0 - 100.0)
On ART among those aware	60/60	100.0 (99.1 - 100.0)	22/22	100.0 (100.0 - 100.0)	22/22	100.0 (100.0 - 100.0)	16/16	100.0 (100.0 - 100.0)
Virally suppressed among those on ART	57/60	97.6 (93.7 - 100.0)	21/22	96.2 (95.3 - 100.0)	20/22	84.6 (64.6 - 100.0)	16/16	100.0 (100.0 - 100.0)
<b>VL &lt;1000 copies/mL</b>								
Aware of HIV status	220/242	92.7 (88.7 - 96.6)	47/50	94.4 (88.9 - 99.8)	85/91	94.3 (91.9 - 96.8)	88/101	86.7 (79.8 - 93.3)
On ART among those aware	217/220	98.9 (97.0 - 100.0)	46/47	97.4 (90.3 - 100.0)	85/85	100.0 (100.0 - 100.0)	86/88	97.8 (96.3 - 99.3)
Virally suppressed among those on ART	206/217	95.1 (89.2 - 100.0)	42/46	92.6 (89.3 - 98.4)	79/85	91.7 (85.9 - 97.2)	85/86	99.5 (99.3 - 99.9)
<b>18-34 years</b>								
Aware of HIV status	160/181	90.4 (84.6 - 96.3)	25/28	90.5 (82.4 - 99.7)	63/68	93.9 (91.5 - 96.6)	72/85	84.3 (76.4 - 92.1)
On ART among those aware	157/160	98.7 (96.3 - 100.0)	24/25	95.5 (86.2 - 100.0)	63/63	100.0 (100.0 - 100.0)	70/72	97.3 (95.2 - 99.6)
Virally suppressed among those on ART	148/157	94.1 (86.7 - 100.0)	21/24	89.7 (83.1 - 99.0)	58/63	90.8 (83.7 - 97.7)	69/70	99.4 (99.0 - 100.0)
<b>35 years and above</b>								
Aware of HIV status	60/61	99.9 (98.4 - 100.0)	22/22	100.0 (100.0 - 100.0)	22/23	95.8 (87.1 - 100.0)	16/16	100.0 (100.0 - 100.0)
On ART among those aware	60/60	100.0 (99.1 - 100.0)	22/22	100.0 (100.0 - 100.0)	22/22	100.0 (100.0 - 100.0)	16/16	100.0 (100.0 - 100.0)
Virally suppressed among those on ART	58/60	97.8 (94.5 - 100.0)	21/22	96.2 (95.3 - 100.0)	21/22	94.6 (85.5 - 100.0)	16/16	100.0 (100.0 - 100.0)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; mL, milliliters; VL, viral load; ART, antiretroviral therapy.

Table 7.5.1B: Unconditional UNAIDS 95-95-95 Cascade Among Transgender Persons, BBS, Kenya, 2024

	Overall Estimate (N=242)		Kilifi (N=50)		Mombasa (N=91)		Nairobi(N=101)	
	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)
<b>VL&lt;50 copies/mL</b>								
Aware of HIV status	220/242	92.7 ( 88.7 - 96.6)	47/50	94.4 ( 88.9 - 99.8)	85/91	94.3 ( 91.9 - 96.8)	88/101	86.7 ( 79.8 - 93.3)
On ART	217/242	91.0 ( 85.3 - 96.7)	46/50	91.9 ( 83.8 - 99.0)	85/91	94.3 ( 91.9 - 96.9)	86/101	84.9 ( 77.6 - 91.8)
Virally suppressed	175/242	72.8 ( 64.1 - 81.6)	36/50	74.2 ( 63.7 - 87.7)	72/91	78.5 ( 70.3 - 86.4)	67/101	63.7 ( 51.5 - 74.8)
<b>18-34 years</b>								
Aware of HIV status	160/181	90.4 ( 84.6 - 96.3)	25/28	90.5 ( 82.4 - 99.7)	63/68	93.9 ( 91.5 - 96.6)	72/85	84.3 ( 76.4 - 92.1)
On ART	157/181	88.3 ( 79.7 - 96.9)	24/28	86.5 ( 73.8 - 98.6)	63/68	93.9 ( 91.4 - 96.6)	70/85	82.1 ( 73.8 - 90.2)
Virally suppressed	128/181	70.9 ( 58.1 - 83.8)	18/28	69.2 ( 58.3 - 86.5)	55/68	80.9 ( 72.4 - 89.3)	55/85	60.5 ( 47.4 - 72.5)
<b>35 years and above</b>								
Aware of HIV status	60/61	99.9 ( 98.4 - 100.0)	22/22	100.0 (100.0 - 100.0)	22/23	95.8 ( 87.1 - 100.0)	16/16	100.0 (100.0 - 100.0)
On ART	60/61	99.9 ( 98.4 - 100.0)	22/22	100.0 (100.0 - 100.0)	22/23	95.8 ( 87.0 - 100.0)	16/16	100.0 (100.0 - 100.0)
Virally suppressed	47/61	78.4 ( 68.1 - 88.7)	18/22	81.6 ( 66.4 - 95.8)	17/23	69.9 ( 49.0 - 90.1)	12/16	80.5 ( 60.4 - 100.0)
<b>VL &lt;200 copies/mL</b>								
Aware of HIV status	220/242	92.7 ( 88.7 - 96.6)	47/50	94.4 ( 88.9 - 99.8)	85/91	94.3 ( 91.9 - 96.8)	88/101	86.7 ( 79.8 - 93.3)
On ART	217/242	91.0 ( 85.3 - 96.7)	46/50	91.9 ( 83.8 - 99.0)	85/91	94.3 ( 91.9 - 96.9)	86/101	84.9 ( 77.6 - 91.8)
Virally suppressed	203/242	83.5 ( 78.8 - 88.3)	42/50	85.2 ( 74.6 - 97.0)	77/91	83.5 ( 75.9 - 90.7)	84/101	82.9 ( 75.3 - 90.1)
<b>18-34 years</b>								
Aware of HIV status	160/181	90.4 ( 84.6 - 96.3)	25/28	90.5 ( 82.4 - 99.7)	63/68	93.9 ( 91.5 - 96.6)	72/85	84.3 ( 76.4 - 92.1)
On ART	157/181	88.3 ( 79.7 - 96.9)	24/28	86.5 ( 73.8 - 98.6)	63/68	93.9 ( 91.4 - 96.6)	70/85	82.1 ( 73.8 - 90.2)
Virally suppressed	146/181	81.6 ( 76.6 - 86.6)	21/28	77.6 ( 65.4 - 91.5)	57/68	84.2 ( 77.1 - 91.5)	68/85	79.7 ( 71.3 - 88.0)
<b>35 years and above</b>								
Aware of HIV status	60/61	99.9 ( 98.4 - 100.0)	22/22	100.0 (100.0 - 100.0)	22/23	95.8 ( 87.1 - 100.0)	16/16	100.0 (100.0 - 100.0)
On ART	60/61	99.9 ( 98.4 - 100.0)	22/22	100.0 (100.0 - 100.0)	22/23	95.8 ( 87.0 - 100.0)	16/16	100.0 (100.0 - 100.0)
Virally suppressed	57/61	97.3 ( 93.1 - 100.0)	21/22	96.2 ( 95.3 - 100.0)	20/23	81.0 ( 61.5 - 98.6)	16/16	100.0 (100.0 - 100.0)
<b>VL &lt;1000 copies/mL</b>								
Aware of HIV status	220/242	92.7 ( 88.7 - 96.6)	47/50	94.4 ( 88.9 - 99.8)	85/91	94.3 ( 91.9 - 96.8)	88/101	86.7 ( 79.8 - 93.3)
On ART	217/242	91.0 ( 85.3 - 96.7)	46/50	91.9 ( 83.8 - 99.0)	85/91	94.3 ( 91.9 - 96.9)	86/101	84.9 ( 77.6 - 91.8)
Virally suppressed	209/242	87.1 ( 83.0 - 91.3)	42/50	85.2 ( 74.4 - 97.2)	82/91	89.4 ( 83.6 - 95.1)	85/101	84.4 ( 77.3 - 91.3)
<b>18-34 years</b>								
Aware of HIV status	160/181	90.4 ( 84.6 - 96.3)	25/28	90.5 ( 82.4 - 99.7)	63/68	93.9 ( 91.5 - 96.6)	72/85	84.3 ( 76.4 - 92.1)
On ART	157/181	88.3 ( 79.7 - 96.9)	24/28	86.5 ( 73.8 - 98.6)	63/68	93.9 ( 91.4 - 96.6)	70/85	82.1 ( 73.8 - 90.2)
Virally suppressed	150/181	84.2 ( 79.3 - 89.0)	21/28	77.6 ( 65.5 - 91.5)	60/68	87.9 ( 81.0 - 94.7)	69/85	81.6 ( 73.5 - 89.6)
<b>35 years and above</b>								
Aware of HIV status	60/61	99.9 ( 98.4 - 100.0)	22/22	100.0 (100.0 - 100.0)	22/23	95.8 ( 87.1 - 100.0)	16/16	100.0 (100.0 - 100.0)
On ART	60/61	99.9 ( 98.4 - 100.0)	22/22	100.0 (100.0 - 100.0)	22/23	95.8 ( 87.0 - 100.0)	16/16	100.0 (100.0 - 100.0)
Virally suppressed	59/61	97.8 ( 94.5 - 100.0)	21/22	96.2 ( 95.3 - 100.0)	22/23	94.9 ( 86.3 - 100.0)	16/16	100.0 (100.0 - 100.0)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; mL, milliliters; VL, viral load, ART, antiretroviral therapy.

## 7.6: HIV and STI Knowledge and Attitudes

### **HIV:**

The 2024 BBS findings show that HIV awareness was high among transgender persons, with 94% recognizing condom use and 91% acknowledging that having one uninfected sexual partner reduces HIV risk. Knowledge of HIV transmission was strongest for unprotected anal sex (98.6%) and sharing of needles (62.6%), but lower for mother-to-child transmission (23–27%), revealing some knowledge gaps in vertical transmission. Awareness of prevention methods was broad, with 48.9% familiar with PrEP, 45.2% citing faithfulness to one partner, and 21.9% aware of PEP. However, only 35% mentioned safe needle use, indicating limited awareness of harm-reduction strategies. Perceived HIV risk was evenly split, with about half (50.5%) feeling at risk and the other half perceiving no personal risk, highlighting varying self-assessment of vulnerability.

### **STI:**

Nearly all respondents (94.6%) had heard of sexually transmitted infections (STIs), with awareness highest in Kilifi (97.9%) and Nairobi (97.5%). In the past year, 39% reported experiencing STI symptoms, with slightly higher prevalence in Kilifi (41.7%) and Nairobi (40.0%). Among those symptomatic, 69.5% sought treatment, most commonly in Mombasa (78.6%), while one in three did not seek care. About 19% were diagnosed with an STI by a healthcare provider, and 65.3% informed their partners, indicating moderate partner notification practices. Most respondents (89%) abstained from sex while symptomatic, though only 42% used condoms during their last STI episode. HPV vaccination coverage was very low (1.7% overall), underscoring a critical gap in preventive services.

Table 7.6: HIV Knowledge and Attitudes Among Transgender Persons, BBS, Kenya, 2024

	Overall Estimate (N=3722)		Kilifi (N=391)		Mombasa (N=414)		Nairobi (N=461)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Can reduce the risk of getting HIV by using a condom every time a</b>								
Yes	982	94.0 (90.5 - 97.5)	242	96.6 (95.4 - 97.8)	291	89.3 (84.8 - 93.9)	449	94.4 (91.5 - 97.2)
No	58	6.0 (2.5 - 9.5)	9	3.4 (2.2 - 4.6)	25	10.7 (6.1 - 15.2)	24	5.6 (2.8 - 8.4)
<b>Can reduce their chance of getting HIV by having just one uninfected sex partner who has no other sex partners<sup>a</sup></b>								
Yes	932	91.0 (84.6 - 97.4)	245	97.6 (96.1 - 99.1)	245	77.4 (72.2 - 82.7)	442	95.6 (93.9 - 97.3)
No	104	9.0 (2.6 - 15.4)	6	2.4 (0.9 - 3.9)	72	22.6 (17.3 - 27.8)	26	4.4 (2.7 - 6.1)
<b>Routes of HIV transmission<sup>b</sup></b>								
Blood and body fluids	173	19.9 (0.0 - 45.7)	17	6.9 (5.0 - 8.8)	0	0.0 (0.0 - 0.0)	156	33.2 (28.3 - 38.0)
Blood transfusion	520	50.0 (39.7 - 60.4)	136	51.2 (47.0 - 55.4)	187	59.4 (53.4 - 65.3)	197	40.0 (35.1 - 44.8)
Breast feeding by HIV+ mothers	223	23.7 (7.0 - 40.4)	92	37.4 (33.1 - 41.6)	80	23.8 (19.1 - 28.5)	51	10.2 (7.2 - 13.2)
During delivery by HIV+ mothers	292	27.2 (9.3 - 45.1)	104	41.9 (37.8 - 45.9)	44	12.2 (8.8 - 15.6)	144	27.6 (23.1 - 32.1)
Sharing of needles	625	62.6 (44.4 - 80.8)	188	74.4 (71.0 - 77.8)	222	69.8 (64.5 - 75.1)	215	43.5 (38.2 - 48.8)
Unprotected anal sex	1021	98.6 (97.5 - 99.7)	248	98.8 (98.1 - 99.6)	314	99.2 (98.2 - 100.0)	459	96.1 (93.6 - 98.5)
Unprotected sex	305	34.2 (0.0 - 70.1)	142	56.8 (52.6 - 61.0)	129	39.8 (33.1 - 46.5)	34	6.0 (3.5 - 8.5)
<b>HIV prevention methods<sup>b</sup></b>								
Abstinence	365	35.5 (23.6 - 47.5)	67	26.5 (22.9 - 30.2)	149	49.4 (42.7 - 56.1)	149	31.5 (26.5 - 36.5)
ART For HIV Prevention	1	0.1 (0.0 - 0.3)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	0.1 (0.0 - 0.3)
Being faithful to one partner	446	45.2 (32.6 - 57.7)	148	56.9 (52.8 - 61.1)	118	38.2 (32.4 - 44.0)	180	40.0 (34.9 - 45.2)
PEP	242	21.9 (13.3 - 30.5)	79	30.6 (26.7 - 34.4)	59	16.9 (12.7 - 21.0)	104	18.3 (14.4 - 22.1)
PMTCT	1	0.2 (0.0 - 0.5)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	0.2 (0.0 - 0.5)
PrEP	547	48.9 (40.4 - 57.3)	117	45.8 (41.8 - 49.8)	196	59.0 (52.6 - 65.4)	234	42.6 (37.6 - 47.7)
Safe needles	312	35.0 (8.3 - 61.7)	130	51.5 (47.3 - 55.6)	125	41.4 (35.3 - 47.4)	57	12.3 (9.0 - 15.6)
<b>Feel at risk of being infected with HIV<sup>a</sup></b>								
Yes	484	50.5 (43.1 - 57.8)	126	57.0 (51.5 - 62.5)	155	48.6 (42.1 - 55.0)	203	44.4 (36.2 - 52.7)
No	460	49.5 (42.2 - 56.9)	92	43.0 (37.5 - 48.5)	140	51.4 (45.0 - 57.9)	228	55.6 (47.3 - 63.8)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent -Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sum of sample numerator is higher than the sample denominator as multiple responses could be selected

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; ART, antiretroviral therapy; PEP, post-exposure prophylaxis; PMTCT; prevention of mother to child transmission of HIV; PrEP, Pre-exposure prophylaxis

Table 7.6B: Sexually Transmitted Infection (STI) Knowledge and Attitudes Among Transgender Persons, BBS, Kenya, 2024

