


# BMJ Open Disparities in HIV/STI burden and care coverage among men and transgender persons who have sex with men in Nairobi, Kenya: a cross-sectional study

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## ABSTRACT

**Objectives** The study aimed to estimate the prevalence of, and associations, with HIV and metrics of HIV care engagement in a representative population of gay, bisexual and other men who have sex with men (GBMSM) and transgender persons (TP) who have sex with men (GBMSM/TP)

**Setting** Urban districts of Nairobi, Kenya.

**Design** Cross-sectional.

**Participants** 608 eligible participants were identified through respondent-driven sampling over 19 waves of recruitment arising from ten seeds between May and December 2017. Inclusion criteria were: age >18 years; Nairobi residence; male sex assignment at birth or current identification as male, and recent consensual sex with male partners. Exclusion criteria were: missing or invalid recruitment coupon; repeat registration; intoxication at study visit.

**Primary and secondary outcome measures** HIV status measured using Determine Alere HIV 1/2 and First Response HIV 1–2.0 and GeneXpert HIV-1 Qual. Self-reported metrics of HIV status awareness, antiretroviral use and objective quantification of viral suppression using GeneXpert HIV-1 VL.

**Results** 26.4% (286/618) were HIV positive of whom 76.6% were status aware, 65.3% were on antiretroviral therapy (ART), and 47.4% were virally suppressed (<50 copies/mL). Participants 18–22 years were less likely to be status aware, be receiving ART or to have achieved viral suppression. Mean log viral load was 3.14 log higher in 18–22 years compared with older participants. Bacterial sexually transmitted infections were common at both urethral and rectal sites and most infections were asymptomatic by self-report (rectal 82.2%, urethral 82.3%).

**Conclusions** Engagement in the HIV diagnosis and care cascade among GBMSM/TP in Nairobi is markedly better than in most sub-Saharan African countries, yet falls short of achievements for the general population in Kenya and for GBMSM in high income settings. Young GBMSM/TP are least well served by the current configuration of adult key population services, and programmes should identify and address the sexual, social and developmental needs of adolescent and young key populations.

## Strengths and limitations of this study

- Population representative estimates of HIV prevalence and HIV care cascade for this key population in Nairobi, employing methods to avoid sampling biases common for marginalised group research.
- Comprehensive array of HIV and sexually transmitted infection diagnostics able to highlight the prevalence of both infections undetectable by standard Kenyan national guidelines.
- Inclusion criteria limited to adults eighteen and over, precluding insights into HIV risk and care engagement in younger adolescents.
- HIV status awareness and care engagement measures may not be accurately reporting in self-completed surveys, despite known benefits of computer-assisted methods to reduce social disability bias.
- Cross-sectional surveys cannot infer direction of causation where this is not implicit.

## BACKGROUND

Gay, bisexual and other men who have sex with men (GBMSM) and transgender persons (TP) bear disproportionate burdens of HIV risk and HIV infection around the world,<sup>1–3</sup> including in generalised epidemic settings in sub-Saharan Africa.<sup>4,5</sup> Structural and cultural obstacles, including criminalisation, institutional homophobia and societal antipathy towards these groups continue to challenge efforts to provide equitable access to effective HIV prevention and treatment, particularly in sub-Saharan Africa.<sup>6</sup> International agencies highlight the harmful consequences of unequal access to prevention and treatment on members of these populations and to efforts to curb national HIV epidemics.<sup>7</sup> Yet despite clear targets for increasing status awareness and antiretroviral therapy (ART) uptake among key populations,<sup>8</sup> very few sub-Saharan African countries conduct

surveillance to monitor the effectiveness and coverage of treatment programmes for these populations.<sup>9 10</sup>

Kenya has a declining generalised epidemic with an adult prevalence estimated at 4.9% in 2018, comprehensive national prevention and treatment responses including oral pre-exposure prophylaxis (PrEP), post-exposure prophylaxis, voluntary male circumcision, test and treat, and broad availability of viral load testing to support HIV care.<sup>11</sup> The Kenya Population-based HIV Impact Assessment study demonstrated the progress toward achievement of UNAIDS 90-90-90 targets in a national survey of the general population<sup>12</sup>: in 2018, 79.5% of adult persons living with HIV/AIDS (PLWH) (15–49 years) were aware of their HIV status, of whom 90.6% were receiving ART, of whom 90.9% (or 72% of all PLWH) were virally suppressed.<sup>12</sup> HIV surveillance is less comprehensive for GBMSM and TP in Kenya, despite a decade of research indicating high levels of need and poor service access. HIV prevalence was 18% among GBMSM/TP in Nairobi in 2010—more than three times that among the general population—and only 34% of those living with HIV were aware of their status.<sup>13</sup> In Eastern Kenya, outcomes of HIV care for GBMSM after treatment initiation, as assessed by virological suppression at 12 months, was just 63%, positively influenced by high coping self-efficacy and negatively influenced by intercourse practices thought to attract stigma.<sup>14</sup>

Kenya's HIV response is inclusive of key populations, including GBMSM and TP and national AIDS control policies include aims to enhance HIV prevention and treatment service for these populations in line with the WHO recommended package of key population interventions.<sup>15 16</sup> This has enabled a mixed model of prevention and care delivery through non-governmental organisations, private providers and state clinics largely concentrated in major cities. While diversification of sexual health provision may well have improved cultural competence and accessibility of services for these populations, there are no population representative estimates of the entire HIV diagnosis and care cascade for GBMSM/TP populations to monitor the effectiveness of this service model.

We aimed to (1) update the prevalence of HIV and other sexually-transmitted infections (STIs) in a population representative sample of cisgender male and TP who have sex with men living in Nairobi, (2) describe the HIV care cascade and viral load among GBMSM and TP living with HIV and (3) assess associations with prevalence of both HIV infection and detectable viraemia in this context.

## METHODS

### Recruitment and sampling

Respondent-driven sampling (RDS) was used to recruit 618 participants between May and December 2017 following established methods.<sup>17</sup> Seed participants were identified to the study by three community organisations

who provide services to GBMSM communities in Nairobi (Gay and Lesbian Coalition of Kenya (GALCK), Ishtar MSM and Health Options for Young Men on STI/HIV/AIDS (HOYMAS)). Following formative qualitative research, ten seeds were chosen to optimise diversity in age, marital status, gender identity, socioeconomic status and district of residence within Nairobi County.

Each participant was issued two recruitment coupons and instructions on how to recruit further eligible participants from their social networks. Inclusion criteria were: possession of a valid study coupon; age 18 or over; male gender assignment at birth or current identification as a man; residence within 50 km of Nairobi, and consensual anal or oral sexual activity with a man in the previous twelve months. Coupons detailed the location and contact details for the study site but disclosed no information about the purpose of the study. Coupons were uniquely numbered to verify recruiter-recruit links and coupon legitimacy. The opportunity for coupon duplication was reduced by use of non-standard grade watermarked paper, date stamping and limited period of validity after issue. Participants were reimbursed Ksh300 (~US\$3) for each recruit they referred to the study who subsequently participated.

### Study procedures

Seeds and coupon recipients who satisfied eligibility criteria underwent informed consent procedures with study staff. Recipients were ineligible if they reported coupon receipt from a stranger, coercion to attend or previous participation in the study. Unique identity was established using a commercially available digital fingerprint scanner.

Participant characteristics and behaviour were collected via self-completed SurveyGizmo questionnaire implemented in English and Kiswahili on touch-screen tablets taking approximately 90 min to complete (online supplemental material). The questionnaire covered multiple domains including demographic characteristics; sexual behaviour; alcohol and other substance use; knowledge of HIV transmission risks; use of existing HIV/STI prevention methods; recent anogenital symptoms suggestive of STI; experiences of sexuality-related stigma, discrimination or violence.<sup>18 19</sup> Sex was defined as any occurrence of anal or vaginal intercourse in the reference period. Transactional sex was defined as sex in exchange for money, gifts or favours. Sex against the will of the participant was defined as any episode of being physically forced or coerced into sex when this was unwanted. In addition, the questionnaire included prevalidated measures of alcohol use and dependence.<sup>20</sup> Social network size was elicited from a sequence of questions yielding the number of MSM, over the age of 18 living in Nairobi and met in person in the last 2 weeks.

Participants were offered HIV counselling and rapid testing following Kenyan HIV Testing Services (HTS) guidelines using two commercial rapid diagnostic kits (RDT: Determine Alere HIV 1/2 and First Response HIV

1–2.0).<sup>21</sup> Blood specimens were tested for syphilis (treponemal haemagglutination (TPHA) and rapid plasma reagin (RPR) tests), hepatitis B surface antigen and hepatitis C antibody (Mircrowell ELISA, Bios USA) and qualitative or quantitative HIV-1 PCR conditional on rapid test results (GeneXpert HIV-1 Qual or HIV-1 VL). Urine and rectal swabs were collected and tested for *Neisseria gonorrhoea* (NG) and *Chlamydia trachomatis* (CT) using PCR (GeneXpert CTNG).

HIV care continuum measures were based on Centers for Disease Control guidelines with a viral suppression threshold of <50 copies/mL.<sup>22</sup> Self-reported HIV status awareness and use of ART were collected both by computer-assisted survey and as part of HTS. Measures of linkage to care within 6 months of diagnosis and retention in care over the past 12 months were only elicited in the survey.

PLWHA not reporting receipt of care were referred to government services for initiation of ART. HIV negative participants were referred for PrEP eligibility assessment. Treatment for other STIs was provided free and according to national guidelines. Condoms and water-based lubricants were freely available in the study clinic as was information about sexual risk reduction and other GBMSM/TP-affirming local sexual health services. Participants were compensated Ksh500 (~US\$5) for completing study procedures, as approved by the ethics review board.

### Patient and public involvement

Patient and public organisations were involved in the design, management and dissemination of the project. The original research protocol was developed and adapted after consultation with a number of community-based organisations representing key populations in Nairobi, including the GALCK, HOYMAS, Ishtar MSM and the Sex Workers Outreach Programme (SWOP). Early in study planning, we submitted draft protocol and instruments for consideration of the G10 committee, a research sub-committee of GALCK. This resulted in the ratification of study objectives from community members and multiple improvements to study instruments. The G10 commended the investigators on the extent of community consultation conducted in preparation for the study, including our evidence of Good Participatory Practice. The G10 acted as the community advisory board for the duration of the study, offering prompt feedback on the experience of participants and wider perceived threats to study procedures or participants, such as election disruptions. Staff from HOYMAS, Ishtar MSM and SWOP were employed in study roles on reception and on social media as service navigators for participants seeking services or support outside the research. At study closure, we presented research findings directly to participants at a public meeting, in person and in writing to the boards of all key population serving organisations in Nairobi, as well as to formal policy-making agencies.

### Statistical methods

RDS diagnostics including visualisation of recruitment chains, convergence and seed dependence, and statistical assessment of recruitment homophily were analysed using the *rds* library for R V.3.4.0.<sup>23,24</sup> Crude and sample weighted estimates (RDS-II method and excluding seeds)<sup>23</sup> of the prevalence of sociodemographic and behavioural factors, lab-confirmed and self-reported STIs and HIV cascade measures (for PLWHA only) are presented in accordance with good practice.<sup>25</sup> Given evidence of under-reporting of status awareness and ART use in HTS and surveys alone (see online supplemental material), a composite cascade was derived combining both sources and treating any report of HIV awareness or treatment receipt as a positive response. Age and partner count quintiles among PLWHA were coded and used throughout for consistency. Analysis stratified by gender identity has been published previously.<sup>26</sup>

Associations with HIV prevalence in the entire sample, and prevalence of detectable HIV viraemia among PLWHA only, were assessed using robust Poisson regression with a non-clustered sandwich estimator<sup>27</sup> for an unbiased estimate of the prevalence ratio.<sup>28</sup> Multivariable models were specified including sociodemographic (model 1) or full (model 2) covariates associated with outcome at  $p < 0.100$ . STIs other than HIV were not included as independent covariates in adjusted models given the strong likelihood of dependence on behavioural determinants of HIV risk. Given the bimodal distribution of viral load among PLWHA, comparisons between quantitative VL measures were limited to non-parametric significance testing (Kruskal-Wallis test) and distribution visualisation (Epanechnikov kernels). All analyses of association excluded purposively sampled seeds and were not sample weighted (given both the known risk of bias in applying network weights to multivariate analyses<sup>29</sup> and the correlation of pertinent behavioural measures with social network degree). Less than 5% of covariate measures were missing and were included in models as dummy variables. Analyses were performed in Stata V.16.

All participants provided separate written informed consent to the questionnaire, sample collection and sample storage, and were able to withdraw from any portion of the study.

### RESULTS

A total of 761 individuals presented to the study site with the intention of participation. A total of 124 were ineligible due to fake or missing coupons, repeat attendance, intoxication or failure to meet inclusion criteria. Of the 637 individuals with confirmed eligibility, 29 declined participation during consent procedures. Of 608 recruits and 10 seeds completing informed consent, one participant declined blood testing and six declined rectal swabs. Four seeds accounted for 516 (84.9%) recruits. Depth of recruitment ranged from 1 to 19 waves per seed (median 7) (online supplemental material).



**Table 1** Sample characteristics

	N	Crude %	RDS % N=608 (95% CI)*
<b>Age in years</b>			
18–22	225/618	36.4	38.2 (33.8 to 42.8)
23–26	169/618	27.4	27.2 (23.4 to 31.5)
27–32	136/618	22.0	20.6 (17.2 to 24.5)
33+	88/618	14.2	14.0 (11.1 to 17.5)
<b>Employment</b>			
Salaried (full or part time)	179/608	29.4	28.1 (24.1 to 32.4)
Self employed	159/608	26.2	27.4 (23.5 to 31.8)
Unemployed	247/608	40.6	41.7 (37.2 to 46.3)
Other	23/608	3.8	2.9 (1.7 to 4.7)
<b>Education</b>			
Primary	111/611	18.2	18.1 (14.8 to 21.9)
Secondary	329/611	53.9	55.0 (50.4 to 59.6)
Higher	171/611	28.0	26.9 (23.0 to 31.1)
<b>Income (Kenya Shillings per month)</b>			
<Ksh5K	224/574	39.0	40.9 (36.2 to 45.7)
Ksh5K to <Ksh10K	166/574	28.9	27.7 (23.6 to 32.1)
Ksh10K+	184/574	32.1	31.5 (27.2 to 36.1)
<b>Country of birth</b>			
Kenya	484/607	79.7	78.8 (74.6 to 82.4)
Other African country	112/607	18.5	19.8 (16.3 to 23.9)
Non-African country	11/607	1.8	1.4 (0.7 to 2.9)
<b>Sexual identity</b>			
Gay/homosexual	448/609	73.6	73.2 (69.0 to 77.2)
Bisexual	143/609	23.5	23.4 (19.7 to 27.6)
Other	18/609	3.0	3.3 (2.0 to 5.6)
<b>Gender identity</b>			
Cisgender male	522/618	84.5	85.0 (81.5 to 88.0)
Transfeminine	70/618	11.3	11.3 (8.7 to 14.5)
Other†	26/618	4.2	3.7 (2.6 to 5.7)
<b>Sexual behaviour—male partners</b>			
<b>Male sexual partners (last 3 months)</b>			
None	74/618	12.0	12.5 (9.7 to 15.9)
1–3	405/618	65.5	72.7 (68.5 to 76.5)
4 or more	139/618	22.5	14.8 (12.1 to 18.0)
Sold sex (last 12 months)	297/613	48.5	43.8 (39.3 to 48.4)
Paid for sex (last 12 months)	177/614	28.8	28.2 (24.2 to 32.6)
<b>Anal intercourse with male partner (last 3 months)</b>			
None	77/618	12.5	13.1 (10.2 to 16.5)
Receptive only	158/618	25.6	24.8 (21.1 to 29.0)
Insertive only	220/618	35.6	37.9 (33.5 to 42.5)
Receptive and insertive	163/618	26.4	24.2 (20.6 to 28.3)

Continued

**Table 1** shows the characteristics of enrolled participants. Median age was 24 years (IQR 21–29) with 38.2% between the ages of 18–22 years. Most participants reported having attended postprimary education, however, a high proportion of participants reported being unemployed. A minority of participants reported a birthplace outside of Kenya, predominantly in neighbouring East African countries, in particular Uganda (n=90). Three-quarters of participants self-identified as gay or homosexual, and 15.0% self-identified as non-cisgender (predominantly transfeminine or female). Only 35.3% (30.9%–39.9%, 229/580) reported having been in contact with community-based organisations targeting GBMSM/TP during the previous year.

Participants reported a median of two male sexual partners in the past 3 months (IQR 1–3). Male partner counts were higher among the 44% of participants who reported selling sex to men in the past year (median 3 vs 2 different partners in the last 3 months, Kruskal-Wallis  $p<0.001$ ). Forty-nine per cent (44.5–53.6) reported receptive anal intercourse in the past 3 months, of whom 54.2% (175/321 47.8–60.5) reported at least one episode that was condomless. 62.1% (57.6–66.5) reported insertive anal sex with male partners over the same period, of whom 44.2% (175/383 38.5–50.0) at least one condomless episode. Over a quarter of participants reported female sexual partners over that period and participants were similarly likely to have sold sex to, or purchased sex from, females. A significant proportion of participants reported experiencing sex against their will in the last 12 months. Among HIV negative participants, 59.2% (237/396 53.4%–64.6%) reported HIV testing within the last 6 months and 4.4% (25/430 2.7%–7.0%) reported current oral PrEP use.

A total of 186 participants tested HIV positive (crude 30.1%, RDS-II 26.4%). Two individuals were positive only on PCR testing, representing 2.1% (2/186, 0.5–8.2%) of PLWHA or 0.76% (2/426, 0.18–0.30%) of participants testing negative by the national RDT algorithm. Five participants had evidence of active syphilis infection, and hepatitis B and C prevalence was low. Laboratory-confirmed rectal STIs were more prevalent than urethral STIs, and rectal NG was the most common site-specific STI. 82.2% confirmed rectal infections (90/106, 72.0–89.3%) and 82.3% confirmed urethral infections (49/60, 68.8–90.8) were asymptomatic on self-report. HIV prevalence was crudely associated with prevalent laboratory-confirmed rectal NG (PR 2.19 (1.72–2.78),  $p<0.001$ ), rectal CT (PR 1.49 (1.06–2.08),  $p=0.020$ ) and urethral NG (PR 1.92 (1.34–2.75),  $p<0.001$ ) and with self-reported symptoms at rectal (PR 2.37 (1.85–3.05),  $p<0.001$ ) and urethral sites (PR 2.00 (1.49–2.69),  $p<0.001$ ).

**Table 2** shows crude and adjusted variable associations with HIV status. Across models, increasing age was strongly associated with increasing HIV prevalence. In fully adjusted models HIV prevalence rose on average 6.4% per year of age (5.0%–7.9%),  $p<0.001$ , from 13% among 18–22 years to 48.9% among those over 32 years

Table 1 Continued

	N	Crude %	RDS % N=608 (95% CI)*
Condomless anal intercourse (last 3 months)			
None	353/618	57.1	58.2 (53.6 to 62.6)
Receptive only	90/618	14.6	14.4 (11.5 to 18.0)
Insertive only	90/618	14.6	14.9 (11.9 to 18.5)
Both	85/618	13.8	12.5 (9.8 to 15.8)
Condomless anal intercourse with male partners (last 3 months)	265/618	42.9	41.8 (37.4 to 46.4)
Sexual behaviour—female partners			
Female sexual partner (last 3 months)	174/618	28.2	28.3 (24.4 to 32.7)
Sold sex to female partner (last 12 months)	58/615	9.4	9.0 (6.7 to 12.1)
Paid for sex with female partner (last 12 months)	67/614	10.9	11.2 (8.6 to 14.6)
Condomless intercourse with female partners (last 3 months)	94/618	15.2	15.9 (12.8 to 19.6)
Sexual violence			
Forced to have sex against will (last 12 months)	87/615	14.1	13.1 (10.3 to 16.5)
Substance use behaviour			
Alcohol use (last 2 weeks)			
Never	261/618	42.2	45.1 (40.6 to 49.7)
Monthly	269/618	43.5	42.5 (38.0 to 47.1)
Weekly	88/618	14.2	12.4 (9.8 to 15.7)
Other substance use (3 m)‡	51/618	8.3	8.0 (5.8 to 10.8)
HIV			
HIV-RNA (GeneXpert HIV-1 Qual) only	2/617	0.3	0.6 (0.1 to 2.2)
Rapid test (determine/first response)	184/617	29.8	25.8 (22.1 to 30.0)
Total	186/618	30.1	26.4 (22.6 to 30.6)
Syphilis			
Positive (TPHA+ / RPR >3)	5/614	0.8	1.1 (0.4 to 2.8)
Hepatitis B			
Positive hepatitis B surface antigen (HBsAg)	30/614	4.9	4.4 (2.8 to 6.7)
Hepatitis C			

Continued

Table 1 Continued

	N	Crude %	RDS % N=608 (95% CI)*
Positive anti-hepatitis C virus antibody (anti-HCV Ab)	3/614	0.5	0.4 (0.1 to 1.7)
Rectal STIs			
Lab-confirmed rectal <i>N. gonorrhoeae</i>	76/611	12.4	13.2 (10.4 to 16.8)
Lab-confirmed rectal <i>C. trachomatis</i>	53/611	8.7	8.1 (5.9 to 10.9)
Self-reported rectal STI symptoms	51/609	8.4	8.6 (6.3 to 11.6)
Urethral STIs			
Lab-confirmed urethral <i>N. gonorrhoeae</i>	27/614	4.4	4.4 (2.9 to 6.7)
Lab-confirmed urethral <i>C. trachomatis</i>	39/614	6.4	7.3 (5.2 to 10.3)
Self-reported urethral STI symptoms	43/601	7.2	6.4 (4.5 to 9.0)

\*Seeds dropped and RDS-II weighting.

†'Other' includes transmasculine participants and participants not currently identifying with the terms male, female or transgender.

‡Ecstasy, amphetamines, mephamphetamine, mephedrone, heroin, gamma-hydroxybutyric acid (GHB), rohypnol, cocaine, crack cocaine, benzene, amyl nitrite.

RDS, respondent-driven sampling; STIs, sexually transmitted infections.

of age. Participants reporting a birthplace outside Kenya but within Africa had less than half the HIV prevalence of Kenyan-born participants in all models. Transfeminine participants had a 50% higher prevalence than cisgender GBMSM after adjustment for sociodemographic factors, yet not after adjustment for behavioural factors. In crude analyses, HIV infection was associated with higher male partner counts, selling sex to men and receptive anal intercourse. In adjusted models, recent receptive anal intercourse was also independently associated with HIV, while recent condomless sex with a female partner was inversely associated with HIV prevalence.

