

**DEMOGRAPHIC AND SUBSTANCE USE CONTRIBUTORS OF POOR HEALTH OUTCOMES IN
INJECTION DRUG USING WOMEN IN NAIROBI, KENYA**

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Abstract

Demographic and substance use contributors of poor health outcomes in injection drug using women in Nairobi, Kenya

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Background: Injection drug use (IDU), while still uncommon in sub-Saharan Africa, has risen markedly in the last two decades. There is currently relatively little data on IDU in the region, in particular for Nairobi, and among women. While women constitute a small minority of IDUs, they are of particular concern due both to the heightened risk they face and to their potential for bridging populations.

Methods: A cross-sectional survey was administered by peer-advisors working for a Nairobi based substance-use NGO to purposively sampled women ($n=89$) at injection sites near two of its service centers. The survey covered basic demographics, substance use, HIV status and care, reproductive health and gender violence. Analysis included investigation of bivariate correlations and appropriate regressions.

Results: The sample reported high prevalences for multiple outcomes of interest, including living with HIV/AIDS (37.1%), unprotected vaginal intercourse (91.0%), sexual assault (68.6%), gender violence (95.4%), history of arrest (94.3%), and sharing injection equipment (85.1%). Starting age of substance use increased with client age (b: 0.057, SE: 0.016, $p < 0.001$, 95% CI: 0.025, 0.089) and level of education (b: 0.266, SE: 0.099, $p < 0.001$, 95% CI: 0.070, 0.462). Frequency of daily use increased with client age (b: 0.047, SE: 0.015, $p < 0.003$, 95% CI: 0.016, 0.077). Lifetime likelihood of experiencing sexual assault decreased with an increase in starting age of substance use (OR: 0.545, $p < 0.035$, 95% CI: 0.310, 0.958).

Discussion: While limitations make comparisons with non-IDUs difficult, poor health outcomes are highly prevalent in the sample population, as are high risk activities. Given the high arrest rate, intervention at point of contact with the criminal justice system might be effective. The apparent protective effect of education against both frequency of substance use and, accordingly, exposure to gender violence, suggests another education as an interventional target.

I. Introduction

While unsafe sex practices are the primary vector for new HIV infections globally, the shared use of contaminated needles among injection drug users is a significant contributor, and in some regions is a “primary mode of HIV transmission” (Dewing, Plüddemann, Myers, & Parry, 2006). There is currently relatively little information on intravenous drug users (IDUs) in sub-Saharan Africa, and few governments have the resources to systematically monitor drug use trends, but indications are that intravenous heroin use is increasing throughout sub-Saharan Africa and approaching the global average. It is also apparent that intravenous drug use is an increasing contributor to HIV transmission in Africa. IDU spread of HIV can occur more rapidly than through other means of transmission, due in part to the greater efficiency of HIV-transmission in IDUs as compared to heterosexual intercourse. IDUs are at high personal risk for HIV, with some data indicating Kenyan IDU HIV prevalence at 30% (Beyrer, Wirtz, Baral, Peryskina, & Sifakis, 2010). Other data puts that number at 36% (Petersen, Myers, Hout, Plüddemann, & Parry, 2013). Less than one in 100 HIV-positive IDUs in Kenya is receiving ART (Mathers et al., 2010).

IDUs in Kenya have increased steadily since the 1980s, when heroin use was introduced to coastal cities for tourist consumption. A United Nations Office on Drug Control study interviewing current or former drug users and HIV+ and HIV- clients (n = 1420) in Kenya found that 23.0% of the total sample were IDUs. Heroin use rates were highest in Mombasa (22.3%), Malindi (9.8%) and Nairobi (6.0%). Respondents reported high prevalence of high risk substance use and sexual practices. Of IDU respondents, 81.0% reported using needles previously utilized by others. Condoms were never used by between 22.5 and 40.4 percent of respondents, and

34.0% to 44.0% IDU respondents across the study sites reported as a PLWH (Brodish et al., 2011).