	Overall Estimate (N=3722)		Kilifi (N=391)		Mombasa (N=414)		Nairobi (N=461)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Heard of diseases that can be transmitted sexually<sup>a</sup></b>								
Yes	979	94.6 (89.8 - 99.4)	246	97.9 (96.4 - 99.5)	272	86.6 (82.0 - 91.3)	461	97.5 (95.0 - 99.9)
No	47	5.4 (0.6 - 10.2)	4	2.1 (0.5 - 3.6)	37	13.4 (8.7 - 18.0)	6	2.5 (0.1 - 5.0)
<b>Had symptoms of STI (abnormal vaginal discharge, vaginal ulcer/sore, pain during urination) in the last 12 months<sup>a</sup></b>								
Yes	386	39.0 (34.6 - 43.4)	105	41.7 (37.6 - 45.7)	104	34.5 (28.7 - 40.2)	177	40.0 (33.5 - 46.5)
No	637	61.0 (56.6 - 65.4)	145	58.3 (54.3 - 62.4)	204	65.5 (59.8 - 71.3)	288	60.0 (53.5 - 66.5)
<b>Sought treatment for any of these symptoms<sup>b</sup></b>								
Yes	285	69.5 (60.8 - 78.2)	72	63.4 (53.1 - 73.7)	83	78.6 (68.5 - 88.7)	130	66.8 (58.2 - 75.4)
No	101	30.5 (21.8 - 39.2)	33	36.6 (26.4 - 46.9)	21	21.4 (11.3 - 31.5)	47	33.2 (24.6 - 41.8)
<b>Told by health provider had STI in the last 12 months</b>								
Yes	200	19.0 (10.3 - 27.7)	66	24.8 (21.5 - 28.1)	69	20.9 (16.6 - 25.3)	65	11.3 (8.3 - 14.3)
No	823	81.0 (72.3 - 89.7)	183	75.2 (71.9 - 78.5)	239	79.0 (74.7 - 83.4)	401	88.7 (85.7 - 91.7)
<b>Informed sexual partner last time had an STI<sup>a,b</sup></b>								
Yes	137	65.3 (54.3 - 76.2)	41	56.4 (43.6 - 69.1)	52	74.6 (63.7 - 85.5)	44	63.5 (49.8 - 77.2)
No	63	34.7 (23.8 - 45.7)	25	43.6 (30.9 - 56.4)	17	25.4 (14.5 - 36.3)	21	36.5 (22.8 - 50.2)
<b>Stopped having vaginal or anal sex during that last time had STI<sup>b</sup></b>								
Yes	178	89.0 (84.0 - 93.9)	57	86.5 (78.2 - 94.9)	62	92.1 (84.9 - 99.3)	59	85.2 (73.1 - 97.3)
No	21	11.0 (6.1 - 16.0)	9	13.5 (5.1 - 21.8)	6	7.9 (0.7 - 15.1)	6	14.8 (2.7 - 26.9)
<b>Used condoms last time had STI<sup>a,b</sup></b>								
Yes	10	42.3 (13.7 - 70.8)	5	49.5 (12.7 - 86.2)	3	65.5 (26.2 - 100.0)	2	17.5 (0.0 - 49.1)
No	11	57.7 (29.2 - 86.3)	4	50.5 (13.8 - 87.3)	3	34.5 (0.0 - 73.8)	4	82.5 (50.9 - 100.0)
<b>Received HPV vaccination<sup>a</sup></b>								
Yes	19	1.7 (0.5 - 2.9)	5	2.1 (0.7 - 3.4)	1	0.7 (0.0 - 2.1)	13	2.8 (0.6 - 5.0)
No	827	98.3 (97.1 - 99.5)	186	97.9 (96.6 - 99.3)	245	99.3 (97.9 - 100.0)	396	97.2 (95.0 - 99.4)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sample denominator is based on the previous question

Abbreviations: N, sample denominator; n, sample numerator; CI, confidence interval; HPV, humanpapillomavirus, STI, sexually transmitted infections

## 7.7: STI, hepatitis B, and hepatitis C Biomarkers

Active syphilis prevalence was 5.6% nationally, with the highest rate in Nairobi (6.8%), followed by Mombasa (4.3%) and Kilifi (3.8%). Active hepatitis B infection was detected at 3.5% overall, with notably higher prevalence in Kilifi (12.1%), compared to Nairobi (3.1%) and Mombasa (1.5%). Hepatitis C infection was rare across all regions, reported at 0.02% nationally, with a few isolated cases in Kilifi.

Regarding sexually transmitted infections, Chlamydia was the most common STI, affecting 8.4% overall, with the highest burden in Nairobi (10.4%). Gonorrhoea prevalence was 5.1% overall, again highest in Nairobi (8.4%), compared to Kilifi (4%) and Mombasa (2.1%).

Table 7.7: Prevalence of STI, Hepatitis B and Hepatitis C Among Transgender Persons, BBS, Kenya, 2024

	Overall Estimate		Kilifi		Mombasa		Nairobi	
	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)	n/N	% (95% CI)
Active syphilis	52/4058	5.6 (3.4-7.9)	6/351	3.8 (3-4.9)	12/1524	4.3 (1.2-7.4)	34/2183	6.8 (3.8-9.8)
Active hepatitis B	20/298	3.5 (0.7-7.8)	7/65	12.1 (0.3-32.4)	7/104	1.5 (0.4-3.7)	6/129	3.1 (0.2-9.7)
Active hepatitis C	7/324	0.02 (0-0.1)	7/75	0.3 (0.0-0.9)	0/109	0.0 (0.0-0.0)	0/140	0.0 (0.0-0.0)
Chlamydia	75/741	8.4 (2.6-14.2)	20/160	8.4 (2.6-14.2)	23/289	8.1 (3.7-12.4)	32/292	10.4 (4-16.8)
Gonorrhoea	41/742	5.1 (2.7-7.4)	7/160	4 (3.3-4.4)	8/289	2.1 (1.5-2.7)	26/293	8.4 (2.6-14.2)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent - Driven Sampling package in R, applying Gile's Sequential Sampling estimator

Abbreviations: N, sample denominator; n, sample numerator; CI, confidence interval; STI, sexually transmitted infections

## 7.8: Sexual Behavior

Among transgender participants, the first sexual experience most often involved a friend (49%), followed by a boyfriend or partner (33%), while smaller proportions reported their first partner as a neighbor or relative. In encounters with main male partners, both anal and oral sex were commonly reported. Condom use during the last sexual encounter with a main partner was moderate at 44%, and consistent use (“always”) was relatively low at 25%.

When engaging with casual partners, oral sex was the most frequently reported act. Condom use during the last sexual encounter was higher with casual partners (62%) than with main partners, although only about 41% reported always using condoms over the previous six months.

Transactional sex was also common, with about 72% reporting condom use during their last encounter with paying partners and 55% with partners they had paid for sex. Consistent condom use over six months in these transactional encounters ranged between 40% and 50%.

Overall, condom use patterns among transgender participants varied by partner type—use was more frequent in transactional and casual relationships than in main partnerships, where consistency of use remained comparatively low.

Most transgender participants (75%) reported never having experienced forced sex in their lifetime, while 8% reported such experiences in the past six months and 18% indicated it had occurred earlier. Among those who had been forced, over three-quarters (77%) believed the experience was related to being transgender, with this proportion highest in Kilifi (87%) and lowest in Nairobi (61%).

More than half (59%) had not been physically harassed or hurt because of being transgender, while 15% experienced harassment in the past six months and 27% reported such incidents prior to that period. These findings suggest that while many transgender individuals have avoided recent violence, a notable proportion have faced physical harm or coercion linked to their gender identity.

Table 7.8.1: Sexual Behavior Characteristics Among Transgender Persons By Location, BBS, Kenya, 2024

	Overall Estimate		Kilifi		Mombasa		Nairobi	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Relationship to person you had sex with for the first time</b>								
Friend	490	49.3 (46.0 - 52.5)	110	47.7 (43.3 - 52.1)	159	52.0 (46.0 - 58.0)	221	47.3 (39.9 - 54.8)
Neighbor	66	7.4 (1.8 - 13.0)	33	13.2 (10.4 - 16.0)	20	6.1 (3.1 - 9.1)	13	3.3 (1.3 - 5.4)
Boyfriend/Partner/Spouse	331	33.1 (25.3 - 40.9)	67	28.6 (24.6 - 32.6)	82	29.1 (23.4 - 34.8)	182	40.7 (33.4 - 48.0)
Relative	55	5.6 (4.2 - 7.1)	14	5.9 (3.9 - 7.9)	22	6.6 (4.1 - 9.1)	19	4.6 (2.2 - 7.1)
Teacher	5	0.2 (0.08 - 0.4)	2	0.7 (0.3 - 1.2)	1	0.2 (0.0 - 0.6)	2	0.2 (0.0 - 0.4)
Boss/supervisor/Police officer	19	1.9 (0.6 - 3.2)	4	2.2 (0.3 - 4.2)	11	2.7 (1.2 - 4.2)	4	0.8 (0.0 - 1.8)
Stranger	33	2.6 (2.0 - 3.2)	4	1.5 (0.8 - 2.2)	11	2.7 (1.1 - 4.3)	18	2.9 (0.6 - 5.2)
Co-worker	2	0.2 (0.0 - 0.6)	0	0.0 (0.0 - 0.0)	2	0.6 (0.0 - 1.3)	0	0.0 (0.0 - 0.0)
<b>Type of sex at last time with main male partner</b>								
Anal Only	297	34.4 (19.0 - 49.8)	68	31.2 (26.2 - 36.2)	48	22.6 (14.6 - 30.5)	181	49.1 (39.6 - 58.5)
Oral Only	521	61.0 (46.1 - 76.0)	139	65.9 (61.2 - 70.5)	181	71.1 (61.3 - 81.0)	201	46.3 (37.5 - 55.1)
Both	374	45.6 (12.1 - 79.1)	168	79.7 (76.1 - 83.2)	72	27.2 (21.3 - 33.2)	134	29.9 (23.5 - 36.1)
<b>Used condom with main male partner in the last sexual encounter</b>								
Yes	346	44.5 (37.2 - 51.8)	80	39.6 (34.9 - 44.3)	119	51.6 (44.0 - 59.2)	147	41.7 (34.5 - 48.8)
No	458	55.7 (48.3 - 63.0)	124	60.4 (55.8 - 65.0)	108	48.4 (40.7 - 56.1)	226	58.3 (51.0 - 65.6)
<b>Frequency of condom use with main male partner</b>								
Always	195	25.0 (17.2 - 32.9)	39	19.8 (15.5 - 24.1)	74	32.8 (26.0 - 39.5)	82	21.8 (15.2 - 28.5)
Most of the time	54	5.8 (2.9 - 8.8)	12	4.8 (3.5 - 6.1)	10	3.7 (1.3 - 6.2)	32	8.6 (5.2 - 12.0)
Sometimes	192	20.4 (17.6 - 23.3)	52	24.8 (20.6 - 29.0)	58	20.0 (14.7 - 25.4)	82	18.7 (12.8 - 24.7)
Rarely	81	9.1 (4.8 - 13.4)	16	7.1 (5.1 - 9.1)	19	6.7 (3.9 - 9.5)	46	13.3 (8.4 - 18.2)
Never	340	38.6 (35.3 - 41.8)	95	43.6 (38.7 - 48.4)	84	36.8 (29.1 - 44.4)	161	37.6 (29.2 - 45.9)
<b>Type of sex at last time with casual male partner</b>								
Anal Only	152	22.7 (10.3 - 35.2)	40	22.0 (17.0 - 26.9)	18	12.1 (6.2 - 18.1)	94	33.7 (26.1 - 41.4)
Oral Only	453	70.9 (58.1 - 83.7)	131	72.8 (67.9 - 77.6)	151	80.8 (72.9 - 88.7)	171	59.0 (51.5 - 66.5)
Both	257	42.0 (9.1 - 74.9)	132	75.4 (71.3 - 79.6)	44	25.2 (17.2 - 33.3)	81	25.2 (19.5 - 30.8)
<b>Used condom with casual male partner in the last sexual encounter</b>								
Yes	370	62.0 (57.5 - 66.4)	104	61.1 (55.5 - 66.7)	111	65.6 (58.4 - 73.0)	155	58.9 (51.6 - 66.2)
No	220	38.2 (33.8 - 42.6)	63	38.9 (33.6 - 44.2)	57	34.4 (26.8 - 41.8)	100	41.1 (33.8 - 48.4)
<b>Frequency of condom use with casual male partner</b>								
Always	258	40.6 (34.6 - 46.5)	65	36.1 (31.1 - 41.1)	81	46.2 (38.3 - 54.1)	112	38.5 (31.9 - 45.1)
Most of the time	50	6.9 (2.5 - 11.3)	18	8.8 (6.6 - 11.0)	5	2.6 (0.3 - 4.9)	27	9.3 (5.4 - 13.2)
Sometimes	150	24.2 (20.2 - 28.3)	42	23.4 (19.0 - 27.8)	52	27.8 (20.7 - 34.9)	56	21.4 (15.1 - 27.7)
Rarely	38	4.8 (1.3 - 8.4)	12	6.5 (4.3 - 8.7)	4	1.4 (0.0 - 2.9)	22	6.7 (3.7 - 9.8)
Never	148	23.5 (21.8 - 25.2)	42	25.2 (20.0 - 30.5)	37	21.9 (15.1 - 28.9)	69	24.1 (17.4 - 30.7)
<b>Type of sex at last time with paying partner</b>								
Anal Only	51	12.1 (4.7 - 19.5)	17	13.7 (8.8 - 18.5)	8	5.1 (0.0 - 10.8)	26	17.3 (9.2 - 25.4)
Oral Only	379	83.7 (74.7 - 92.6)	109	83.4 (79.0 - 87.8)	156	91.2 (83.4 - 99.0)	114	75.9 (66.9 - 84.8)
Both	160	36.9 (4.7 - 69.0)	92	69.8 (63.9 - 75.7)	30	19.6 (11.8 - 27.3)	38	21.4 (14.2 - 28.6)
<b>Used condom with paying male partner in the last sexual encounter</b>								
Yes	326	71.7 (69.3 - 74.0)	99	74.5 (68.3 - 80.7)	119	70.1 (62.5 - 77.7)	108	72.2 (63.7 - 80.8)
No	119	28.6 (26.2 - 30.9)	32	25.5 (19.4 - 31.6)	48	29.9 (22.2 - 37.6)	39	27.8 (19.2 - 36.4)
<b>Frequency of condom use with a paying partner in the last 6 months</b>								
Always	217	49.0 (45.6 - 52.5)	56	44.0 (37.5 - 50.4)	87	51.4 (43.3 - 59.6)	74	48.2 (39.4 - 57.1)
Most of the time	40	7.7 (6.3 - 9.0)	11	7.7 (5.1 - 10.3)	13	7.1 (3.5 - 10.8)	16	8.2 (3.6 - 12.7)
Sometimes	121	27.8 (25.5 - 30.1)	41	30.0 (24.9 - 35.1)	46	28.6 (20.9 - 36.1)	34	26.0 (18.0 - 33.9)
Rarely	15	3.0 (2.2 - 3.9)	5	3.8 (1.7 - 5.8)	5	2.4 (0.6 - 4.2)	5	3.9 (0.0 - 7.9)
Never	54	12.5 (9.8 - 15.2)	18	14.6 (8.8 - 20.4)	17	10.5 (5.5 - 15.5)	19	13.7 (7.0 - 20.5)
<b>Type of sex at last time paid for sex with male partner</b>								
Anal Only	54	30.6 (12.1 - 49.1)	22	26.2 (18.9 - 33.5)	9	16.3 (5.3 - 27.2)	23	48.3 (32.1 - 64.2)
Oral Only	129	60.3 (40.0 - 80.6)	60	71.7 (64.5 - 78.8)	43	68.9 (54.2 - 84.0)	26	39.6 (24.2 - 55.1)
Both	94	44.8 (18.3 - 71.4)	59	71.7 (65.2 - 78.3)	16	29.8 (16.7 - 42.9)	19	32.3 (18.4 - 46.4)
<b>Used condom with male partner you paid for sex in the last sexual encounter</b>								
Yes	99	55.1 (50.7 - 59.6)	39	47.9 (39.3 - 56.2)	30	55.3 (43.1 - 68.1)	30	58.3 (43.9 - 72.9)
No	97	45.5 (40.6 - 50.3)	45	52.1 (43.9 - 60.7)	27	44.7 (31.8 - 56.9)	25	41.7 (27.6 - 55.7)
<b>Frequency of condom with male partner you paid for sex in last 6 months</b>								
Always	71	39.8 (31.0 - 48.7)	29	36.3 (27.3 - 45.2)	25	48.2 (34.9 - 61.5)	17	34.0 (19.5 - 48.8)
Most of the time	13	5.3 (3.5 - 7.0)	6	5.8 (4.3 - 7.2)	4	5.9 (0.6 - 11.3)	3	4.0 (0.0 - 9.1)
Sometimes	35	15.6 (8.7 - 22.5)	13	14.3 (9.3 - 19.2)	9	10.4 (3.8 - 17.3)	13	22.0 (7.6 - 36.2)
Rarely	18	8.0 (5.3 - 10.7)	10	11.6 (6.1 - 17.2)	4	6.0 (0.6 - 11.4)	4	8.2 (0.8 - 15.6)
Never	60	31.2 (27.6 - 34.8)	26	32.1 (24.3 - 40.0)	16	29.5 (16.5 - 42.1)	18	31.9 (17.9 - 45.7)
All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.								
<sup>a</sup> Non-responses and missing data were excluded from the analysis.								
<sup>b</sup> Sum of sample numerator is higher than the sample denominator as multiple responses could be selected								
Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; ART, antiretroviral therapy; PEP, post-exposure prophylaxis; PMTCT; prevention of mother to child transmission of HIV; PrEP, Pre-exposure prophylaxis								

Table 7.8.2: Sexual Violence Among Transgender Persons By Location, BBS, Kenya, 2024

	Overall Estimate		Kilifi		Mombasa		Nairobi	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Physically experienced forced sex in lifetime</b>								
No	770	74.8 (69.9 - 79.6)	195	77.0 (73.0 - 81.0)	243	77.5 (72.2 - 82.9)	332	70.1 (64.1 - 76.2)
Yes, In the last 6 months	86	7.5 (5.6 - 9.5)	15	5.9 (3.5 - 8.2)	27	6.9 (4.1 - 9.6)	44	9.3 (6.0 - 12.5)
Yes, but not in the last 6 months	185	17.9 (14.8 - 21.1)	41	17.2 (13.7 - 20.7)	47	15.6 (10.9 - 20.3)	97	20.6 (15.1 - 26.0)
<b>Experiences of forced sex believed to be related to being transgender</b>								
Yes	171	77.1 (61.2 - 93.1)	49	86.8 (80.1 - 93.6)	60	82.6 (74.2 - 91.1)	62	61.2 (50.0 - 72.4)
No	55	23.5 (7.9 - 39.0)	7	13.2 (6.1 - 20.2)	12	17.4 (8.9 - 25.9)	36	38.8 (27.6 - 50.1)
<b>Been physically harassed or hurt because you are transgender</b>								
No	601	58.8 (49.6 - 68.0)	119	49.3 (45.0 - 53.7)	202	65.8 (60.5 - 71.1)	280	60.3 (53.7 - 66.9)
Yes, In the last 6 months	182	15.1 (12.8 - 17.4)	37	13.2 (10.6 - 15.8)	54	14.1 (10.6 - 17.5)	91	17.1 (12.1 - 22.1)
Yes, but not in the last 6 months	258	26.5 (16.2 - 36.9)	95	37.5 (33.3 - 41.7)	60	20.1 (15.5 - 24.8)	103	22.6 (16.9 - 28.3)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sum of sample numerator is higher than the sample denominator as multiple responses could be selected

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; ART, antiretroviral therapy; PEP, post-exposure prophylaxis; PMTCT, prevention of mother to child transmission of HIV; PrEP, Pre-exposure prophylaxis

## 7.9: Uptake of Prevention and Treatment Services

### **Condoms:**

Most transgender participants reported obtaining condoms from commercial sources such as supermarkets, pharmacies, or kiosks (45%), followed by clinics or hospitals (23%) and drop-in centers (36%). A smaller proportion (20%) had never obtained condoms. More than half (57%) reported receiving free condoms in the previous 12 months.