Figure 1A shows the composite, RDS-II-adjusted care cascade among participants with HIV infection (see online supplemental material for cascades based on survey and HTS measures only). 97.9% (91.8%–99.5%, RDS-II, n=184) were detected by the HTS regimen, 76.6% (68.2%–83.3%, RDS-II, n=137) reported status awareness and 65.3% (56.6%–73.2%, RDS-II, n=129) reported currently receiving ART. 47.4% (38.9%–56.0%), RDS-II, n=92) of PLWHA were virally suppressed (<50 copies/mL). Median viral load was highest among two PCR positive participants with negative rapid tests (6.46 log<sub>10</sub>

**Table 2** Associations with HIV status, GBMSM/TP, Nairobi 2017

	n/N	HIV prevalence Crude % N=618	HIV prevalence ratio (crude)		HIV prevalence ratio with sociodemographic adjustment (model 1)*		HIV prevalence ratio with full adjustment (model 2)†	
			PR (95% CI)‡	Wald p value	aPR (95% CI)	Wald p value	aPR (95% CI)	Wald p value
Sociodemographic characteristics								
Age (years)	34/225	15.1	Ref	<0.0001	Ref	<0.0001	Ref	<0.0001
	18–22							
	54/168	32.1	2.12 (1.45 to 3.10)		2.25 (1.53 to 3.30)		2.00 (1.38 to 2.90)	
	23–26							
Employment	51/136	37.5	2.45 (1.68 to 3.59)		2.72 (1.83 to 4.03)		2.54 (1.72 to 3.75)	
	27–32							
	47/88	53.4	3.51 (2.43 to 5.06)		3.67 (2.51 to 5.36)		3.98 (2.78 to 5.71)	
	33+							
Education	70/179	39.1	Ref		Ref		Ref	
	Salaried							
	45/159	28.3	0.75 (0.55 to 1.02)	0.0679	0.73 (0.54 to 0.98)	0.0341	0.80 (0.60 to 1.07)	0.1289
	Self employed							
Country of birth	62/247	25.2	0.66 (0.50 to 0.88)	0.0043	0.83 (0.63 to 1.10)	0.1911	0.79 (0.61 to 1.02)	0.0730
	Unemployed							
	6/23	26.1	0.68 (0.33 to 1.38)	0.2849	0.98 (0.53 to 1.81)	0.9874	1.00 (0.57 to 1.77)	0.9927
	Other							
Sexual identity	42/111	37.8	Ref		Ref		Ref	
	Primary							
	94/329	28.6	0.76 (0.56 to 1.02)	0.0669	0.92 (0.69 to 1.23)	0.5731	0.91 (0.70 to 1.19)	0.4972
	Secondary							
Gender identity	49/171	28.8	0.78 (0.55 to 1.09)	0.1401	0.81 (0.58 to 1.12)	0.1997	0.78 (0.58 to 1.05)	0.0976
	Higher							
	163/484	33.8	Ref		Ref		Ref	
	Kenya							
Sexual behaviour – male partners	14/112	12.5	0.38 (0.23 to 0.63)	0.0002	0.31 (0.18 to 0.52)	<0.0001	0.38 (0.23 to 0.63)	0.0001
	Other African country							
	4/11	36.4	1.08 (0.49 to 2.39)	0.8458	0.99 (0.47 to 2.10)	0.9874	1.13 (0.54 to 2.38)	0.7455
	Non-African country							
Paid for sex with male partner (12 months)	140/448	31.3	Ref		Ref		Ref	
	Gay/homosexual							
	37/143	25.9	0.82 (0.60 to 1.12)	0.2150	–	–	–	–
	Bisexual							
Sold sex to male partner (12 months)	6/18	33.3	1.06 (0.54 to 2.07)	0.8582	–	–	–	–
	Other							
	151/522	29.0	Ref		Ref		Ref	
	Cisgender male							
Paid for sex with female partner (12 months)	28/70	40.0	1.40 (1.02 to 1.93)	0.0356	1.50 (1.09 to 2.05)	0.0115	1.18 (0.86 to 1.61)	0.4200
	Transfeminine							
	7/26	26.9	0.93 (0.49 to 1.78)	0.8298	0.92 (0.48 to 1.77)	0.8114	0.75 (0.41 to 1.40)	0.3606
	Other§							
Sexual behaviour – male partners								
Male sexual partners (3 months)	7/74	9.5	Ref	<0.0001	Ref		Ref	0.4028
	None							
	122/405	30.2	3.10 (1.51 to 6.38)		2.57 (1.30 to 5.09)	0.0054	1.50 (0.75 to 3.01)	
	1–3							
Paid for sex with female partner (12 months)	57/139	41.0	4.22 (2.03 to 8.79)		3.06 (1.52 to 6.17)		1.62 (0.79 to 3.34)	
	four or more							
	107/297	36.0	1.42 (1.11 to 1.82)	0.0049	1.33 (1.04 to 1.70)	0.0228	1.00 (0.98 to 1.02)	0.8295
	Yes							
Paid for sex with female partner (12 months)	78/316	24.8	Ref		Ref		Ref	
	No							
	61/177	34.5	1.19 (0.92 to 1.54)	0.1775	1.05 (0.82 to 1.33)	0.7184	–	–
	Yes							
Paid for sex with female partner (12 months)	124/437	28.4	Ref		Ref		–	–
	No							

Continued

Table 2 Continued

	HIV prevalence	Crude % N=618	n/N	HIV prevalence ratio (crude)		HIV prevalence ratio with sociodemographic adjustment (model 1)*		HIV prevalence ratio with full adjustment (model 2)†	
				PR (95% CI)‡	Wald p value	aPR (95% CI)	Wald p value	aPR (95% CI)	Wald p value
Receptive anal intercourse with male partner (3 months)	Yes	43.4	139/321	2.82 (2.10 to 3.80)	<0.0001	2.46 (1.84 to 3.28)	<0.0001	2.16 (1.59 to 2.93)	<0.0001
	No	15.8	47/297	Ref				Ref	
Insertive anal intercourse with male partner (3 months)	Yes	30.9	118/383	1.04 (0.81 to 1.34)	0.7654	1.02 (0.80 to 1.31)	0.8424	–	–
	No	28.9	68/235	Ref					
Condomless anal intercourse (3 months)	Yes	36.6	97/265	1.40 (1.10 to 1.78)	0.0063	1.37 (1.08 to 1.73)	0.0093	1.20 (0.94 to 1.52)	0.1454
	No	25.3	89/353	Ref				Ref	
Sexual behaviour—female partners									
Female sexual partner (3 months)	Yes	25.9	45/174	0.83 (0.62 to 1.11)	0.2066	0.68 (0.51 to 0.89)	0.0047	1.03 (0.72 to 1.47)	0.8826
	No	31.8	141/444	Ref				Ref	
Sold sex to female partner (12 months)	Yes	31.0	18/58	1.03 (0.69 to 1.54)	0.8905	0.92 (0.62 to 1.36)	0.6630	–	–
	No	30.2	168/557	Ref					
Paid for sex with female partner (12 months)	Yes	25.4	17/67	0.84 (0.55 to 1.29)	0.4255	0.69 (0.46 to 1.05)	0.0859	1.00 (0.98 to 1.02)	0.9082
	No	30.8	168/547	Ref				Ref	
Condomless intercourse (3 months)	Yes	23.4	22/94	0.76 (0.52 to 1.13)	0.1743	0.60 (0.41 to 0.90)	0.0085	0.56 (0.33 to 0.94)	0.0264
	No	31.4	164/524	Ref				Ref	
Sexual violence									
Forced to have sex against will (12 months)	Yes	29.9	26/87	0.98 (0.70 to 1.39)	0.9281	1.15 (0.83 to 1.58)	0.4034	–	–
	No	30.4	160/528	Ref					
Substance use behaviour									
Alcohol use (current)	Never	33.3	87/261	Ref	0.2800				
	Monthly	28.7	77/269	0.86 (0.67 to 1.12)		0.85 (0.67 to 1.09)	0.1141	–	–
	Weekly	25.0	22/88	0.75 (0.50 to 1.12)		0.69 (0.47 to 1.00)			
Other substance use (3 months)¶	Yes	33.3	17/51	1.09 (0.72 to 1.66)	0.6857	1.22 (0.86 to 1.74)	0.2708	–	–
	No	29.9	169/567	Ref					

Bold values indicate measures of association with  $p < 0.05$ 

\*Multivariable Poisson regression with robust estimation of variance and adjustment for sociodemographic factors (age, education and sexual identity) with seeds excluded.

†Multivariable Poisson regression with robust estimation of variance and adjustment for tabulated sociodemographic and behavioural factors with seeds excluded.

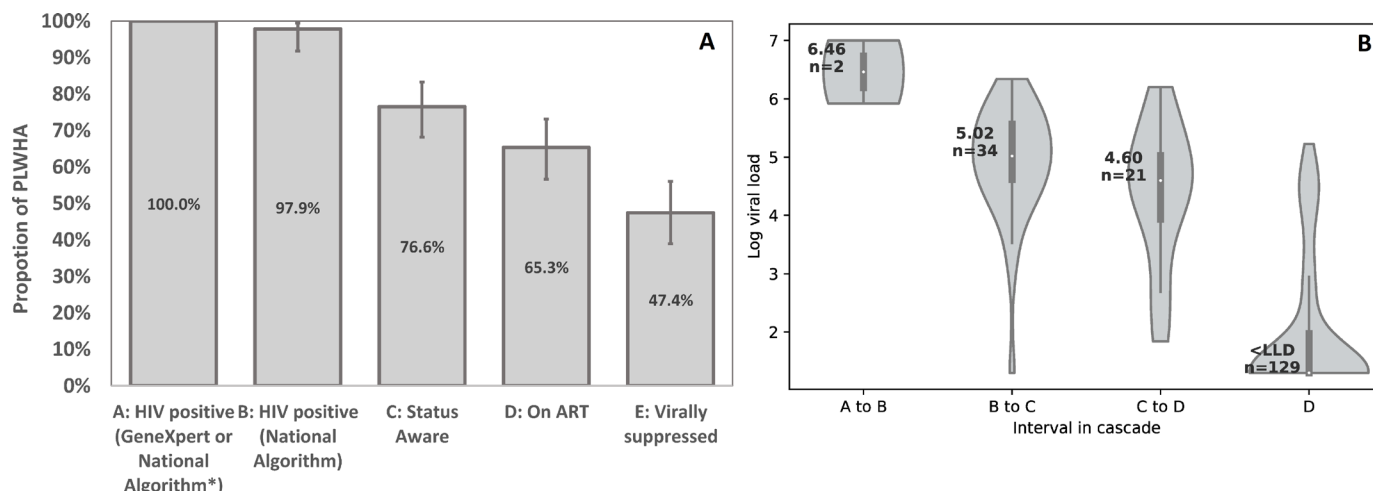
‡Crude bivariable Poisson regression with robust estimation of variance.

§‘Other’ includes transmasculine participants and participants not currently identifying with the terms male, female or transgender.

¶Ecstasy, amphetamines, mephedrone, mephedrone, heroin, gamma-hydroxybutyric acid (GHB), rohypnol, cocaine, crack cocaine, benzene, amyl nitrite.

aPR, adjusted prevalence ratio; GBMSM/TP, gay, bisexual and other men who have sex with men/transgender persons; PR, prevalence ratio.





**Figure 1** (A) Diagnosis and care cascade among GBMSM/TP living with HIV. \*Kenyan National HIV testing algorithm: Serial Determine Alere and First Response Rapid Diagnostic Tests. Point estimates are RDS adjusted and exclude seeds. Error bars represent 95% CIs. (B) Log viral load median and distribution by level of diagnosis and care cascade engagement. Intervals: (A, B) HIV positive only on GeneXpert; (B, C) HIV positive on RDT but participant not status aware; (C, D)—Participant reports status awareness but reports no current use of ART; (D) Participants reports current use of ART. Vertical bars represent IQR, white dots represent median log viral load. Median and category sample size stated in label. <LLD: (40 copies/mm<sup>3</sup>). P values from Kruskal-Wallis equality of populations rank test. ART, antiretroviral therapy; GBMSM/TP, gay, bisexual and other men who have sex with men/transgender persons; LLD, lower limit of detection; PLWHA, persons living with HIV/AIDS; RDS, respondent-driven sampling.

copies/mL), and declined significantly by each progressive step across the care continuum (figure 1B). Among 131 participants declaring receipt of HIV care, 61 (41.7 (31.9–52.2%)) last received care in a community organisation, 44 (36.9% (27.4%–47.6%)) in a public hospital, and 26 (21.5% (14.1%–31.3%)) from a private provider.

Factors associated with detectable viraemia among PLWHA are shown in table 3. A strong and significant inverse trend was apparent between increasing age and prevalence of detectable viraemia in both crude and adjusted models. On average, the prevalence of detectable HIV viraemia decreased by 4.2% per year of age (1.8%–6.6%, test for linear trend,  $p=0.0001$ ). These trends were apparent across all metrics of the HIV care cascade (figure 2A). Median log viral load among participants aged 18–22 was significantly higher than older age groups (4.44 vs 1.30 log<sub>10</sub> copies/mL, Kruskal-Wallis  $p=0.0012$ , figure 2B), and both participants with acute HIV infections were within this youngest age-group. Increasing levels of education attendance were also associated with a declining level of viral detection among PLWHA, however, this trend was not statistically significant. Behavioural correlates of prevalent HIV viraemia in the demographically adjusted model (model 1) were payment for sex in the last 3 months (with either male or female partners) and recent condomless anal intercourse with female partners, while there was an inverse association with recently selling sex to male partners.

## DISCUSSION

Over a quarter of GBMSM and TP in Nairobi now live with HIV infection. Our HIV prevalence estimate is

higher than previous RDS estimates from the same city in 2010 (18.2%<sup>13</sup>) as well as convenience samples elsewhere in Kenya (19.8% Malindi 2010<sup>30</sup>; 16.6% Kisumu 2015).<sup>31</sup> Extrapolation of the observed proportion with evidence of acute/early HIV infection not detectable by fourth generation testing (assuming a conservative estimate of 14-day window period between GeneXpert and RDT detection) suggests an annual HIV incident risk of 15% (4%–58%). Persistently high HIV/STI risk is consistent with high reported levels of known behavioural and biological acquisition risks that have not improved over time<sup>13</sup>: over 40% of GBMSM/TP report recent condomless anal intercourse and transactional partnerships, and a high proportion have concurrent, often asymptomatic, STIs. The frequent reports of sex with female partners, including transactional sex, among GBMSM is consistent with previous research in Kenya, as is the lower observed HIV risk among bisexually active as opposed to exclusive GBMSM likely due to differences in role behaviour and network prevalence.<sup>32</sup> Antiretroviral prevention uptake remains poor for these populations and while the national PrEP programme was in the process of deployment during this study, subsequent evaluation since confirms inadequate uptake and persistence among GBMSM/TP.<sup>33</sup>

However, this study does highlight significant progress in reaching key populations with HIV testing and care. We estimate that three-quarters of GBMSM/TP living with HIV in Nairobi are aware of their status and nearly half have been supported to achieve viral suppression, analogous to 77–85–73 against UNAIDS targets. This cascade compares favourably to collated GSM/TP cascade data from elsewhere in sub-Saharan Africa (18–53–76)<sup>9</sup>



**Table 3** Associations with detectable VL among participants living with HIV, GBMSM/TP, Nairobi 2017

Prevalence of detectable viral load >50 copies/mL											
Crude % N=186			Viral detection prevalence ratio (crude)*			Viral detection prevalence ratio with sociodemographic adjustment (model 1)†			Viral detection ratio with full adjustment (model 2)‡		
n/N			PR (95% CI)	Wald p value	aPR (95% CI)	Wald p value	aPR (95% CI)	Wald p value	aPR (95% CI)	Wald p value	
Sociodemographic characteristics											
Age (years)	18–22	25/34	73.5	Ref		0.0020	Ref		0.0052	Ref	0.0103
	23–26	29/54	53.7	0.73 (0.53 to 1.01)			0.74 (0.53 to 1.04)		0.84 (0.61 to 1.16)		
	27–32	24/51	47.1	0.64 (0.45 to 0.92)			0.65 (0.45 to 0.94)		0.71 (0.50 to 1.02)		
	33+	16/47	34.0	0.44 (0.28 to 0.70)			0.46 (0.29 to 0.74)		0.46 (0.29 to 0.74)		
Employment	Salaried	37/70	72.9	Ref							
	Self employed	21/45	46.7	0.89 (0.61 to 1.32)	0.5692						
	Unemployed	33/62	53.2	1.02 (0.73 to 1.41)	0.9109						
	Other	2/6	33.3	0.64 (0.20 to 2.03)	0.4469						
Education	Primary	27/42	64.3	Ref			Ref		Ref		
	Secondary	47/94	50.0	0.79 (0.58 to 1.08)	0.1334		0.77 (0.56 to 1.05)	0.1015	0.81 (0.60 to 1.08)	0.1597	
	Higher	20/49	40.8	0.64 (0.43 to 0.97)	0.0355		0.64 (0.42 to 0.97)	0.0371	0.68 (0.46 to 1.00)	0.0501	
Country of birth	Kenya	86/163	52.8	Ref							
	Other African country	6/14	42.9	0.82 (0.44 to 1.52)	0.5241						
	Non-African country	1/4	25.0	0.48 (0.09 to 2.63)	0.3947						
Sexual identity	Gay/homosexual	77/140	55.0	Ref			Ref		Ref		
	Bisexual	13/37	35.1	0.66 (0.42 to 1.05)	0.0828		0.78 (0.50 to 1.22)	0.2803	0.68 (0.45 to 1.03)	0.0646	
	Other	4/6	66.7	1.23 (0.68 to 2.21)	0.4957		1.31 (0.78 to 2.18)	0.3065	1.33 (0.80 to 2.21)	0.2741	
Gender identity	Cisgender male	76/151	50.3	Ref							
	Transfeminine	16/28	57.1	1.14 (0.80 to 1.64)	0.4672						
	Other§	2/7	28.6	0.57 (0.17 to 1.87)	0.3549						
Sexual behaviour—male partners											
Male sexual partners (3 months)	None	3/7	42.9	Ref	0.0336		Ref	0.1202			
	1–3	71/122	58.2	1.35 (0.56 to 3.23)			1.04 (0.48 to 2.24)				
	Four or more	20/57	35.1	0.81 (0.32 to 2.05)			0.68 (0.29 to 1.58)				
Sold sex to male partner (12 months)	Yes	46/107	43.0	0.69 (0.52 to 0.91)	0.0101		0.66 (0.50 to 0.86)	0.0028	0.55 (0.41 to 0.75)	0.0001	
	No	48/78	61.5	Ref			Ref		Ref		
Paid for sex with male partner (12 months)	Yes	37/61	60.7	1.28 (0.96 to 1.70)	0.0895		1.44 (1.10 to 1.88)	0.0084	1.72 (1.25 to 2.35)	0.0008	
	No	57/124	46.0	Ref			Ref		Ref		

Continued

Table 3 Continued

	n/N	Prevalence of detectable viral load >50 copies/mL	Viral detection prevalence ratio (crude)*		Viral detection prevalence ratio with sociodemographic adjustment (model 1)†		Viral detection ratio with full adjustment (model 2)‡	
			Crude % N=186	PR (95% CI)	Wald p value	aPR (95% CI)	Wald p value	aPR (95% CI)
Receptive anal intercourse with male partner (3 months)								
Yes	73/139		52.5	1.25 (0.86 to 1.83)	0.2416	1.04 (0.72 to 1.50)	0.8420	–
No	21/47		44.7	Ref		Ref		–
Insertive anal intercourse with male partner (3 months)								
Yes	59/118		50.0	0.96 (0.72 to 1.29)	0.8029	1.07 (0.81 to 1.43)	0.6192	–
No	35/68		51.5	Ref		Ref		–
Condomless anal intercourse (3 months)								
Yes	56/97		57.7	1.35 (1.00 to 1.81)	0.0508	1.30 (0.97 to 1.74)	0.0740	1.24 (0.95 to 1.63)
No	38/89		42.7	Ref		Ref		Ref
Sexual behaviour – female partners								
Female sexual partner (3 months)								
Yes	24/45		53.3	1.08 (0.78 to 1.49)	0.6304	1.26 (0.94 to 1.67)	0.1164	–
No	70/141		49.7	Ref		Ref		–
Sold sex to female partner (12 months)								
Yes	9/18		50.0	0.99 (0.61 to 1.62)	0.9806	0.96 (0.65 to 1.41)	0.8344	–
No	85/168		50.6	Ref		Ref		–
Paid for sex with female partner (12 months)								
Yes	14/17		82.4	<b>1.74 (1.33 to 2.29)</b>	<b>0.0001</b>	<b>1.64 (1.26 to 2.11)</b>	<b>0.0002</b>	1.22 (0.90 to 1.66)
No	80/168		47.6	Ref		Ref		Ref
Condomless intercourse (3 months)								
Yes	14/22		63.6	1.31 (0.92 to 1.87)	0.1319	<b>1.62 (1.19 to 2.21)</b>	<b>0.0023</b>	1.37 (0.96 to 1.95)
No	80/164		48.8	Ref		Ref		Ref
Sexual violence								
Forced to have sex against will (12 months)								
Yes	11/26		42.3	0.82 (0.51 to 1.32)	0.4130	0.83 (0.55 to 1.28)	0.4022	–
No	83/160		51.9	Ref		Ref		–
Substance use behaviour								
Alcohol use (current)								
Never	47/87		54.0	Ref	0.7032	Ref		–
Monthly	3/77		48.1	0.90 (0.66 to 1.22)		0.94 (0.70 to 1.26)	0.8611	–
Weekly	10/22		45.5	0.85 (0.52 to 1.40)		0.90 (0.56 to 1.45)		–
Other substance use (3 months)¶								
Yes	11/17		64.7	1.27 (0.84 to 1.92)	0.2498	1.28 (0.85 to 1.94)	0.2425	–
No	83/169		49.1	Ref		Ref		–

Continued

Table 3 Continued

Prevalence of detectable viral load >50 copies/mL	Crude % N=186	n/N	Viral detection prevalence ratio (crude)*		Viral detection prevalence ratio with sociodemographic adjustment (model 1)†		Viral detection ratio with full adjustment (model 2)‡	
			PR (95% CI)	Wald p value	aPR (95% CI)	Wald p value	aPR (95% CI)	Wald p value

\*Crude bivariable Poisson regression with robust estimation of variance.

†Multivariable Poisson regression with robust estimation of variance and adjustment for sociodemographic factors (age, education and sexual identity) with seeds excluded.

‡Multivariable Poisson regression with robust estimation of variance and adjustment for tabled sociodemographic and behavioural factors with seeds excluded.

\$Other' includes transmasculine participants and participants not currently identifying with the terms male, female or transgender.

¶Ecstasy, amphetamines, mephedrone, heroin, gamma-hydroxybutyric acid (GHB), rohypnol, cocaine, crack cocaine, benzene, amyl nitrite.

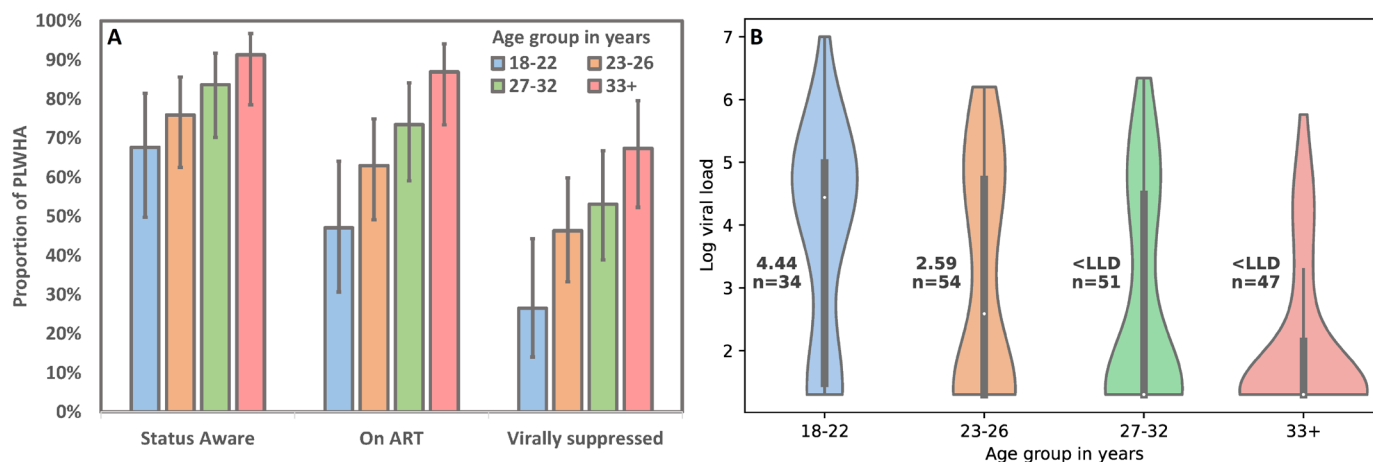
aPR, adjusted prevalence ratio; GBMSM/TP, gay, bisexual and other men who have sex with men/transgender persons; PR, prevalence ratio.

as well as to that reported in global self-reported surveys (NA-82–58).<sup>34</sup> This is by no means a small achievement of HIV programming within a societal context of homophobic discrimination and criminalisation of same sex behaviour<sup>6</sup> and represents marked improvements in access to HIV care that will directly translate into better health outcomes for GBMSM and TP living with HIV. However, cascades fall behind those for PLWH in the Kenyan general population (80–96–91 in 2017)<sup>12</sup> and for GBMSM and transgender in high-income settings.<sup>35</sup>

There is increasing evidence demonstrating the effectiveness of mHealth<sup>36 37</sup> and other social media interventions<sup>38</sup> on testing uptake and linkage to HIV services for GBMSM, while effects on retention and care outcomes are as yet inconclusive. Internet based interventions may be highly suited to the context of this study since internet services and social media are widely accessible and utilised among these populations.<sup>39</sup> However, any such intervention requires cautious adaptation and testing given associated risks arising from disclosure these services that has also been reported in this context. LINKAGES recommend peer navigation strategies as an element of core HIV-related interventions for key populations,<sup>40</sup> yet such strategies remain underused in Kenyan key population programmes despite local evidence of the effectiveness of this approach on care outcomes.<sup>41</sup> Most of the community-based organisations serving GBMSM/TP in Nairobi already use various models of peer outreach for client engagement, and the addition of quality assured peer navigation could be both complementary and impactful.

Inequalities in coverage of HIV diagnosis and care for persons living with HIV were principally driven by age. We observed strong positive associations between increasing age and virological suppression, as well as other metrics of the care cascade. Median viral load was 3.14 log higher among participants age 18–22 living with HIV than older GMSM/TP (4.44 v 1.30 respectively,  $p=0.0022$ ), reflecting both lower status awareness and care engagement in addition to higher HIV incident risk in the youngest age group. The observation that HIV prevalence was 13% among GBMSM/TP aged 18–22 years suggests that risk begins earlier in adolescence when prevention and care may be even less accessible. Although comparable evidence is scarce from elsewhere in sub Saharan Africa, Ramadhani reported higher HIV risk behaviour and incidence, yet lower healthcare engagement, status awareness and virological suppression among Nigerian GBMSM/TP aged 16–19 years.<sup>42</sup>

The WHO highlight the need for national responses to be acceptable to young key populations,<sup>43</sup> and our findings suggest a focus on GBMSM/TP youth is overdue and will be essential to the overall success of Kenyan key population HIV response. Improving accessibility to youth may require redress of structural barriers to service access, such as age-based consent criteria, training of staff to recognise additional needs of young GBMSM/TP, but must also account for the prospect that young members



**Figure 2** (A) HIV care cascade measures by age group. Point estimates are unadjusted for sampling strategy and exclude seeds. Error bars represent 95% CIs. (B) Log viral load median and distribution by age group. Vertical bars represent IQR, white dots represent median viral load (also stated in label). <LLD: (40 copies/mm<sup>3</sup>). ART, antiretroviral therapy; LLD, lower limit of detection; PLWHA, persons living with HIV/AIDS.

of key populations will be sceptical of the confidentiality and safety of healthcare settings.<sup>44</sup> Pettifor proposes that services for adolescent and young MSM need to be targeted and holistic, given the complex and concurrent challenges of conceptualising HIV risk and prevention during a period of personal biological and psychological change, and often alongside stressors related to acceptance and disclosure of sexual or gender identity to family and friends.<sup>44</sup> Effective interventions targeting HIV prevention and care engagement among young MSM have mostly been tested in the USA, and offer supportive evidence for both digital interventions on testing uptake<sup>45</sup> and peer-based network support interventions to support retention.<sup>46</sup> Adaptation and demonstration of acceptability of interventions to young GBMSM/TP in highly stigmatised contexts should be a priority.