Intravenous drug use has risen in coastal cities due to both the increased demand from tourists and a shift in heroin sources from formulations more easily smoked to those most easily injected. Malindi, in particular, is recognized as ground-zero for injection heroin use in Kenya, and a significant amount of the existing information on Kenyan IDUs is from the coastal region. A study on drug use in Malindi, Kenya, estimated 600 heroin users there, with approximately 50% being IDUs (Beckerleg, Telfer, & Hundt, 2005). More recently, a Priority for Local AIDS Control efforts study in Malindi found a prevalence of 40% to 50% of one or more high risk behaviors in the IDU population. Multivariate regression models indicated that IDUs were approximately twice as likely to report multiple partners and multiple new partners in the last year (Brodish et al., 2011). A rapid assessment of heroin use in Mombasa (n=496), to which heroin spread after gaining a foothold in Malindi, indicated much lower rates of lifetime injection drug use (14.9%). There are very few accessible services in place to limit transmission or provide substance abuse services in Mombasa generally. (Beckerleg et al., 2005; Beckerleg, Telfer, & Sadiq, 2006).

There is a paucity of data on IDUs in Kenya, particularly among women and in Nairobi, despite the city's estimated six to eleven thousand injection drug users (Okal et al., 2013). A WHO study of heroin users specific to Nairobi (n=348) tested 332 participants, and reported a HIV prevalence of 52.5% among current IDUs, who accounted for 44.8% of the sample. Using needles previously used by others was reported about one-third of the sample (27.5%) although 43.1% reported having given their needle to another IDU in the last 6 months. Unprotected sex

with both casual and permanent partners was common, and very few of the respondents reported HIV testing prior to the study (17.0%) (Dewing et al., 2006).

There are two primary reasons for the present study. The first of these is the previously mentioned lack of detailed information on injection drug users in Nairobi. The second is to provide a better picture of the specific challenges experienced by women IDUs—in particular as regards reproductive health and gender violence. This study provides a picture of a population largely invisible in published public health research, and data which will be useful to future research. Finally, by illuminating associations between substance use and demographic indicators and outcomes, it can contribute to the effective provision of services.

Methods

1. Participants

These data were collected as part of an operational survey conducted by Support for Addictions Treatment and Prevention in Africa (SAPTA), a Kenyan NGO providing substance abuse training and client services in Nairobi. Data collection involved the administration, via interview, of 116 12-page questionnaires (the *Baseline Survey Tool for Women Who Inject Drugs*) to purposively sampled women at injection drug using sites. SAPTA completed the bulk of these in November 2012, and the remainder in January 2013.

2. Setting

The injection sites in question were near two SAPTA service centers in Nairobi. These are in low-income communities and informal settlement areas, in Kangame and Bahati neighborhoods of Nairobi.

3. Measures

Interview questions used were developed by SAPTA staff. The interviews were administered by bilingual (English and Kiswahili) peer educators working with SAPTA. The people who administered the survey were SAPTA outreach workers (recovering drug addicts) who had been trained in HIV and harm reduction approaches. Since the survey was not originally meant as a scientific survey, but rather an operational survey, the outreach workers were not trained on how to conduct the survey. No funds were allocated for the participants or

survey administrators. The questionnaire included questions about demographics, substance use habits, HIV status and history, reproductive health, and gender violence experience.

A copy of the interview protocol is found in the Appendix. Questions were basic, and response options were categorical or binary with the exception of age. Some response options were in a multiple choice format:

- *At what age did you begin taking drugs?*
 - A) < 8 years old.
 - B) 9 – 13 years old.
 - C) 14 – 18 years old.
 - D) 19 – 23 years old.
 - E) > 24 years old.

Others were formatted in a “select all that apply” fashion:

- *What is your source of income?*
 - Formal employment/salaried
 - Transactional sex
 - Self-employment
 - Drug peddling
 - Sex work
 - Other

Others were in a yes/no format:

- *Have you had unprotected vaginal sex? (Yes/No)*
- *Have you had unprotected anal sex? (Yes/No)*

4. Procedures

Interviewees were not compensated for the study. Identifying information (e.g. names, dates of birth) was not obtained at the time of interview. The interviews were conducted in English and Kiswahili, depending on the participant’s preference. The peer educator would read off the questions, and record the participants’ responses on an interview response page. Each

interview response page received a unique record number at data entry. The interviews were identified by date conducted and interviewer.

5. Plan for data analysis

The interview responses were set up in an EpiInfo database, due to its permissive licensing and the need for SAPTA to have the data freely available in a usable form after entry. Data was entered in EpiInfo and then exported to SPSS for analysis.