Regarding access, most participants (78%) indicated they were never unable to obtain condoms when needed, though about one in five (21%) had sometimes faced difficulties, with this issue most commonly reported in Kilifi.

Condom use varied by partner type. About 45% used a condom during their last sexual encounter with a main partner, compared to 62% with a casual partner. However, consistent condom use (“always”) was reported by only a quarter (25%) with main partners and 41% with casual partners.

Overall, condom access among transgender individuals was relatively good, but consistent use remained low, particularly in main relationships and in certain regions such as Kilifi and Nairobi.

### **Lubricants:**

About 39% of transgender participants reported using lubricants during sexual activity, while 61% did not. Reported use was highest in Nairobi (42%) and lowest in Kilifi (30%). Among those who used lubricants, KY Jelly (45%) and government-supplied Sure Lube (29%) were the most common types, while smaller proportions reported using other water-based (15%) or oil-based (4%) products.

Over half (55%) usually obtained lubricants through purchase, while 32% accessed them from drop-in centers and 7% from clinics or hospitals. Only a few (3%) received lubricants from peer educators or partners. Overall, lubricant access was highest through commercial and health facility channels, though use remained limited among transgender individuals.

Table 7.9.1: Condom Accessibility and Use Among Transgender Persons By Location, BBS, Kenya, 2024

	Overall Estimate		Kilifi		Mombasa		Nairobi	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Places usually get condoms</b>								
Purchased (Supermarket/Pharmacy)	439	45.0 (30.8 - 59.1)	1145	(44.1 - 52.8)	912	(25.6 - 36.9)	234	55.2 (48.0 - 62.5)
Clinic/Hospital	236	23.2 (21.9 - 24.5)	625	(21.4 - 29.6)	643	(16.8 - 27.9)	110	23.4 (16.9 - 29.9)
Drop-in centre	404	35.8 (20.2 - 51.4)	663	(20.6 - 27.3)	1783	(43.9 - 57.9)	160	32.2 (25.4 - 39.1)
Peer educators	82	7.5 (0.0 - 16.8)	492	(14.5 - 19.9)	12	3.3 (1.5 - 5.1)	21	2.4 (1.0 - 3.7)
Condom dispensers	56	4.4 (2.5 - 6.2)	14	4.6 (3.7 - 5.4)	10	2.8 (1.1 - 4.5)	32	5.7 (2.9 - 8.5)
Sex venues	19	2.1 (0.0 - 5.5)	14	5.7 (3.8 - 7.7)	4	0.8 (0.1 - 1.4)	1	0.1 (0.0 - 0.4)
Never obtained condom	180	19.7 (17.0 - 22.3)	511	(17.2 - 27.1)	535	(13.5 - 27.6)	76	17.5 (11.4 - 23.6)
<b>Given free condoms in the last 12 months</b>								
Yes	629	57.4 (54.0 - 60.9)	1455	(50.9 - 60.2)	1924	(48.5 - 62.5)	292	60.3 (52.6 - 68.0)
No	392	42.7 (39.2 - 46.2)	1054	(39.8 - 49.1)	1135	(37.3 - 51.7)	174	39.7 (32.4 - 47.0)
<b>Unable to get condoms when needed in the last 12 months</b>								
Always	13	1.3 (1.0 - 1.7)	2	0.7 (0.4 - 0.9)	5	1.5 (0.3 - 2.7)	6	1.3 (0.0 - 2.7)
Sometimes	212	20.9 (5.0 - 36.8)	74	(28.1 - 36.0)	21	5.2 (2.8 - 7.6)	117	25.8 (19.8 - 31.7)
Never	772	78.1 (62.7 - 93.5)	1483	(63.2 - 71.4)	2813	(90.7 - 95.8)	343	72.9 (67.1 - 78.8)
<b>Used a condom last time had sex (main partner)</b>								
Yes	346	44.5 (37.2 - 51.8)	805	(34.9 - 44.3)	1195	(44.0 - 59.2)	147	41.7 (34.5 - 48.8)
No	458	55.7 (48.3 - 63.0)	1244	(55.8 - 65.0)	1084	(40.7 - 56.1)	226	58.3 (51.0 - 65.6)
<b>Used a condom last time had sex (casual partner)</b>								
Yes	370	62.0 (57.5 - 66.4)	1041	(55.5 - 66.7)	1115	(58.4 - 73.0)	155	58.9 (51.6 - 66.2)
No	220	38.2 (33.8 - 42.6)	633	(33.6 - 44.2)	574	(26.8 - 41.8)	100	41.1 (33.8 - 48.4)
<b>Frequency of condom with main partner in last 6 months</b>								
Always	195	25.0 (17.2 - 32.9)	393	(15.5 - 24.1)	743	(26.0 - 39.5)	82	21.8 (15.2 - 28.5)
Most of the time	54	5.8 (2.9 - 8.8)	12	4.8 (3.5 - 6.1)	10	3.7 (1.3 - 6.2)	32	8.6 (5.2 - 12.0)
Sometimes	192	20.4 (17.6 - 23.3)	523	(20.6 - 29.0)	583	(14.7 - 25.4)	82	18.7 (12.8 - 24.7)
Rarely	81	9.1 (4.8 - 13.4)	16	7.1 (5.1 - 9.1)	19	6.7 (3.9 - 9.5)	46	13.3 (8.4 - 18.2)
Never	340	38.6 (35.3 - 41.8)	955	(38.7 - 48.4)	843	(29.1 - 44.4)	161	37.6 (29.2 - 45.9)
<b>Frequency of condom with casual partner in last 6 months</b>								
Always	258	40.6 (34.6 - 46.5)	651	(31.1 - 41.1)	812	(38.3 - 54.1)	112	38.5 (31.9 - 45.1)
Most of the time	50	6.9 (2.5 - 11.3)	18	8 (6.6 - 11.0)	5	2.6 (0.3 - 4.9)	27	9.3 (5.4 - 13.2)
Sometimes	150	24.2 (20.2 - 28.3)	424	(19.0 - 27.8)	523	(20.7 - 34.9)	56	21.4 (15.1 - 27.7)
Rarely	38	4.8 (1.3 - 8.4)	12	6.5 (4.3 - 8.7)	4	1.4 (0.0 - 2.9)	22	6.7 (3.7 - 9.8)
Never	148	23.5 (21.8 - 25.2)	422	(20.0 - 30.5)	373	(15.1 - 28.9)	69	24.1 (17.4 - 30.7)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sum of sample numerator is higher than the sample denominator as multiple responses could be selected

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; ART, antiretroviral therapy; PEP, post-exposure prophylaxis; PMTCT, prevention of mother to child transmission of HIV; PrEP, Pre-exposure prophylaxis

Table 7.9.2: Lubricant Use Among Transgender Persons By Location, BBS, Kenya, 2024

	Overall Estimate		Kilifi		Mombasa		Nairobi	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Use lubricant</b>								
Yes	200	39.3 (31.1 - 47.6)	40	30.0 (25.6 - 34.4)	96	44.6 (36.6 - 52.7)	64	41.7 (32.7 - 50.7)
No	292	61.0 (52.4 - 69.5)	88	70.0 (65.3 - 74.8)	101	55.4 (47.4 - 63.3)	103	58.3 (49.0 - 67.5)
<b>Type of lubricant used</b>								
Sure lube/govt. lube	200	29.1 (18.2 - 39.9)	40	22.6 (18.7 - 26.5)	96	40.0 (33.0 - 47.3)	64	23.9 (17.5 - 30.4)
KY Jelly	292	45.2 (33.3 - 57.2)	88	53.1 (48.0 - 58.2)	101	49.7 (41.8 - 57.3)	103	33.5 (26.8 - 40.2)
Other water-based prod	117	15.2 (1.5 - 29.0)	14	9.5 (5.9 - 13.2)	12	6.6 (2.0 - 11.3)	91	29.0 (22.8 - 35.2)
Other oil-based produ	39	4.1 (2.5 - 5.7)	13	7.2 (5.0 - 9.4)	9	3.1 (1.3 - 5.1)	17	3.9 (1.9 - 6.0)
Don't know	43	5.9 (0.3 - 11.5)	11	7.6 (4.1 - 11.0)	1	0.6 (0.0 - 1.5)	31	9.6 (4.0 - 15.3)
<b>Places usually get lubricant</b>								
Purchased	346	54.6 (41.0 - 68.3)	98	64.4 (59.0 - 69.9)	81	41.3 (33.3 - 49.1)	167	58.2 (51.0 - 65.4)
Friends/Peers	5	0.8 (0.0 - 1.7)	1	0.8 (0.0 - 1.9)	0	0.0 (0.0 - 0.0)	4	1.5 (0.1 - 2.9)
Clinic/Hospital	48	6.8 (5.7 - 7.8)	14	10.3 (6.6 - 14.0)	14	6.5 (2.2 - 10.8)	20	6.4 (3.2 - 9.6)
Drop-in centre	242	32.4 (12.5 - 52.3)	28	15.7 (12.5 - 18.9)	120	50.8 (43.5 - 58.2)	94	30.5 (24.2 - 36.8)
Peer educators	23	3.2 (0.0 - 6.6)	12	7.1 (4.5 - 9.7)	2	1.2 (0.007 - 2.4)	9	2.1 (0.8 - 3.5)
Sex venues	4	0.3 (0.0 - 0.8)	3	1.7 (0.6 - 2.9)	1	0.2 (0.0 - 0.5)	0	0.0 (0.0 - 0.0)
Partners	4	0.4 (0.0 - 1.2)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	4	1.3 (0.0 - 4.0)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent -Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sum of sample numerator is higher than the sample denominator as multiple responses could be selected

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; ART, antiretroviral therapy; PEP, post-exposure prophylaxis; PMTCT; prevention of mother to child transmission of HIV; PrEP, Pre-exposure prophylaxis

**PrEP:**

Awareness of HIV prevention methods among transgender participants was high, with 89% having heard of PrEP and 77% aware of PEP. Awareness of PrEP was highest in Nairobi (94%) and lowest in Kilifi (83%), while PEP awareness followed a similar pattern, ranging from 75% in Kilifi to 84% in Nairobi.

Among those who had taken PrEP, the main reasons included having multiple sexual partners (43%), distrust of partners (39%), and fear of condom failure (18%). Smaller proportions cited being sex workers (23%) or engaging in unprotected sex (37%). Nearly all participants currently on PrEP (93%) reported daily adherence as prescribed.

For those who had never taken PrEP, the most common reasons were not feeling at risk of HIV infection (43%) and trusting their partners (17%). Other cited barriers included not knowing where to access PrEP (8%) and concerns about stigma or disclosure (4%).

In terms of PEP use, 19% of participants reported ever taking it, and about 29% of those had done so in the last six months. The main reasons for taking PEP were unprotected sex (48%) and condom failure (41%), with a small proportion reporting sexual assault (11%).

Overall, the findings highlight widespread awareness of HIV prevention options among transgender individuals, with moderate uptake of PrEP and limited use of PEP.

**PEP:**

About three-quarters (77%) of transgender participants had heard of post-exposure prophylaxis (PEP), with awareness highest in Nairobi (84%) and lowest in Mombasa (70%). Approximately one in five (19%) had ever taken PEP, with uptake highest in Nairobi (24%) and lowest in Mombasa (14%).

Among those who had taken PEP, 29% reported use within the last six months, most frequently in Nairobi (35%). The main reasons for taking PEP were unprotected sex (48%) and condom burst or slippage (41%), while a small proportion (11%) reported taking it following rape or sexual assault.

Despite relatively high awareness, overall PEP use remained low, with most transgender individuals (81%) having never taken it.

Table 7.9.3: Pre-Exposure Prophylaxis (PrEP) Among Transgender Persons By Location, BBS, Kenya, 2024

	Overall Estimate		Kilifi		Mombasa		Nairobi	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Ever heard of PrEP</b>								
Yes	948	89.1 (83.3 - 94.9)	214	83.3 (79.7 - 87.0)	285	89.2 (84.5 - 94.0)	449	94.0 (90.2 - 97.7)
No	93	11.0 (5.1 - 17.0)	36	16.7 (13.2 - 20.1)	32	10.8 (6.1 - 15.4)	25	6.0 (2.4 - 9.7)
<b>Reasons for taking PrEP</b>								
I don't trust my partners	69	39.1 (12.7 - 65.5)	3	11.5 (5.5 - 17.6)	47	59.0 (48.0 - 69.8)	19	43.5 (29.6 - 56.9)
I have multiple sex partners	75	43.0 (7.6 - 78.4)	18	66.2 (57.7 - 74.7)	53	54.5 (43.3 - 65.9)	4	7.9 (0.8 - 15.1)
I am a sex worker (FSW)	41	23.3 (1.8 - 44.8)	11	42.4 (33.6 - 51.3)	27	23.1 (15.2 - 31.2)	3	5.1 (0.0 - 10.4)
Fear of condom burst/slippage/breakage	31	17.9 (11.0 - 24.8)	5	16.6 (13.5 - 19.8)	20	22.0 (13.3 - 30.8)	6	12.3 (3.5 - 21.2)
Unprotected sex	48	36.7 (11.3 - 62.1)	17	61.1 (52.1 - 70.0)	15	15.3 (7.0 - 23.7)	16	36.6 (22.0 - 51.5)
At risks of Infection	1	0.6 (0.0 - 2.2)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	1.7 (0.0 - 4.3)
Sexual partner has HIV	1	0.6 (0.0 - 2.2)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	1.7 (0.0 - 4.9)
<b>Reasons for never taking PrEP</b>								
I trust my partners	76	16.5 (9.6 - 23.4)	21	13.3 (9.5 - 17.1)	33	23.3 (16.0 - 30.7)	22	12.6 (7.0 - 18.1)
Don't know where to go	34	8.4 (0.0 - 18.1)	23	18.3 (12.9 - 23.6)	6	5.8 (0.6 - 10.9)	5	1.8 (0.0 - 3.9)
Don't want others to know	19	3.5 (0.8 - 6.2)	10	5.8 (4.0 - 7.6)	7	4.0 (1.5 - 6.4)	2	1.2 (0.0 - 2.6)
Tested HIV-Positive	127	23.2 (21.3 - 25.2)	36	23.1 (18.1 - 28.1)	41	24.2 (16.3 - 31.8)	50	22.5 (15.3 - 29.6)
Don't feel I'm at risk	213	43.1 (28.7 - 57.5)	42	30.2 (24.2 - 36.1)	55	42.1 (32.8 - 51.7)	116	55.9 (47.3 - 64.5)
Too many HIV tests/appointments	13	2.4 (0.0 - 6.4)	11	6.9 (4.4 - 9.5)	0	0.0 (0.0 - 0.0)	2	0.8 (0.0 - 2.3)
Did not receive permission from sex partner	2	0.02 (0.0 - 0.2)	2	1.0 (0.4 - 1.7)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Don't qualify/Healthcare worker worried	3	0.8 (0.0 - 1.9)	2	1.3 (0.02 - 2.6)	0	0.0 (0.0 - 0.0)	1	1.4 (0.0 - 4.1)
Stigma/discrimination by HCW	1	0.2 (0.0 - 0.6)	0	0.0 (0.0 - 0.0)	1	0.6 (0.0 - 1.8)	0	0.0 (0.0 - 0.0)
Fear of side effects	2	0.1 (0.0 - 0.4)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	2	0.4 (0.0 - 1.0)
Don't want to/don't trust it	4	0.8 (0.0 - 2.4)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	4	2.5 (0.0 - 5.0)
Lack of information on PrEP	2	0.3 (0.0 - 1.0)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	2	1.0 (0.0 - 2.0)
<b>Currently taking PrEP daily as prescribed</b>								
Yes	158	93.4 (91.5 - 95.2)	23	88.6 (82.1 - 95.1)	80	92.7 (87.8 - 97.6)	55	94.1 (89.1 - 99.3)
No	15	7.0 (5.1 - 8.9)	3	11.4 (4.8 - 18.0)	8	7.3 (2.2 - 12.3)	4	5.9 (0.8 - 10.9)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sum of sample numerator is higher than the sample denominator as multiple responses could be selected