Our findings also suggest that improved diagnostics could complement both HIV prevention and care for GBMSM/TP in Nairobi. A small but significant proportion of GBMSM/TP were identified with prevalent acute/early HIV infection accompanied by high viral loads, and undetected by current national testing practices. In addition, we found a high proportion of GBMSM/TP with asymptomatic, urethral and rectal STIs, well recognised as a cofactor in HIV transmission.<sup>47</sup> Laboratory capacity for STI diagnosis remains limited and expensive in Kenya, therefore most providers, especially community-based organisations, rely solely on syndromic management. Our findings concur with others in suggesting such approaches alone have unacceptably poor diagnostic performance.<sup>48 49</sup> The decreasing complexity and cost of point-of-care PCR technologies should encourage policy-makers to re-evaluate the cost-effectiveness of providing access to PCR-based HIV and STI diagnostics particularly in community settings.<sup>50</sup>

A key strength of the study was the population representative design that avoids many of the biases intrinsic to studies conducted solely among GBMSM/TP already

engaged with research programs or service providers. RDS diagnostics suggest convergence on all main demographic measures, and these measures compared closely to a previous study of the same design in Nairobi.<sup>13</sup> The complex steps required to demonstrate eligibility for inclusion in coupon-referral studies might have presented obstacles to legitimate study access for some genuine coupon recipients, and our inclusion criteria might also have limited participation for important subpopulations, such as persons who inject drugs or harmful alcohol users. Limitations of the study include the cross-sectional design (precluding examination of causal direction of correlates) and the reliance on self-reported measures of behaviours and service uptake that are potentially subject to memory error and social desirability bias. Foremost among these was differential under-reporting of status awareness and antiretroviral use in surveys and with care providers. This phenomenon has been reported by other population-based studies, has the potential to significantly distort interpretation of cascade measures and underscores the need for verification of self-reported measures wherever possible.<sup>51 52</sup>

In summary, coverage of HIV care for GBMSM and TP living with HIV in Nairobi is close to that achieved in the general population and reflects the inclusive approach of the national HIV/AIDS strategy in Kenya. However, ending AIDS for key populations demands even better access to care, a re-energised PrEP response, and access to relevant HIV and STI diagnostics available wherever GBMSM/TP feel safe seeking these services. Going forward policy-makers must now seek to understand and address the specific sexual health service preferences of adolescent and younger key populations in order to address age-related inequalities in access to diagnosis and care.

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**Competing interests** None declared.

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**Data availability statement** Data are available on reasonable request. Data from this study have not been deposited publicly because of the potential risk of deductive disclosure that may arise from individual data needed for valid analysis of the data, and the potential individual and social harms that may arise from such disclosure in a context of criminalisation and stigmatisation. However, all authors aim to make the data underlying the findings of the study available for legitimate research purposes, and requests will be considered by the London School of Hygiene and Tropical Medicine Research Operations Office Data Management lead (alex.hollander@lshtm.ac.uk). The request must specify the purpose of research, the list of required variables, and if personally identifiers or sensitive data are sought, specify measures to maintain information security and governance that will be applied in storage, handling and reporting the data.

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## 1: Respondent Driven Sampling recruitment diagnostics

In line with guidance<sup>1</sup> we conducted monitoring of the RDS recruitment every two weeks and made recommendations to the data collection team on the basis of findings. We examined RDS recruitment trees, return of coupons, assessed sample composition by sociodemographic characteristics, and examined convergence on key outcomes overall and by seed (assessed for potential ‘bottlenecks’ in which recruitment gets ‘stuck’ within sub-groups).

### Findings

#### Waves and seeds

Ten seed participants recruited a total of 608 participants, though 512/608, 84% of all participants, came from 4 seeds of between 14 and 19 waves, Table A1. The largest recruitment chain of Seed 1 recruited 143/608 (23.5%) of participants, whilst Seed 3 had the largest number of recruitment waves, Table A2.

**Table A1: Number of participants recruited by wave**

Wave	0	1	2	3	4	5	6	7	8	9	10	11	12
No. Participants	10	19	29	43	57	69	80	64	66	49	37	29	24

Wave	13	14	15	16	17	18	19
No. Participants	12	12	4	6	6	1	1

**Table A2: Number of participants and recruitment waves recruited via each seed**

Seed	Number of participants (%)	Waves
1	143 (23.5%)	17
2	17 (2.8%)	6
3	139 (22.9%)	19
4	139 (22.9%)	15
5	39 (6.4%)	8
6	4 (0.7%)	2
7	91 (15.0%)	14
8	22 (3.6%)	6
9	2 (0.3%)	1
10	12 (2.1%)	4

#### Coupon receipt

96.9% of participants received a coupon from a close friend or friend. Only 2 (0.4%) of participants reported that they received their coupon from a stranger, which violates the RDS assumption that participants receive a coupon from someone within their social

network (and the recruitment instructions). Consistent with whom they received a coupon from, the majority of participants reported that they received it from or near their home. There were 17 participants (2.8%) who reported receiving their coupon outside the study clinic which could imply distributions to individuals who just happened to be passing rather than distribution to an individual's social network, but this is not certain.

A minority of 45/600 (7.5%) of participants reported that they had received more than one offer of a coupon, which suggests that recruitment did not get stuck within a small group trying to recruit each other and did not saturate the target population.

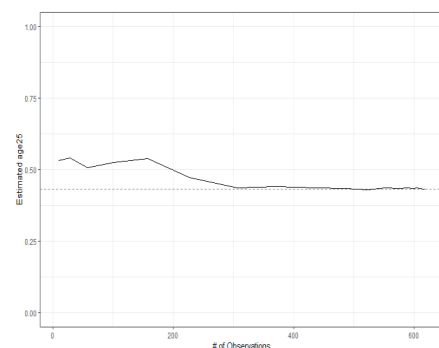
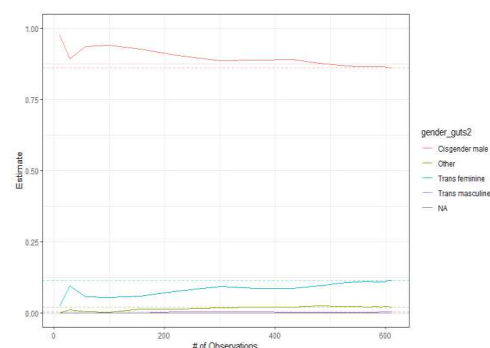
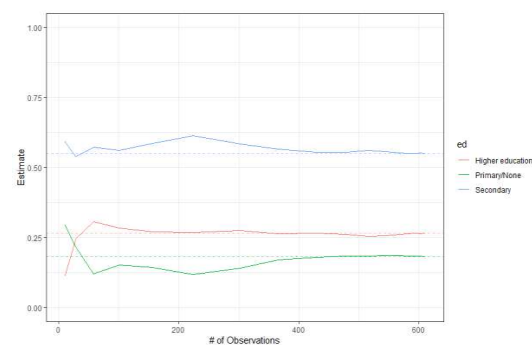
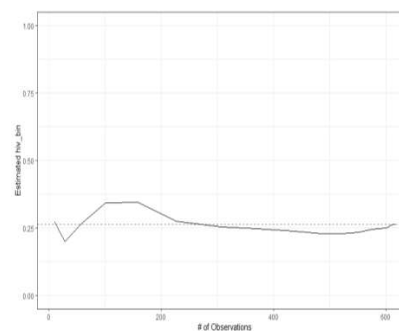
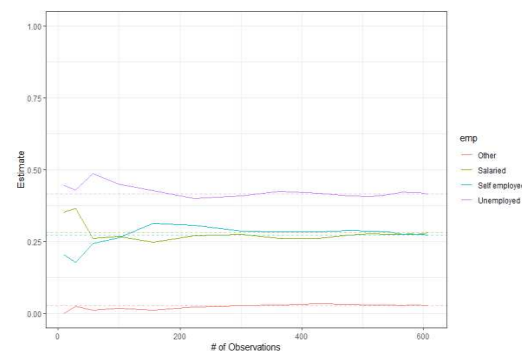
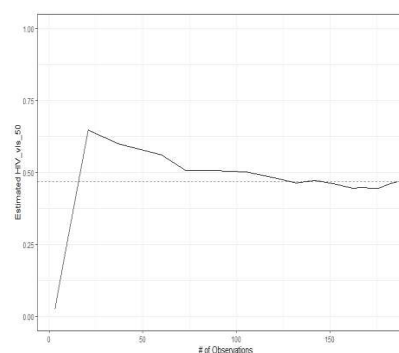
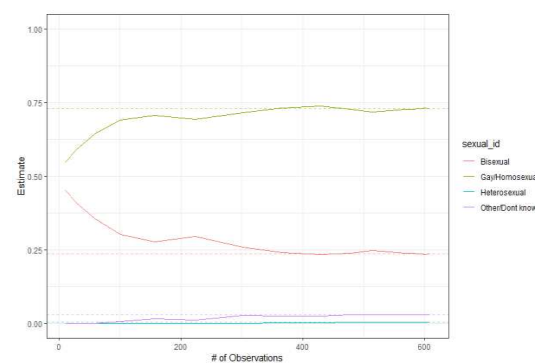
**Table A3: Characteristics of coupon receipt reported by participants**

	n	%
<b>Relationship to person from whom received coupon (n=576)</b>		
Close friend	292	50.7
Friend	266	46.2
Acquaintance	14	2.4
Stranger	2	0.4
Other	2	0.4
<b>Where received coupon (n=598)</b>		
At/near home	301	50.3
At/near work	76	12.7
On street	86	14.4
Bar/club	96	16.1
Outside the study clinic	17	2.8
Other	22	3.7
<b>Apart from the person who gave you the coupon you brought today has anyone else tried to give you a coupon? (n=600)</b>		
No	555	92.5
Yes	45	7.5
<b>How many times?</b>		
1	19	48.7
2	15	38.5
4	1	2.6
5	2	5.1
7	1	2.6
11	1	2.6

### Convergence of Estimates

Each convergence plot shows the cumulative RDS-II weighted proportion of the population estimate as the sample recruitment progressed. We examined key sociodemographic characteristics, HIV prevalence and viral suppression.

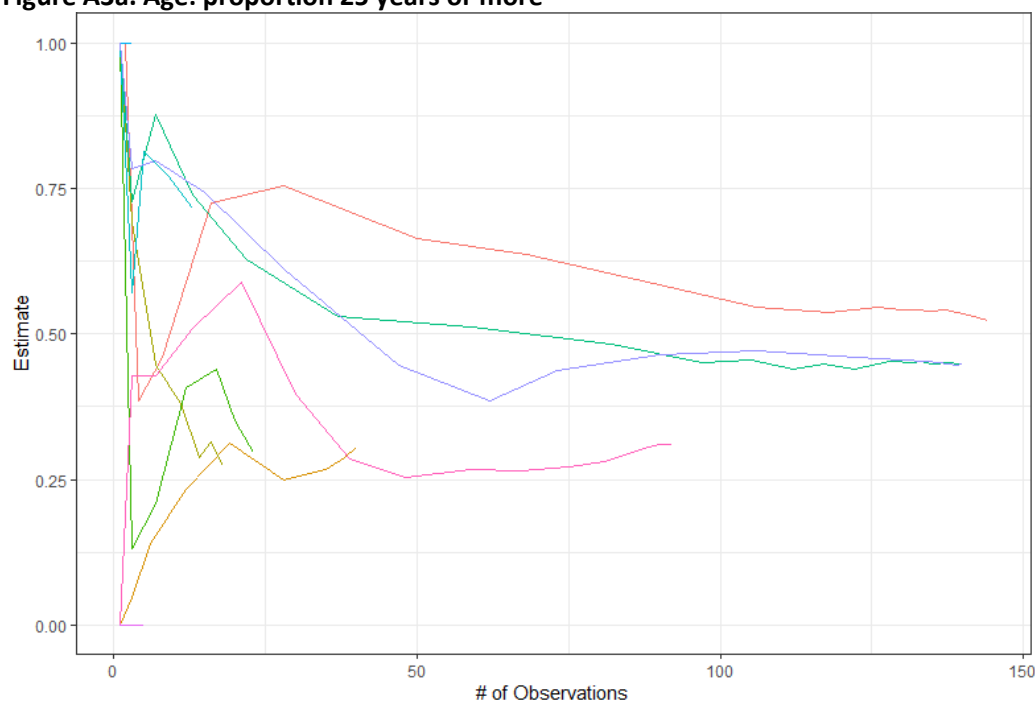


**Figure A2****a. Age: proportion 25 years or more****e. Gender identity****b. Educational attendance****f. HIV: proportion positive****c. Employment****g. Viral suppression: proportion of PLWHA****d. Sexual identity**

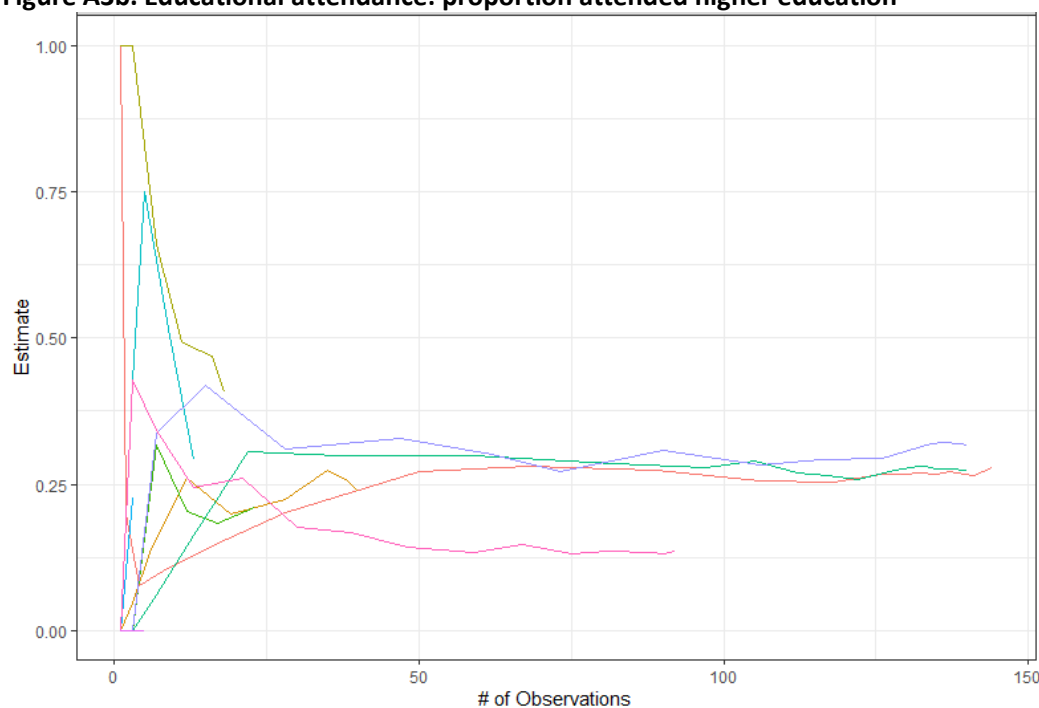
## Bottlenecks

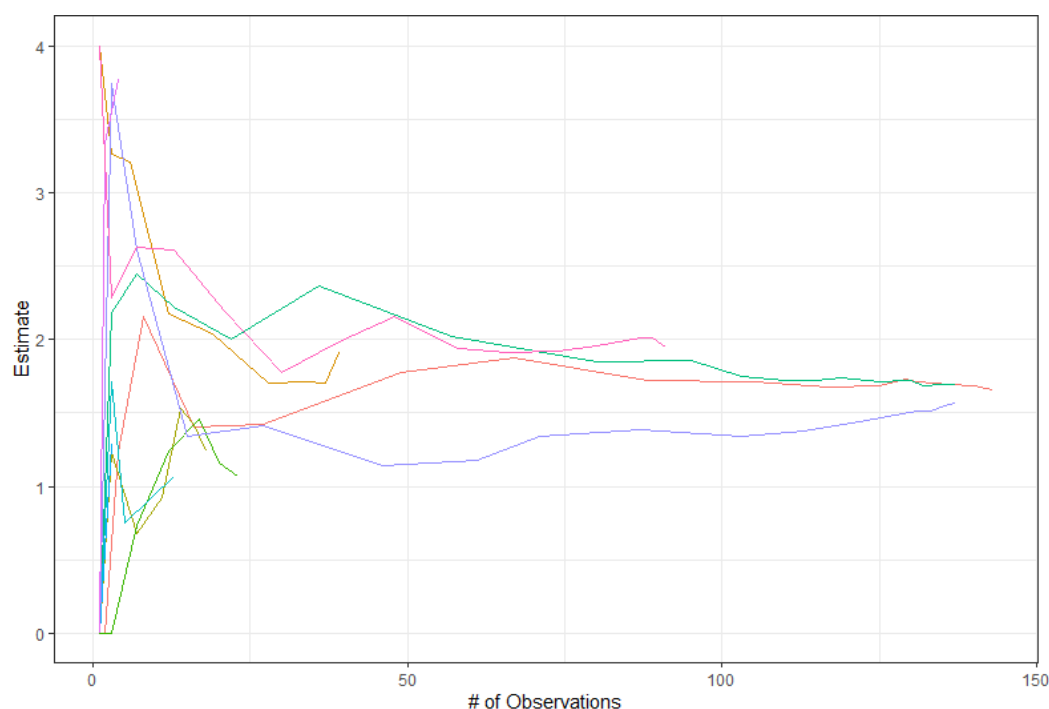
We show the bottleneck plot for basic demographic features only to limit the potential for deductive disclosure of seed identity.

**Figure A3a. Age: proportion 25 years or more**



**Figure A3b. Educational attendance: proportion attended higher education**



**Figure A3c. Current employment: proportion unemployed**

Whilst the sample achieved equilibrium on age (Figure A2a) and the trajectory of individual recruitment chains were heading for convergence, there was some evidence for persisting seed dependence in recruitment by age throughout the study. One recruitment chain, the longest (orange), tended to have a slightly higher proportion of those aged 25 years and over compared to other long recruitment chains (green & purple, Figure A3a), consistent with evidence of recruitment homophily by age (Table 1). The fourth longest chain (pink) tended to have a higher proportion of those aged under 25, perhaps also consistent with a lower proportion of those reporting attendance in higher education (Figure A3b). However convergence on educational attendance was achieved for the sample as a whole. Similarly, current employment converged for across the whole sample for each employment category, with no evidence of seed dependence in the proportion unemployed by recruitment chain (Figure A3c)

The cumulative weighted estimated proportion of different self-identified sexual identities did not appear to vary greatly by recruitment chain (not shown), and convergence was achieved on the overall sample albeit slightly later in recruitment than for demographic variables. Conversely there was some evidence that the cumulative proportion of transfeminine participants was still increasing as the study closed (Figure A2e), accounted for by a consistently higher proportion of transfeminine recruits in one of the larger recruitment chains active at the end of the study (not shown).

With respect to HIV outcomes, the cumulative proportion of HIV positive participants appeared to have stabilised at slightly lower weighted proportion until late in recruitment and at the end of recruitment the weighted HIV prevalence was rising slightly (Figure A2f). The proportion of those living with HIV who were virologically suppressed reached

equilibrium early in the study, yet also rose slightly very late in recruitment. Whilst there was no evidence for seed dependence in bottleneck plots in cumulative HIV prevalence, convergence of one recruitment with previously low HIV prevalence did not occur until late in recruitment, and this particular recruitment chain had a systematically higher proportion of persons living with HIV who had achieved virological suppression (not shown).

## Recruitment Homophily

Recruitment homophily (the ratio of number of recruits that have the same characteristic as their recruiter to the number we would expect if there was no homophily) was assessed for key demographic and outcome variables (Table 1). The strongest evidence of preferential recruitment of recruits with similar characteristics of the recruiter was for age and HIV status, in both cases suggesting that recruiters were more likely to identify recruits from the same age group or HIV status. With respect to age, this concurs with reported origin of most recruits from within friendship networks which can be anticipated to be assortative. The modest indication of homophily by HIV status might reflect either overlaps of identification of recruits from sexual, rather than social, networks (thus non-independent of the recruiters HIV status), or alternatively recruitment through networks formed around HIV care or prevention services.

Table 1: Recruitment homophily estimates

Characteristic	Homophily estimate	X <sup>2</sup> test for independence ( <i>p</i> )
Age group	1.36	3.58 x 10 <sup>-10</sup>
Educational attendance	1.07	0.295
Current Employment	1.08	0.0724
Sexual identity	1.00	0.0364
Gender identity	1.00	0.8593
HIV status	1.16	6.02 x 10 <sup>-9</sup>
Virological suppression	0.92	0.4665

## Discussion

The majority of participants reported that they knew the person who had given them a coupon, a key assumption of the RDS method (mutuality). With the exception of two seeds who recruited less than five participants, a satisfactory number of sample waves was achieved. The demographic characteristics of the achieved sample appeared to converge convincingly by the end of recruitment, however convergence of self-identified sexuality occurred later and gender identity may not have reached equilibrium within our sample size. In the absence of recruitment homophily by these factors, this suggests some seed dependence due to segregation of social and sexual networks by these factors rather than by recruitment preferences. Primary outcome estimates (HIV status and viral suppression amongst those HIV-positive) appeared to converge reasonably, although we noted minor deviations from equilibrium late in recruitment. Our observations of increases in both HIV positive status as well as proportion virologically suppressed late into recruitment, as well as modest recruitment homophily by HIV status, suggest preferential recruitment by factors related to the receipt of HIV care later in the study, such as higher age. However this may



have reflected difficulties in recruitment through social activities or perceived risks in attending central Nairobi locations during civil disruption related to election disputes that occurred late in the study and close to the study site<sup>2</sup>.

The mean age of participants was quite young: 77% of our RDS sample were <30 years of age, compared to 45% <30 years of age in the wider Nairobi population<sup>3</sup>. This sampling bias has been observed in other RDS surveys of MSM adults in sub-Saharan Africa<sup>4</sup>, and is thought to reflect age and cohort effects in MSM socialising patterns as well as relative difficulties in reaching older MSM/TG in many parts of the region<sup>5</sup>. The sample was also slightly different to the only previous RDS study of MSM in Nairobi<sup>6</sup>: the 2010 sample was somewhat older (56.5% <30 years), less likely to report post-primary education than the TRANSFORM sample, yet were similarly likely to report sex work. It is unclear whether these differences represent changes in the demographics of MSM/TP populations over the interim, or reflect differences in RDS performance. Whilst diagnostics are not available for Muraguri et al), the vast majority of recruits were derived from one seed.

## 2. Sensitivity analysis of source of cascade definitions and viral load cutoffs

	Status aware		Anti-retroviral therapy		Viral load suppression cutoff					
	Disclosed awareness of living with HIV		Disclosed current use of ART		<1000 copies/ml		<200 copies/ml		<50 copies/ml	
	n	%(CI)	n	%(CI)	n	%(CI)	n	%(CI)	n	%(CI)
<b>Computer assisted survey</b> (self- completed)	137	69.2 (60.5-76.8)	102	51.6 (43.0-60.2)	112	58.2 (49.5- 66.4)	102	51.7 (43.0-60.2)	92	47.4 (38.9-56.0)
<b>Clinical record</b> (face-to-face collected)	119	60.2 (51.5-68.4)	115	57.7 (49.0-66.0)						
<b>Composite</b>	150	76.7 (68.3-83.3)	129	65.3 (56.6-73.2)						

### 3: Survey tool

## TRANSFORM Survey Instrument v.4

Date today: [year/months/day]

Site name: \_\_\_\_\_

Study Staff name: \_\_\_\_\_

Participant ID number: \_\_\_\_\_

Thank you for agreeing to complete this survey. We will now ask you a few questions about yourself. Please remember that you do not have to answer any questions you do not want to answer and you can stop the survey at any time.



## PRACTICE QUESTIONS

There are three main types of questions .. the most common has small ROUND buttons for the answers and you can click only one answer. Once you have clicked on an answer the question will disappear and the next one will be shown. If you have made a mistake, just click the left-facing arrow head ("BACK") button on the bottom left hand side of the screen. Try this one ...

### How handsome are you?

Handsome

Very handsome

Incredibly handsome

Other questions have small SQUARE buttons for the answers and you can click as many of the answers as you like. Once you have clicked on an answer the question will not disappear - when you have finished you need to click the right-facing arrow head ("NEXT") button on the bottom right hand side. If you have made a mistake, just click the left-facing arrow head ("BACK") button on the bottom left hand side. Try this one ...

### Which of the following sports do you watch on television?

Notice these questions often have an "OTHER" option - if you click this you need to type in your other answer. Click "OTHER" and write in "Boxing" (or any other sport you watch).

Soccer

Rugby

Cricket

Other – please say which: (type in)

A few questions ask you when you last did something and offer you a calendar to pick the exact day, month and year. When this happens you can navigate the months and years using the left and right arrows on the calendar. When you have picked your date for your answer, click "Set" to record it. Once you have clicked on "Set" the question will disappear and the next one will be shown. Try this one ...