We performed an initial data exploration with descriptive statistics and bivariate Pearson correlations between theoretically related inputs and outcomes to help us identify variables of interest to include in further inferential statistical testing. Where significant correlations were found, we applied appropriate linear and logistical regression models.

Results

Our analyses were based on data from 106 women respondents. Ten records were dropped because the subjects did not report injection drug use, despite being present at injection sites (these were mostly subjects reporting glue as a substance of preference).

Respondents were normally distributed between ages 15 and 38 ($m = 24.71$, $SE = 5.29$). Most reported being single (50.6 %), with a significant number cohabitating (38.1%). A minority reported being separated (10.1 %), divorced (4.5 %) or widowed (3.4 %). Respondents reported living on the street (41.6%), renting (30.3%) or living at the injection site itself (27.0%). Highest completed levels of education tended to be either primary school (grades 1-4) (25.8%) or primary school (grades 5-8) (44.9%). Relatively few had completed levels 1 or 2 (21.3 %) or 3 or 4 (6.7 %) of secondary school. The most frequently reported source of income was sex work (57.3 %).

Most respondents' age of first substance use was between 14 and 18 (48.3 %) followed by between 9 and 13 (27.0%). A few reported an age of first use less than 8 (7.9%), or between 19 and 23 (14.6 %). Most used between 1 and 3 (42.0%) or between 4 and 6 (45.5%) times per day. Those reporting higher usage were relatively rare (7-9 times: 9.0 %; 10-12 times: 4.5 %). Respondents overwhelmingly reported sharing needles (85.2 %). Less than a third have been in treatment (27.3 %), but almost all of them reported a desire to stop using (90.8%). Almost all have been arrested at one point or another (94.3 %), for a variety of offenses, mainly related to substance use. Approximately one-third of respondents reported as persons living with HIV (PLWH) (32.3%), although this question was unanswered by 31 of the respondents. Of reported PLWH, 58.6% had received HIV care at some point, and 83.3% of those receiving care indicated

that they were adherent. A majority of clients reported having unprotected vaginal intercourse (91.0%) and a significant number reported unprotected anal intercourse (42.1%).

The majority of participants were aware of the possibility of mother-to-child transmission (87.4 %). Most had given birth at least once (73.2%), with “health facility” the most common given location of most recent delivery (58.3%), followed by “home” (21.7%), and “street” (20.0%). Thirty-nine percent reported having undergone an abortion, with “friends” the most common designated provider (68.8%). It should be noted that there is some ambiguity around these abortion frequencies, as “abortion” in Kenya is commonly used to reference a miscarriage. Lifetime prevalence of sexual assault was extremely high (68.6 %), as were rates of other gender violence (95.4%).

Exploratory analysis indicated significant associations between starting age of substance use and both the respondent’s age ($R: 0.420, p < 0.001$) and level of education ($R: 0.380, p < 0.001$). Frequency of substance use was also associated with age ($R: 0.314, p < 0.003$). Starting age of substance use was associated with a lifetime likelihood of experiencing sexual assault ($R: -0.232, p < 0.031$).

We analyzed the relationship between respondent’s age and level of education (independent variables) and starting age of substance use (dependent variable) using multivariate regression. Adjusting for each other, the independent variables remained associated with the outcome. Starting age of substance use increased with both increases in client age ($b: 0.057, SE: 0.016, p < 0.001, 95\% CI: 0.025, 0.089$) and increases in level of education ($b: 0.266, SE: 0.099, p < 0.001, 95\% CI: 0.070, 0.462$).

We used a simple linear regression of frequency of daily use (dependent variable) against client age (independent variable). A significant association was present for client age, with frequency of daily use increasing with an increase in client age (b: 0.047, SE: 0.015, $p < 0.003$, 95% CI: 0.016, 0.077).

We examined the association between starting age of substance use (independent variable) and lifetime likelihood of experiencing sexual assault (dependent variable) by logistic regression. The association held, with lifetime likelihood of experiencing sexual assault decreasing with an increase in starting age of substance use (OR: 0.545, $p < 0.035$, 95% CI: 0.310, 0.958).