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; ART, antiretroviral therapy; PEP, post-exposure prophylaxis; PMTCT, prevention of mother to child transmission of HIV; PrEP, Pre-exposure prophylaxis

Table 7.9.3B: Post-Exposure Prophylaxis (PEP) Among Transgender Persons By Location, BBS, Kenya, 2024

	Overall Estimate		Kilifi		Mombasa		Nairobi	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Ever heard of PEP</b>								
Yes	734	76.5 (68.5 - 84.6)	167	75.4 (70.9 - 79.9)	201	70.0 (63.3 - 76.7)	366	83.8 (77.2 - 90.4)
No	181	23.6 (15.5 - 31.7)	48	24.6 (20.1 - 29.0)	75	30.0 (23.6 - 36.5)	58	16.2 (9.6 - 22.9)
<b>Ever taken PEP</b>								
Yes	149	19.2 (13.1 - 25.3)	32	19.5 (14.7 - 24.2)	30	13.9 (8.7 - 19.0)	87	24.0 (18.5 - 29.5)
No	585	81.0 (74.9 - 87.1)	135	80.5 (75.8 - 85.3)	171	86.1 (81.0 - 91.3)	279	76.0 (70.5 - 81.5)
<b>Taken PEP in the last 6 months</b>								
Yes	45	28.9 (21.2 - 36.7)	7	19.1 (12.0 - 25.9)	10	26.4 (12.4 - 40.3)	28	34.6 (23.5 - 45.8)
No	104	72.4 (63.6 - 81.2)	25	80.9 (73.7 - 88.4)	20	73.6 (59.4 - 88.0)	59	65.4 (54.4 - 76.4)
<b>Reasons for taking PEP</b>								
Condom burst/slippage/breakage	14	41.1 (22.7 - 59.5)	0	0.0 (0.0 - 0.0)	6	60.2 (30.1 - 90.7)	8	36.9 (15.6 - 58.4)
Unprotected sex	19	48.3 (30.5 - 66.1)	0	0.0 (0.0 - 0.0)	3	39.8 (9.9 - 69.3)	16	50.1 (29.2 - 70.4)
Rape/ Sexual assault	3	10.6 (0.0 - 21.5)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	3	12.9 (0.0 - 26.5)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent -Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sum of sample numerator is higher than the sample denominator as multiple responses could be selected

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; ART, antiretroviral therapy; PEP, post-exposure prophylaxis; PMTCT, prevention of mother to child transmission of HIV; PrEP, Pre-exposure prophylaxis

### **Peer Educator/Outreach Workers:**

Just over half (53%) of transgender participants reported having ever talked to a peer educator about HIV, with the highest engagement observed in Nairobi (61%) and the lowest in Kilifi (42%). Nearly four in five (78%) had contact with an outreach worker in the past three months, ranging from 68% in Nairobi to 90% in Mombasa.

Peer educators and outreach workers primarily provided health education or informational materials (80%), condoms (59%), and lubricants (39%). Smaller proportions received referrals for STI treatment (20%) or HIV testing (37%), while very few were referred for ART (3%), drug treatment (5%), or violence support (2%).

### **Clinics/ DICEs:**

About 45% of transgender participants reported visiting such facilities in the past 12 months, with higher attendance in Mombasa (60%) and lower in Kilifi (31%). The main services received included condoms (66%), lubricants (43%), and HIV/STI prevention information (53%).

A smaller number reported receiving needle and syringe exchange (65%), hepatitis testing or vaccination (3–7%), or PrEP services (4%). Access to MAT, ART, or PEP at these centers was limited, indicating that while prevention commodities and education were common, clinical and specialized support services were less frequently accessed.

Table 7.9.4: Service Uptake Through Peer Educators/Outreach Workers Among Transgender Persons By Location, BBS, Kenya, 2024

	Overall Estimate		Kilifi		Mombasa		Nairobi	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Ever talked to peer educator about HIV</b>								
Yes	615	53.2 (42.2 - 64.1)	113	41.8 (37.6 - 46.0)	198	55.5 (48.7 - 62.5)	304	61.1 (54.2 - 68.1)
No	427	47.0 (35.9 - 58.1)	138	58.2 (54.0 - 62.5)	119	44.5 (37.4 - 51.4)	170	38.9 (32.2 - 45.6)
<b>Contact with outreach worker in the past 3 months</b>								
Yes	481	78.3 (65.7 - 91.0)	88	76.7 (71.9 - 81.4)	176	89.6 (84.6 - 94.5)	217	68.0 (60.9 - 75.2)
No	134	22.0 (9.3 - 34.7)	25	23.3 (18.6 - 28.1)	22	10.4 (5.5 - 15.3)	87	32.0 (24.8 - 39.1)
<b>Services or information received from peer educator/outreach worker</b>								
Health Education/IECs	342	80.4 (60.4 - 100.0)	75	86.5 (84.6 - 88.3)	163	93.4 (89.2 - 97.7)	104	60.4 (51.9 - 68.9)
Condoms	249	58.8 (36.4 - 81.3)	68	78.2 (74.9 - 81.4)	113	59.5 (51.8 - 67.1)	68	38.7 (29.5 - 47.9)
Lubricant	155	38.5 (12.5 - 64.6)	49	56.7 (53.3 - 59.9)	85	45.8 (38.5 - 53.0)	21	13.0 (6.3 - 19.6)
Referral for STI treatment	79	20.2 (10.2 - 30.3)	26	30.4 (26.8 - 33.9)	36	20.0 (14.6 - 25.4)	17	12.0 (6.5 - 17.5)
Referral for HIV testing	137	37.2 (9.4 - 65.0)	57	64.9 (61.3 - 68.6)	49	26.7 (19.9 - 33.5)	31	19.9 (12.1 - 27.7)
Referral for drug treatment	21	4.7 (0.5 - 9.0)	7	8.1 (6.2 - 10.0)	12	6.1 (2.9 - 9.4)	2	1.1 (0.0 - 2.5)
Referrals for ART	12	2.9 (2.0 - 3.7)	3	3.3 (2.1 - 4.5)	6	3.2 (0.7 - 5.6)	3	2.3 (0.0 - 6.4)
Violence support	10	2.2 (0.0 - 4.5)	2	2.2 (1.2 - 3.1)	1	0.3 (0.0 - 0.7)	7	3.6 (1.5 - 5.7)
MAT Information	6	1.0 (0.0 - 2.9)	0	0.0 (0.0 - 0.0)	6	2.8 (0.6 - 5.1)	0	0.0 (0.0 - 0.0)
Other	13	3.2 (0.0 - 6.6)	5	5.8 (3.9 - 7.8)	1	0.2 (0.0 - 0.5)	7	4.2 (0.8 - 7.7)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sum of sample numerator is higher than the sample denominator as multiple responses could be selected

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; ART, antiretroviral therapy; PEP, post-exposure prophylaxis; PMTCT, prevention of mother to child transmission of HIV; PrEP, Pre-exposure prophylaxis

Table 7.9.4B: Service Uptake Through Clinic or Drop-in Centre Among Transgender Persons By Location, BBS, Kenya, 2024

	Overall Estimate		Kilifi		Mombasa		Nairobi	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Visited a clinic or drop-in Centre that provides health information or services to KP group in the past 12 months</b>								
Yes	518	45.2 (28.9 - 61.4)	85	31.3 (27.3 - 35.3)	209	60.2 (53.3 - 67.1)	224	43.5 (36.6 - 50.4)
No	524	55.0 (38.6 - 71.3)	166	68.7 (64.7 - 72.7)	108	39.8 (33.0 - 46.6)	250	56.5 (49.5 - 63.5)
<b>Services did you receive when you last visited clinic or drop-in center</b>								
Received PrEP	12	3.5 (1.1 - 5.8)	1	1.4 (0.09 - 2.7)	4	2.1 (0.4 - 3.9)	7	5.6 (1.6 - 9.6)
General Treatment	3	0.9 (0.2 - 1.7)	1	1.4 (0.1 - 2.8)	1	0.5 (0.0 - 1.3)	1	1.3 (0.0 - 3.9)
Received condoms	262	65.6 (43.8 - 87.3)	56	80.2 (77.6 - 82.9)	145	72.0 (63.8 - 80.3)	61	44.0 (32.9 - 55.1)
Received lubricants	166	42.7 (14.7 - 70.7)	44	63.6 (60.8 - 66.2)	98	48.0 (39.9 - 55.9)	24	16.0 (8.8 - 23.1)
Information on STI or HIV prevention	187	53.2 (14.5 - 92.0)	63	90.0 (88.3 - 91.7)	95	46.4 (38.0 - 54.7)	29	23.0 (14.1 - 31.9)
Needles/syringe exchange	233	65.1 (54.2 - 76.0)	53	75.2 (72.1 - 78.5)	97	55.8 (48.3 - 63.4)	83	65.8 (56.4 - 75.3)
Information on MAT	6	0.7 (0.1 - 1.3)	2	2.8 (2.2 - 3.4)	3	0.9 (0.0 - 1.8)	1	0.2 (0.2 - 0.2)
Medically assisted therapy	4	0.6 (0.0 - 1.7)	2	2.9 (1.7 - 4.1)	2	0.9 (0.0 - 2.0)	0	0.0 (0.0 - 0.0)
Information on hepatitis	9	3.3 (0.0 - 10.0)	8	11.2 (9.4 - 13.1)	1	0.5 (0.03 - 1.0)	0	0.0 (0.0 - 0.0)
Hepatitis B/C test	4	0.4 (0.0 - 1.0)	3	4.4 (2.6 - 6.0)	1	0.5 (0.03 - 1.0)	0	0.0 (0.0 - 0.0)
Hepatitis B Vaccination	20	7.0 (0.0 - 17.0)	13	18.0 (15.9 - 20.3)	6	3.6 (1.0 - 6.2)	1	0.9 (0.0 - 2.2)
Information on ART	14	2.3 (0.0 - 6.7)	0	0.0 (0.0 - 0.0)	14	6.8 (3.6 - 10.0)	0	0.0 (0.0 - 0.0)
Addiction counseling	1	0.1 (0.0 - 0.3)	0	0.0 (0.0 - 0.0)	1	0.2 (0.0 - 0.6)	0	0.0 (0.0 - 0.0)
HIV testing & counseling	1	0.09 (0.0 - 0.3)	0	0.0 (0.0 - 0.0)	1	0.2 (0.0 - 0.5)	0	0.0 (0.0 - 0.0)
Safe injection counseling	6	0.9 (0.0 - 2.5)	0	0.0 (0.0 - 0.0)	6	2.5 (0.5 - 4.4)	0	0.0 (0.0 - 0.0)
Received PEP	2	0.6 (0.0 - 1.9)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	2	1.9 (0.0 - 3.9)
Sexual reproductive health services	3	0.4 (0.0 - 1.2)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	3	1.2 (0.0 - 2.6)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sum of sample numerator is higher than the sample denominator as multiple responses could be selected

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; ART, antiretroviral therapy; PEP, post-exposure prophylaxis; PMTCT; prevention of mother to child transmission of HIV; PrEP, Pre-exposure prophylaxis

## **HIV Testing:**

Nearly all transgender participants (94%) reported having ever been tested for HIV, with testing rates consistent across Kilifi (95%), Mombasa (94%), and Nairobi (94%). Only 6% had never tested, most commonly citing reasons such as perceiving themselves at low risk (36%), fear of knowing their status (26%), or lack of access or information on testing sites (12%).

Among those ever tested, 44% had tested within the past three months, 22% within four to six months, and 20% more than a year prior. HIV positivity among those tested was 15% overall, with slightly higher rates in Kilifi (19%) and similar levels in Mombasa (15%) and Nairobi (15%).

Self-testing was reported by 30% of participants, more commonly in Kilifi (35%) and Nairobi (35%) than in Mombasa (21%). Most self-tests yielded negative results (91%), while 10% were positive. Of those with a positive self-test, 76% confirmed their result at a health facility, with confirmation highest in Kilifi (88%) and lowest in Nairobi (65%).

Overall, the findings show high HIV testing coverage among transgender persons, regular testing frequency, and moderate uptake of HIV self-testing, with a majority appropriately seeking confirmatory testing after a positive self-test result.

Table 7.9.5: HIV Testing Among Transgender Persons By Location, BBS, Kenya, 2024

	Overall Estimate		Kilifi		Mombasa		Nairobi	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Ever tested for HIV</b>								
Yes	832	94.4 (93.7 - 95.2)	197	95.2 (92.4 - 98.1)	251	94.2 (90.9 - 97.6)	384	94.4 (88.9 - 99.8)
No	41	5.7 (4.9 - 6.4)	9	4.8 (2.0 - 7.6)	13	5.8 (2.7 - 8.8)	19	5.6 (0.2 - 11.1)
<b>Reasons for not testing for HIV</b>								
Don't know where to test	2	12.5 (0.0 - 28.6)	1	23.7 (0.0 - 54.6)	0	0.0 (0.0 - 0.0)	1	15.3 (0.0 - 40.9)
Too far away	1	0.1 (0.0 - 1.7)	1	23.7 (0.0 - 54.6)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Don't need tests/low risk	10	36.3 (0.0 - 73.7)	2	27.0 (1.5 - 53.3)	7	70.6 (46.9 - 96.8)	1	6.9 (0.0 - 19.1)
Don't want to know if I have HIV	9	26.2 (10.3 - 42.0)	4	45.3 (16.7 - 75.1)	3	15.1 (0.0 - 30.7)	2	23.4 (0.0 - 53.0)
Cannot get treatment for HIV	1	0.1 (0.0 - 1.7)	1	10.6 (0.5 - 20.9)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Afraid others will know about the test	1	2.2 (0.0 - 6.9)	0	0.0 (0.0 - 0.0)	1	6.2 (0.0 - 16.8)	0	0.0 (0.0 - 0.0)
Did not receive permission from spouse/partner	1	2.2 (0.0 - 6.9)	0	0.0 (0.0 - 0.0)	1	6.2 (0.0 - 16.8)	0	0.0 (0.0 - 0.0)
Afraid spouse/partner will know	2	3.8 (0.0 - 11.7)	0	0.0 (0.0 - 0.0)	2	11.4 (0.0 - 25.5)	0	0.0 (0.0 - 0.0)
Religious reasons	1	1.8 (0.0 - 5.7)	0	0.0 (0.0 - 0.0)	1	5.1 (0.0 - 15.4)	0	0.0 (0.0 - 0.0)
Other	8	28.5 (0.0 - 57.5)	2	17.5 (8.5 - 27.0)	1	8.1 (0.0 - 21.6)	5	54.4 (19.5 - 91.3)
<b>Last time tested for HIV</b>								
Less than 3 months	345	43.6 (37.4 - 49.9)	68	38.2 (32.5 - 43.9)	117	49.4 (42.7 - 56.1)	160	42.0 (34.2 - 49.8)
4-6 months	181	22.4 (15.6 - 29.1)	39	22.7 (18.1 - 27.4)	41	16.4 (11.4 - 21.4)	101	27.6 (20.7 - 34.5)
7-12 months	117	14.0 (12.8 - 15.2)	28	15.0 (11.6 - 18.4)	36	13.9 (9.2 - 18.5)	53	13.8 (8.6 - 19.0)
More than 12 months	153	19.9 (15.9 - 23.9)	41	24.1 (19.6 - 28.5)	51	20.4 (14.8 - 25.9)	61	16.6 (10.3 - 23.0)
<b>Result of most recent HIV test</b>								
Positive	162	15.2 (14.0 - 16.4)	43	19.2 (15.6 - 22.7)	53	15.2 (11.1 - 19.3)	66	14.6 (9.9 - 19.3)
Negative	773	84.9 (83.7 - 86.1)	172	80.8 (77.1 - 84.6)	244	84.8 (80.6 - 88.9)	357	85.4 (80.6 - 90.2)
<b>Ever self- tested for HIV</b>								
Yes	323	30.3 (20.9 - 39.8)	86	35.4 (31.1 - 39.7)	70	20.9 (15.8 - 26.0)	167	35.0 (28.3 - 41.6)
No	675	69.8 (60.4 - 79.2)	154	64.6 (60.2 - 69.0)	234	79.1 (74.1 - 84.1)	287	65.0 (58.3 - 71.7)
<b>Result of last HIV self-test</b>								
Positive	36	9.8 (8.1 - 11.5)	8	9.5 (4.3 - 14.7)	9	10.0 (2.0 - 18.0)	19	9.7 (5.0 - 14.3)
Negative	281	90.5 (88.7 - 92.2)	78	90.5 (85.4 - 95.6)	60	90.0 (82.0 - 97.9)	143	90.3 (85.8 - 94.9)
<b>Confirmed HIV positive self test result in a facility</b>								
Yes	26	76.1 (61.7 - 90.6)	7	88.1 (77.4 - 98.8)	7	74.6 (43.2 - 100.0)	12	64.5 (42.5 - 87.3)
No	10	31.2 (22.5 - 40.0)	1	11.9 (1.1 - 22.6)	2	25.4 (0.0 - 56.3)	7	35.5 (11.9 - 58.3)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sum of sample numerator is higher than the sample denominator as multiple responses could be selected

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; ART, antiretroviral therapy; PEP, post-exposure prophylaxis; PMTCT, prevention of mother to child transmission of HIV; PrEP, Pre-exposure prophylaxis

**ART:**

Almost all transgender participants (99.8%) reported ever being on antiretroviral therapy (ART), with similarly high rates across Kilifi (98%), Mombasa (100%), and Nairobi (99.5%). At the time of the survey, nearly all (99.8%) were currently on ART, reflecting consistent engagement in treatment across locations.