### When did you last speak to one of your family members?

Select date (day, month, year)

## AX. Coupon management

We are now going to start the survey properly - please answer every question honestly. Please remember that you do not have to answer any questions you do not want to answer and you can stop the survey at any time. All your responses are totally confidential.

The first set of questions are about how you found out about the study, and where you got the coupon.

### AX1. How do you know the person who gave you the coupon to participate in the survey?

Close friend

Friend

Acquaintance

Stranger

Other

Q1a, If Q1 = Other ask, How else do you know them?

[write in]

### AX2. Where were you when you received a coupon to participate in the study?

At or near home

At or near work

Out and about on the street

At a bar/club

Outside this office

Elsewhere (say where \_\_\_\_\_)

### AX3. If you had participated in the survey first, do you think that you might have given a coupon to the person who gave you one?

Yes

No

### AX4. Apart from the person who gave you the coupon you brought today, has anyone else offered you a coupon?

Yes

No

### AX5. If yes, how many times has this happened?

[ ] times

## A. QUESTIONS ABOUT YOU (1)

The first set of questions are about you .. your age, where you live, and where you were born, for example. The survey has started - all your answers are confidential. Please answer questions truthfully.

### A1. How old are you?

\_\_\_\_\_ (years)

### A2. Which neighbourhood do you live in?

[SHOW IF SITENAME = NAIROBI]

Dagoretti

Embakasi

Kamukunji

Kasarani

Langata

Makadara

Starehe

Westlands

Other (please specify) \_\_\_\_\_

[SHOW IF SITENAME = Johannesburg SOUTH AFRICA]

Braamfontein

Diepkloof,

Hillbrow

Orange Farm

Rosebank

Rosetonville

Sandton,

Soweto

Yeoville

Other (please specify) \_\_\_\_\_

### A3. Were you born in **[Kenya / South Africa]**?

No

Yes **[jump to A5]**

### A4. **[If A3 is no]** Were you born in another country in Africa?

Yes

No

### A4a. **[If A4 is yes]** Which country in Africa were you born?

[Select from list of countries]

TRANSFORM English Survey Instrument

SA Version 4 | KENYA version 1.4 dated 06/02/2017

**A5. Were you born in [SITE NAME] ?**

No

Yes

**A6. [If A5 is no] Which town were you born in?**

Town/Village \_\_\_\_\_

**A7. How many years have you been living around [SITE NAME]?**

[Type in]

## A. QUESTIONS ABOUT YOU (2)

### A8. What is your highest level of education completed?

#### [SHOW IF SOUTH AFRICA]

- No education
- Primary school
- Junior high school
- High school or technical secondary school
- College, university or higher education

#### [SHOW IF KENYA]

- No education
- Primary school
- Secondary school
- College, university or higher education

### A9. What best describes your current employment status?

- Employed full-time
- Employed part-time
- Self-employed
- Unemployed or between jobs
- Other (say what\_\_\_\_\_)

### A11. What was your income last month?

#### [SHOW IF KENYA]

KSH [enter number]

#### [SHOW IF SOUTH AFRICA]

ZAR [enter number]

### A12. Including yourself, how many people depend on this income?

[enter number]



## A. QUESTIONS ABOUT YOU (3)

### A13. What is your religious affiliation?

Christianity  
Islam  
Hinduism  
Other  
None

### A14. What population group do you belong to?

Black African  
Coloured  
Indian/Asian  
White  
Prefer not to say  
Other

### A15. [SOUTH AFRICA ONLY] How do you describe your sexuality

Gay  
Homosexual/  
Bisexual  
Heterosexual  
Other (please say what \_\_\_\_\_)  
Don't know

### A16 [SHOW IF KENYA]. How do you describe your sexuality in Swahili?

Basha  
Hanithi  
Kuchu  
Kuruzi  
Msago  
Msenge  
Shoga  
Other (please say what \_\_\_\_\_)

### A16. What sex were you assigned at birth (e.g. on your original birth certificate)?

Male  
Female  
Prefer not to answer

### A17. How do you currently describe your gender?

Male  
Female  
Transgender  
I do not identify as male, female or transgender

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**A18. What is your current marital status?**

Married / civil union / legal partnership

Single/divorced/widowed **[SKIP TO NEXT SECTION]**

**A19. What is the gender of your spouse?**

Male

Female

Transgender

Other – **say what**

**B. SOCIAL: FRIENDSHIPS**

We now want you to answer some questions about other men who have sex with men (MSM) who you know.

**B1. How many other MSM do you know whom you have had a conversation with in the past month? By 'know', we mean someone who knows your name and you know theirs, and by 'had a conversation with', we mean either in person, on the phone, using SMS or online.**

[enter number]

**B2. How many of these [B5] men know each other?**

All or almost all of them know each other

Most of them know each other [around **<ROUND[B5\*.75]>** of them]

About half of them know each other [around **<ROUND[B5\*.5]>** of them]

Some, but not the majority, know each other [around **<ROUND[B5\*.25]>** of them]

Very few or none of them know each other

**B3. How many of these [B1] men have you met in person?**

[enter number]

**B4. How many of these [B3] men are 18 years of age or older?**

[enter number]

**B5. How many of these [B4] men live in the same city as you?**

[enter number]

**B6. How many of these [B5] men have you seen in the past two weeks?**

[enter number]

**B7. How many of these [B6] men are over 30 years of age?**

[enter number]

The next set of questions asks about how you meet and socialise with other men that have sex with men.

**B8. When did you last visit any of these places to socialise with other MSM?**

	Visited in the last month	Visited in the last year, but not in last month	Visited more than a year ago	Never visited for this reason
Outdoor meeting place e.g. the park, the street, the beach	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bar or club	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Private house e.g. your house or a friends house	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sauna, bathhouse or sex party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Community space for MSM e.g. drop in centre, MSM organisation facilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**B9. When did you last use a website or mobile app to socialise with other MSM?**

Never **[jump to B12]**

In the last month

In the last year

More than one year ago

**B10. Which of the following internet services have you used to socialise with MSM in the last month [tick all that apply]?**

- |                                   |                                  |                                    |   |
|-----------------------------------|----------------------------------|------------------------------------|---|
| 2go <input type="radio"/>         | Facebook <input type="radio"/>   | Hornet <input type="radio"/>       |   |
| Adam4Adam <input type="radio"/>   |                                  |                                    | Radar <input type="radio"/>                   |
|                                   | Gay Radar <input type="radio"/>  | Instagram <input type="radio"/>    | Red Velvet <input type="radio"/>              |
|                                   | Gay.com <input type="radio"/>    | iPlay <input type="radio"/>        | Scruff <input type="radio"/>                  |
| Badoo <input type="radio"/>       | Gaydar <input type="radio"/>     |                                    | Sex Trader South Africa <input type="radio"/> |
|                                   |                                  |                                    | Skype <input type="radio"/>                   |
|                                   | Gayxchange <input type="radio"/> | Mambaonline <input type="radio"/>  | Snapchat <input type="radio"/>                |
|                                   | Get Male <input type="radio"/>   | Manhunt <input type="radio"/>      |   |
|                                   | Grindr <input type="radio"/>     |                                    | Twitter <input type="radio"/>                 |
|                                   |                                  | ManToManPlus <input type="radio"/> | Twoo <input type="radio"/>                    |
| Dating Buzz <input type="radio"/> | Guy Spy <input type="radio"/>    | Men2Men <input type="radio"/>      | WeChat <input type="radio"/>                  |
|                                   |                                  |                                    | Whatsapp <input type="radio"/>                |

MISTER ☐ Other \_\_\_\_\_  
Hookups ☐ Planet Romeo ☐

**B11. On the 1<sup>st</sup> January this year, were you registered as a user of the following services?**

**[SHOW IF COUNTRY=ALL]**

**B11.a. Grindr**

Yes  
No

**B11.b. Planet Romeo**

Yes  
No

**B11.c. Hornet**

Yes  
No

**[SHOW IF COUNTRY=SOUTH AFRICA]**

**B11.d. Mamba Online**

Yes  
No

**[If yes to B11a] B11.e. On January 1<sup>st</sup> this year, how many profiles do you have on Grindr?**  
[Enter number]

**[If yes to B11b] B11.f. On January 1<sup>st</sup> this year, how many profiles do you have on Planet Romeo?**  
[Enter number]

**[If yes to B11c] B11.f. On January 1<sup>st</sup> this year, how many profiles do you have on Hornet?**  
[Enter number]

**[If yes to B11d] B11.g. On January 1<sup>st</sup> this year, how many profiles do you have on Mambo Online?**  
[Enter number]

**B12. Have you ever visited or received information from a community organisation or support group for men who have sex with men?**

No **[JUMP TO NEXT SECTION]**  
Yes  
Don't know/not sure **[JUMP TO NEXT SECTION]**

**B13. Which of the following gay/LGBT organisations or support groups have you VISITED in the past year?****[SHOW IF COUNTRY=SOUTH AFRICA]**

SOHACA  
(ANOVA)Health4Men  
LGBTI  
ACTIVATE  
GALA  
Other ...

**[SHOW IF COUNTRY=KENYA]**

ISHTAR  
GALCK  
HOYMAS

## C. SOCIAL SUPPORT

The next set of questions are about social support - or how much support you get from any partner/s, friends and family.

Please indicate how much you agree or disagree with the following statements

	Very strongly disagree	Strongly disagree	Mildly disagree	Neutral	Mildly agree	Strongly agree	Very strongly agree
<b>C1. There is a special person who is around when I am in need</b>							
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>C2. There is a special person with whom I can share joys and sorrows</b>							
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>C3. My family really tries to help me</b>							
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>C4. I get the emotional help &amp; support I need from my family</b>							
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>C5. I have a special person who is a real source of comfort to me</b>							
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>C6. My friends really try to help me</b>							
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>C7. I can count on my friends when things go wrong</b>							
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>C8. I can talk about my problems with my family</b>							
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>C9. I have friends with whom I can share my joys and sorrows</b>							
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>C10. There is a special person in my life who cares about my feelings</b>							
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>C11. My family is willing to help me make decisions</b>							
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>C12. I can talk about my problems with my friends</b>							



	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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## D. SOCIAL: DISCLOSURE & DISCRIMINATION DUE TO SEXUALITY

The next set of questions are about telling people about having sex with other men and any problems this might have caused you.

Please pay close attention to the questions in this section. Some ask you to think about the last 12 months, while others ask you to think about your whole life (ever).

### D1. Have you ever felt excluded from family activities because you have sex with men?

Yes  
No

### D2. Have you ever felt that family members have made discriminatory remarks or gossiped about you because you have sex with men?

Yes  
No

### D3. In general, do you try to keep it hidden from your FAMILY that you have sex with men?

I try very hard to hide it  
Try somewhat to hide it  
I don't try to hide it, but I don't talk about it  
I openly talk about it  
Not applicable

### D4. In general, do you try to keep it hidden from your FRIENDS that you have sex with men?

I try very hard to hide it  
Try somewhat to hide it  
I don't try to hide it, but I don't talk about it  
I openly talk about it  
Not applicable

### D5. Have you ever felt rejected by your friends because you have sex with men?

Yes  
No

### D6. In general, do you try to keep it hidden from HEALTH CARE WORKERS that you have sex with men?

I try very hard to hide it  
Try somewhat to hide it  
I don't try to hide it, but I don't talk about it  
I openly talk about it  
Not applicable

**D7. In the last 12 months, have you felt afraid to go to health care services because you worry someone may learn you have sex with men?**

Yes

No

**D8. In the last 12 months, have you avoided going to health care services because you worry someone may learn you have sex with men?**

Yes

No

**D9. In the last 12 months, have you felt that you were not treated well in a health centre because someone knew that you have sex with men?**

Yes

No

**D10. In the last 12 months, have you heard health care providers gossiping or laughing about you because you have sex with men?**

Yes

No

**D11. In the last 12 months, have you felt that the police refused to protect you because you have sex with men?**

Yes

No

**D12. In the last 12 months, have you felt scared to be in public places because you have sex with men?**

Yes

No

**D15. In the last 12 months, have you been blackmailed by someone because you have sex with men?**

Yes

No

**D17. In the last 12 months, has someone ever physically hurt you (pushed, shoved, slapped, hit, kicked, choked or otherwise physically hurt you) due to the fact that you have sex with men?**

Yes

No **[JUMP TO D20]**

**D18. Who did this? [Tick all that apply]**

A stranger

A family member

A member of the police or a public official

A health provider

A partner

A sex client

Other

**D20. In the last 12 months, have you been forced to have sex when you did not want to? (By forced, we mean physically forced, coerced to have sex, or penetrated with an object, when you did not want to) due to the fact that you have sex with men?**

Yes

No **[JUMP TO D24]**

**D21. Who did this? [Tick all that apply]**

A stranger

A family member

A member of the police or a public official

A health provider

A partner

A sex client

Other

**D24. In the last 12 months, have you been threatened with detention or arrest by a member of the police or public official due to the fact you have sex with men?**

Yes

No

**D26. Have you ever been arrested or imprisoned because you have sex with men?**

Yes

No

## E. SEXUAL BEHAVIOUR

We would now like to ask you about your recent sexual behaviour. By sex we mean any genital contact - including masturbation (wanking, fingering); oral sex (sucking/blowjobs, licking, rimming); vaginal or anal intercourse (fucking).

**E1. In the last 3 months, have you had sex with a man?**

Yes

No

**E1a. [If E1 = yes ] How many different men have you had sex with in the last 3 months?**

[Enter number]

**E2. In the last 3 months, what type of anal sex have you engaged in with men?**

Receptive anal sex only ('bottom')

Insertive anal sex only ('top')

Both receptive and insertive anal sex (versatile)

None of the above

**E3 [if E2= receptive or both] In the last 3 months, how often did you use condoms when you were the receptive partner / were bottom for anal sex?**

Always

Most of the time

Some of the time

Rarely

Never

**E4. [if E2= Insertive or both] In the last 3 months, how often did you use condoms when you were the insertive partner / were top for anal sex?**

Always

Most of the time

Some of the time

Rarely

Never

**E5. In the last 3 months, what type of oral sex have you engaged in with men?**

Receptive oral sex only (I gave a blow job)

Insertive oral sex only (I was sucked off)

Both ways

None of the above

**E6. In the last 12 months, have any men paid you in return for sex?** By payment we mean he gave you money, gifts or favours in return for sex.

Yes

No

**E7. In the last 12 months, have you paid a man in return for sex with him?** By payment we mean you gave him money, gifts or favours in return for sex.

Yes

No

**E8. In the last 12 months, have any of your male partners every tried to hurt you?** By this we mean pushing, holding you down, hitting you with his fist, kicking, attempting to strangle, attacking with a knife, gun or other weapon

Yes

No

**E9. In the last 12 months, have any of your male partners used physical force or verbal threats to force you to have sex when you did not want to?**

Yes

No



**E10. In the last 3 months have you had sex with a woman?**

Yes

No [**JUMP TO NEXT SECTION**]

**E10a. How many women have you had sex with in the 3 months?**

[enter number]

**E11. In the last 3 months, what type of sex have you engaged in with women?**

Vaginal sex

Anal sex

Both

Neither

**E12. [if E11= vaginal or both] In the last 3 months, how often did you use condoms when you had vaginal sex with a female partner?**

Always

Most of the time

Some of the time

Rarely

Never

**E13 [if E11=anal or both] In the last 3 months, how often did you use condoms when you had anal sex with a female partner?**

Always

Most of the time

Some of the time

Rarely

Never

**E14. In the last 12 months, have any women paid you in return for sex? By payment we mean she gave you money, gifts or favours in return for sex.**

Yes

No

**E15. In the last 12 months, have you paid a woman in return for sex with her? By payment we mean you gave her money, gifts or favours in return for sex.**

Yes

No

## EX. SEXUAL BEHAVIOUR: PARTNERSHIP DYADS

We now want you to think about the last FOUR people you had sex with. We want to ask you a set of questions about each of these FOUR people. Choose a nickname or set of initials to help identify each one. These do not need to be real nicknames or initials, just something that will help keep track of who we are asking about.

Remember that by sex we mean any genital contact - including masturbation (wanking, fingering); oral sex (sucking/blowjobs, licking, rimming); vaginal or anal intercourse (fucking).

**Partner #1:**

**Who was the last person you had sex with? (Write in a nickname, first name or initials)**

[Enter initials]

**Partner # 2:**

**Before (Partner #1) who was the last person you had sex with? (Write in a nickname, first name or initials)**

[Enter initials]

**Partner #3:**

**Before (Partner #2) who was the last person you had sex with? (Write in a nickname, first name or initials)**

[Enter initials]

**Partner #4:**

**Before (Partner #3) who was the last person you had sex with? (Write in a nickname, first name or initials)**

[Enter initials]

**Partner #1**

The following set of questions are about the first partner you mentioned.

There are three main routes through this section of the survey, depending on whether they are (1) a casual, one-off partner, (2) a regular sexual partner who they expect to have sex with again in the future, and (3) a partner who was regular but who they do not expect to have sex with again in the future. The online survey hosting system will automatically route people through the survey based on prior responses. For this Word version, all three routes are presented in turn. Revisions were necessary to this section following piloting. The questions remain largely the same as our previous submission, but have been re-ordered for clarity of completion and in anticipation of multiple partner types.

**ROUTE 1: A CASUAL, ONE-OFF SEXUAL PARTNER**

**What is the most recent date [closest to today] you had sex with [partner #1]? Please make your best guess if you cannot remember exactly.**

[enter date]

**What is the gender of [partner #1]**

Male  
Female  
Transgender  
Don't know

**How old was [partner #1] when you last had sex with them? Please make your best guess if you are unsure.**

[enter age]

**How did you first meet [partner #1]?**

Through friends  
Through family  
At school  
At work  
At a bar or club  
At a private party  
On a social networking site - **say which one**  
Other - **say where you met**  
I don't remember

**How many times have you ever had sex with [partner #1]**

Only once  
More than once

**Do you expect to have sex with [partner #1] again in the future?**

Yes

No

Did you give [partner #1] money, gifts or favours in exchange for sex with you?

No

Yes

Did [partner #1] give you money, gifts or favours in exchange for sex with you?

No

Yes

EX28[i] [if EX3=male]

What type of sex have you ever had with [Partner #1]? [tick all that apply]

Receptive anal sex (I was bottom)

Insertive anal sex (I was top)

Receptive oral sex (I gave a blow job)

Insertive oral sex (I was sucked off)

EX29A[i] [if EX3=male & EX28 = receptive anal sex]

When you had receptive anal sex / was bottom with [Partner #1], was this with or without a condom?

With a condom

Without a condom

EX29B[i] [if EX3=male & EX28 = insertive anal sex]

When you had insertive anal sex / was top with [Partner #1], was this with or without a condom?

With a condom

Without a condom

EX30[i] [if EX3=female]

What type of sex have you ever had with [Partner #1]? [tick all that apply]

Vaginal sex

Anal sex

Oral sex

EX31A[i] [if EX3= female & EX28 = vaginal sex]

When you had vaginal sex with [Partner #1], was this with or without a condom?

With a condom

Without a condom

EX31B[i] [if EX3= female & EX28 = anal sex]

Last time you had anal sex with [Partner #1], was this with or without a condom?

With a condom

Without a condom

**EX33[i] Has [Partner #1] shared his/her HIV status with you?**

No **[JUMP TO E35[i]]**

Yes

I do not know

**EX34[i] What is [Partner #1]'s HIV status?**

HIV-positive [they had HIV infection]

HIV-negative [they did not have HIV infection]

I do not know

**SKIP TO E36[i]**

**EX35[i] What did you believe [Partner #1]'s HIV status to be at the time you had sex with them?**

I think HIV-positive

I think HIV-negative

I do not know

**ROUTE 2: A REGULAR SEXUAL PARTNER WHO THEY EXPECT TO HAVE SEX WITH AGAIN IN THE FUTURE**

**What is the most recent date [closest to today] you had sex with [partner #1]? Please make your best guess if you cannot remember exactly.**

[enter date]

**What is the gender of [partner #1]**

Male

Female

Transgender

Don't know

**How old was [partner #1] when you last had sex with them? Please make your best guess if you are unsure.**

[enter age]

**How did you first meet [partner #1]?**

Through friends

Through family

At school

At work

At a bar or club

At a private party

On a social networking site - **say which one**

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Other - say where you met

I don't remember

**How many times have you ever had sex with [partner #1]**

Only once

More than once

**Do you expect to have sex with [partner #1] again in the future?**

Yes

No

**EX20A[i] [if EX19i=YES] Which of the following best describes your current relationship with <EX1[i]>?**

We are married / in a civil partnership with each other

We are going steady / regular partners (i.e. long term boyfriend or girlfriend)

We are friends who occasionally have sex

We just meet for sex

**EX21A[i] [if EX19i=YES] Do you live with them?**

Yes

No

**EX22A[i] [if EX19i=YES] Are you in love with <EX1[i]>?**

Yes, very much

Yes, a little

No

**EX24A[i] [if EX19i=YES] Are you dependent on <EX1[i]> for income, money or somewhere to stay?**

Yes, very much

Yes, a little

No

**EX26[i]. Do you give them money, gifts or favours in exchange for sex with you?**

No

Yes

**EX27[i]. Do they give you money, gifts or favours in exchange for sex with you?**

No

Yes

**EX28[i] [if EX3=male]**

**What type of sex have you ever had with [Partner #1]? [tick all that apply]**

Receptive anal sex (I was bottom)

Insertive anal sex (I was top)

Receptive oral sex (I gave a blow job)

Insertive oral sex (I was sucked off)

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**EX29A[i] [if EX3=male & EX28 = receptive anal sex]**

**Last time you had receptive anal sex / was bottom with [Partner #1], was this with or without a condom?**

With a condom

Without a condom

**EX29B[i] [if EX3=male & EX28 = insertive anal sex]**

**Last time you had insertive anal sex / was top with [Partner #1], was this with or without a condom?**

With a condom

Without a condom

**EX30[i] [if EX3=female]**

**What type of sex have you ever had with [Partner #1]? [tick all that apply]**

Vaginal sex

Anal sex

Oral sex

**EX31A[i] [if EX3= female & EX28 = vaginal sex]**

**Last time you had vaginal sex with [Partner #1], was this with or without a condom?**

With a condom

Without a condom

**EX31B[i] [if EX3= female & EX28 = anal sex]**

**Last time you had anal sex with [Partner #1], was this with or without a condom?**

With a condom

Without a condom

**EX33[i] Has [Partner #1] shared his/her HIV status with you?**

No **[JUMP TO E35[i]]**

Yes

I do not know

**EX34[i] What is [Partner #1]'s HIV status?**

HIV-positive [they had HIV infection]

HIV-negative [they did not have HIV infection]

I do not know

**SKIP TO E36[i]**

**EX35[i] What do you believe [Partner #1]'s HIV status to be?**

I think HIV-positive

I think HIV-negative

I do not know

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**EX36[i] Have you and [Partner #1] ever accompanied each other to any of the following [check any that apply]**

- Counselling and testing for HIV
- Appointment at a sexual health clinic
- Appointment at an HIV treatment clinic
- A health information session or event for MSM
- Attended a social event arranged by an MSM organisation
- NO, none of the above

**ROUTE 3: A FORMERLY REGULAR SEXUAL PARTNER WHO THEY DO NOT EXPECT TO HAVE SEX WITH AGAIN IN THE FUTURE**

**What is the most recent date [closest to today] you had sex with [partner #1]? Please make your best guess if you cannot remember exactly.**

[enter date]

**What is the gender of [partner #1]**

- Male
- Female
- Transgender
- Don't know

**How old was [partner #1] when you last had sex with them? Please make your best guess if you are unsure.**

[enter age]

**How did you first meet [partner #1]?**

- Through friends
- Through family
- At school
- At work
- At a bar or club
- At a private party
- On a social networking site - say which one
- Other - say where you met
- I don't remember

**How many times have you ever had sex with [partner #1]**

- Only once
- More than once

**Do you expect to have sex with [partner #1] again in the future?**

- Yes
- No

**EX20B[i] [if EX19i=NO] Which of the following best describes the relationship you had with <EX1[i]>?**

- We were married / in a civil partnership with each other
- We were going steady / regular partners (i.e. long term boyfriend or girlfriend)
- We were friends who occasionally had sex
- We just met for sex

**EX21B[i] [if EX19i=NO & EX18i=YES] When you were in a relationship, did you live with <EX1[i]>?**

- Yes
- No

**EX22B[i] [if EX19i=NO & EX18i=YES] When you were in a relationship, were you in love with <EX1[i]>?**

- Yes, very much
- Yes, a little
- No

**EX24B[i] [if EX19i=NO] Were you dependent on <EX1[i]> for income, money or somewhere to stay?**

- Yes, very much
- Yes, a little
- No

**EX26[i]. Did you give them money, gifts or favours in exchange for sex with you?**

- No
- Yes

**EX27[i]. Did they give you money, gifts or favours in exchange for sex with you?**

- No
- Yes

**EX28[i] [if EX3=male]**

**What type of sex have you ever had with [Partner #1]? [tick all that apply]**

- Receptive anal sex (I was bottom)
- Insertive anal sex (I was top)
- Receptive oral sex (I gave a blow job)
- Insertive oral sex (I was sucked off)

**EX29A[i] [if EX3=male & EX28 = receptive anal sex]**

**Last time you had receptive anal sex / was bottom with [Partner #1], was this with or without a condom?**

- With a condom
- Without a condom

**EX29B[i] [if EX3=male & EX28 = insertive anal sex]**

**Last time you had insertive anal sex / was top with [Partner #1], was this with or without a condom?**

- With a condom
- Without a condom

**EX30[i] [if EX3=female]**

**What type of sex have you ever had with [Partner #1]? [tick all that apply]**

- Vaginal sex
- Anal sex
- Oral sex

**EX31A[i] [if EX3= female & EX28 = vaginal sex]**

**Last time you had vaginal sex with [Partner #1], was this with or without a condom?**

- With a condom
- Without a condom

**EX31B[i] [if EX3= female & EX28 = anal sex]**

**Last time you had anal sex with [Partner #1], was this with or without a condom?**

- With a condom
- Without a condom

**EX33[i] Has [Partner #1] shared his/her HIV status with you?**

- No [JUMP TO E35[i]]
- Yes
- I do not know

**EX34[i] What is [Partner #1]'s HIV status?**

- HIV-positive [they had HIV infection]
- HIV-negative [they did not have HIV infection]
- I do not know

**SKIP TO E36[i]**

**EX35[i] What did you believe [Partner #1]'s HIV status to be when you last had sex with them?**

- I think HIV-positive
- I think HIV-negative
- I do not know

**EX36[i] Have you and [Partner #1] ever accompanied each other to any of the following [check any that apply]**

- Counselling and testing for HIV
- Appointment at a sexual health clinic
- Appointment at an HIV treatment clinic
- A health information session or event for MSM
- Attended a social event arranged by an MSM organisation
- NO, none of the above

To finish off this set we are going to ask you a few questions about whether any of the partners you just described know each other.