Most transgender persons accessed ART services through public clinics or hospital pharmacies (45%) and drop-in centers (42%). Public facilities were the main source in Kilifi (78%), while drop-in centers were more commonly used in Mombasa (60%) and Nairobi (55%).

Three-quarters (77%) had visited a facility for ART refill within the past three months, and an additional 17% reported visiting three to five months earlier. Only a small proportion (5%) had gone more than six months without a refill.

Despite high ART retention, 42% reported missing one or more ART doses in the previous month. Missed doses were most common in Nairobi (57%), compared to Mombasa (28%) and Kilifi (38%), suggesting variability in adherence across locations.

Table 7.9.6: Uptake And Adherence To ART Among Transgender Persons By Location, BBS, Kenya, 2024

	Overall Estimate		Kilifi		Mombasa		Nairobi	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Ever been on ART</b>								
Yes	159	99.8 (99.4 - 100.0)	42	98.1 (96.9 - 99.4)	53	100.0 (98.6 - 100.0)	64	99.5 (98.7 - 100.0)
No	2	0.3 (0.0 - 1.1)	1	1.9 (0.6 - 3.1)	0	0.0 (0.0 - 0.0)	1	0.5 (0.0 - 1.2)
<b>Currently on ART</b>								
Yes	156	99.8 (99.4 - 100.0)	40	95.3 (91.5 - 99.0)	53	100.0 (98.6 - 100.0)	63	99.5 (99.2 - 99.9)
No	3	0.4 (0.0 - 1.2)	2	4.7 (1.1 - 8.4)	0	0.0 (0.0 - 0.0)	1	0.5 (0.1 - 0.8)
<b>Where they seek ART</b>								
Public clinic/hospital pharmacy	64	45.2 (13.2 - 77.1)	31	77.6 (67.5 - 87.8)	14	28.9 (16.5 - 41.1)	19	28.8 (15.8 - 41.6)
Private clinic/hospital pharmacy	15	13.3 (10.4 - 16.2)	3	10.2 (1.5 - 18.7)	5	11.3 (3.1 - 19.7)	7	15.0 (2.2 - 27.8)
Drop-in centre	72	41.8 (10.5 - 73.2)	4	9.1 (5.8 - 12.5)	33	59.8 (46.7 - 72.9)	35	55.3 (40.2 - 70.6)
NGO/FBOs facility	1	0.02 (0.0 - 0.4)	1	3.1 (0.0 - 7.4)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
Private Pharmacy	1	0.2 (0.0 - 0.8)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)	1	0.9 (0.0 - 2.3)
<b>Time of last clinic visit to facility for ART refill</b>								
Less than 3 months ago	118	76.5 (66.6 - 86.4)	26	61.9 (51.0 - 73.0)	41	78.0 (65.6 - 90.3)	51	82.7 (73.6 - 91.9)
3-5 months ago	31	17.3 (14.0 - 20.5)	10	25.6 (15.4 - 35.8)	9	15.5 (6.7 - 24.2)	12	17.3 (7.9 - 26.5)
6-11 months	5	4.6 (0.0 - 10.3)	3	9.5 (1.2 - 17.5)	2	6.6 (0.0 - 15.8)	0	0.0 (0.0 - 0.0)
1-2 years ago	1	0.02 (0.0 - 0.4)	1	3.0 (0.0 - 7.4)	0	0.0 (0.0 - 0.0)	0	0.0 (0.0 - 0.0)
<b>Missed taking one or more ART pills in the last one month</b>								
Yes	66	41.6 (24.1 - 59.2)	16	38.4 (28.4 - 48.6)	17	28.4 (18.5 - 38.4)	33	57.3 (42.9 - 71.7)
No	90	59.2 (41.5 - 77.0)	24	61.6 (51.5 - 71.5)	36	71.6 (61.6 - 81.5)	30	42.7 (27.9 - 57.5)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent-Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sum of sample numerator is higher than the sample denominator as multiple responses could be selected

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; ART, antiretroviral therapy; PEP, post-exposure prophylaxis; PMTCT, prevention of mother to child transmission of HIV; PrEP, Pre-exposure prophylaxis

**TB:**

Among transgender participants, 16% self-reported living with HIV, while 84% reported being HIV negative. All individuals living with HIV (100%) indicated they had been asked about tuberculosis (TB) symptoms during their most recent HIV clinic visit, and none reported being on TB treatment at the time of the survey.

About 24% reported experiencing TB-related symptoms within the past 12 months, while 76% did not. Among those who sought TB diagnostic services, 41% underwent both chest X-ray and sputum testing, 6% had only an X-ray, and 11% had a sputum test alone. However, over two-thirds (68%) had not received any form of TB screening test in the preceding year.

Of those tested for TB, 73% reported a positive test result, while 28% tested negative. All participants who received a TB diagnosis had also received their results, suggesting effective communication within clinical follow-up, though the overall uptake of TB diagnostic testing remained low.

Table 7.9.7: Tuberculosis Screening And Treatment Transgender Persons By Location, BBS, Kenya, 2024

	Overall Estimate	
	n	% (95% CI)
<b>Self-reported HIV status</b>		
Positive	165	16.1 (13.8 - 18.5)
Negative	772	83.9 (81.5 - 86.2)
Indeterminate	0	0.0 (0.0 - 0.0)
<b>Asked about TB symptoms at last HIV clinic visit<sup>b</sup></b>		
Yes	165	100.0 (100.0 - 100.0)
No	0	0.0 (0.0 - 0.0)
Currently on TB treatment	0	0.0 (0.0 - 0.0)
<b>Experienced TB symptoms in last 12 months<sup>a,b</sup></b>		
Yes	165	23.8 (0.0 - 52.2)
No	130	76.2 (47.8 - 100.0)
<b>Received chest x-ray or sputum test in last 12 months<sup>a,b</sup></b>		
Chest x-ray and sputum test	4	41.1 (4.8 - 77.4)
Chest x-ray	1	5.6 (0.0 - 17.3)
Sputum test	4	11.1 (0.0 - 23.8)
None	25	68.4 (24.7 - 100.0)
<b>Result of last TB test<sup>a,b</sup></b>		
Positive	4	72.5 (32.9 - 100.0)
Negative	3	27.5 (0.0 - 67.1)
Did not received results	0	0.0 (0.0 - 0.0)

All proportions and confidence intervals are weighted population estimates. Weights

<sup>a</sup> Non-responses and missing data were not included in the analysis

<sup>b</sup> Sample denominator is based on the previous question

Abbreviations: N, sample denominator; n, sample numerator; CI, 95% confidence interval; TB, tuberculosis

## 7.10: Stigma and Discrimination

Among transgender participants, experiences of stigma and discrimination were widespread across all locations. Overall, 79.3% were classified as having high levels of stigma, while 16.8% experienced moderate stigma and 4.0% very high stigma. Most respondents had disclosed being transgender to friends (49.2%) or family (51.4%), but fewer had disclosed to healthcare providers (30.4%).

A notable proportion of participants reported avoiding health services (35.4%) or HIV services (32.5%) due to fear of discrimination or exposure of their transgender identity. Similarly, 33.2% avoided disclosing their identity to HIV service providers.

Experiences of harassment and violence were also frequent—33.7% reported being verbally harassed in the last six months, 14.3% had been blackmailed, and 15.1% had been physically hurt during the same period. Additionally, 7.5% experienced forced sex in the past six months, and 17.9% reported such experiences occurring previously.

Despite these challenges, only a small proportion reported such incidents to authorities or organizations, with 82.9% indicating they did not report at all. Across regions, participants from Nairobi showed comparatively lower internalized shame and greater comfort with identity disclosure than those from Kilifi and Mombasa, though stigma and recent harassment persisted across all sites.

Table 7.10: Stigma And Discrimination Among Transgender By Location, BBS, Kenya , 2024

	Overall Estimate		Kiilifi		Mombasa		Nairobi	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Ashamed to be transgender<sup>a</sup></b>								
Strongly agree	30	3.4 (0.0 - 7.1)	6	2.5 (1.1 - 3.9)	23	7.0 (4.2 - 9.8)	1	0.6 (0.0 - 1.9)
Agree	89	11.1 (0.8 - 21.3)	53	21.6 (17.8 - 25.4)	17	6.9 (3.6 - 10.1)	19	5.0 (1.4 - 8.5)
Neutral	70	7.0 (0.0 - 15.1)	40	15.5 (12.4 - 18.5)	10	2.2 (1.0 - 3.4)	20	3.8 (0.9 - 6.7)
Disagree	458	40.2 (7.7 - 72.7)	103	42.1 (37.6 - 46.5)	29	10.5 (6.4 - 14.6)	326	67.7 (61.1 - 74.3)
Strongly disagree	393	38.3 (3.7 - 72.9)	49	18.4 (15.3 - 21.6)	237	73.4 (67.8 - 79.0)	107	22.9 (17.1 - 28.7)
<b>Ashamed to disclose being transgender in public<sup>a</sup></b>								
Strongly agree	47	4.5 (0.0 - 11.7)	1	0.3 (0.2 - 0.4)	43	11.9 (8.7 - 15.1)	3	1.1 (0.0 - 2.5)
Agree	39	4.4 (1.5 - 7.3)	14	6.5 (4.1 - 8.9)	18	5.5 (2.9 - 8.1)	7	1.7 (0.0 - 3.7)
Neutral	25	2.0 (1.5 - 2.4)	9	3.6 (2.0 - 5.1)	7	1.9 (0.6 - 3.3)	9	1.8 (0.0 - 4.2)
Disagree	454	38.9 (6.3 - 71.5)	74	31.1 (26.8 - 35.4)	41	14.7 (10.3 - 19.1)	339	70.6 (64.0 - 77.3)
Strongly disagree	477	49.8 (24.7 - 74.9)	153	58.6 (53.9 - 63.2)	208	66.0 (60.4 - 71.6)	116	24.7 (18.7 - 30.6)
<b>Ashamed to disclose being transgender to community social or health worker<sup>a</sup></b>								
Strongly agree	42	4.5 (0.0 - 9.2)	8	3.2 (1.7 - 4.6)	31	9.1 (6.1 - 12.1)	3	1.0 (0.0 - 2.3)
Agree	177	19.7 (2.2 - 37.2)	94	37.1 (32.7 - 41.4)	23	7.1 (4.3 - 9.9)	60	15.0 (9.4 - 20.7)
Neutral	81	7.8 (0.0 - 16.2)	38	15.8 (12.8 - 18.7)	5	1.0 (0.1 - 1.9)	38	7.0 (3.8 - 10.2)
Disagree	416	36.4 (12.7 - 60.1)	83	34.3 (30.1 - 38.7)	47	16.5 (12.0 - 21.0)	286	58.2 (51.3 - 65.0)
Strongly disagree	326	31.6 (0.0 - 66.0)	28	9.7 (7.8 - 11.5)	211	66.3 (60.9 - 71.7)	87	18.8 (13.1 - 24.4)
<b>Disclosed being transgender to the following people:<sup>b</sup></b>								
Healthcare provider	314	30.4 (17.8 - 43.0)	90	33.6 (29.7 - 37.5)	131	39.5 (33.1 - 45.8)	93	18.2 (12.9 - 23.5)
Partner/spouse	573	59.8 (35.6 - 84.0)	202	79.5 (75.6 - 83.2)	196	62.9 (57.5 - 68.4)	175	37.0 (30.4 - 43.6)
Family	542	51.4 (49.0 - 53.8)	133	51.8 (47.4 - 56.2)	169	53.0 (47.1 - 58.8)	240	49.7 (42.8 - 56.7)
Friends/acquaintances who are TG	557	49.2 (29.5 - 68.9)	79	31.9 (27.7 - 36.2)	150	48.2 (42.0 - 54.4)	328	66.9 (60.0 - 73.9)
Friends/acquaintances who are not TG	934	88.9 (80.6 - 97.1)	242	96.7 (95.6 - 97.9)	270	82.7 (78.1 - 87.3)	422	87.0 (81.4 - 92.5)
Colleagues	72	6.0 (2.1 - 9.9)	23	8.0 (6.2 - 9.8)	7	2.2 (0.7 - 3.8)	42	7.9 (4.5 - 11.3)
No one	13	1.6 (0.0 - 3.2)	0	0.0 (0.0 - 0.0)	7	2.5 (0.7 - 4.2)	6	2.3 (0.0 - 4.6)
<b>Felt excluded from family activities</b>								
No	592	57.6 (48.7 - 66.6)	116	48.2 (43.7 - 52.8)	200	64.0 (58.2 - 69.8)	276	59.7 (53.4 - 66.0)
Yes, In the last 6 months	221	20.2 (15.6 - 24.8)	41	15.8 (12.8 - 18.8)	79	24.3 (19.0 - 29.6)	101	19.8 (14.7 - 25.0)
Yes, but not in the last 6 months	228	22.6 (8.8 - 36.4)	94	36.0 (31.9 - 39.9)	38	11.7 (8.1 - 15.3)	96	20.4 (15.0 - 25.8)
<b>Family members have made unfair comments or gossiped about you</b>								
No	517	51.2 (44.1 - 58.3)	109	45.0 (40.6 - 49.4)	179	57.7 (51.8 - 63.7)	229	49.9 (43.1 - 56.7)
Yes, In the last 6 months	282	24.8 (17.8 - 31.7)	45	17.3 (14.0 - 20.5)	97	29.0 (23.6 - 34.3)	140	27.4 (21.7 - 33.2)
Yes, but not in the last 6 months	240	24.4 (10.6 - 38.2)	97	37.7 (33.7 - 41.7)	39	13.3 (9.0 - 17.6)	104	22.6 (17.0 - 28.2)
<b>Ever verbally harassed/scolded<sup>a</sup></b>								
No	447	43.4 (18.1 - 68.8)	53	22.7 (18.9 - 26.5)	206	67.2 (61.9 - 72.4)	188	40.2 (33.8 - 46.5)
Yes, In the last 6 months	376	33.7 (27.4 - 40.1)	98	37.4 (33.0 - 41.7)	93	27.5 (22.4 - 32.6)	185	36.7 (30.5 - 42.9)
Yes, but not in the last 6 months	219	22.7 (3.2 - 42.3)	100	40.0 (35.7 - 44.2)	18	5.3 (2.8 - 7.9)	101	23.1 (17.3 - 28.9)
<b>Ever blackmailed<sup>a</sup></b>								
No	717	71.0 (63.2 - 78.7)	192	78.2 (74.8 - 81.7)	219	70.4 (65.0 - 75.9)	306	64.6 (58.0 - 71.2)
Yes, In the last 6 months	158	14.3 (9.1 - 19.5)	23	8.7 (6.5 - 10.9)	57	16.0 (12.1 - 19.9)	78	17.7 (12.5 - 23.0)
Yes, but not in the last 6 months	167	15.0 (12.0 - 18.0)	36	13.1 (10.4 - 15.7)	41	13.6 (8.8 - 18.4)	90	17.7 (12.7 - 22.7)
<b>Ever forced to have sex<sup>a</sup></b>								
No	770	74.8 (69.9 - 79.6)	195	77.0 (73.0 - 81.0)	243	77.5 (72.2 - 82.9)	332	70.1 (64.1 - 76.2)
Yes, In the last 6 months	86	7.5 (5.6 - 9.5)	15	5.9 (3.5 - 8.2)	27	6.9 (4.1 - 9.6)	44	9.3 (6.0 - 12.5)
Yes, but not in the last 6 months	185	17.9 (14.8 - 21.1)	41	17.2 (13.7 - 20.7)	47	15.6 (10.9 - 20.3)	97	20.6 (15.1 - 26.0)
<b>Experiences of forced sex believed to be related to transgender<sup>a,c</sup></b>								
Yes	171	77.1 (61.2 - 93.1)	49	86.8 (80.1 - 93.6)	60	82.6 (74.2 - 91.1)	62	61.2 (50.0 - 72.4)
No	55	23.5 (7.9 - 39.0)	7	13.2 (6.1 - 20.2)	12	17.4 (8.9 - 25.9)	36	38.8 (27.6 - 50.1)
<b>Ever physically harassed/hurt</b>								
No	601	58.8 (49.6 - 68.0)	119	49.3 (45.0 - 53.7)	202	65.8 (60.5 - 71.1)	280	60.3 (53.7 - 66.9)
Yes, In the last 6 months	182	15.1 (12.8 - 17.4)	37	13.2 (10.6 - 15.8)	54	14.1 (10.6 - 17.5)	91	17.1 (12.1 - 22.1)
Yes, but not in the last 6 months	258	26.5 (16.2 - 36.9)	95	37.5 (33.3 - 41.7)	60	20.1 (15.5 - 24.8)	103	22.6 (16.9 - 28.3)
<b>Actions after experiencing violence:<sup>a,c</sup></b>								
Reported to NGO/CBO	25	2.2 (0.008 - 4.3)	14	4.8 (3.6 - 6.0)	4	1.0 (0.05 - 2.0)	7	1.2 (0.3 - 2.1)
Shared with friends/Family	90	z	60	22.9 (19.5 - 26.3)	5	1.5 (0.4 - 2.6)	25	5.9 (1.5 - 10.2)
Reported to police	82	7.3 (5.6 - 9.1)	26	9.3 (7.1 - 11.5)	25	5.9 (3.5 - 8.3)	31	7.7 (3.7 - 11.7)
Informed the local chief	5	0.5 (0.0 - 1.3)	4	1.4 (0.6 - 2.1)	0	0.0 (0.0 - 0.0)	1	0.7 (0.3 - 1.0)
Went to clinic	22	2.1 (0.03 - 4.2)	4	2.2 (0.6 - 3.7)	1	0.3 (0.1 - 0.5)	17	3.8 (1.8 - 5.8)
Went to DICE	42	3.6 (0.8 - 6.5)	20	6.3 (5.2 - 7.5)	14	4.0 (1.5 - 6.5)	8	1.2 (0.3 - 2.0)
Reported to peer/outreach worker	20	1.4 (0.5 - 2.4)	7	2.3 (1.5 - 3.1)	3	0.7 (0.0 - 1.6)	10	1.7 (0.6 - 2.8)
Did not report	816	82.9 (72.3 - 93.5)	173	71.8 (68.0 - 75.6)	272	89.7 (85.9 - 93.6)	371	86.5 (81.5 - 91.6)
Went to GBV center	6	0.4 (0.02 - 0.8)	0	0.0 (0.0 - 0.0)	2	0.5 (0.0 - 1.0)	4	0.6 (0.04 - 1.1)
<b>Been arrested because of being transgender<sup>a</sup></b>								
No	944	92.3 (87.6 - 97.1)	240	96.0 (94.8 - 97.3)	291	93.0 (89.8 - 96.1)	413	87.8 (83.2 - 92.4)
Yes, In the last 6 months	44	2.9 (0.08 - 5.7)	2	0.8 (0.03 - 1.5)	9	2.1 (0.9 - 3.4)	33	5.6 (2.6 - 8.6)
Yes, but not in the last 6 months	54	5.1 (3.4 - 6.8)	9	3.2 (2.2 - 4.2)	17	4.9 (2.4 - 7.4)	28	6.5 (2.5 - 10.6)
<b>Received help dealing with the authorities last time arrested from:<sup>b</sup></b>								
Did not receive help	29	27.5 (13.0 - 42.1)	4	40.0 (40.0 - 40.0)	4	15.9 (2.9 - 28.6)	21	31.9 (17.5 - 46.1)
Yes, received support from NGO/CBO/Dice	20	26.8 (7.9 - 45.7)	4	40.0 (40.0 - 40.0)	10	32.2 (16.2 - 48.1)	6	11.6 (1.1 - 22.1)
Yes, received support from Network	27	25.0 (10.2 - 39.8)	3	30.0 (30.0 - 30.0)	4	12.6 (2.5 - 22.6)	20	31.6 (17.6 - 45.7)
Yes, received legal support	14	15.9 (0.0 - 32.5)	3	30.0 (30.0 - 30.0)	1	1.9 (0.0 - 4.8)	10	19.4 (8.5 - 30.2)
Yes, received support from family/regular partner/friends	12	17.0 (0.0 - 43.8)	0	0.0 (0.0 - 0.0)	9	44.2 (23.2 - 65.5)	3	6.4 (0.2 - 12.7)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the respondent driven sampling package in R, using Gile's sequential sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sum of sample numerator is higher than the sample denominator, as multiple responses could be selected