**EX37 [IF >1 MALE]** As far as you know, are any of these men sexually active with each other, as well as with you?

Yes

No **[SKIP TO NEXT SECTION]**

I don't know **[SKIP TO NEXT SECTION]**

**EX38 [IF >1 MALE REPORTED]** Please indicate which men are sexually active with each other

<EX1> & <EX2> **[IF BOTH MALE]**

<EX1> & <EX3> **[IF BOTH MALE]**

<EX1> & <EX4> **[IF BOTH MALE]**

<EX2> & <EX3> **[IF BOTH MALE]**

<EX2> & <EX4> **[IF BOTH MALE]**

<EX3> & <EX4> **[IF BOTH MALE]**

## F. KNOWLEDGE & SELF EFFICACY REGARDING HIV & SEXUAL HEALTH

The next set of questions are about what you know about HIV and how easy you find it to manage your sexual health.

### F1. The following statements are all TRUE. Did you know this already?

#### F1a. 'Effective treatment of HIV infection reduces the risk of HIV being transmitted'

- I knew this already
- I wasn't sure about this
- I didn't know this already
- I don't understand this

#### F1b. 'It is possible to catch HIV during anal sex with a man'

- I knew this already
- I wasn't sure about this
- I didn't know this already
- I don't understand this

#### F1c. 'It is possible to catch HIV even when you are the active partner (the 'top') during anal sex'

- I knew this already
- I wasn't sure about this
- I didn't know this already
- I don't understand this

### F2. To what extent do you agree with the following statements?

	Strongly disagree	Mildly disagree	Neutral	Mildly agree	Strongly agree
<b>F2a. 'The sex I have is always as safe as I want it to be'</b>					
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>F2b. 'I can ensure condoms are used with a sexual partner if I want them to be used'</b>					
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>F2c. 'I sometimes have a problem getting condoms when I need them'</b>					
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>F2d. 'I sometimes have problems with condoms that do not fit properly'</b>					
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>F2e. 'I sometimes have a problem getting water-based lubricant when I need it'</b>					
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## G. SEXUAL HEALTH & HIV

The next set of questions are about testing for HIV.

### G1. What do you believe your current HIV status is today?

- Negative (I do not think I have HIV)
- Positive (I think I have HIV)
- Not sure

### G2. Have you ever taken an HIV test?

- Yes
- No [\[jump to section G PART III\]](#)

### G3: In what month and year was your most recent HIV test?

[enter date MM/YYYY]

### G4: Where did you take your most recent HIV test?

- Public hospital or clinic
- Private hospital or clinic
- Community HIV testing service for the public
- Community HIV testing service for MSM only
- A place where I meet my friends (bar or club)
- At home
- Other [please specify]

### G5. When you took your last HIV test, were you satisfied with the privacy of the service?

- Very satisfied
- Satisfied
- Dissatisfied
- Very dissatisfied
- I don't remember / I did not think about it

### G7. When you took your last HIV test, were you satisfied with the respect staff showed you?

- Very satisfied
- Satisfied
- Dissatisfied
- Very dissatisfied
- I don't remember / I did not think about it

### G8. What was the result of your most recent HIV test?

- Negative (I did not have HIV at my last test)
- Positive (I have HIV)
- I don't know



**SECTION G PART I: ABOUT BEING HIV POSITIVE**

The next set of questions are about having diagnosed HIV.

**G10. In what month and year were you first diagnosed HIV positive?**

[enter date MMYYY]

**G11. When you were first diagnosed HIV positive, were you referred to a health care provider about your HIV infection or HIV related health?** By 'health care provider' we mean a clinic at which you might see a doctor or clinical officer about your medical care.

Yes

No

**G12. Since you were first diagnosed HIV positive, have you ever visited a health care provider about your HIV infection or HIV related health?**

Yes **[JUMP TO G14]**

No

**G13 Why did you not visit the health care provider after having been referred to them? (tick any that apply)**

Negative attitude of clinic staff toward MSM

Negative attitude of clinic staff toward people living with HIV

Fear of being noticed going to the clinic

Long distance to get to the clinic

High cost of the clinic/tests

High cost of travel to the clinic

High cost of medication

Fear of medication side effects

Fear that my medication will be noticed

Did not believe the medication would work

Did not believe I needed the medication

Other reason [please specify \_\_\_\_\_]

**G14. From the date that you learnt you were HIV positive, how soon did you first see a health care provider for HIV care?**

On the same day as I learned my status

Within 2 weeks of learning my status

2 to 4 weeks after learning my status

1 to 3 months after learning my status

3 to 12 months after learning my status

Over one year after learning my status

**ADDED** Never seen health care provider about my HIV

**G15. Where did you go the first time you visited a health care provider for this purpose?**

A public hospital or clinic

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- A private hospital or clinic
- A clinic just for men who have sex with men

### ROUTINE HIV CARE

The next set of questions is about routine HIV care and support.

#### G16. When did you last see a health professional about your HIV care?

- Within the last 6 months
- Between 6 to 12 months ago
- Between 1 to 2 years ago
- More than 2 years ago

#### G17. Where did you go the last time you visited a health care provider for this purpose?

- A public hospital or clinic
- A private hospital or clinic
- A clinic just for men who have sex with men

#### G18. The last time you visited a health care provider for HIV care, were you satisfied with the privacy of the service?

- Very satisfied
- Satisfied
- Dissatisfied
- Very dissatisfied
- I don't remember / I did not think about it

#### G20. The last time you visited a health care provider for HIV care, were you satisfied with the respect staff showed you?

- Very satisfied
- Satisfied
- Dissatisfied
- Very dissatisfied
- I don't remember / I did not think about it

#### G22. Have you ever received a test to see how well your immune system is functioning. This is called a CD4 test?

- Yes
- No
- Not sure

#### G22a. [If G22 = yes] When did you last receive a CD4 count test result?

- Within the last 6 months
- Between 6 to 12 months ago
- Between 1 to 2 years ago
- More than 2 years ago

#### G23. [If G22 = yes] What was your CD4 count the last time this was tested?

- More than 500

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Between 350-500

Under 350

I was told the result, but I do not remember

I was told the result, but I did not understand it

I was not told the result

**G24. Have you ever received a test to measure the amount of HIV infection in your blood? This is called a viral load test.**

**Yes**

**No**

**Not sure**

**G24a. [If G24 = yes] When did you last receive a viral load test result?**

Within the last 6 months

Between 6 to 12 months ago

Between 1 to 2 years ago

More than 2 years ago

**G25. [If G24 = yes] What was the result of your viral load the last time it was tested?**

Undetectable

Detectable

I was told the result, but I do not remember

I was told the result, but I did not understand it

I was not told the viral load test result

**HIV TREATMENT (ART)**

The next set of questions is about taking anti-HIV treatments (ART, HAART).

**G26. Have you ever started taking antiretroviral therapy (sometimes called ART or HAART) for your HIV infection?**

Yes

No **[JUMP TO G28]**

**G27. You have said you first learned of your HIV infection in <G8 MM YY>. How soon after this did you start ART?**

On the same day as I learned my status

Within 2 weeks after learning my status

2 to 4 weeks after learning my status

1 to 3 months after learning my status

3 to 12 months after learning my status

Over one year after learning my status

**[JUMP TO SECTION G PART IV]**

**G28. Has your healthcare provider suggested you start antiretroviral treatment (ART)?**

Yes

No **[JUMP TO SECTION G PART IV]**

**G29. What factors made you decide not to start antiretroviral treatment (ART)? [Tick all that apply]**

Negative attitude of clinic staff toward MSM

Negative attitude of clinic staff toward people living with HIV

Fear of being noticed going to the clinic

Long distance to get to the clinic

High cost of the clinic/tests

High cost of travel to the clinic

High cost of medication

Fear of medication side effects

Fear that my medication will be noticed

Did not believe the medication would work

Did not believe I needed the medication

Other reason [please specify\_\_\_\_\_]

**[JUMP TO SECTION G PART IV]**

**G30. Are you currently taking antiretroviral treatment (ART)?**

Yes

No

**[If G30 = no] When did you stop taking antiretroviral treatment (ART)?**

Within the last 6 months

Between 6 to 12 months ago

Between 1 to 2 years ago

More than 2 years ago

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**[If G30 = no] G32. What factors made you decide to stop taking antiretroviral treatment? [Tick all that apply]**

- Negative attitude of clinic staff toward MSM
- Negative attitude of clinic staff toward people living with HIV
- Fear of being noticed going to the clinic
- Long distance to get to the clinic
- High cost of the clinic/tests
- High cost of travel to the clinic
- High cost of medication
- Fear of medication side effects
- Fear that my medication will be noticed
- Did not believe the medication was working
- Did not believe I needed the medication any more
- Other reason [please specify\_\_\_\_\_]

**[If G30 = yes] G31. Many patients find it difficult to take all of their HIV medication exactly as prescribed. How many doses of your HIV medication did you miss in the last 7 days?**

[Enter number of doses]

**SECTION G PART II: ABOUT BEING HIV NEGATIVE**

The next set of questions is about testing negative for HIV.

**G33. In the last 12 months, how many times have you taken an HIV test?**

[enter a number]

**G34. If you decided to take an HIV test again, where would you prefer to do the test?**

Public hospital or clinic

Private hospital or clinic

Community HIV testing service for the public

Community HIV testing service for MSM only

A place where I meet my friends (e.g. bars or clubs)

At home

**G35. If you decided to take an HIV test again, who would you prefer to perform the test?**

Doctor or clinical officer

Nurse

Counsellor

MSM community worker

Me [i.e. self-test]

**[JUMP TO SECTION G PART IV]**

**SECTION G PART III: ABOUT NEVER TESTING FOR HIV**

The next set of questions are about never having tested for HIV.

**G36. Please give any reasons why you never tested for HIV before?**

[enter text]

It is not important to me to know

I expect I have the same status as my partner

I do not know where to get tested

I may not be treated with respect at the clinic

I am afraid that I might have HIV

I am afraid of being treated differently if I take a test

I am afraid of being treated differently if I have HIV

It would cause problems in my relationship

I have no reason to think I have HIV

Other reason (say what\_\_\_\_\_)

**G37. How confident are you that you could get a test for HIV if you wanted one in the future?**

Very confident

Quite confident

A little confident

Not at all confident

I don't know

**G38. If you decided to take an HIV test in the future, where would you prefer to do the test?**

Public hospital or clinic

Private hospital or clinic

Community HIV testing service for the public

Community HIV testing service for men who have sex with men only

A place where I meet my friends (e.g. bars or clubs)

At home

**G39. If you decided to take an HIV test in the future, who would you prefer to perform the test?**

Doctor or clinical officer

Nurse

Counsellor

MSM community worker

Me [i.e. self-test]

**SECTION G PART IV: OTHER SEXUALLY TRANSMITTED INFECTIONS**

The next set of questions are about the symptoms of certain sexually transmitted infections.

**G40. In the last 12 months, have you had a discharge from the penis or pain when you pass urine?**

Yes

No **[JUMP to G42]**

**G41. Do you have these symptoms today?**

Yes

No

**G42. In the last 12 months, have you had a discharge from the anus or severe pain during anal sex?**

Yes

No **[JUMP to G44]**

**G43. Do you have these symptoms today?**

Yes

No

**G44. In the last 12 months, have you noticed any sores on the penis or around the anus?**

Yes

No

**[IF A16 = A17 PAST TO NEXT SECTION]**



**SECTION G PART V: TRANSGENDER SEXUAL HEALTH ACCESS****IF DISCREPENCY BETWEEN ANSWER TO A16 AND A17, OR IF TRANS IDENTIFYING IN A17**

The next of questions is about access to - and use of - transgender services.

**G45. How confident are you that you could access counselling concerning your gender?**

- Very confident
- Quite confident
- A little confident
- Not at all confident
- I don't know

**G46. Do you currently use hormone or hormone-blocking therapies?**

- Yes
- No **[SKIP TO G48]**

**G47. From where do you access these therapies?**

- Public hospital or clinic
- Private hospital or clinic
- Purchased directly from a pharmacy
- Purchased over the internet
- Obtained from friends

**[SKIP TO G49]**

**G48. How confident are you that you could access hormone or hormone-blocking therapies in <COUNTRY> if you wanted them?**

- Very confident
- Quite confident
- A little confident
- Not at all confident
- I don't know

**G49. Have you had any surgery related to your gender **[PILOT: REQUIRES ACCEPTABLE & UNDERSTANDABLE LOCAL TERM]**?**

- Yes
- No **[SKIP TO G51]**

**G50. Where were you able to access these services?**

- Public hospital in this country
- Private hospital in this country
- Hospital in another country

**[JUMP TO NEXT SECTION]**

**G51. How confident are you that you could access surgery related to your gender**

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Very confident  
Quite confident  
A little confident  
Not at all confident  
I don't know

## H. Post Exposure Prophylaxis (PEP)

The next set of questions is about Post Exposure Prophylaxis - which is also known as PEP.

### H1. The following statement is true. Did you know this already?

*Post exposure prophylaxis (PEP) is a one-month course of pills that may stop someone from becoming infected with HIV if they are exposed to the virus (such as by having sex without condoms). PEP needs to be started as soon as possible AFTER an HIV risk.*

- I knew this already
- I wasn't sure about this
- I didn't know this already
- I don't understand this

### H2. Have you ever tried to get PEP?

- Yes
- No
- Don't know

### H3. [If yes to H2] Have you ever taken PEP?

- Yes
- No
- Don't know

### H4. [If yes to H3] For how many days did you take PEP? (If you've taken it more than once, think about the last time you took it)

[enter number]

### H5. [IF G1 = NEGATIVE or NOT SURE] If you thought you had been exposed to HIV would you know where to get PEP?

- Yes
- No
- Don't know

## H. Pre Exposure Prophylaxis (PrEP)

The next set of questions is about Pre Exposure Prophylaxis - which is also known as PrEP.

### H6. The following statement is true. Did you know this already?

*Pre exposure prophylaxis (PrEP) involves someone who does not have HIV taking a pill on an on-going basis to prevent them getting HIV. Most people who use PrEP take a pill everyday. PrEP needs to be taken BEFORE sex for it to be effective.*

- I knew this already
- I wasn't sure about this
- I didn't know this already
- I don't understand this

*PrEP is different from PEP. PEP is taken AFTER a risk and PrEP is taken BEFORE.*

### H7. Have you ever tried to get PrEP?

- Yes
- No **[JUMP TO H10]**
- Don't know **[JUMP TO H10]**

### H8. Have you ever been offered PrEP?

- Yes
- No
- Not sure/don't know

### H8. Have you ever taken PrEP?

- Yes, and I am still using it
- Yes, but I stopped taking it
- No **[JUMP TO H10]**
- Don't know **[JUMP TO H10]**

### H9. Where did you access your PrEP?

- A doctor at a public hospital or clinic
- A doctor at a private hospital or clinic
- At a community based organization
- From a dedicated website (say which one)
- Somewhere else (say where)

**[JUMP TO NEXT SECTION]**

### H10. **[IF G1 = NEGATIVE or NOT SURE]** If PrEP was made available to you how likely do you think that you would use it?

- Very likely

Quite likely  
Not sure  
Not very likely  
Very unlikely

**H11. If PrEP was made available to you, where would you prefer to access it? ~~{Tick one}~~**

At a public hospital or clinic  
At a private hospital or clinic  
At a community based organization  
From a pharmacy  
From a dedicated website  
Somewhere else (say where)

## SECTION I. ALCOHOL USE

The next set of questions are about drinking alcohol.

### I1. How often do you have a drink containing alcohol?

- Never
- Monthly
- 2-4 times a month
- 2-3 times a week
- 4 or more times a week

### I2. How many drinks containing alcohol do you have on a typical day when you are drinking?

- 1 or 2
- 3 or 4
- 5 or 6
- 7 to 9
- 10 or more

### I3. How often do you have six or more drinks on one occasion?

- Never
- Less than monthly
- Monthly
- Weekly
- Daily or almost daily

### I4. How often during the last year have you found that you were not able to stop drinking once you had started?

- Never
- Less than monthly
- Monthly
- Weekly

Daily or almost daily

**15. How often during the last year have you failed to do what was normally expected of you because of drinking?**

Never

Less than monthly

Monthly

Weekly

Daily or almost daily

**16. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?**

Never

Less than monthly

Monthly

Weekly

Daily or almost daily

**17. How often during the last year have you had a feeling of guilt or remorse after drinking?**

Never

Less than monthly

Monthly

Weekly

Daily or almost daily

**18. How often during the last year have you been unable to remember what happened that night before because of your drinking?**

Never

Less than monthly

Monthly

Weekly

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Daily or almost daily

**I9. Have you or someone else been injured because of your drinking?**

No

Yes, but not in the last year

Yes, during the last year

**I10. Has a relative, friend, doctor or other health care worker been concerned about your drinking or suggested you cut down?**

No

Yes, but not in the last year

Yes, during the last year



## SECTION J. SUBSTANCE USE

The next set of questions are about your use of tobacco and other drugs ...

**J1. Please indicate when you have used any of the following substances:**

Substance	Never	Within the last month	Within the last year but not the last month	More than one year ago
Tobacco	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cannabis (grass, weed, herb, ndom, bhang, ganja, dagga, zol)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Khat (miraa, veve, mogoka)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ecstasy (E, umgwinyo, happy pill, disco biscuit, Adam)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Amphetamine (speed, gavana)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Crystal methamphetamine (crystal, ice, tina, meth, taptap, crank)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Heroin (smack, mud, brown sugar)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mephedrone (meow meow, plant food, bubbles, kitty cat)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
GHB/GBL (G, liquid ecstasy, soap)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cocaine or Crack cocaine (rock)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rohypnol (mchele, roofies, forget pill)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Poppers (liquid gold)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Benzene	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## K. MENTAL HEALTH

The next set of questions are about how you have been feeling in the last two weeks.

In the last two weeks how often have you been bothered by any of the following problems:

	Not at all	Several days	More than half the days	Nearly every day
<b>K1. Little interest or pleasure in doing things</b>				
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>K2. Feeling down, depressed or hopeless</b>				
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>K3. Trouble falling or staying asleep, or sleeping too much</b>				
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>K4. Feeling tired or having little energy</b>				
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>K5. Poor appetite or overeating</b>				
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>K6. Feeling bad about yourself, or that you are a failure, or have let yourself or your family down</b>				
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>K7. Trouble concentrating on things, such as reading the newspaper or watching television</b>				
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>K8. Moving or speaking so slowly that other people could have noticed? Or the opposite – being so fidgety or restless that you have been moving around a lot more than usual</b>				
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>K9. Thoughts that you would be better off dead or of hurting yourself in some way</b>				
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**K10. If you checked off any of the problems above, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?**

- Not difficult at all
- Somewhat difficult
- Very difficult
- Extremely difficult

## L. POPULATION ESTIMATORS

We now wish to ask whether or not you have used particular services recently. The answers to these questions will help us to estimate the number of MSM in the local area. No personal information will be passed on to or requested from any of these services to make this estimate.

### [SHOW IF SITE = NAIROBI]

L1. At [reference date], were you friends with the Facebook group 'ISHTAR-MSM'?

- Yes
- No
- Do not know

L2. Did you have an appointment at [Liverpool VCT or ISHTAR clinic] between [enter reference period]

- Yes
- No
- Do not know

### [SHOW IF SITE = SOUTH AFRICA]

L1. At [reference date], were you registered as a member of the Facebook group 'Black Men Bold and the Beautiful'?

- Yes
- No
- Do not know

L2. At [reference date], were you registered as a member of the Facebook group 'Johannesburg Gays'?

- Yes
- No
- Do not know

L3. At [reference date], were you registered as a member of the Facebook group 'Soweto Gays'?

- Yes
- No
- Do not know

L4. At [reference date] were you following 'We the Brave' on Facebook?

- Yes
- No
- Don't know



L5. At [reference date] were you following 'Health 4 Men' on Facebook?

- Yes
- No

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Don't know

L6. Did you visit an ANOVA Health 4 Men clinic between [enter reference period]



Yes

No

Do not know

[If L6 = yes] L7. Which ANOVA Health 4Men clinic did you visit?

[List of available clinics]

Zola

Chiawelo

Yeoville

Other \_\_\_\_\_

## M. HAPPINESS WITH SEX

The last set of questions ask how happy you are with your sex life, and what might make it better.

### M1. How happy are you with your sex life right now?

- Very happy
- Quite happy
- Not sure/don't know
- Quite unhappy
- Very unhappy

### M2. What one thing would help to make your sex life better?

[enter text]

### M3. Who is the sexiest man on the planet?

[enter text]

Thank you very much for taking this survey. Your response is very important to us.

If you feel you may have made any mistakes which you want to go back and correct, please mention this to the researcher who will help you.

If the survey has made you think of questions about your health or about this research study, please ask the researcher..

## TRANSFORM Survey Instrument: Coupon Issue Module

Date today: [year/months/day]

Site name:

Study Staff name:

**Participant ID number:**

**Coupon Number:**

## Return visit

**B1.** How many other MSM do you know whom you have had a conversation with in the past month? By 'know', we mean someone who knows your name and you know theirs, and by 'had a conversation with', we mean either in person, on the phone, using SMS or online.

[enter number]

**B2.** How many of these [B1] men have you met in person?

[enter number]

**B3.** How many of these [B2] men are 18 years of age or older?

[enter number]

**Q9.** How many of these [B3] men live in [Johannesburg'/Nairobi]?

[enter number]

**Q10.** How many of these [B4] men have you seen in the past two weeks?

[enter number]

**YOUR COUPON DISTRIBUTION (REFUSALS)**

We want to ask you about the people who did NOT accept a coupon from you.

**Q11**      **How many of the men you offered a coupon to, did not take one from you?**

[enter number]

**Q12**      **[For each of [Q11]**

Thinking about the first man you offered a coupon too, that refused to take it,

**Why did that man not take a coupon from you?** [tick all that apply]

He said that he had already participated in the study

He said that he had already received a coupon from someone else

He said that he was not an MSM

He said he was younger than 18 years old

He said he was not from **the same city as me**

He did not wish to participate in the study

He said that there was not enough money for participating

**Other reason – say what**

**None of the above**



**YOUR COUPON DISTRIBUTION (ACCEPTED)**

We now want to ask you about the people who did accept a coupon from you.

**Q13** How many men did you offer a coupon to who accepted it?

[enter number 0-3]

**IF Q13>0** Concerning the first person you gave a coupon to:

**Q14i:** Thinking about the first man you offered a coupon too, that took it:

**Do you think this person would have given you a coupon if they had participated in the study before you?**

Yes

No

**Q14i:** Still thinking about the first man you offered a coupon too, that took it:

**Is this person over 30 years of age?**

Yes

No

Don't know

**Q14i:** Still thinking about the first man you offered a coupon too, that took it:

**What made you decide to give a coupon to this person?** [Choose the most important reason]

He was the first eligible man I met

He is a close friend

He is my partner

He needed the money for participation

I thought he would benefit from the study

I put out an open request and he approached me

Other (please say **why** \_\_\_\_\_)

**LOOP Q14i FOR FURTHER COUPON RECIPIENTS**

**[IF Q14>1]** Concerning the second person you gave a coupon to:

**[IF Q14>2]** Concerning the third person you gave a coupon to:

## TRANSFORM Ithuluzi Lohlolo

Ilanga Lokuhlolwa: [unyaka/inyanga/usuku]

Igama lomhloli: \_\_\_\_\_

Inombolo yepasi kambambiqhaza: \_\_\_\_\_

Siyabonga ukuvuma ukwenza lolu hlolo. Manje sizokubiza imibuzo emayelana nawe. Sicela ukhumbule ukuthi akumele uphendule imibuzo ongafuni ukuyiphendula futhi uyakwazi ukumisa lolu hlolo noma ingasiphi isikhathi.

### IMIBUZO YOKUZIJWAYEZA

Kunezinhlalo ezintathu zemibuzo eyinhloko, ejwayeleke kakhulu inamabhathini ayindilinga eceleni kwempendulo, futhi ikuvumela ukuthi ukhethe impendulo eyodwa. Uma usyichozoze impendulo, umbuzo uzonyamalala bese izoveza umbuzo olandelayo. Uma wenze iphutha, chofoza ibhathini eliwumcibisholo elikhomba esinxeleni (“EMUVA”), elingezansi kweskrini, esinxeleni. Awukuzame lokhu.