<sup>c</sup> Sample denominator is based on the previous question

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; CBO, community-based organization; DICE, drop-in center; NGO, non-governmental organization; AIDS, acquired immunodeficiency syndrome.

Table 7.10B : Avoidance of Health Services Among Transgender Persons By Location, BBS, Kenya , 2024

	Overall Estimate		Kilifi		Mombasa		Nairobi	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>avoided seeking health services due to concerns someone may find out about being transgender</b>								
	668	64.6 (41.3 - 87.8)	110	45.9 (41.5 - 50.4)	270	86.6 (82.7 - 90.4)	288	60.8 (54.2 - 67.4)
, In the last 6 months	167	14.5 (6.4 - 22.6)	44	17.8 (14.7 - 20.9)	27	6.5 (4.2 - 8.8)	96	19.4 (14.3 - 24.5)
, but not in the last 6 months	205	20.9 (4.4 - 37.5)	97	36.3 (32.1 - 40.4)	20	7.0 (3.6 - 10.3)	88	19.8 (14.3 - 25.3)
<b>did not seek HIV services due to fear of discrimination for being transgender<sup>a</sup></b>								
	720	67.5 (44.2 - 90.7)	107	44.4 (40.0 - 48.9)	268	84.9 (80.6 - 89.1)	345	72.6 (66.8 - 78.4)
, In the last 6 months	156	14.4 (10.8 - 18.1)	43	17.3 (14.1 - 20.5)	36	11.1 (7.3 - 14.8)	77	15.6 (11.1 - 20.1)
, but not in the last 6 months	166	18.0 (0.0 - 38.2)	101	38.3 (33.9 - 42.7)	13	4.1 (1.8 - 6.4)	52	11.8 (7.3 - 16.3)
<b>did not disclose to HIV service provider about being transgender<sup>a</sup></b>								
	722	66.9 (40.3 - 93.5)	102	40.8 (36.2 - 45.3)	273	86.9 (82.9 - 90.9)	347	72.5 (66.3 - 78.7)
, In the last 6 months	149	14.6 (8.1 - 21.0)	47	19.1 (15.5 - 22.7)	28	8.4 (5.2 - 11.5)	74	16.5 (11.4 - 21.6)
, but not in the last 6 months	169	18.6 (0.0 - 39.9)	102	40.1 (35.7 - 44.6)	15	4.7 (2.0 - 7.4)	52	11.0 (6.8 - 15.2)
<b>discriminated by HIV service provider because transgender<sup>a</sup></b>								
because I hid	439	46.7 (37.5 - 55.8)	130	55.6 (51.4 - 60.0)	138	45.8 (39.4 - 52.1)	171	39.3 (32.8 - 45.8)
even though they knew	462	40.3 (26.9 - 53.7)	69	26.4 (22.7 - 30.0)	155	46.3 (39.8 - 52.7)	238	47.8 (41.2 - 54.4)
, In the last 6 months	54	4.8 (3.0 - 6.6)	10	3.5 (2.3 - 4.7)	11	3.9 (1.5 - 6.3)	33	6.5 (3.4 - 9.6)
, but not in the last 6 months	86	8.2 (2.1 - 14.3)	42	14.5 (12.2 - 16.8)	12	4.1 (1.3 - 6.9)	32	6.4 (3.7 - 9.1)

Proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the respondent driven sampling package in R, using Gile's sequential sampling estimator.

<sup>a</sup>Non-responses and missing data were excluded from the analysis.

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval

## 7.11: Alcohol and Drug Use

Among transgender participants, alcohol consumption was widespread though patterns varied across locations. Overall, 38.5% reported never drinking alcohol, while 25.8% drank monthly or less, and 17.1% consumed alcohol two to three times per week. Frequent drinking (four or more times weekly) was relatively uncommon at 4.2%, with higher rates in Kilifi (7.6%) compared to Nairobi (2.8%).

Among those who drank, the majority (61.9%) reported consuming one or two drinks on a typical day, while 27.9% consumed three or four drinks, and 8.4% reported having five or six drinks per occasion. Binge drinking (six or more drinks in one sitting) was relatively infrequent, with 59.2% indicating they never did so, and only 1.9% reporting daily heavy drinking.

Difficulties in controlling drinking were reported by a minority, as 66.5% said they were never unable to stop once they started. Similarly, 64.1% reported never failing to meet expectations due to drinking, and 69.3% indicated they never needed a morning drink after heavy consumption. Feelings of remorse or guilt after drinking were uncommon, with nearly half (49.5%) reporting never feeling regret.

Injuries linked to alcohol use were infrequent, as 66.3% reported no such experiences, while 13.3% experienced injuries during the past year. Most participants (67.2%) had no personal or external concerns raised about their drinking.

Drug injection was rare within this group; only a small fraction reported injecting drugs, and among them, 77.5% had last injected more than three months prior to the survey. Overall, the data indicate low levels of hazardous drinking and drug use but notable variations across sites, with Nairobi reporting higher instances of heavy episodic drinking and related concerns.

Among transgender participants, patterns of alcohol use as assessed by the AUDIT tool indicated that most had low to moderate risk drinking behaviors. Overall, 57.8% were categorized as having low-risk drinking (Zone I), while 30.6% reported use in excess of low-risk levels (Zone II). A smaller proportion, 8.0%, engaged in harmful or hazardous drinking (Zone III), and 3.6% showed signs suggestive of alcohol dependence (Zone IV).

Across locations, the prevalence of low-risk drinking was highest in Kilifi (66.7%), followed by Kiambu (55.8%) and Kisumu (50.9%). Moderate-risk drinking was also notable, ranging from 26.9% in Kilifi to 34.5% in Kisumu. Harmful or dependent drinking behaviors were relatively uncommon, with less than 10% in any location meeting criteria for these zones.

These findings suggest that while the majority of transgender participants reported low or moderate levels of alcohol use, a small subset exhibited patterns of heavy or dependent drinking, particularly in Kisumu and Kiambu.

Table 7.11: Alcohol And Drug Use Among Transgender Persons By Location, BBS, Kenya, 2024

	Overall Estimate		Kilifi		Mombasa		Nairobi	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Frequency of alcoholic drinks</b>								
Never	382	38.5 (25.1 - 51.9)	88	35.3 (30.8 - 39.9)	164	51.4 (45.2 - 57.5)	130	28.5 (22.3 - 34.8)
Monthly or less	291	25.8 (9.1 - 42.5)	44	18.0 (14.5 - 21.4)	49	16.3 (11.3 - 21.3)	198	42.7 (36.3 - 49.2)
2-4 times a month	149	14.1 (9.4 - 18.9)	41	16.6 (13.6 - 19.7)	28	9.6 (6.1 - 13.0)	80	16.5 (11.9 - 21.1)
2-3 times a week	176	17.1 (9.3 - 24.9)	57	22.4 (18.9 - 25.9)	65	19.8 (15.3 - 24.3)	54	9.4 (6.1 - 12.8)
4 or more times a week	44	4.2 (1.4 - 7.0)	21	7.6 (5.8 - 9.4)	11	2.9 (1.4 - 4.5)	12	2.8 (0.7 - 4.9)
<b>Number of drinks containing alcohol on a typical day when you drink</b>								
1 or 2	404	61.9 (46.7 - 77.0)	75	46.4 (41.0 - 51.9)	96	65.7 (57.2 - 74.3)	233	72.6 (66.8 - 78.3)
3 or 4	182	27.9 (16.5 - 39.3)	58	36.6 (31.5 - 41.6)	49	30.6 (22.2 - 39.1)	75	17.1 (12.3 - 21.9)
5 or 6	58	8.4 (2.8 - 13.9)	24	13.4 (10.6 - 16.4)	8	3.6 (0.6 - 6.6)	26	8.7 (4.7 - 12.5)
7 to 9	4	0.4 (0.0 - 1.0)	2	1.3 (0.2 - 2.5)	0	0.0 (0.0 - 0.0)	2	0.4 (0.0 - 0.8)
10 or more	12	1.1 (0.0 - 2.4)	4	2.2 (1.0 - 3.5)	0	0.0 (0.0 - 0.0)	8	1.3 (0.4 - 2.2)
<b>Frequency six or more drinks on one occasion</b>								
Never	369	59.2 (35.8 - 82.6)	55	36.6 (30.9 - 42.3)	113	77.8 (70.0 - 85.6)	201	62.6 (55.3 - 69.8)
Less than monthly	101	16.0 (0.0 - 32.4)	57	33.2 (28.3 - 38.1)	12	6.8 (1.7 - 11.9)	32	8.7 (3.1 - 14.3)
Monthly	106	12.8 (3.8 - 21.8)	16	9.3 (6.5 - 12.1)	12	6.8 (2.4 - 11.2)	78	21.7 (16.1 - 27.3)
Weekly	72	9.7 (4.5 - 14.9)	26	15.6 (11.7 - 19.5)	14	7.5 (3.2 - 11.8)	32	7.0 (4.3 - 9.7)
Daily or almost daily	12	1.9 (0.0 - 4.7)	9	5.3 (3.2 - 7.3)	2	1.1 (0.1 - 2.0)	1	0.06 (0.04 - 0.09)
<b>Unable to stop drinking once started</b>								
Never	435	66.5 (51.2 - 81.9)	77	50.0 (44.6 - 55.3)	104	72.8 (65.6 - 80.0)	254	75.4 (69.2 - 81.5)
Less than monthly	88	14.3 (3.6 - 24.9)	42	25.3 (20.7 - 29.8)	18	10.2 (5.2 - 15.3)	28	7.8 (4.2 - 11.5)
Monthly	58	7.5 (5.1 - 9.8)	17	8.8 (6.7 - 10.9)	8	5.3 (1.6 - 9.0)	33	8.7 (5.7 - 11.6)
Weekly	51	7.3 (4.6 - 10.1)	19	11.3 (7.9 - 14.6)	13	6.3 (2.2 - 10.5)	19	5.9 (1.9 - 10.0)
Daily or almost daily	28	4.0 (1.8 - 6.1)	8	4.7 (2.7 - 6.6)	10	5.3 (1.9 - 8.7)	10	2.2 (0.07 - 4.4)
<b>Frequency failed to do what is expected because of drinking</b>								
Never	400	64.1 (51.1 - 77.1)	92	58.1 (53.0 - 63.1)	112	77.0 (70.5 - 83.5)	196	56.5 (49.2 - 63.7)
Less than monthly	111	15.9 (9.6 - 22.2)	37	22.1 (17.8 - 26.4)	20	10.5 (5.8 - 15.2)	54	16.2 (10.9 - 21.4)
Monthly	90	10.9 (1.0 - 20.8)	11	5.6 (4.1 - 7.1)	8	5.8 (1.7 - 9.9)	71	20.9 (15.7 - 26.1)
Weekly	50	7.0 (3.5 - 10.6)	18	11.3 (7.8 - 14.7)	12	6.2 (2.2 - 10.2)	20	4.6 (1.4 - 7.8)
Daily or almost daily	9	1.5 (0.3 - 2.8)	5	3.0 (1.7 - 4.4)	1	0.5 (0.0 - 1.1)	3	1.8 (0.0 - 3.8)
<b>Need a drink in the morning after heavy drinking</b>								
Never	447	69.3 (63.3 - 75.4)	102	63.5 (58.5 - 68.5)	108	74.7 (67.0 - 82.3)	237	68.3 (61.9 - 74.7)
Less than monthly	66	9.7 (7.7 - 11.7)	20	11.5 (8.4 - 14.6)	14	7.9 (3.5 - 12.3)	32	10.4 (5.7 - 15.2)
Monthly	57	7.8 (3.3 - 12.4)	8	5.1 (2.4 - 7.8)	9	5.6 (1.8 - 9.4)	40	12.3 (8.4 - 16.2)
Weekly	63	9.1 (6.5 - 11.7)	21	13.0 (9.3 - 16.6)	15	8.4 (3.8 - 13.0)	27	7.7 (4.0 - 11.3)
Daily or almost daily	27	3.6 (0.6 - 6.6)	12	6.9 (4.6 - 9.2)	7	3.5 (0.5 - 6.5)	8	1.3 (0.4 - 2.2)
<b>Remorse/Guilt after drinking</b>								
Never	313	49.5 (30.7 - 68.3)	54	33.8 (28.6 - 39.2)	96	67.0 (59.4 - 74.7)	163	46.9 (39.2 - 54.7)
Less than monthly	140	22.5 (4.2 - 40.8)	66	41.0 (35.4 - 46.5)	18	10.0 (5.7 - 14.2)	56	17.1 (11.4 - 22.7)
Monthly	124	15.1 (2.6 - 27.5)	19	11.3 (7.9 - 14.5)	12	6.2 (2.3 - 10.2)	93	27.3 (21.4 - 33.2)
Weekly	61	10.0 (4.5 - 15.4)	19	11.1 (7.9 - 14.2)	22	14.0 (7.6 - 20.5)	20	5.0 (2.0 - 8.1)
Daily or almost daily	22	3.4 (2.7 - 4.1)	5	2.9 (1.3 - 4.5)	5	2.7 (0.6 - 4.9)	12	3.7 (1.2 - 6.2)
<b>Unable to remember what happened the night before</b>								
Never	376	58.2 (53.7 - 62.8)	92	58.4 (53.2 - 63.5)	92	61.7 (53.3 - 70.2)	192	54.8 (47.7 - 62.0)
Less than monthly	112	17.4 (13.6 - 21.2)	37	21.7 (17.8 - 25.6)	27	17.3 (10.9 - 23.8)	48	14.7 (9.3 - 20.0)
Monthly	103	12.1 (0.0 - 24.9)	7	3.5 (2.6 - 4.5)	14	7.8 (2.7 - 13.0)	82	24.9 (18.9 - 30.8)
Weekly	57	9.6 (4.2 - 14.9)	20	12.2 (8.7 - 15.7)	19	12.3 (6.4 - 18.2)	18	4.5 (2.5 - 6.6)
Daily or almost daily	12	1.7 (0.0 - 3.4)	7	4.2 (2.4 - 6.0)	1	0.8 (0.0 - 2.0)	4	1.1 (0.0 - 2.8)
<b>Injuries due to drinking</b>								
No	376	66.3 (57.7 - 74.8)	92	69.8 (64.7 - 75.0)	92	71.0 (62.4 - 79.5)	192	58.1 (50.9 - 65.3)
Yes, but not in the past year	112	19.9 (14.4 - 25.5)	37	25.9 (21.3 - 30.5)	27	20.0 (12.9 - 27.1)	48	15.6 (10.1 - 21.0)
Yes, during the past year	103	13.3 (0.1 - 26.4)	7	4.2 (3.3 - 5.2)	14	9.0 (3.1 - 14.9)	82	26.4 (20.3 - 32.3)
<b>Concerns about your own drinking</b>								
No	423	67.2 (62.0 - 72.4)	111	70.4 (66.1 - 74.6)	96	69.4 (61.9 - 77.0)	216	62.5 (55.8 - 69.2)
Yes, but not in the past year	84	13.2 (1.4 - 25.0)	13	7.1 (4.7 - 9.4)	46	25.2 (18.3 - 32.1)	25	7.4 (3.8 - 10.9)
Yes, during the past year	153	19.4 (4.9 - 33.8)	39	22.5 (18.7 - 26.5)	11	5.4 (1.7 - 9.1)	103	30.1 (23.8 - 36.4)
<b>Time last inject drugs</b>								
Less than a month ago	8	16.3 (0.0 - 36.0)	6	33.2 (17.9 - 47.9)	0	0.0 (0.0 - 0.0)	2	15.5 (0.0 - 34.7)
1-3 months ago	4	8.1 (0.0 - 18.5)	3	17.2 (5.7 - 28.2)	0	0.0 (0.0 - 0.0)	1	9.4 (0.0 - 26.3)
More than 3 months	22	77.5 (50.8 - 100.0)	10	49.6 (34.8 - 65.5)	4	100.0 (83.2 - 100.0)	8	75.0 (50.7 - 99.7)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent - Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sum of sample numerator is higher than the sample denominator as multiple responses could be selected