#### Ngabe ubukeka kahle kangakanani?

**Ngibukeka kahle**

**Ngibukeka kahle kakhulu**

**Ngibukeka kahle okungakhokakali**

Eminye imibuzo inamabhathini amancane AYIZIKWELE eceleni kwezimpendulo futhi ungachozoza noma ezingaki izimpendulo ozithandayo. Uma usuyikethile impendulo umbuzo ngeke inyamalale-uma usuqedile kudingakala ukuthi uchofoze ibhathini eliwumcibisholo okhomba kwesokudla (“OKULANDELAYO”) elingezansi kwesokudla. Uma wenze iphutha, chofoza ibhathini eliwumcibisholo elikhomba esinxeleni (“EMUVA”), elingezansi, esinxeleni. Awukuzame lokhu.

#### Ngabe iziphi izinhlobo zemidlalo ozibuka kwiTV kulezi ezilandelayo?

Isaziso lemibuzo ijwayele ukuba nesinezezelo esibhalwe ukuthi “OKUNYE”-uma uchofoza lokhu, kudingeka ukuthi uyibhale lenye impendulo yakho. Chofoza “OKUNYE” mase ubhale “Isibhakela” (noma omunye umudlalo owubukayo).

**Ibhola**

**IRugby**

**ICricket**

**Okunye-sicela ukusho: (Kubhale)**

Eminye imibuzo embalwa ibuzisa ukuthi ugcine nini ukwenza into ethize, bese ikuvezela ikhalenda ukuze ukhethe usuku, inyanga Kanye nonyaka. Uma lokhu kwenzeka uyakwazi ukudlulisa izinyanga neminyaka usebenzisa imicibisholo ekhoma esandleni sesinxele noma kwesokudla kuyona ikhalenda. Uma usulukhethile usuku oluyimpendulo yakho, chofoza u “Set” ukukugcina okukhethile. Uma usuchozoze u “Set” umbuzo uzonyamalala bese kuvela olandelayo. Awukuzame lokhu.

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**Ugcine nini ukukhuluma noyedwa kumalunga omndeni wakho?****Kehetha usuku (usuku, inyanga, unyaka)****AX. Coupon management**

Manje sesizoqala iseveyi kahle- ngicela uphendule yonke imibuzo ngeqiniso. Ngicela ukhumbule ukuthi asikho isidingo sokuthi uphendule imibuzo ongathandi ukuyiphendula futhi ungayimisa iseveyi nganoma ingasiphi isikhathi. Zonke izimpendulo zakho ziyimfihlo ngokuphelele.

Uhlu lwemibuzo yokuqala ingokuthi, wazi kanjani ngalolucwaningo, nokuthi uyithathephi ikhuphoni.

**AX1. Umazi kanjani lomuntu okuphe ikhuphoni ukuthi ubambe iqhaza kukelithuluzi lohlobo?****Umngani osendelene nami**

Umngani

Umuntu engizwana naye

Umuntu engingamazi

Okunye

**Q1a, Uma u Q1 = Okunye buza, Ngabe umazi ngayiphi enye indlela?**

[Bhala]

**AX2. Bewulaphi ngesikhathiwuthola lelikhuphoni lokuzobamba iqhaza kulolucwaningo?**

Ekhaya noma eduzane nasekhaya

Emsebenzini noma eduzane nasemsebenzini

Siphumile emgwaqeni

Endaweni zokuphuza nokuzijabulisa

Ngaphandlekwalelihovisi

Kwenye (Isho laphi \_\_\_\_\_)

**AX3. Ukube wawubambe iqhaza kuqala kulesaveyi, ucabanga ukuthi bekungenzeka umnikeze ikhuphoni lomuntu okunikezile?**

Yebo

Cha

**AX4. Ngaphandle kwalomuntu okunikeze lelikhuphoni ofikenayo namhlanje, ngabe ukhona omunye umuntu okewazama ukunikela ikhuphoni?**

Yebo

Cha

**AX5. Uma uvuma, lokhu kwenzeke kangaki?**

[ ] izikhathi

**A. Imibuzo eqondene nawe (1).**

Uhlu lokuqala lwemibuzo lungawe, iminyaka yakho, lapho ohlala khona, Kanye nalapho owazalelwa khona. Leseveyi isiqalile-zonke izimpendulo zakho ziyimfihlo. Sicela uphendule imibuzo ngeqiniso.

**A1. Uneminyaka emingaki?**

\_\_\_\_\_ (Iminyaka)

**A2. Ingabe uhlala kuyiphi indawo?**

**[SHOW IF SITENAME= NAIROBI]**

Dagoretti

Starehe

Embakasi

Kasarani

Langata

Makadara

Kamukunji

Westlands

Other (Ngicela ucacise) \_\_\_\_\_

**SHOW IF SITENAME[SHOW IF SITENAME= SOUTH AFRICA]**

**[SHOW IF SITENAME = Johannesburg SOUTH AFRICA]**

Braamfontein

Diepkloof,

Hillbrow

Orange Farm

Rosebank

Rosetonville

Sandton,

Soweto

Yeoville

Other (please specify) \_\_\_\_\_

**A3. Ngabe wazalelwa e [Kenya / South Africa]?**

Cha

Yebo **[iya ku A5]**

**A4. [uma u A3 kuwu Cha] Ingabe wazalelwa kuliphi izwe eAfrika?**

Yebo

Cha

**A4a. [If A4 is yes] Iliphi izwe owazalelwa kulo eAfrika?**

**[Khetha kulohlu lwamazwe]**

**A5. Ingabe wazalelwa e [SITE NAME]?**

Cha

Yebo

**A6. [If A5 is no] Iliphi idolobha owazalelwa kulo? e?**

Idolobha/idolojana \_\_\_\_\_

**A7. Ingabe usuhlale iminyaka emingaki e[SITE NAME]??****A. Imibuzo eqondene nawe (2).****A8. Ingabe wagcina kuliphi ibanga eskolweni owaliqeda?****[SHOW IF SOUTH AFRICA]**

Angifundanga

Amabanga okuqalisa

Amabanga aphakeme

Amabanga alekayo noma eTechnical Secondary

Ikolishi noma inyuvesi noma isikhungo esiphakeme semfundo

**[SHOW IF KENYA]**

Angifundanga

Amabanga okuqalisa

Amabanga aphakeme

Amabanga alekayo noma eTechnical Secondary

Ikolishi noma inyuvesi noma isikhungo esiphakeme semfundo

**A9. Iyiphi indlela echaza isimo sakho sokusebenza samanje?**

Ngiqhashwe ngokwesikhathi esiphelele  
Ngiqhashwe ngesikhathi esingaphelelanga  
Ngiyazisebeza  
Angisebenzi noma ngiphakathi kwemisebenzi  
Okunye (\_\_\_\_\_)

**A11. Ngabe wenzemalini kulenyanga edlule?****[SHOW IF KENYA]**

KSH [faka inani lemali]

**[SHOW IF SOUTH AFRICA]**

ZAR [faka inani lemali]

**A12. Kkufaka wena phakathi, bangaki abantu ababheke lomholo?**

[Faka inani]

**A. Imibuzo eqondene nawe (3).****A13. Ngabe eyiphi inkolo oyilandelayo?**

Amakrestu  
Islam  
ubuHindu  
okunye  
Anginayo engiyilandelayo

**A14. Ngabe unguluphi uhlanga?**

Ngiwumuntomnyama  
Ikhiladi  
Indiya/ningowase Asia  
Ngiwumlungu  
Ngincama ukungasho

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Okunye

**A15. [SOUTH AFRICA ONLY] Ingabe ubuchaza kanjani ubuzocansi bakho?**

Ngiyindoda eya ecansini namanye amadoda.

Ngiyindoda eya ecansini nabantu besifazane futhi namanye amadoda.

Ngiyindoda eya ecansini nabafazi kuphela.

Okunye (usungachaza) \_\_\_\_\_

Angizazi

**A16. [SHOW IF KENYA]. Ubuchaza kanjani ubusocansi bakho ngesiSwahili?**

Basha

Hanithi

Kuchu

Kuruzi

Msago

Msenge

Shoga

Okunye ( shano ukuthi kuphi \_\_\_\_\_ )

**A16. Yibuphi ubulili bakho bokuzalwa, (isibonelo, obuvela esitifiketini sokuzalwa)?**

Ngingowesilisa

Ngingowesifazan

Angifuni ukuphendula lomubuzo

**A17. Ngabe ubulili bakho ubuchaza kanjani?**

Owesilisa

Owesifazane

Ubulili obushintshiwe

Angiyena owesilisa, owesifazane noma obulili obushintshiwe

**A18. Ngabe sithini isimo sakho sokushada?**

Ngishadile/ umshado wenkantolo/ sihlalisene ngokusemthethweni

Ngisingili/ngihlukanisile/ ngiwumfelokazi **[SKIP TO NEXT SECTION]**

**A19. Ngabe ubulili buni uphathina wakho?**

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Owesilisa

Owesifazane

Ubulili obushintshiwe

Okunye

## B. EZENHLALO: ABANGANI

Manje sizokubuza imibuzo ngobungani bakho emadodeni aya ocansini namanye amadoda.

**B1. Ingabe mangaki amadoda aya ecansini namanye amadoda owaziyo oke waxoxisana nawo kulenyanga edlule?**

**Ngokuthi ‘owaziyo’ sisho ukuthi umuntu enazana naye anamagama enixoxisene nabo, kungaba nibonene, noma ngocingo, nithumelane imilayezo ngocingo noma online?**

[faka inani]

**B2. Ingabe mangaki kulamadoda [B5] azanayo?**

**bonke noma abaningi bayazana**

**Abaningi babo bayazana [around <ROUND[B5\*.75]> of them]**

**Uhhafu wabo bayazana [around <ROUND[B5\*.5]> of them]**

**Abanye, kodwa hhayi abaningi bayazana [around <ROUND[B5\*.25]> of them]**

**Abancane kakhulu abazanayo**

**B3 Ingabe mangaki lamadoda [B1] osuke wahlangana nawo?**

[faka inani]

**B4. . ingabe mangaki kulamadoda [B3] abangaphezu kweminyaka ewu 18 noma ngaphezulu?**

[faka inani]

**B5. Ingabe mangaki kulamadoda [B4] abahlala edolobheni elifanayo nawe?**

[faka inani]

**B6. Ingabe mangaki kulamadoda [B5] oke wababona kulamaviki amabili adlule?**

[faka inani]

.

**B7. Ingabe mangaki kulamadoda [B5] abangaphezu kweminyaka ewu 30?**

[faka inani]

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Loluhlu lwemibuzo elandelayo ibuza ngezindlela ohlangana nazo namanye amadoda aya ocansini namanye amadoda.

**B8. Ingabe wagcina nini ukuvakashela lezindawo ukubonana namadoda aya ocansini namanye amadoda?**

	Ngivakashile ngenyanga edlule	Ngivakashile ngonyaka odlule kodwa hayi enyangeni edlule	Ngivakashile kudlula unyaka.	Angikaze ngivakashe ngalesizathu
Umlangano wangaphandle isb. epaki, emgaqweni noma ebhishi	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
EBar noma eklabhini	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Endlini yomngani noma eyami.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ESauna, eBathroom noma ephathini yocansi	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Endaweni yomphakathi yamadoda alala namanye amadoda isb. iDrop in Centre noma isikhungo samadoda alala namanye amadoda	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**B9. Ugcine nini ukusebenzisa iwebhusayithi noma ama ephu ukwakha ubungani namanye ama MSM?**

Angikaze [[jump to B12](#)]

Kulenyanga edlule

Kulonyaka odlule

Ngaphezu konyaka manje

**B10. Ngabe yimaphi kulamasevisi einthanethi osoke wawasebenzisa ukwakha ubungani nama MSM kulenyanga edlule [maka ibhokisi elinempendulo/izimpendulo zakho?]**

2go ☐ Facebook ☐ Hornet ☐  
 Adam4Adam ☐ Gay Radar ☐ Instagram ☐ Radar ☐  
 Gay.com ☐ iPlay ☐ Red Velvet ☐  
 Badoo ☐ Gaydar ☐ Sex Trader South Africa ☐  
 Gayxchange ☐ Mambaonline ☐ Skype ☐  
 Snapchat ☐

Smith AD, *et al.* *BMJ Open* 2021; 11:e055783. doi: 10.1136/bmjopen-2021-055783

Yebo

Cha **[JUMP TO NEXT SECTION]**

Angazi/anginasiqiniseko **[JUMP TO NEXT SECTION]**

**B13. Iyiphi kulezizinhlangano ezeseke abantu abathandana nabanye bobulili obufanayo oke wazivakashela**

**kulonnyaka odlule?**

**[SHOW IF COUNTRY=SOUTH AFRICA]**

SOHACA  
(ANOVA)Health4Men  
LGBTI  
ACTIVATE  
GALA  
Other ...

**[SHOW IF COUNTRY=KENYA]**

ISHTAR  
GALCK  
HOYMAS

]

## C. UKWESEKWA KWENHLALO

Loluhlu lwemibuzo elandelayo angokwesekwa ngokwenhlalo- noma ukwesekwa okuthola kuphathina/ophathina, abangani Kanye nomndeni.

Ngicela usho ukuthi uvuma noma awuvumi kangakanani kulezitatamende ezilandelayo

	Angivumi nhlobo	Angivumi kakhulu	Angivumi nje	Ngiphakathi nendawo	Ngivuma kancane	Ngiyavuma nje	Ngivuma kakhulu
<b>C1. Kukhona umuntu obalulekile kimina ohlezi akhona mangimudinga</b>							
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>C2. Kukhona umuntu obalulekile kimina ohlale akhona ezikhathini zobumnandi nobubi</b>							
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>C3. Umndeni wami uyazama ukungisiza</b>							
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>C4. Umndeni wami uyangeseka ngokomoya</b>							
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>C5. Kukhona umuntu ongumduduzi empilweni yami</b>							
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>C6. Abangani bami bangeseka ngaso sonke isikhathi</b>							
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>C7. Abangani bami bahlale bengisekile ima izinto zingahambi kahle</b>							
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>C8. Ngiyakhona ukukhuluma ngezinkinga zami nomndeni wami</b>							
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>C9. Nginabangani esihlale sesekana nabo ngezikhathi ezimbi nezikhathi ezinhle</b>							
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>C10. Nginomuntu empilweni yami okhathalela imizwa yami</b>							
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>C11. Umndeni wami uyanganceda ekuthatheni izincumo ezibalulekile</b>							
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>C12. Ngiyakhona ukukhuluma nabangani bami ngezinkinga engihlangabezana nazo</b>							

	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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#### D. EZENHLALO: UKWECWASANA NOBANDLULULO NGOKWEZOBULILI

Loluhlu lwemibuzo elandelayo ingokwazisa abantu ngokuthi uyindoda eyaocansini namanye amadoda kanye nezinkinga ezibangwe ilokhu.

Ngicela uqaphele mawuphendula lemibuzo. Eminye ikucela ukuthi ucabange ngezinyanga eziwu 12 ezedlule, ezinye zikucela ukuthi ucabange ngempilo yakho yonke.

**D1. Uke wezwa ngathi emndenini wakho bayakukhipha emisebenzini yasekhaya ngoba uyindoda eya ecansini namanye amadoda?**

Yebo

Cha

**D2. Uke wezwa ngathi amalunga omndeni wakho ayakubandlulula noma bahleba ngawe ngoba uyindoda eya ecansini namanye amadoda.**

Yebo

Cha

**D3. Jikelele, kunzima kangakanani ukufihlela UMNDENI wakho ngokulala namanye amadoda?**

Ngizama kakhulu ukukufihla

Ngiyazama nje ukukufihla

Angikuifihli, kodwa angithandi ukukhuluma ngakho

Ngiyakhuluma ngakho

Akungeni

**D4. Jikelele, uzama kangakanani ukufihlela abangani bakho ukuthi uya ocansini namanye amadoda?**

Ngizama kakhulu ukukufihla

Ngiyazama nje ukukufihla

Angikuifihli, kodwai angithandi ukukhuluma ngakhoo

Ngiyakhuluma ngakho

Akungeni

**D5. Uke wezwa engathi abangani bakho abathandi ukuzibandakanya nawe ngenxa yokuthi uya ocansini namanye amadoda?**

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Yebo

Cha

**D6. Jikelele, uzama kangakanani ukugcina kuyimfihlo kubasebenzi basemitholampilo ukuthi uyindoda eya ocansini namanye amadoda?**

Ngizama kakhulu ukukufihla

Ngiyazama nje ukukufihla

Angikuifihli, kodwai angithandi ukukhuluma ngakhoo

Ngiyakhuluma ngakho

Akungeni

**D7. Kulezinyanga eziwu 12 ezedlule, uke wezwa usaba ukuya emtholampilo ngoba usaba ukuthi kukhona umuntu ongathola ukuthi uyindoda eya ocansini namanye amadoda?**

Yebo

Cha

**D8. Kulezinyanga eziwu 12 ezedlule, uke wezwa ungaphathekanga kahle emitholampilo ngoba kukhona umuntu owaziyo ukuthi uyindoda eya ocansini namanye amadoda?**

Yebo

Cha

**D9. Kulezinyanga eziwu 12 ezedlule, uke wezwa uhletshwa noma uhlekwa abasebenzi basemtholampilo ngoba uya ocansini namanye amadoda?**

Yebo

Cha

**D10. Kulezinyanga eziwu 12 ezedlule ukwe wezwa ukuthi amaphoyisa awafuni ukukusiza ngoba uya ocansini namanye amadoda?**

Yebo

Cha

**D11. men Kulezinyanga eziwu 12 ezedlule uke wezwa usaba ukuhamba emphakathini ngoba uya ocansini namanye amadoda?**

Yebo

Cha

**D12. Kulezinyanga eziwu 12 ezedlule, ukewacelwa ivalamlomo ngenxa yokuthi uya ocansini namanye amadoda**

**Yebo**

**Cha**

**D13. Kulezinyanga eziwu 12 ezedlule, kukhona umuntu okulimeze ngokomzimba (akuphushe, akuqindezele ekhoneneni, akushaye ngempama, akushaye, akukhame, noma akulimaze ngokomzimba)?**

Yebo

Cha **[JUMP TO D20]**

**D14. Ubani owenze lokhu? [Maka konke okufunayo]**

Umuntu engingamazi

Ilunga lomndeni

Iphoyisa noma isisebenzi somphakathi esisemthethweni

Umtholisi mpilo

Uphathina

Obethenga ucansi

Okunye

**D15. Kulezinyanga eziwu 12 ezedlule, uke waphoqwa ukuthi uye ocansini ungafuni? (ngokuphoqa sichaza ukuthi Uphocwe ngokomzimba, ubanjwe ukuthi wenze ucansi, noma bakufake izinto, ungafuni).**

Yebo

Cha **[JUMP TO D24]**

**D16. Ubani owenze lokhu? [Maka konke okufunayo]**

Umuntu engingamazi

Ilunga lomndeni

Iphoyisa noma isisebenzi somphakathi esisemthethweni

Umtholisi mpilo

Uphathina

Obethenga ucansi

Okunye

**D17. Kulezinyanga eziwu12 ezedlule, uke wezwa usatshiswa ngokuthi uzobanjwa noma uzoboshwa yiphoyisa ngenxa yokuthi uyaocansini namanye amadoda?**

Yebo

Cha

**D18. Uke waboshwa ngenxa yokuthi uyaocansini namanye amadoda?**

Yebo

Cha

**ngesikhathi**

## E. UKUZIPHATHA NGEZOCANSI

Singathanda mnje ukukubuza ngendlela yokuziphatha ngokwezocansi okusandakwenzeka. Ngocansi sichaza nama ikuphi okuphathelene nokuthinta izitho zangasese- sibala indlwabu (okwesitho sangaphambili, nokuzithokozisa ngomunwe esithweni sangasese); ucansi olwenziwa ngomlomo ( ukumunca/iblowjob, ukukhotha, ukukhotha isitho sangasese sangemuva); ucansi lwesithosangasese sangaphambili sowesifazane nome lwesitho sangemuva.

### E1. Kulezinyanga eziwu 3 ezedlule, ngabe ulwenzile ucansi nomuntu wesilisa?

Yebo

Cha

### E1a. [If E1 = yes ] be mangaki amadoda ahlukene oye nawo ocansini kulezinyanga eziwu 3 ezedlule? [Faka inani]

### E2. Kulezinyanga eziwu 3 ezedlule ngabe uluphi locansi lwesitho sangasese sangemuva oke walenza?

Ububhothomu kuphela

Ubuthophu kuphela

Ubuesethayela

Akukho kuloku okubaliwe

### E3 [if E2= receptive or both] Kulezinyanga eziwu 3 ezedlule, ngabe uwasebenzise kangakanani amakhondomu ngesikhathi wenza ucansi futhi uyi bhothomu?

Njalo

Ngesikhathi esiningi

Ngesinye isikhathi

Akukavami

Akwenzeki

### E4. [if E2= receptive or both] Kulezinyanga eziwu 3 ezedlule, ngabe uwasebenzise kangakanani amakhondomu ngesikhathi uyi thophu?

Njalo

Ngesikhathi esiningi

Ngesinye isikhathi

Akukavami

Akwenzeki

### E5. Kulezinyanga eziwu 3 ezedlule ngabe wenze hloboluphi locansi lomlomo nabantu besilisa?

Ngimuphe iblow job

Ungiphe iblow job

Ngmuphile futhi ngaphiwa iblowjob

Akukho ngenhla

### E6. Kulezinyanga eziwu 12 ezedlule ngabe kukhona amadoda akukhokhele ukuthi wenze ucansi? Ngokukhokhelwa sisisho imali, izipho noma ukusizwa ukuze wena wenze ucansi nabo.

Yebo

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Cha

**E7.. Kulezinyanga eziwu 12 ezedlule, ngabe uke wakhokhela indoda ukuthi iye ocansini nawe?**

**Ngokukhokhelwa sishe imali, izipho noma uyisize ukuze yona yenze ucansi nawe.Yebo**

Cha

**E8. Kulezinyanga eziwu 12 ezedlule ingabe ukhona kophathina bakho oke wazama ukukulimaza? Ngaloku shisho ukukuphusha, akucindezele phansi, akushaye ngenqindi, akukhahlele, azame ukukuklinya, akuhlasele ngommese, ngesibhamu noma ngesinye isikhali.**

Yebo

Cha

**E9. Kulezinyanga eziwu 12 ezedlule, ngabe uphathina wakho wendoda usebenzise udlame noma wakuthusa ngomlomo ukuze uye ocansini naye wena ungafuni?**

Yebo

Cha

**E10. Kulezinyanga eziwu 3 ezedlule uke walwenza ucansi nomuntu wesifazane?**

Yebo

Cha

**E10a. Ngabe bangaki abantu besifazane owenze ucansi nabo kulezinyanga eziwu3?**

[Faka inani]

**E11. Kulezinyanga eziwu 3 ezedlule ingabe uluphi uhlobo locansi oke walwenza nabesifazane?**

Ucansi lwesitho sangasese sabesifazane sangaphambili

Ucansi lwesitho sangasese sangemuva

Kokubili

Akukho

**E12. [if E11= vaginal or both] Kulezinyanga eziwu 3 ezedlule uyisebenzise kangakanani ikhondomu ngesikhathi wenza ucansi lwesitho sangasense sabesifazane sangaphambili nophathina wesifazane?**

Njalo

Ngesikhathi esiningi

Ngesinye isikhathi

Akukavami

Akwenzeki

**E13 [if E11=anal or both] Kulezinyanga eziwu 3 ezedlule usebenzise kangakanani amakhondomu mawenza ucansi lwesitho sangasese sangemuva nomuntu wesifazane?**

Njalo

Ngesikhathi esiningi

Ngesinye isikhathi

Akukavami

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Akwenzeki

**E14. Kulezinyanga eziwu 12 ezedlule ngabe ukhona owesifazane okukhokhele ukuthi uye naye ocansini? Ngokukhokhelwa sisho ukuthi akuphe imali noma izipho noma akusise ngokuthi ufuna ucansi.**

Yebo

Cha

**E15. Kulezinyanga eziwu 12 ezedlule, ngabe uke wakhokhela owesifazane ukuthi aye ocansini nawe? Ngokukhokhela sisho ukuthi akuphe imali noma izipho noma akusise ngokuthi ufuna ucansi.**

Yebo

Cha

## **EX. UKUZIPHATHA KWEZOCANSI**

Manje sizokubuza imibuzo ngabantu ABANE oye nabo ocansini phambilini. Khetha igama lokuteketisa nima izicu zamagama abo kuze ukwazi ukubahlukanisa. Akumelanga kuba amagama abo angempela, kumele kube amagama nje ozokhona ukubahlukanisa ngawo.

Khumbula masikhuluma ngocansi, sibala indlwabu (okwesitho sangaphambili, nokuzithokozisa ngomunwe esithweni sangasese); ucansi olwenziwa ngomlomo ( ukumunca/iblowjob, ukukhotha, ukukhotha isitho sangasese sangemuva); ucansi lwesithosangasese sangaphambili sowesifazane nome lwesitho sangemuva.

### **Uphathina #1:**

**Ubani ogcine ukuya naye ocansini? (Write in a nickname, first name or initials)**

**[Faka amanishela]**

### **Uphathina # 2:**

**Ngaphambi kuka (Partner #1) Ubani ogcine ukuya naye ocansini? ( Bhala igama lokudlala, Elokuqala noma amanishela) [Faka amanishela]**

### **Uphathina #3:**

**Ngaphambi kuka (Partner #2) Ubani ogcine ukuya naye ocansini?? ( Bhala igama lokudlala, Elokuqala noma amanishela) [Faka amanishela]**

### **Uphathina #4:**

**Ngaphambi kuka (Partner #3) Ubani ogcine ukuya naye ocansini? ( Bhala igama lokudlala, Elokuqala noma amanishela) [Faka amanishela]**

## **ROUTE 1: A CASUAL, ONE-OFF SEXUAL PARTNER**

**[Partner #1]**

**Ngabe eliphi ilanga [eliduze kunanamuhla] ogcine ngalo ukwenza ucansi no[Partner #1]. Qagela uma ungasakhumbuli kahle**

[faka ilanga]

**U [Partner #1] ubulili buni?**

Owesilisa

Owesifazane

Obulili bushintshile

angazi

**Wayeneminyaka emingaki u[Partner #1] ngesikhathi nigcina ukwenza ucansi? Qagela uma unganasiqiniseko.**

**[Faka iminyaka]**

**Nahlangana kanjani okokuqala no [partner #1]?**

ngabangani

ngomndeni

eskolweni

emsebenzini

endaweni yokuzijabulisa

emcimbini

Kwi social network-isho ukuthi yiphi

Okunye-isho ukuthi laphi

Angikhumbuli

**Ngabe ucansi usulwenze kangaki no [partner #1]**

Kanye kuphela

Kaningana

**Ngabe ucabanga ukuthi usazophinde wenze ucansi no [partner #1] futhi?**

Yebo

Cha

**Ngabe wamunika u[Partner #1] imali, izipho noma wamusiza ukuze enze ucansi nawe?**

**Cha**

**Yebo**

**Ngabe u[Partner #1] wayekunika imali, izipho noma wakusiza ukuze wenze ucansi naye?**

**Cha**

**Yebo**

**EX28 [i] [if EX3=male ] Ngabe nanenza luphi uhlobo locansi [Partner #1]? [Bheka okungenayo]**

Ngangiyi Bhothomu

Ngangiyi Thophu

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Ngamupha iblow job

Ngaphiwa iblow job

**EX29A[i] [if EX3=male & EX28 = receptive anal sex] Isikhathi ngangiyibhothomu no [Partner #1], Ngabe nasebenzisa ikhondomu noma cha?**

Ngekhondomu

Ngaphandle kwekhondomu

**EX29B[i] [if EX3=male & EX28 = insertive anal sex] Mawugcina ukuba yiThophu no [Partner #1], loku kwakunge noma ngaphandle kwekhondomu?**

Ngekhondomu

Ngaphandle kwekhondomu

**EX30[i] [if EX3=female ] uhlobo luni locansi enalwenza no[Partner #1]? [Khetha okuyikona]**

ucansi lwesitho sangasese sabesifazane sangaphambili

Ucansi lwesitho sangasese sangemuva

Ucansi lomlomo

**EX31A[i] [if EX3= female & EX28 = vaginal sex] ngesikhathi wenza ucansi lwesitho sangasese sabesifazane sangaphambili no [Partner #1], loku kwakunge noma ngaphandle kwekhondomu?**

Ngekhondomu

Ngaphandle kwekhondomu

**EX31B[i] [if EX3= female & EX28 = anal sex] ngesikhathi nigcina ukwenza ucansi lwesitho sangasese sangemuva no [Partner #1], loku kwakunge noma ngaphandle kwekhondomu?**

Ngekhondomu

Ngaphandle kwekhondomu

**EX33 [i] Uke u [Partner #1] wakutshela ngesimo sakhe seHIV?**

Yebo

Cha **[JUMP TO E35 [i]]**

Angazi

**EX34 [i] Sithini isimo sika [Partner #1] seHIV?**

Une HIV

Akanayo iHIV

Angazi

**SKIP TO E36[i]**

**EX35[i] Wawukholwa ukuthi isimo sika [Partner #1] seHIV sithini ngesikhathi nenza ucansi naye?**

Ngicabanga ukuthi [Partner #1] angaba nayi iHIV

Ngicabanga ukuthi u [Partner #1] akanayo iHIV

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Angazi

**ROUTE 2: A REGULAR SEXUAL PARTNER WHO THEY EXPECT TO HAVE SEX WITH AGAIN IN THE FUTURE**

Ngabe eliphi ilanga [eliduze kunanamuhla] ogcine ngalo ukwenza ucansi no[Partner #1]. Qagela uma ungasakhumbuli kahle  
[Faka ilanga]

**U[Partner #1] ubulili buni?**

Owesilisa  
Owesifazane  
Ubulili obushintshile  
Angazi

Wayeneminyaka emingaki u[Partner #1] ngesikhathi nigcina ukwenza ucansi? Qagela uma unganasiqiniseko.  
[Faka iminyaka]

**Nahlangana kanjani okokuqala no [partner #1]?**

Ngabangani  
Ngomndeni  
Eskolweni  
Emsebenzini  
Endaweni yokuzijabulisa  
Emcimbini  
Kwi social network-isho ukuthi yiphi  
Okunye-isho ukuthi laphi  
Angikhumbuli

**Ngabe ucansi usulwenze kangaki no [partner #1]**

Kanye kuphela  
Kaningana

**Ngabe ucabanga ukuthi usazophinde wenze ucansi no [partner #1] futhi?**

Yebo  
Cha

**EX20A[i] [if EX19i=YES] Yikuphi kulokhu okulandelayo okuchaza ubudlelwane bakho no [Partner #1] bamanje?**

Sishadile  
Sesibe izithandani isikhathi eside  
Singabangani ababuye benze ucansi  
Sihlanganiswa ucansi

**EX21A[i] [if EX19i=YES] Uhlala naye u [Partner #1]?**

Yebo  
Cha

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**EX22A[i] [if EX19i=YES] Uyamthanda u [Partner #1]?**

Yebo, kakhulu  
Yebo, kancane  
Cha

**EX24A[i] [if EX19i=YES] Ngabe ubheke ku <EX1[i]> ukuthola imali, umholo noma indawo yokuhlala?**

Yebo, kakhulu  
Yebo, kancane  
Cha

**EX26[i]. Uke wamupha u [Partner #1] imali, izipho noma usizo, ubheke ukuthola ucansi?**

Yebo  
Cha

**EX27[i]. Uke u [Partner #1] akuphe imali, izipho noma usizo, ebebheke ukuthola ucansi?**

Yebo  
Cha

**EX28[i] [if EX3=male] Ngabe nanenza luphi uhlobo locansi no[Partner #1] ? [bheka okungenayo]**

Ngangiyi Bhothomu  
Ngangiyi Thophu  
Ngamupha iblow job  
Ngaphiwa iblow job

**EX29A[i] [if EX3=male & EX28 = receptive anal sex] Ngesikhathi uyibhothomu no [Partner #1], Ngabe nayisebenzisa ikhondomu noma cha?**

Ngekhondomu  
Ngaphandle kwekhondomu

**EX29B[i] [if EX3=male & EX28 = insertive anal sex] Mawugcina ukuba yoThophu no [Partner #1] loku kwakunge, noma ngaphandle kwekhondomu?**

Ngekhondomu  
Ngaphandle kwekhondomu

**EX30[i] [if EX3=female] uhlobo luni locansi enalwenza no<EX1[i]>? [Khetha okuyikhonaokuyikona]**

Ucansi lwesitho sangasese sowesifazane sangaphambili  
Ucansi lwesitho sangasese sangemuva  
Ucansi lomlomo

**EX31A[i] [if EX3= female & EX28 = vaginal sex]**

**Ngesikhathi nigcina ukwenza ucansi lwesitho sangasese sangaphambili sowesifazane no [Partner #1], ngabe lokhu kwakunge, noma ngaphandle kwekhondomu?**

Ngekhondomu  
Ngaphandle kwekhondomu

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EX31B[i] [if EX3= female & EX28 = anal sex]

Ngesikhathi nigcina ukwenza ucansi lwesitho sangasese sangemuva no[Partner #1], ngabe lokhu kwakunge, noma ngaphandle kwekhondomu

Ngekhondomu

Ngaphandle kwekhondomu

EX33[i] Uke u [Partner #1] wakutshela ngesimo sakhe seHIV?

Cha [JUMP TO E35[i]]

Yebo

Angazi

EX34[i] Sithini isimo sika [Partner #1] seHIV?

Une HIV

Akanayo iHIV

Angazi

**SKIP TO E36[i]**

EX35[i] Ukholwa ukuthi isimo sika [Partner #1] seHIV sithini?

Ngicabanga ukuthi angaba nayo iHIV

Ngicabanga ukuthi akanayo iHIV

Angazi

EX36[i] Uke wena no [Partner #1] nakhaphana ukuyowenza loku okulandelayo [khetha okuyikho]

Ukuyolulekwa nokuhlola iHIV

Kuphoyinti lasemtholampilo wezocansi

Kuphoyinti lomtholampilo wokulapha iHIV

Umhlangano wezempilo wabantu besilisa abaya ocansini nabanye abantu besilisa

Umcimbi ohlelewe inhlangano yabantu besilisa abaya ocansini nabanye besilisa

Cha, akukho kulokhu okungenhla

**ROUTE 3: A FORMERLY REGULAR SEXUAL PARTNER WHO THEY DO NOT EXPECT TO HAVE SEX WITH AGAIN IN THE FUTURE**

Ngabe eliphi ilanga [eliduze kunanamuhla] ogcine ngalo ukwenza ucansi no[Partner #1]. Sicela uagele uma ungasakhumbuli kahle

[Faka ilanga]

U[Partner #1] ubulili buni?

Owesilisa

Owesifazane

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Ubulili obushintshile  
Angazi

**Wayeneminyaka emingaki u[Partner #1] ngesikhathi nigcina ukwenza ucansi? Sicela uagele uma unganasiqiniseko.**  
[Faka iminyaka]

**Nahlangana kanjani okokuqala no [partner #1]?**

Ngabangani  
Ngomndeni  
Eskolweni  
Emsebenzini  
Endaweni yokuzijabulisa  
Emcimbini  
Kwi social network-isho ukuthi yiphi  
Okunye-isho ukuthi laphi  
Angikhumbuli

**Ngabe ucansi usulwenze kangaki no [partner #1]**

Kanye kuphela  
Kaningana

**Ngabe ucabanga ukuthi usazophinde wenze ucansi no [partner #1] futhi?**

Yebo  
Cha

**EX20B[i] [if EX19i=YES] Yikuphi kulokhu okulandelayo okuchaza ubudlelwane owawunabo no [Partner #1] bamanje?**

Sasishadile  
Sesiyizithandani isikhathi eside/ophathina abaqavile  
Sasingabangani ababebuye benze ucansi  
Sasihlanganiswa ucansi

**EX21B[i] [if EX19i=NO & EX18i=YES] Nisenobudlelwano, wawuhlala naye u <EX1[i]>?**

Yebo  
Cha

**EX22B[i] [if EX19i=NO & EX18i=YES] Nisenobudlelwano, wawumthanda u <EX1[i]>**

Yebo, kakhulu  
Yebo, kancane  
Cha

**EX24B[i] [if EX19i=NO] Ngabe wawubheke ku <EX1[i]> ukuthola imali, umholo noma indawo yokuhlala?**

Yebo, kakhulu  
Yebo, kancane  
Cha

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**EX26[i]. Uke wamupha u [Partner #1] imali, izipho noma usizo, ubheke ukuthola ucansi?**

Yebo

Cha

**EX27[i]. Uke u [Partner #1] wakupha imali, izipho noma usizo, ebebheke ukuthola ucansi?**

Yebo

Cha

**EX28[i] [if EX3=male] Ngabe nanenza luphi uhlobo locansi no[Partner #1] ? [bheka okungenayo]**

Ngangiyi Bhothomu

Ngangiyi Thophu

Ngamupha iblow job

Ngaphiwa iblow job

**EX29A[i] [if EX3=male & EX28 = receptive anal sex] Ngesikhathi uyibhothomu no [Partner #1], Ngabe nayisebenzisa ikhondomu noma cha?**

Ngekhondomu

Ngaphandle kwekhondomu

**EX29B[i] [if EX3=male & EX28 = insertive anal sex] Mawugcina ukuba yoThophu no [Partner #1] loku kwakunge, noma ngaphandle kwekhondomu?**

Ngekhondomu

Ngaphandle kwekhondomu

**EX30[i] [if EX3=female] uhlobo luni locansi enalwenza no[Partner #1]? [Khetha okuyikhonaokuyikona]**

Ucansi lwesitho sangasese sowesifazane sangaphambili

Ucansi lwesitho sangasese sangemuva

Ucansi lomlomo

**EX31A[i] [if EX3= female & EX28 = vaginal sex]**

**Ngesikhathi nigcina ukwenza ucansi lwesitho sangasese sangaphambili sowesifazane no [Partner #1], ngabe lokhu kwakunge, noma ngaphandle kwekhondomu?**

Ngekhondomu

Ngaphandle kwekhondomu

**EX31B[i] [if EX3= female & EX28 = anal sex]**

**Ngesikhathi nigcina ukwenza ucansi lwesitho sangasese sangemuva no[Partner #1], ngabe lokhu kwakunge, noma ngaphandle kwekhondomu**

Ngekhondomu

Ngaphandle kwekhondomu

**EX33[i] Uke u [Partner #1] wakutshela ngesimo sakhe seHIV?**Cha **[JUMP TO E35[i]]**

Yebo

Angazi

**EX34[i] Sithini isimo sika [Partner #1] seHIV?**

Une HIV

Akanayo iHIV

Angazi

**SKIP TO E36[i]****EX35[i] Wawukholwa ukuthi isimo sika [Partner #1] seHIV sithini ngesikhathi nigcina ukwenza ucansi?**

Ngicabanga ukuthi angaba nayo iHIV

Ngicabanga ukuthi akanayo iHIV

Angazi

**EX36[i] Uke wena no [Partner #1] nakhaphana ukuyowenza loku okulandelayo [khetha okuyikho]**

Ukuyolulekwa nokuhlola iHIV

Kuphoyinti lasemtholampilo wezocansi

Kuphoyinti lomtholampilo wokulapha iHIV

Umhlangano wezempilo wabantu besilisa abaya ocansini nabanye abantu besilisa

Umcimbi ohlelwe inhlangano yabantu besilisa abaya ocansini nabanye besilisa

Cha, akukho kulokhu okungenhla

Ukuqedela loluhlu sesizokubuza imibuzo emibalwa, emayelana nokwazana kwalabophathina oqeda kubabala

**EX37 [IF >1 MALE] Ngokwazi kwakho, bakhona kulabantu besilisa abenza ucansi ndawonye, baphinde balwenze futhi nawe?**

Yebo

Cha **[SKIP TO NEXT SECTION]**Angazi **[SKIP TO NEXT SECTION]****EX38 [IF >1 MALE REPORTED] Sicela uveze ukuthi ibaphi abenza ucansi ndawonye**<EX1> & <EX2> **[IF BOTH MALE]**<EX1> & <EX3> **[IF BOTH MALE]**<EX1> & <EX4> **[IF BOTH MALE]**<EX2> & <EX3> **[IF BOTH MALE]**<EX2> & <EX4> **[IF BOTH MALE]**<EX3> & <EX4> **[IF BOTH MALE]**

NgesikhathiNgesikhathiNgesikhathiNgesikhathiNgesikhathingesikhathingesikhathikukangakiF. ULWAZI

NOKUZAZI KWAKHO NGE HIV NOKUPHEPHA KWEZOCANSI.

Loluhlu lwemibuzo elandelayo ingokwaziyo ngeHIV Kanye nokuthi ukuthola kulula kangakanani ukunakekela ezempilo zakho zocansi.

F1. Yonke lemibhalombiko IYIQINISO. UBUKWAZI YINI LOKHU OKULANDELAYO?

F1a. Ukulashwa okusebenzayo kwe HIV kwehlisa ukwendluliseka kwe HIV

- Besengikwazi loku
- Benginganasiciniseko sako
- Bengingakakwazi loku
- Angikuzwisisi loku

F1b. kuyenzeka ukuthi uthole I HIV ngecansi lwesitho sangansense sangemuva sabesilisa

- Besengikwazi loku
- Benginganasiciniseko sako
- Bengingakakwazi loku
- Angikuzwisisi loku

F1c. Kuyenzeka ukuthi uthole iHIV noma uyitop manenza ucansi lwesitho sangansense sangemuva sabantu besilisa.

- Besengikwazi loku
- Benginganasiciniseko sako
- Bengingakakwazi loku
- Angikuzwisisi loku

F2. Ingabe uvumelana kangakanani nalezitatamende ezilandelayo?

	Angivumelani nakho kakhulu	Nginokungavumelani nakho	Angivumelani futhi angiphikisi	Nginokuvuma	Ngivumelana nakho kakhulu
F2a. ‘Ucansi engilwenzayo luhlale luphephile ngendlela engifuna ngayo mina’					
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

<b>F2b. 'Ngingasenza isiciniseko sokuthi ngisebenzisa amacondom uma kumele asetshenziswe'</b>					
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>F2c. 'ngesinye isikhathi ngiba nobunzima bokuthola ama condom mangiwadinga'</b>					
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>F2d. 'ngesinye isikhathi ngiba nenkinga nama condom angangeni kahle'</b>					
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>F2e. 'ngesinye isikhathi ngiba nenkinga ukuthola ilubhu yamanzi mangiyidinga'</b>					
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## G. EZEMPILO ZOCANSI NE HIV

Loluhlu lwemibuzo elandelayo ingokuhlolela iHIV

### G1. Ukholwa ukuthi isimo sakho seHIV simephi namuhla?

Anginayo iHIV (ngicabanga ukuthi anginayo iHIV)

Nginayo iHIV (ngicabanga ukuthi nginayo iHIV)

Angicinisekanga

### G2. Uke wahlola igazi uhlola iHIV?

Yebo

Cha [\[jump to section G PART III\]](#)

### G3. Iyiphi inyanga nonyaka owagcina ukuhlolola iHIV?

[faka usuku MM/YYYY]

### G4. Ukugcina kwakho ukuhlola iHIV, ugcinephi?

Esibhedlela noma eklinikhi yomphakathi

Esibhedlela noma eklinikhi ezimele

Endaweni yokuhlolola iHIV yomphakathi wonke

Endaweni yomphakathi lapho khona ukuhlola khona abantu besilisa abathandana nabanye abantu besilisa. Endaweni lapho engihlangana nabangani (ebar noma eKlubhini)

Ngizihlole mina ekhaya

.

### G5. Ukugcina kwakho ukuhlola iHIV, waneliseka kangakanani ngendlela ekumele kufihleke ngakhona kolwazi lokuhlolwa kwakho?

Ngangelisekile kakhulu

Nganeliseka

Anginelisekanga

Anginelisekanga kakhulu

Angikhumbuli/ angiyicabanganga

### G6. Ukugcina kwakho ukuhlola iHIV, waneliseka kangakanani ngabasebezi bomtholampilo ngenhlonipho ababenayo?

Ngangelisekile kakhulu

Nganeliseka

Anginelisekanga

Anginelisekanga kakhulu

Angikhumbuli/ angiyicabanganga

**G8. Yayithini imiphumela yokuhlola yamaduzane yeHIV?**

Anginayo IHIV

Nginayo iHIV

Angazi

**Section G Part i: About being HIV positive****Loluhlu lwemibuzo elandelayo imayelana nokuzithola uneHIV****G10. Kwakungayiphi inyanga noma unyaka uma uthola ukuthi unayo i HIV?**

[faka ususku MM/YY]

**G11. Kusukela ngalesikhathi uthola ukuthi unayo iHIV, usuke wadluliselwa yini emtholampilo ukuyohlolisisa ngayo iHIV noma ngesimo sakho sempilo?** Ngokuthi 'Emtholampilo' sisho icliniki lapho ubona khona udokotela noma osebenza khona ngokuzinakekela ngokuzilapha.

Yebo

Cha

**G12. Kusukela ngesikhathi waqala ukuthola ukuthi une HIV, uke wavakashela umtholampilo nge HIV noma izifo ezihambelanayo??**

Yebo **[JUMP TO G14]**

Cha

**G13 Kungani ungavakashelanga umtholampilo emva kokuthi uthunyelwe khona?? (khetha okungenayo)**

Indlela yokuziphatha yabantu abasebenza emtholampilo kuma MSM

Indlela yokuziphatha yabasebenzi basemtholampilo kubantu abaphila neHIV

Ukwesaba ukubonwa mangiya emtholampilo

Indlela ende ukuya emtholampilo

Ukudula komtholampilo/ukuhlola

Ukudula ukuya emtholampilo

Ukudula komuthi

Ukusaba ukugula okuza nokuthatha umuthi

Ukusaba ukuthi umuthi uzobonwa abantu

Angikholwanga ukuthi umuthi uyasebenza

Angikholwanga ukuthi ngiyawudinga umuthi

Ezinye izizathu [sicela ucacise\_\_\_\_\_]

**G14. Kusukela ngelanga owazi ngalo ukuthi unayo iHIV, kwaba duzane kangakanani ukubonana nomuntu osebenza emtholampilo ngokunakekela iHIV?**

Ngalelo langa engazingalo ngesimo sami

Emavikini amabili emuva kokwazi ngesimo sami

Emaviki ayi2 kuya ku4 emuva kokwazi ngesimo sami

Izinyanga eziwu1 kuya ku3 emuva kokwazi ngesimo sami

Ezinyangeni eziwu 3 kuya ku 12 emuva kokwazi ngesimo sami

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Ngaphezulu konyaka ngazi ngesimo sami

**ADDED** Angikaze ngibonane nomuntu osebenza emtholampilo ngokunakekela iHIV

**G15. Uye kuphi mawuqala ukuvakashela umtholampilo ngalenhloso?**

Esbhedlela somphakathi noma iKliniki

Esbhedlela esizimele noma iKliniki

EKliniki yabesilisa abaya ocansini nabanye besilisa

**UKUNAKEKELA IHIV OKUQHUBEKAYO**

**G16. Ugcine nini ukubonana nowezempilo osemthethweni mayelana nokunakekelwa kwe HIV?**

Kulezinyanga eziwu 6 zokugcina

Phakathi kwezinyanga eziwu 6 kuya kweziwu 12

Phakathi kweminyaka eyi1 kuya ku 2

Eminyakeni endlula eyiwi 2 eyedlule

**G17. Uye kuphi ngesikhathi ugcina emtholampilo ngalenhloso?**

Esbhedlela somphakathi noma iKliniki

Esbhedlela esizimele noma iKliniki

EKliniki yabesilisa abaya ocansini nabanye besilisa

**G18. Ngesikhathi ugcina ukuya emtholampilo ukuyohlola ngokunakekelwa kwe HIV, waneliseka ngobumfihlo bamasevisi abo?**

Nganeliseka kakhulu

Nganeliseka

Anginelisekanga

Anginelisekanga kakhulu

Angikhumbuli/ Angicabangi ngakho

**G20. Ngesikhathi ugcina ukuvakashela umtholampilo ngokunakekela iHIV, waneliseka yini ngenhlonipho abasebenzi abakubonisa yona?**

Nganeliseka kakhulu

Nganeliseka

Anginelisekanga

Anginelisekanga kakhulu

Angikhumbuli/ Angicabangi

**G22. Usake wawahlola ukuthi ahamba kanjani amasosha emzimbeni. Lohlolo lubizwa nge CD4 test?**

Yebo

Cha

Angazi kahle

**G22a. [If G22 = yes] Ugcine nini ukwenza lolo hlolo lwe CD4?**

Kulezinyanga eziyisithupha ezedlule

Phakathi kwenyanga eziyisithupha kuya ezinyangeni eziyishumi nambili ezedlule

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Phakathi konyaka noma iminyaka emibili eyedlule  
Ngaphezu kweminyaka emibili endlule

**G23. [If G22 = yes] Sasithini isibalo sakho se CD4 ngesikhathi uyohlola?**

Ngaphezu kuka 500  
Phakathi kuka 350 kuya ku 500  
Ngaphansi kuka 350  
Bangitshela kodwa angisakhumbuli  
Bangitshela kodwa angizwisisanga kahle  
Angitshelwanga imiphumela

**G24. Usake wahlololwa, inani lokutheleleka ngeHIV egazini. Loku kubizwa nge viral load.**

Yebo  
Cha  
Angazi kahle

**G24a. [If G24 = yes] Ugcine nini ukuthola imiphumela yakho ye viral load?**

Angizange  
Ezinyangeni eziwu 6  
Phakathi kwezinyanga eziwu6 kuya ku 12  
Phakathi konyaka neminyaka ewu 2  
Sekudlule iminyaka ewu 2

**G25. [If G24 = yes] Ibithini imiphumela yokuhlolwa kwe viral load mawugcina ukuhlola?**

Ayibonakalanga  
Yabonakala  
Bangithsela kodwa angikhumbuli  
Bangitshela kodwa angizwisisanga  
Abangitshelanga imiphumela

**UKKWELASHWA KWE HIV (ART)**

Loluhlu lwemibuzo elandelayo ingokuthatha imithi edambisa iHIV (ART, HAART).