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; ART, antiretroviral therapy; PEP, post-exposure prophylaxis; PMTCT, prevention of mother to child transmission of HIV; PrEP, Pre-exposure prophylaxis

Table 7.11B: Alcohol Assessment Score Among Transgender Persons By Location, BBS, Kenya, 2024

	Overall Estimate (N=5242)		Kiambu (N=705)		Kilifi (N=560)		Kisumu (N=826)	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>AUDIT score</b>								
Low	317	57.8 (48.3 - 67.3)	72	55.8 (49.6 - 62.0)	81	66.7 (58.1 - 75.1)	164	50.9 (43.3 - 58.5)
Medium	189	30.6 (25.7 - 35.5)	42	29.7 (23.9 - 35.4)	40	26.9 (19.4 - 34.5)	107	34.5 (27.2 - 41.7)
High	85	11.8 (6.2 - 17.4)	22	14.5 (11.0 - 18.1)	12	6.4 (2.2 - 10.6)	51	14.6 (10.2 - 19.0)
<b>Zones based on AUDIT scores</b>								
Zone I - low risk drinking (score 0 -7)	317	57.8 (48.3 - 67.3)	72	55.8 (49.6 - 62.0)	81	66.7 (58.1 - 75.1)	164	50.9 (43.3 - 58.5)
Zone II - use in excess of low -risk (score 8-14)	189	30.6 (25.7 - 35.5)	42	29.7 (23.9 - 35.4)	40	26.9 (19.4 - 34.5)	107	34.5 (27.2 - 41.7)
Zone III - harmful & hazardous drinking (score 15-19)	54	8.0 (5.1 - 11.0)	14	9.9 (6.4 - 13.3)	9	5.4 (1.7 - 9.2)	31	9.4 (6.2 - 12.6)
Zone IV - suggested dependence (score 20-35)	31	3.6 (0.8 - 6.4)	8	4.7 (3.6 - 5.7)	3	1.0 (0.0 - 2.2)	20	5.3 (1.8 - 8.7)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent - Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sum of sample numerator is higher than the sample denominator as multiple responses could be selected

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; ART, antiretroviral therapy; PEP, post-exposure prophylaxis; PMTCT; prevention of mother to child transmission of HIV; PrEP, Pre-exposure prophylaxis

## 7.12: Mental Health

Among transgender participants, symptoms of depression were commonly reported across locations. Overall, 58.5% experienced little interest or pleasure in doing things on several days, while 30.7% reported no such loss of interest. Feelings of being down, depressed, or hopeless were also prevalent, with 61.4% experiencing them on several days and 23.5% reporting not at all.

Sleep disturbances were frequent, as 45.2% had trouble falling or staying asleep on several days and 9.5% nearly every day. Fatigue was also common, with 56.6% reporting feeling tired or having little energy on several days, and 5.5% nearly every day. Similarly, 42.1% experienced poor appetite or overeating on several days, while 10.9% faced this more than half the days.

In terms of self-perception, 45.9% felt bad about themselves on several days, and 5.0% nearly every day. Difficulty concentrating was reported by 35.0% on several days and 6.1% on more than half the days.

Thoughts of self-harm or wishing to be dead were reported by 31.9% on several days, and 2.5% nearly every day, though 62.5% reported not experiencing these thoughts.

Across counties, Nairobi showed slightly higher reports of severe symptoms (e.g., 15.1% feeling depressed nearly every day and 9.3% losing pleasure nearly every day), whereas Kilifi and Mombasa had higher proportions of participants experiencing mild to moderate symptoms. Overall, the findings suggest a high prevalence of depressive symptoms among transgender participants, with variations in severity across locations.

Among transgender participants, depressive symptoms assessed using the PHQ-9 scale revealed that most respondents experienced mild to moderate levels of depression. Overall, 49.7% reported mild depression, 31.0% had none to minimal symptoms, 13.6% experienced moderate depression, while smaller proportions had moderately severe (3.9%) or severe depression (2.3%).

Across counties, Mombasa had the highest proportion of participants with mild depression (58.9%), while Nairobi recorded the highest share of severe symptoms (6.0%) and moderately severe symptoms (7.7%). In contrast, Kilifi had a larger proportion of participants within the moderate range (18.8%).

Overall, these findings indicate that nearly one in two transgender participants reported mild depressive symptoms, with relatively fewer experiencing severe depression. The burden of depressive symptoms varied by county, with Nairobi showing comparatively higher levels of severe depression than Kilifi or Mombasa.

Table 7.12: Depression Among Transgender Persons By Location, BBS, Kenya, 2024

	Overall Estimate		Kilifi		Mombasa		Nairobi	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>Little interest and/or pleasure in doing things</b>								
Not at all	338	30.7 (23.0 - 38.3)	64	24.8 (21.2 - 28.4)	93	28.4 (23.4 - 33.5)	181	38.0 (31.3 - 44.6)
Several days	575	58.5 (43.9 - 73.1)	162	64.7 (60.4 - 68.9)	209	67.1 (61.5 - 72.7)	204	43.8 (37.3 - 50.4)
More than half the days	74	7.0 (3.3 - 10.6)	21	8.7 (6.4 - 11.0)	10	3.5 (1.0 - 5.9)	43	8.9 (5.1 - 12.8)
Nearly everyday	55	4.1 (0.0 - 9.2)	4	1.9 (0.2 - 3.5)	5	1.1 (0.1 - 2.0)	46	9.3 (5.6 - 12.9)
<b>Felt down, depressed, and/or hopeless</b>								
Not at all	262	23.5 (18.1 - 29.0)	46	17.5 (14.2 - 20.8)	84	25.0 (20.1 - 30.0)	132	27.1 (21.1 - 33.2)
Several days	604	61.4 (49.2 - 73.6)	166	68.2 (64.1 - 72.3)	203	66.8 (61.6 - 71.9)	235	49.1 (42.5 - 55.9)
More than half the days	96	9.2 (5.9 - 12.4)	35	12.9 (10.5 - 15.3)	24	6.9 (4.3 - 9.4)	37	8.6 (4.4 - 12.8)
Nearly everyday	80	6.1 (0.0 - 15.0)	4	1.4 (0.6 - 2.3)	6	1.3 (0.3 - 2.3)	70	15.1 (10.1 - 20.2)
<b>Trouble falling asleep</b>								
Not at all	370	36.0 (32.5 - 39.5)	98	38.0 (34.0 - 42.0)	116	37.9 (32.1 - 43.7)	156	33.1 (26.6 - 39.5)
Several days	467	45.2 (40.0 - 50.5)	114	47.0 (42.6 - 51.4)	157	48.7 (42.9 - 54.4)	196	40.4 (33.9 - 47.0)
More than half the days	92	8.2 (7.3 - 9.1)	28	10.9 (8.2 - 13.6)	24	7.9 (4.7 - 11.1)	40	8.0 (4.5 - 11.5)
Nearly everyday	113	9.5 (0.5 - 18.4)	11	4.1 (2.4 - 5.7)	20	5.6 (3.2 - 8.0)	82	18.5 (13.0 - 24.0)
<b>Feeling tired or having little energy</b>								
Not at all	343	32.4 (28.9 - 35.9)	74	27.9 (24.3 - 31.6)	97	32.5 (27.1 - 38.0)	172	34.9 (28.1 - 41.7)
Several days	561	56.6 (46.7 - 66.5)	150	61.9 (57.8 - 66.1)	199	61.5 (55.7 - 67.3)	212	46.8 (40.1 - 53.5)
More than half the days	65	5.7 (3.0 - 8.4)	24	9.1 (6.8 - 11.3)	14	4.0 (1.9 - 6.1)	27	4.8 (1.9 - 7.7)
Nearly everyday	73	5.5 (0.0 - 13.3)	3	1.1 (0.3 - 1.8)	7	1.9 (0.4 - 3.5)	63	13.5 (8.6 - 18.3)
<b>Poor appetite or overeating</b>								
Not at all	425	40.9 (34.1 - 47.7)	124	47.4 (43.1 - 51.8)	110	35.3 (29.3 - 41.2)	191	40.5 (34.1 - 46.9)
Several days	437	42.1 (30.7 - 53.6)	79	33.8 (29.7 - 37.9)	172	53.3 (47.2 - 59.4)	186	38.9 (32.4 - 45.4)
More than half the days	102	10.9 (7.3 - 14.5)	39	15.1 (12.1 - 18.2)	25	8.6 (5.0 - 12.2)	38	9.8 (4.9 - 14.8)
Nearly everyday	78	5.8 (0.8 - 10.8)	9	3.6 (1.9 - 5.3)	10	2.9 (1.2 - 4.5)	59	10.8 (7.1 - 14.4)
<b>Feeling bad about yourself</b>								
Not at all	473	42.1 (25.4 - 58.9)	69	26.3 (22.6 - 30.1)	179	56.0 (49.8 - 62.2)	225	43.6 (37.0 - 50.2)
Several days	434	45.9 (33.0 - 58.7)	143	59.3 (55.2 - 63.5)	121	39.4 (33.2 - 45.6)	170	39.4 (32.9 - 46.0)
More than half the days	68	6.8 (0.8 - 12.8)	36	13.3 (10.9 - 15.6)	16	4.5 (2.5 - 6.5)	16	3.2 (0.5 - 5.9)
Nearly everyday	67	5.0 (0.0 - 13.6)	3	1.1 (0.3 - 1.8)	1	0.2 (0.0 - 0.5)	63	13.8 (9.1 - 18.4)
<b>Trouble concentrating on things</b>								
Not at all	568	54.9 (50.4 - 59.5)	126	48.9 (44.6 - 53.1)	169	56.5 (50.5 - 62.5)	273	57.4 (50.6 - 64.2)
Several days	361	35.0 (27.6 - 42.4)	96	38.9 (34.6 - 43.2)	130	38.7 (32.9 - 44.6)	135	27.8 (21.8 - 33.7)
More than half the days	57	6.1 (1.5 - 10.8)	26	11.3 (8.5 - 14.1)	12	3.5 (1.7 - 5.2)	19	4.2 (1.1 - 7.4)
Nearly everyday	56	4.3 (0.0 - 10.4)	3	1.0 (0.5 - 1.4)	6	1.3 (0.2 - 2.3)	47	10.6 (6.1 - 15.1)
<b>Moving or speaking so slowly that other people could have noticed</b>								
Not at all	569	52.1 (37.0 - 67.2)	124	46.1 (41.9 - 50.3)	139	42.7 (37.2 - 48.2)	306	67.2 (61.3 - 73.0)
Several days	386	39.4 (23.1 - 55.7)	108	45.3 (40.8 - 49.9)	154	49.7 (44.2 - 55.2)	124	23.1 (18.0 - 28.2)
More than half the days	55	5.8 (3.7 - 7.9)	16	7.3 (4.9 - 9.7)	21	6.8 (3.8 - 9.7)	18	4.0 (1.2 - 6.8)
Nearly everyday	32	2.7 (0.0 - 5.7)	3	1.3 (0.4 - 2.1)	3	0.8 (0.0 - 1.8)	26	5.7 (2.5 - 8.9)
<b>Thoughts that you would be better off dead or of hurting yourself</b>								
Not at all	647	62.5 (51.3 - 73.6)	126	51.0 (46.6 - 55.5)	212	70.6 (65.3 - 75.8)	309	65.0 (59.1 - 70.9)
Several days	332	31.9 (21.9 - 41.9)	108	42.4 (38.2 - 46.7)	97	26.9 (21.7 - 32.0)	127	26.9 (21.2 - 32.5)
More than half the days	34	3.0 (1.5 - 4.6)	14	5.4 (3.5 - 7.2)	7	2.4 (0.7 - 4.1)	13	2.3 (0.4 - 4.1)
Nearly everyday	29	2.5 (0.0 - 5.9)	3	1.2 (0.4 - 1.9)	1	0.1 (0.0 - 0.3)	25	5.9 (2.3 - 9.4)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent -Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sum of sample numerator is higher than the sample denominator as multiple responses could be selected

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; ART, antiretroviral therapy; PEP, post-exposure prophylaxis; PMTCT, prevention of mother to child transmission of HIV; PrEP, Pre-exposure prophylaxis

Table 7.12B: Depression Scores Among Transgender Persons By Location, BBS, Kenya, 2024

	Overall Estimate		Kilifi		Mombasa		Nairobi	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
<b>PHQ9 score</b>								
None to Minimal	340	31.0 (27.1 - 35.0)	69	26.3 (22.5 - 30.1)	100	31.4 (25.7 - 37.2)	171	33.9 (27.3 - 40.4)
Mild	478	49.7 (37.7 - 61.7)	127	51.7 (47.1 - 56.3)	182	58.9 (53.2 - 64.6)	169	38.4 (32.0 - 44.8)
Moderate	148	13.6 (7.6 - 19.6)	47	18.8 (15.5 - 22.2)	29	8.2 (5.4 - 11.1)	72	14.1 (9.7 - 18.5)
Moderately Severe	45	3.9 (0.1 - 7.7)	6	2.4 (1.0 - 3.8)	6	1.4 (0.3 - 2.6)	33	7.7 (3.9 - 11.5)
Severe	31	2.3 (0.0 - 5.9)	2	0.8 (0.009 - 1.5)	0	0.0 (0.0 - 0.0)	29	6.0 (2.7 - 9.2)

All proportions and confidence intervals are weighted population estimates. Weights were generated based on personal network size using the Respondent -Driven Sampling package in R, applying Gile's Sequential Sampling estimator.

<sup>a</sup> Non-responses and missing data were excluded from the analysis.

<sup>b</sup> Sum of sample numerator is higher than the sample denominator as multiple responses could be selected

Abbreviations: BBS, biobehavioral survey; N, sample denominator; n, sample numerator; CI, confidence interval; ART, antiretroviral therapy; PEP, post-exposure prophylaxis; PMTCT, prevention of mother to child transmission of HIV; PrEP, Pre-exposure prophylaxis

# Chapter 8. Model-based Population Size Estimates

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## Introduction

The IBBS applied two complementary size-estimation methods to generate county-level and national population size estimates for key populations (KPs): Service Multiplier and Successive Sampling Population Size Estimation (SS-PSE). These methods were later combined using an anchored Bayesian multiplier to produce final consensus estimates.:

## Methodology

### Service Multiplier

Participants were asked whether they had visited a Drop-In Centre (DICE) between 1 January and 31 December 2023 to receive any service. For the same period, DICEs provided deduplicated counts of individuals who had received services.

The population size estimates were then computed as:

$$PSE_i = N_i / p_i$$

Where:

- ▶  $PSE_i$  is the population size estimate from DICE<sup>i</sup>
- ▶  $N_i$  is the deduplicated counts of individuals who had sort service(s) from the DICE<sup>i</sup> during the same period.
- ▶  $p_i$  is the proportion of individuals in the survey who sort service(s) from DICE<sup>i</sup>

County AIDS and STI activity coordinators (CASCOs) from respective survey counties were invited to review population size estimates by the respective DICEs. In cases where the number of participants from a DICE was very low or the counts were not reliable, the estimates were excluded. These resulted in between 1-9 estimates per typology per county which were subsequently used as estimates in the anchored multiplier.

### Successive Sampling Population Size Estimation (SS-PSE)

SS-PSE uses information from respondent-driven sampling (RDS) to estimate the size of hidden populations by modeling inclusion probabilities. The IBBS used imputed visibility SS-PSE, a Bayesian approach that accounts for differences in individuals' likelihood of being sampled.

Key steps included:

- ▶ Conducting multiple RDS recruitment waves per typology and county.
- ▶ Estimating inclusion probabilities for each wave based on recruitment chains and network structures.
- ▶ Imputing visibility to adjust for participants less likely to be sampled due to lower social connectedness, stigma, or mobility.
- ▶ Deriving population size estimates using the posterior distribution.