**G26. Ingabe sewuqalile yini ukuthatha ama antiretroviral (ngesinye isikhathi aziwa ngokuthi yi ART [antiretroviral treatment] noma HAART [highly-active antiretroviral therapy] eHIV?**

Yebo  
Cha **[JUMP TO G28]**

**G27. Uthe uzwa ngesimo sakho seHIV mhlaka <G8 MM YY>. Waqala duzane kanganani ukuthatha amaART akho emuva kwalokho?**

Ngalelo langa engazingalo ngesimo sami  
Emavikini amabili emuva kokwazi ngesimo sami  
Emavikini awi2 kuya ku4 emuva kokwazi ngesimo sami  
Izinyanga eziwu1 kuya ku3 emuva kokwazi ngesimo sami  
Ezinyangeni eziwu 3 kuya ku 12 emuva kokwazi ngesimo sami

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Ngaphezulu konyaka ngazi ngesimo sami

**[JUMP TO SECTION G PART IV]**

**G28. Ingabe okusizayo ngendaba zempilo usekululekile ukuthi uqale uthathe ama antiretroviral treatment (ART)?**

Yebo

Cha **[JUMP TO SECTION G PART IV]**

**G29. Ingabe yini eyakwenza ukuthi ungaqali ukuthatha umshanguzo wama antiretroviral treatment (ART)?**

**[Khetha konke okungenayo]**

Indlela yokuziphatha yabantu abasebenza emtholampilo kuma MSM

Indlela yokuziphatha yabasebenzi basemtholampilo kubantu abaphila neHIV

Ukwesaba ukubonwa mangiya emtholampilo

Indlela ende ukuya emtholampilo

Ukudula komtholampilo/ukuhlola

Ukudula ukuya emtholampilo

Ukudula komuthi

Ukusaba ukugula okuza nokuthatha umuthi

Ukusaba ukuthi umuthi uzobonwa abantu

Angikholwanga ukuthi umuthi uyasebenza

Angikholwanga ukuthi ngiyawudinga umuthi

Ezinye izizathu [sicela ucacise\_\_\_\_\_]

**[JUMP TO SECTION G PART IV]**

**G30. Ingabe manje uyayithatha iantiretroviral treatment (ART)?**

Yebo

Cha

**[If G30 = no]Uyeke nini ukuthatha ama antiretroviral treatment (ART)?**

Kulezinyanga eziyisithupha ezedlule

Phakathi kwenyanga eziyisithupha kuya ezinyangeni eziyishumi nambili ezedlule

Phakathi konyaka noma iminyaka emibili eyedlule

Ngaphezu kweminyaka emibili endlule

**[If G30 = no]**

**G32. Ingabe yini eyakwenza ukuthi uyekele ukuthatha iantiretroviral treatment? [Khetha okungenayo]**

Indlela yokuziphatha yabantu abasebenza emtholampilo ebhekiswe kuma MSM

Indlela yokuziphatha yabasebenzi basemtholampilo kubantu abaphila neHIV

Ukwesaba ukubonwa mangiya emtholampilo

Indlela ende ukuya emtholampilo

Ukudula komtholampilo/ukuhlola

Ukudula ukuya emtholampilo

Ukudula komuthi

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Ukusaba ukugula okuza nokuthatha umuthi  
Ukusaba ukuthi umuthi uzobonwa abantu  
Angikholwanga ukuthi umuthi uyasebenza  
Angikholwanga ukuthi ngiyawudinga umuthi  
Ezinye izizathu [sicela ucacise\_\_\_\_\_]

**[If G30 = yes] G31. Iningi leziguli likuthola kunzima ukuthatha imithi yeHIV belandela indlela abatshele ngayo. Ngabe mangaki amadozi yemithi yakho yeHIV ongawathathanga kulezizinsuku eziwu7 ezedlule?**

[Fa]ka inani lama dozi

## **ISIGABA G INXENYE II. NGOKUNGABI NE HIV**

Loluhlu lwemibuzo elandelayo imayelana nokungabi nayo iHIV

**G33. Kulezinyanga eziwu12 ezedlule, uye kangakhi ukuyohlola iHIV?**

[faka inani]

**G34. Mangabe uyanquma ukuhlolola iHIV futhi, ungafuna ukuhlololaphi?**

Esbhedlela somphakathi noma iKliniki  
Esbhedlela esizimele noma iKliniki  
Isevisi yomphakathi yokuhlola iHIV  
Isevisi yomphakathi yokuhlola iHIV yabesilisa abaya ocansini nabesilisa  
Endaweni lapho ngihlangana nabangani (e.g. bars or clubs)  
Ekhaya

**G35. Uma unganquma ukuhlola iHIV futhi, ubani ongathanda ukuthi akwenze lohlolo?**

Udokotela noma umsebenzi wezempilo  
Unesi  
Ikhansela  
Osebenzela umphakathi wama MSM  
Imina [i.e. ukuzihlola]

## **[JUMP TO SECTION G PART IV]**

## **ISIGABA G INXENYE III: NGOKUNGAYIHOLOLELI NHLOBO IHIV**

Loluhlu lwemibuzo lungokungayihloleli nhlobo iHIV

**G36. Kungani ungakahloli isimo sakho se HIV??**

[enter text]  
Ngikhathazekile ukuthi angeke bangiphathe ngenhlonipho emtholampilo  
Akubalulekike kimi ukuthi ngazi  
Ngoba ngicabanga ukuthi isimo sami siyafana neskaphathini wami

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Angazi ukuthi ngiyosihlola kuphi  
Ngiyasaba ngoba ngicabanga ukuthi nginayo iHIV  
Ngiyasaba ukuthi abantu ngeke basangiphatha kahle uma ngiyohlola  
Ngisaba ukuthi uma ngineHIV abantu ngeke basangiphatha ngendlela ejwayelekile  
Kunganibangela izinkinga ebudlelwaneni bami  
Anginaso isizathu esingangenza ngibe neHIV  
Esinye isizathu (isho\_\_\_\_\_)

**G37. Uzethemba kangakanani ukuthi ungayihlolela iHIV makungenzeka ufune?**

Ngizethemba kakhulu  
Ngiyazethemba  
Ngizethemba kancane  
Angizethembi nhlobo  
Angazi

**G38. Uma ungancuma ukuthi uyozihlola ngelinye ilanga, ungathanda ukuhlolaphi?**

Esbhedlela somphakathi noma iKliniki  
Esbhedlela esizimele noma iKliniki  
EKliniki yabesilisa abaya ocansini nabanye besilisa  
Isevisi yomphakathi yokuhlola iHIV yabesilisa abaya ocansini nabesilisa  
Endaweni lapho ngihlangana nabangani (e.g. bars or clubs)  
Ekhaya

**G39. Uma ungancuma ukuthi uyohlola ngelinye ilanga, ungathanda ukuhlolwa ngubani?**

Udokotela noma umsebenzi wezempilo  
Unesi  
Ikhansela  
Osebenzela umphakathi wama MSM  
Mima [i.e. ukuzihlola]

**SECTION G PART IV: EZINYE IZIFO EZITHATHELELANA NGOCANSI**

**G40. Kulezinyanga eziwu 12 ezedlule, uke waphuma ubovu esithweni sakho somzimba sangansense sangaphambili noma kube buhlungu uma uchama?**

Yebo  
Cha **[JUMP to G35]**

**G41. . Ingabe unazo lezimpawu namuhla**

Yebo  
Cha

**G42. Kulezinyanga eziyishumi nambili ezedlule, ingabe uke waphuma ubovu noma igazi esithweni sakho somzimba sangansense sangemuva noma uzwe ubuhlungu obungabekezeleleki uma wenza ucansi esithweni sakho somzimba sangansense sangemuva?**

Yebo

Cha **[JUMP to G44]**

**G43. Ingabe unazo lezimpawu namuhla?**

Yebo

Cha

**G44. Kulezinyanga eziyishumi nambili ezedlule, uke wabona izilonda esithweni sakho somzimba sangasese sangaphambili nesesithweni sakho somzimba sangasese sangemuva?**

Yebo

cha

**[IF A16 = A17 JUMP TO NEXT SECTION]**

## **SECTION G PART V: TRANSGENDER SEXUAL HEALTH ACCESS**

**G45. Uzethemba kanjani ukuthi ungathola ukukhanselwa ngokobulili bakho?**

Ngizethemba kakhulu

Ngiyazethemba

Ngizethemba kancane

Angizethembi nhlobo

Angazi

**G46. Ingabe njengamanje uyawasebenzisa amahomoni noma amahomoni avimba ukwelapha?**

Yebo

Cha **[SKIP TO G48]**

**G47. Ingabe ukutholaphi lokwelapha?**

Isibhedlela somphakathi

Isibhedlela sangansese

Ngawathenga ekhemisi

Ngawathenga kuinthanethi

Ngawathola kubangani

**[SKIP TO G49]**

**G48. Uzethemba kangakanani ukuthi ungawathola amahomoni noma ukwelashwa okuvimba amahomoni e<IZWE> uma ubuwafuna?**

Ngizethemba kakhulu

Ngiyazethemba

Ngizethemba kancane

Angizethembi nhlobo

Angazi

**G49. Usuke wahlinzwa ukuze ushintshe ubulili?**

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Yebo

Cha **[SKIP TO G51]**

**G50. Where were you able to access these services?**

Esbhedlela somphakathi khona kulelizwe

Isibhedlela esizimele kulelizwe

Esbhedlela kwelinye izwe

**[JUMP TO NEXT SECTION]**

**G51. Uzethemba kangakanani ukuthi ungakwazi ukuthola ukuhlinzwa okuhlobene nobulili bakho?**

Ngizethemba kakhulu

Ngiyazethemba

Ngizethemba kancane

Angizethembi nhlobo

Angazi

## H. Post Exposure Prophylaxis (PEP) and Pre Exposure Prophylaxis (PrEP)

Loluhlu lwemibuzo elandelayo inge Post Exposure Prophylaxis-ebuye yaziwe nge PEP.

### H1. Lesitatimenti esilandelayo siyiqiniso. Ingabe ubusukwazi lokho?

I Post Prophylaxis (PEP) amaphilisi athathwa inyanga yonke avikela ukuthi umuntu angatheleleki ngeHIV uma bevulelekile kuyona, (kufana nokuya ecansini ungafakanga icondom). iPEP ifuna ukuthathwa emuva kokuvuleleka engcupheni ye HIV.

Bengivele ngikwazi lokhu  
Bengingaso isiciniseko salokhu  
Bengivele ngingakwazi lokhu  
Angikuzwisisi lokhu

### H2. Usume wazama ukuthola iPEP?

Yebo  
Cha  
Angazi

### H3. [If yes to H2] Usume wayithatha iPEP phambilini?

Yebo  
Cha  
Angazi

### H4. [If yes to H3] IPEP uyithathe amalanga ayingakhi? (Uma uyithathe kaningi kunakodwa, cabanga ngeseikhathi owagcina ngayo ukuyithatha)

[faka inani]

### H5. [IF G1 = NEGATIVE or NOT SURE] Uma ucabanga ukuthi uvezekile ku HIV ungazi ukuthi uzoyitholaphi I PEP?

Yebo  
Cha  
Angazi

## H. Pre Exposure Prophylaxis (PrEP)

The next set of questions is about Pre Exposure Prophylaxis - which is also known as PrEP.

### H6. Lesitatamende esilandelayo siyiqiniso . Ubusuwazi ngaloku?

. iPre exposure prophylaxis (PrEP) ifaka phakathi umuntu onganayo iHIV othatha ipilisi ngesikhathi esihambayo ukuzivikela ekutholeni iHIV. Abantu abaningi abasebenzisa iPrEP onke amalanga. IPrEP idinga ukuthi uyithathe ngaphambi kokuya ocansini ukuze ikwazi ukusebenza.

Besengikwazi lokhu  
Benginganaso isiciniseko salokhu  
Bengingakakwazi lokhu  
Angikuzwisisi lokhu

PrEP ihlukile kune PEP, iPEP ithathwa emuva kokuvuleleka iPrEP yona ithathwa ngaphambi kokuvuleleka.

**H7. Uke wazama ukuthola iPrEP?**

Yebo

Cha **[JUMP TO H10]**

Angazi **[JUMP TO H10]**

**H8. Usake wanikezwa iPrEP?**

Yebo

Cha

Angazi

**H8. Usake wayithatha iPrEP?**

Yebo, futhi ngisayisebenzisa

Yebo, ngiyekile ukuyisebenzisa

Cha **[JUMP TO H10]**

Angazi **[JUMP TO H10]**

**H9. Wayitholaphi iPrEP?**

Udokotela esibhedlela somphakathi noma ekliniki

Udokotela esibhedlela esizimele noma ekliniki

Enhlanganweni yomphakathi

Kuwebhusayithi ezimisele (shano ukuthi yiphi)

Kwenye indawo (shano ukuthi kuphi)

**[JUMP TO NEXT SECTION]**

**H10. [IF G1 = NEGATIVE or NOT SURE] Uma iPrEP ingenziwa ukuthi itholakale ucabanga ukuthi ungayisebenzisa yini?**

Cishe kakhulu

Cishe nje

Anginasicininiseko

Cishe Kancane

Angiboni nhlobo

**H11. Uma iPrEP ingenziwa ukuthi itholakale, ungathanda ukuyitholaphi?**

Udokotela esibhedlela somphakathi noma ekliniki

Udokotela esibhedlela esizimele noma ekliniki

Enhlanganweni yomphakathi

Ekhemisi

Kuwebhusayithi ezimisele (shano ukuthi yiphi)

Kwenye indawo (shano ukuthi kuphi)





## ISAHLUKO I. UKUSETSHENZISWA KOTSHWALA

### I1. Uziphuza kangakanani izinto ezinotshwana

Angikaze

Njalo ngenyanga

Kabili ukuya kane enyangeni

Kabili ukuya kathathu ngesonto

Kane noma kaningi ngesonto

### I2. Uma uphuza utshwala, uphuza iziphuzo ezingakhi?

1 noma 2

3 noma 4

5 noma 6

7 kuya ku 9

10 noma adlulayo

### I3. Kukangaki lapho uphuza khona iziphuzo eziba wu6 noma ezindlulayo ngesikhathi esisodwa?

Angikwenzi

Kuyandlula inyanga

Ngenyanga

Ngesonto

Ngelanga noma cishe onke amalanga

### I4. Kukangaki kulonyaka odlule lapho uzithole khona ungakhoni ukuyeka ukuphuza uma sowucalile?

Angikwenzi

Kuyandlula inyanga

Ngenyanga

Ngesonto

Ngelanga noma cishe onke amalanga

### I5. Kukangaki kulonyaka odlule lapho uzithole khona uhluleka ukuziphatha ngendlela ejwayelekile ngoba ubuphuzile?

Angikwenzi

Kuyandlula inyanga

Ngenyanga

Ngesonto

Ngelanga noma cishe onke amalanga

**16. Kukangaki kulonyaka odlule lapho khona ubudinga isiphuzo esisodwa ukuze ukwazi ukuba nguwe emuva**

**kokuphuza kakhulu?**

Angikwenzi

Kuyandlula inyanga

Ngenyanga

Ngesonto

Ngelanga noma cishe onke amalanga

**17 Kukangaki kulonyaka odlule lapho khona udliwe khona isazela noma ukuzisola emuva kokuphuza?**

Angikwenzi

Kuyandlula inyanga

Ngenyanga

Ngesonto

Ngelanga noma cishe onke amalanga

**18. Kukangaki kulonyaka odlule lapho ungakwazanga ukukhumbula izinto ezenzeke ngayizolo ngenxa yokuthi**

**bewuphuzile?**

Angikwenzi

Kuyandlula inyanga

Ngenyanga

Ngesonto

Ngelanga noma cishe onke amalanga

**19. Uke noma omunye umuntu walimala ngoba wena ubuphuzile?**

Cha

Yebo, kodwa hhayi kulonyaka odlule

Yebo, kulonyaka odlule

**I10. Ngabe isihlobo, umngani, udokotela noma isisebenzi sezempilo bake babonisa ukukhathazeka ngokuphuza kwakho?**

Cha

Yebo, kodwa hhayi kulonyaka odlule

Yebo, kulonyaka odlule

## ISAHLUKO J. UKUSEBENZISA KWEZIDAKAMIZWA

Luluhlu lwemibuzo elandelayo ingokusebenzisa kwakho ugwayi noma ezinye izidakamizwa.

**J1. Ngicela ucacise uma usake wakusebenzisa lokhu okulandelayo:**

Isidakamizwa	Angikaze	Kulenyanga edlule	Phakathi konyaka odlule kodwa hhayi kulenyanga edlule	Kudlule cishe unyaka
Tobacco	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cannabis (grass, weed, herb, ndom, bhang, ganja, dagga, zol, insangu)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Khat (miraa, veve, mogoka)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ecstasy (E, umgwinyo, happy pill, disco biscuit, Adam)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Amphetamine (speed, gavana)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Crystal methamphetamine (crystal, ice, tina, meth, taptap, crank)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Heroin (smack, mud, brown sugar)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mephedrone (meow meow, plant food, bubbles, kitty cat)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
GHB/GBL (G, liquid ecstasy, soap)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cocaine or Crack cocaine (rock)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rohypnol (mchele, roofies, forget pill)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Poppers (liquid gold)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Benzene	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**K. UKUPHILA KWENGCONDO**

Kulamaviki amabili okugcina uke wahlushwa okunye kwaloku okulandelayo:

	Abfikwenzi Nhlobo	Amalanga ambalwa	Ngaphezu kwehhafu yalamalanga	Cishe onke amalanga
<b>K1. ngimomdlandla omncane ekwenzeni izinto</b>				
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>K2. ngizizwa ngiphansi ngikhathazekile futhi nginganathemba</b>				
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>K3. Inkinga yokulala noma ukuhlala ngilele, noma ukulala ngokweqile</b>				
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>K4. ukuzizwa ngikhathale noma ngimanandla amancane</b>				
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>K5. Ukungadleki noma ukudla kakhulu</b>				
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>K6. ngizizwa kabi ngami, noma ngizizwe njengesehluleki, noma ngizicekele phansi ngacekela nomndeni wami phansi</b>				
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>K7. Inkinga yokugxilisa ingqondo ezintweni ezifana nokufunda iphephandaba noma ukubheka umabonakude</b>				
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>K8. Ukuhamba noma ukukhuluma kancane ukuthi abantu banganaki nokunaka? Noma okuhlukile, okuba ukungahlaliseki nokungaphumuli okufaka nokuhambahamba ukudlula injwayelo.</b>				
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>K9. Imicabango yokuthi kungabangcono mawungafa noma yokuzilimaza ngendlela thize.</b>				
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**K10. Uma kukhona inking oyikhethile, ubunzima obunganani lezinkinga ezibenzile ekwenzeni umsebenzi wakho, ukunakekela izinto ekhaya, noma ukuzwana nabantu?**

Akunzima Nhlobo

Kunzima nje

Kunzima kakhulu

Kunzima ngokweqile

## L. UKUQAGELA INANI LABANTU

Manje sifisa ukukubuza ukuthi uke wasebenzisa amasevisi akhethekile kulamalanga. Izimpendulo zalemibuzo zisosinceda ukuthi sithole inani labantu abesilisa abaya ocansini nabanye abantu besilisa. Ayikho iminingwane engawe ezodluliswa noma ezocelwa kulamasevisi ukucagela lenani.

### [SHOW IF SITE = NAIROBI]

### [SHOW IF SITE = NAIROBI]

L1. Mhla ziwu [reference date], wabhalisa njengelunga eqenjini lefacebook le 'ISHTAR-MSM'?

Yebo

Cha

Angazi

L2. Uke waba nephoyinti e [Liverpool VCT or ISHTAR clinic] Phakathi kuka [enter reference period]

Yebo

Cha

Angazi

### [SHOW IF SITE = SOUTH AFRICA]

L1. Ngomhlaka [reference date], Ingabe wawubhalisele ukuba yinxenye yeqembu lefacebook i'Black Men Bold and the Beautiful'?

Yebo

Cha

Angazi

L2. Ngomhlaka [reference date], wabhalisa ukuba ingxenye yeqembu lefacebook i'Johannesburg Gays' ?

Yebo

Cha

Angazi

L3. Ngomhlaka [reference date], wabhalisa ukuba ingxenye yeqembu lefacebook i'Soweto Gays'?

Yebo

Cha

Angazi

L4. Ngomhlaka [reference date], wawulandela i'We the Brave' ku Facebook?

Yebo

Cha

Angazi



L5. Ngomhlaka [reference date], wawulandela i'Health 4 Men' ku Facebook?

Yebo

Cha

Angazi

L6.Uke wavakashela umtholampilo we ANOVA Health 4 Men ngaphakathi kuka[enter reference period]



Yebo  
Cha  
Angazi

[If L6 = yes] L7. Iyiphi iklinikhi yeANOVA Health 4Men owayivakashela?

[Amaklinikhi akhona]

Zola

Chiawelo

Yeoville

Other\_\_\_\_\_

## M. UKUJABULA KWEZOCANSI

### M1. Ujabule kangakanani ngimpilo yakho yezocansi manje?

Ngijabule kakhulu

Ngijabulile nje

Anginasiciniseko/angazi

Angijabulile nje

Angijabulile kakhulu

### M2. Yini into eyodwa engakusiza ukuthi impilo yakho yezocansi ibe ngcono?

[Bhala]

### M3. Iyiphi indoda ebukeya kahle kunawo wonke emhlabeni?

[Bhala]

Siyabonga kakhulu ngokubamba kwakho iqhaza kulolucwaningo. Uma uzwa ngathi knona amaphutha owenzile ufisa ukubuyela emuva uyowalungisa, ngicela uwasho kumcwaningi ozobe ekusiza. Uma loqwaningo lukwenza ucabange ngemibuzo engempilo yakho nangalocwaningo, sicela ubuze umcwaningi.

**Luyaphela lapho uhla lemibuzo.**

## TRANSFORM Survey Instrument: IMOJULA YOKUPHA AMAKHUPHONI

Ilanga Lokuhlola: [unyaka/inyanga/usuku]

Igama lomhloli: \_\_\_\_\_

Inombolo yepasi kambambiqhaza: \_\_\_\_\_

### kulolucwaningokulolucwaningolelikhuphoni

#### Ukuvakasha Kokubuya

**B1.** Mangaki amanye amadoda aya ocansini namanye owaziyo okewaxoxisana nawo kulenyanga edlule? Ngokuthi 'owaziyo', sisho ukuthi umuntu owazi igama lakho futhi nawe wazi elakhe, futhi ngokuthi 'uxoxisane naye' sisho ukuthi omazi ngesicu noma enikhuluma naye ocingweni, ukuthumelana imilayezo noma elayinini.

[faka inombolo]

**B2.** Mangaki **[B1]** kulamadoda oke wahlangana nawo ngokwesiqu?

[faka inombolo]

**B3.** Mangaki **[B2]** kulamadoda aneminyaka ewu18 ukuya phezulu?

[faka inombolo]

**Q9.** Mangaki **[B3]** kulamadoda ahlala e [Johannesburg/Nairobi]?

[faka inombolo]

**Q10.** Mangaki **[B4]** kulamadoda oke wawabona kulamaviki amabili adlule?

[faka inombolo]

### UKUDLULISA AMAKHUPHONI (ABANQABILE)

Sifuna ukukubuza ngabantu abangavumanga ukwamukela ikhuphoni kuwe.

**Q11** Mangaki amadoda obufuna ukuwapha lelikhuphoni anqabile ukuyithatha?

[faka inombolo]

**Q12** For each of **[Q11]** Abayithathanga ngani lelikhuphoni?

Ucabanga umuntu wesilisa wokuqala owazama ukumunika ikhuphoni wanqaba ukulithatha, Yini engalithathanga ikhuphoni kuwe? [khetha konke okungenayo]

Uthe uselibambile iqhaza kulolucwaningo

Uthe useyitholile lelikhuphoni komunye umuntu

Uthe akayona indoda eya ocansini namanye amadoda

TRANSFORM Zulu Survey Instrument

SA IsiZulu Version 2.0; 09 Mar 17



Uthe uneminyaka engaphansi kwa 18  
Uthe akahlali edolobheni engihlala kulo  
Akanaso isifiso sokubamba iqhaza kulolucwaningo  
Uthe akanayo imali eyanele ukuthi angabamba iqhaza  
Esinye isizathu-sisho  
Akukho kulokhu nokungenhla

#### UKUDLULISA AMAKHUPHONI (ABAWAMKELILE)

Manje sicela ukukubuza ngabantu abalithathile lelikhuphoni kuwe.

#### Q13. Bangaki abesilisa obaphe lelikhuphoni abalithethe?

[faka inombolo 0-3]

IF Q13>0 Lomuntu omuphe ikhuphoni yokuqala

#### Q14i: Ucabanga ukuthi lomuntu ubezokunika ikhuphoni kube ubebambe iqhaza kuqala kunawe kulolucwaningo?

Yebo

Cha

#### Q14i: Sisacabanga ngalomuntu wokuqala omunikeze ikhuphoni walamukela:

Lomuntu ngabe uneminyaka engaphezu kwewu 30 na?

Yebo

Cha

Angazi

#### Q14i: Sisacabanga ngalomuntu wokuqala omunikeze ikhuphoni walamukela:

Yini ekwenze wanquma ukupha lomuntu ikhuphoni? Khetha isizathu esibaluleke kakhulu

Bekawokuqala okhonayo ukungena kulolucwaningo

Ungumngani wami osondele kakhulu

Unguphathina wami

Ubedinga lemali yokubamba iqhaza

Bengicabanga ukuthi khona azokuzuzwa kulolucwaningo

Ngimucele ngokuvulekile yena weza kimina

Okunye(sicela usho isizathu\_\_\_\_\_)

#### LOOP Q14i KWABANYE OSAZOBAPHA AMAKHUPHONI

[IF Q14>1] Okufaka lomuntu wesibili ozomupha ikhuphoni

[IF Q14>2] Okufaka umuntu wesithathu ozomupha ikhuphoni

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