Priors for the SS-PSE model were drawn from:

- NASCOP (2021): Key Population Size Estimates II Consensus
- NASCOP (2020): Preliminary KENPHIA 2018 Report

Final SS-PSE estimates were presented using the posterior mean and 95% credible intervals.

## Generation of Final Population Size Estimates

IBBS followed a two-step process to combine and finalize estimates.

### Step 1: Anchored Multiplier Method

The anchored multiplier reconciled the service multiplier and SS-PSE estimates using a Bayesian framework.

- The method integrated the prior estimate (NASCOP KPSE II for all typologies except TG, which used KPSE I) with the two multiplier-derived estimates.
- This approach generated a single consensus estimate and credible interval, accounting for uncertainty and methodological discrepancies.

### Step 2 (Planned): National Consensus Review

A formal consensus process brought together CASCOs, KP technical experts, KP community representatives, stakeholders, and study investigators to review the anchored estimates.

This review compared the anchored estimates with:

- Routine program data (e.g., DICE utilization, outreach data)
- Historical size estimates
- Local contextual information and epidemiological trends

The consensus group validated the anchored estimates based on supporting evidence following multiple rounds of meeting.

## Results

### FSW

Nairobi has the largest estimated FSW population, with a consensus estimate of 46,507, substantially higher than IBBS model-based medians, highlighting the concentration of sex work in major urban centers. Mombasa and Nakuru also report large FSW populations, with consensus estimates of 10,451 and 23,835, respectively, reflecting their roles as major transport, trade, and coastal economic hubs. Counties such as Kilifi, Kiambu, Kajiado, Kisii, and Machakos show moderate FSW population sizes, with consensus values ranging from 6,060 to 10,171, indicating notable but less dense sex work networks. In several counties (e.g., Nairobi, Nakuru, Kisii, Machakos), the consensus estimates exceed the IBBS median and upper bounds, suggesting broader geographic reach and potentially higher mobility than captured by respondent-driven sampling alone.

The national consensus estimate of 285,505 reflects the total estimated key population size for the entire country, not just the nine surveyed counties, indicating a significantly larger FSW footprint beyond the BBS priority regions.

### MSM

Nairobi has the largest MSM population, with a consensus estimate of 17,521, aligning closely with the IBBS high estimate and reinforcing Nairobi as the country's principal MSM hub. Kisumu, Kilifi, and Kiambu also show substantial MSM populations, with consensus values between 5,205 and 7,443, indicating strong MSM networks in both urban and coastal counties. Mombasa's MSM population (6,291 consensus) is more than double the IBBS median estimate, suggesting broader social and sexual networks not fully captured through IBBS sampling. Smaller but notable MSM populations are observed in Machakos (3,295) and Nakuru (4,268), consistent with emerging KP hotspots in peri-urban and transport-corridor locations.

The national MSM estimate (164,722) indicates a sizable population countrywide, with the nine BBS counties accounting for a substantial proportion of the national burden

### PWID

Nairobi has the largest PWID population, with a consensus estimate of 11,587, which is more than double the IBBS median, highlighting Nairobi as the central hub of injection-drug use. Kilifi and Mombasa together account for substantial PWID populations, at 5,471 and 3,214, reflecting established heroin-use networks along the coastal drug corridor. Kiambu shows a smaller but stable PWID population (1,452 consensus), consistent with spillover from neighboring Nairobi. Across counties, consensus estimates often exceed IBBS medians, indicating broader hidden PWID networks and possible under-capture through RDS sampling.

The national PWID estimate of 30,641 highlights a concentrated but critical population with major prevention and harm-reduction implications.

## Transgender Persons

Nairobi hosts the largest TG population, with a consensus estimate of 2,183, consistent with the IBBS median and reflecting greater visibility and concentration of TG networks in the capital. Mombasa has a notable TG population (1,524 consensus), aligning with the IBBS median and indicating an established coastal TG community. Kilifi shows a smaller but measurable TG population, with a consensus estimate of 351, falling within IBBS model-based bounds. Across counties, consensus values largely mirror IBBS medians, suggesting TG size estimates are relatively stable across estimation methods.

The national TG estimate of 7,521 indicates a comparatively smaller but highly vulnerable population requiring tailored, rights-affirming programming.

Table 8.1: Population Size Estimates By Location and Typology, BBS, Kenya, 2024

Typology	County	IBBS			Consensus
		Low	Median	High	
FSW	Kilifi	6,133	7,891	9,868	6,133
	Mombasa	6,471	8,386	10,451	10,451
	Nairobi	30,058	36,679	44,273	46,507
	Kiambu	5,138	6,192	7,327	7,327
	Kisumu	4,672	5,472	6,312	6,312
	Nakuru	12,302	14,589	17,098	23,835
	Kajiado	6,889	8,183	9,568	9,568
	Kisii	7,538	8,456	9,451	10,171
	Machakos	4,666	5,055	5,469	6,060
	<b>National</b>				<b>285,505</b>
MSM	Kilifi	4,841	5,378	5,954	5,954
	Mombasa	2,662	2,906	3,156	6,291
	Nairobi	13,043	15,215	17,521	17,521
	Nakuru	1,606	2,215	2,938	4,268
	Kiambu	2,053	2,583	3,181	5,205
	Kisumu	2,928	3,841	4,849	7,443
	Machakos	2,554	2,842	3,149	3,295
	<b>National</b>				<b>164,722</b>
PWID	Kilifi	6,133	4,750	9,868	5,471
	Mombasa	2,230	2,811	3,451	3,214
	Nairobi	4,728	5,471	6,252	11,587
	Kiambu	1,081	1,258	1,452	1,452
	<b>National</b>				<b>30,641</b>
TG	Nairobi	1,700	2,183	2,719	2,183
	Mombasa	1,356	1,524	1,708	1,524
	Kilifi	257	351	460	351
	<b>National</b>				<b>7,521</b>

# Chapter 9. Discussion

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## Overview

The 2024 Kenya Bio-Behavioral Survey (BBS) provides an updated, comprehensive understanding of HIV burden, behaviors, service access, and structural vulnerabilities among key populations (FSW, MSM, PWID, and TG). In addition to bio-behavioral outcomes, the inclusion of robust model-based Population Size Estimates (PSE) strengthens the interpretation of survey findings and informs program planning. Overall, results show continued progress in HIV testing, ART coverage, and viral suppression, but persistent behavioral, structural, and service-delivery gaps—combined with substantial and geographically variable population sizes—continue to shape the trajectory of the HIV epidemic.

## HIV Burden and Epidemiological Trends

HIV remains highly concentrated among key populations, with prevalence highest among FSW (26.8%), TG persons (22.5%), and MSM (19.9%), followed by PWID (8.8%). These elevated rates, paired with sizeable KP populations in major counties, underscore their central role in Kenya's HIV epidemic.

Population size estimates indicate that Nairobi consistently hosts the largest key-population concentrations, including approximately 46,507 FSW, 17,521 MSM, 11,587 PWID, and 2,183 TG persons. Coastal counties, particularly Mombasa and Kilifi, also have substantial KP populations, with 10,451 FSW, 6,291 MSM, 3,214 PWID, and 1,524 TG persons in Mombasa, and similarly large clusters in Kilifi.

These PSE findings reinforce the epidemiological data: counties with the highest KP populations also show the highest HIV prevalence and transmission potential. Moreover, the distribution of PWID—particularly in Nairobi, Kilifi, and Mombasa, mirrors known drug-trafficking routes and harm-reduction service needs. The presence of sizeable TG persons in Nairobi and Mombasa aligns with higher HIV prevalence and underscores unmet needs in gender-affirming and stigma-free services.

Overall, the magnitude and geographic concentration of KP communities highlight the importance of urban, peri-urban, and coastal hotspots as priority areas for resource allocation and targeted program interventions.

## Progress Toward Epidemic Control

Kenya has made notable progress toward the UNAIDS 95-95-95 targets across all key populations. Awareness of HIV status exceeds 87%, ART coverage surpasses 91%, and viral

suppression is high (83–94% at VL <1000 copies/mL). The scale of these gains is particularly meaningful given the large KP populations requiring continuous engagement. However, viral suppression remains suboptimal among younger MSM, PWID under 30, and KP populations in coastal counties, where service continuity and adherence challenges are more pronounced. The size estimates emphasize the scale of these gaps, for example, suppressing viral load in Nairobi’s 46,507 FSW or 17,521 MSM demands sustained investment in differentiated service delivery.

## Behavioral Risk and Prevention Uptake

Despite near-universal knowledge of HIV prevention, behavioral data reveal persistent gaps between knowledge and practice. Condom use, especially with main partners, remains inconsistent among all typologies, including those with high HIV burden and large population sizes such as Nairobi’s MSM and Mombasa’s TG communities.

PrEP awareness is high ( $\geq 85\%$ ) but uptake is moderate, and persistence is limited by low perceived risk, pill burden, and stigma. PEP use remains low even in counties with large KP populations, reflecting service gaps in both availability and awareness.

These findings indicate a need for scaled prevention programming proportionate to population size, particularly in counties with the largest KP communities.

## Harm Reduction and Drug Use

PWIDs continue to face high injection - and sexual-risk burdens, with 28% reporting needle-sharing. This is especially concerning given large PWID populations in Nairobi (11,587), Kilifi (5,471), and Mombasa (3,214). Despite progress in sterile-needle access and opioid agonist therapy (OAT), service coverage is insufficient when viewed against population size, and overdose risk remains high.

Similarly, substantial alcohol and drug use among MSM, FSW, and TG persons, as reflected in AUDIT scores—has significant implications for adherence, sexual risk, and mental health.

## Mental Health, Substance Use, and Violence

Mental-health distress is widespread across all populations, with depressive symptoms reported by 40–70% of respondents. Larger KP populations in urban counties mean that thousands of individuals experience untreated mental-health needs.

Experiences of stigma, discrimination, harassment, and violence, including forced sex, remain common across all groups. TG persons, FSW, and PWID respondents report especially high levels of social exclusion and discrimination, and in counties like Mombasa and Nairobi, where population sizes are highest, the absolute burden of such experiences is substantial. These structural drivers undermine prevention and treatment outcomes and deter healthcare engagement.

## Service Access and Integration

Service uptake has expanded due to peer educators, drop-in centers (DICEs), and mobile outreach. However, integration remains limited across reproductive health, STI management, hepatitis care, mental-health services, and harm-reduction programs.

Population size estimates amplify this challenge: counties with high KP populations require far greater service coverage than currently available. Many DICEs face stock-outs and inadequate staffing relative to local KP population size, for example, Nairobi's KP service network must support tens of thousands of individuals.

Young, mobile, and highly stigmatized subgroups, including TG persons and young MSM, remain the least reached by integrated programs.

## Programmatic Implications

These findings support a shift toward population-proportionate, integrated, person-centered care. Key priorities include:

- ▶ Scaling programs to match KP population sizes, especially in major hotspots (Nairobi, Mombasa, Kilifi).
- ▶ Integrating HIV, STI, viral hepatitis, mental-health, reproductive-health, and harm-reduction services.
- ▶ Strengthening stigma-mitigation and rights-based approaches across health systems.
- ▶ Expanding age- and geography-specific interventions for young MSM, young PWID, and TG persons.
- ▶ Enhancing community-led, peer-based service models suited to large and diverse KP populations.

## Chapter 10. Conclusions and Recommendations

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The 2024 Kenya Bio-Behavioral Survey (BBS) among Female Sex Workers (FSW), Men Who Have Sex with Men (MSM), People Who Inject Drugs (PWID), and Transgender (TG) persons demonstrates substantial progress toward national and global HIV control targets.

Across typologies, awareness of HIV status exceeds 87%, ART coverage surpasses 91%, and viral suppression ranges between 83–95%, signaling Kenya’s strong progress toward the UNAIDS 95-95-95 goals.

However, the survey also highlights persistent and cross-cutting vulnerabilities that continue to drive HIV transmission and impede equitable health outcomes.

HIV remains highly concentrated among key populations, with prevalence far exceeding national levels—26.8% among FSW, 22.5% among TG persons, 19.9% among MSM, and 8.8% among PWID.

Age, education, and geography influence these outcomes: younger individuals and those with lower educational attainment experience higher risk, and coastal and urban areas (notably Mombasa and Nairobi) continue to report elevated prevalence and lower viral suppression.

Behavioral risk factors, including inconsistent condom use, transactional and overlapping sexual partnerships, and low adherence to PrEP and PEP, remain common. Although awareness of HIV prevention is nearly universal, translation into sustained protective behavior is incomplete.

Among MSM, TG persons, and FSW, condom use with regular partners remains below 60%, reflecting ongoing challenges in partner negotiation, stigma, and gender-based power dynamics. Among PWID, needle sharing persists in 28%, demonstrating the need to strengthen harm reduction and OAT access.

Mental health, substance use, stigma, and violence continue to undermine adherence and care engagement across populations. Nearly half of participants reported depressive symptoms, and alcohol or drug use was strongly linked to poor ART outcomes. Physical and sexual violence, discrimination, and fear of exposure remain widespread, particularly among FSW, PWID, and gender-diverse individuals, contributing to low service utilization, trauma, and social exclusion.

Despite the strong reach of drop-in centers (DICEs) and peer educators, service integration remains limited. Critical health needs such as mental health care, reproductive health, STI and hepatitis testing, TB diagnostics, and psychosocial support are inconsistently available. Most facilities lack adequate staff training to provide inclusive, gender-affirming, trauma-informed care, leaving younger and marginalized KPs underserved.

Overall, while Kenya has made significant strides toward epidemic control, the findings underscore that sustained progress depends on addressing behavioral, social, and structural barriers that disproportionately affect key populations.

## Recommendations:

### 1. Strengthen Integrated, Person-Centered KP Services

- ▶ Expand integrated HIV, STI, hepatitis, reproductive health, and mental health services within DICEs, public clinics, and mobile outreach platforms.
- ▶ Introduce routine mental health screening and substance-use counseling as part of HIV care for all KPs.
- ▶ Ensure access to gender-affirming, inclusive health services for MSM and TG individuals, including hormone-related care, psychosocial support, and respectful provider engagement.
- ▶ Develop youth-friendly differentiated service models that address mobility, disclosure concerns, and adherence challenges.

### 2. Scale Up Prevention and Harm Reduction

- ▶ Increase consistent availability and access to condoms, lubricants, clean needles, and syringes across all counties.
- ▶ Strengthen PrEP and PEP coverage through simplified initiation, refill, and adherence support, especially among MSM, TG persons, and FSW.
- ▶ Expand opioid agonist therapy (OAT), naloxone distribution, and overdose response training for PWID and community health workers.
- ▶ Integrate hepatitis B vaccination and hepatitis C screening into all harm-reduction and HIV testing sites.

### 3. Address Stigma, Violence, and Criminalization

- ▶ Implement comprehensive anti-stigma training for healthcare providers, police, and community leaders to reduce discrimination and abuse.
- ▶ Strengthen gender-based violence (GBV) response services within HIV and DICE programs, including post-violence care and PEP availability.
- ▶ Support community paralegal programs and link survivors of violence to legal and psychosocial support.
- ▶ Advocate for policy reforms and human rights protections that decriminalize key population behaviors and promote equitable access to care.
- ▶ Expand community-based viral suppression initiatives, ensuring active linkage between outreach teams and clinical services.

#### **4. Improve Program Retention and Viral Suppression**

- ▶ Scale up differentiated ART delivery models—including multi-month dispensing, peer-refill models, and community adherence groups—for mobile and younger clients.
- ▶ Strengthen viral load monitoring and feedback systems to rapidly identify treatment failure and re-engage clients.
- ▶ Integrate psychosocial adherence support into ART programs, with a focus on younger MSM, TG persons, and PWID in coastal regions.

#### **5. Enhance Data Systems, Surveillance, and Community Engagement**

- ▶ Maintain routine BBS and integrated bio-behavioral surveillance every 3–5 years to track progress and emerging risks.
- ▶ Support community-led monitoring (CLM) to ensure real-time feedback on service quality and gaps.
- ▶ Strengthen national KP program databases to enable disaggregated analysis by age, gender identity, and risk behavior, ensuring that interventions are responsive to population-specific needs.
- ▶ Invest in peer-led research, monitoring, and advocacy, ensuring that KP voices—including those of TG persons and young participants—are central to program design and accountability.

#### **6. Prioritize Structural and Psychosocial Determinants**

- ▶ Address social protection gaps, including housing, vocational training, and economic empowerment initiatives for vulnerable KPs.
- ▶ Scale up trauma-informed counseling, mental health referral systems, and psychosocial support networks, particularly for survivors of violence.
- ▶ Integrate mental health and substance-use treatment into DICE and harm-reduction programs to support long-term adherence and retention in care.

## **Conclusion**

Kenya has made significant strides in its HIV response among key populations, achieving high levels of diagnosis and treatment coverage. However, the 2024 BBS reveals that progress is uneven and fragile. Sustained epidemic control will depend not only on maintaining biomedical gains but also on decisively addressing the intersecting structural, behavioral, and mental health challenges that fuel the epidemic. By adopting an integrated, person-centered, rights-affirming approach and by scaling interventions in proportion to community size and need, Kenya can ensure that no key population is left behind in the journey toward ending AIDS as a public health threat.

## Chapter 11: References

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