Discussion

Overall, respondents were young and tended to report high rates of high risk activity (sharing injection equipment and unprotected vaginal or anal intercourse). They also tended to have low socio-economic indicators, including low rates of education beyond elementary levels, high rates of homelessness and high rates of arrest. Respondents also reported high rates of HIV and gender violence, with later starting date of substance use having the only significant effect on the rate of sexual assault. The other notable trends were that older respondents and those with more education reported a later age of initial substance use. Older respondents also reported higher frequencies of daily injection drug use.

Respondents tended to be young women with the average age at 25. Given the relatively recent introduction of heroin to Nairobi, it is possible that these young women are the ones who are engaging in injection drug use with heroin, as opposed to older women who may be using other substances that have a longer history of use in Nairobi, such as alcohol. It may also be the case that users are more likely to exit the IDU population due to cessation of use, although the limited set of employable skills and largely non-existent access to treatment, would seem to weigh against this conclusion.

The results showed that older respondents are more likely to have a later age of initial substance use, which could be a function of the morbidity/mortality rate associated with the substance abuse proper (e.g. people who began use at a younger age are no longer living or too sick to participate in the present study). Older women might also have a later age of drug use initiation because of the relatively recent rise of heroin use Nairobi. For example, it is possible that older respondents report a later date of first use because heroin became more widely

available when they were older. A combination of these factors may be most likely. Most interestingly, education appears to have a protective effect, and women who had more years of education also started substance use at a later age.

Older respondents report a higher frequency of use, and this may be a product of several factors. Bearing in mind that this is a population in which the upper quartile is 28.5 to 38 years old, higher frequency of use might be attributed to any of the following: (1) older respondents may have a longer history of use, and potentially a higher opiate tolerance, requiring more frequent use to achieve the same effect as an IDU with a shorter exposure history; (2) respondents who are older in relative terms to the cohort are still relatively young compared to the general population, and not having aged out of sex work or other forms of earning, may be also more established financially in relative terms, affording them a higher frequency of use; (3) older respondents may have more established social arrangements facilitating usage, which in turn might translate to higher frequency of use. While it is counterintuitive that older respondents may have a longer history of use, given their delayed date of first use, this may be a phenomenon of the relatively compressed nature of the starting age of substance use range (mostly mid to late teens) compared to the age range of the sample (15-38). For example, if commencing substance use at an earlier age incurred a higher mortality cost than starting later, persons starting later would ultimately live longer compared to their counterparts, and so having longer use histories. Without more detailed data, determining whether this association is due to the physiology of dependency or socio-economic realities or some combination thereof is difficult.

These women IDUs overwhelmingly responded in a manner consistent with a severely disadvantaged socio-economic status. Slightly more than a quarter reached secondary school and only a third had housing of any sort. Again, given the early starting age of substance use, it might

be argued that injection drug use itself is a cause of early exit from the educational system and homelessness.

The prevalence of equipment sharing was significantly higher than in previous literature on Kenya (27 – 43.1% in the reviewed literature, as opposed to 85.2% in our sample). This could be due to a combination of availability of equipment or to characteristics particular to this subgroup (e.g., poverty). It is notable that the purposive sampling was done at injection sites. There is a social component, then that could encourage the sharing of equipment. For example, two high risk practices that have been documented in East Africa are “flashblood” (in which a an initial injector draws blood back into the syringe, after which a second injector injects with the blood in the syringe), and “vipoint” (in which the initial injector will inject some portion of the contents of the syringe, and allow a second injector to use the remaining substance) (McCurdy, Kilonzo, Williams, & Kaaya, 2007; McCurdy, Ross, Williams, Kilonzo, & Leshabari, 2010).

The extremely high lifetime rate of arrest (94.3%) among respondents is a point of interest. This indicates that the criminal justice system is a primary point of contact between IDUs and the state. This is of interest both insofar as (a) arrest might not be an optimal mode of engagement from a therapeutic point of view, and (b) it presents the possibility of leveraging service provisions to this population at this point of contact.

Self-reported HIV rates among respondents are extremely high at 32.3%, compared to that in the general population, which is approximately 5% (Cheluget et al., 2006). It is also noteworthy that among remaining respondents, many were unaware of their status or declined to respond, and responses are missing for a full third of the sample. The reported prevalence of HIV should be understood, then, as a minimum threshold for prevalence, and a conservative estimate.

Given the prevalence of equipment sharing and the high efficacy of HIV transmission through that vector, this raises significant concerns. It is also indicative of elevated high risk sexual behavior.

That most respondents were aware of the possibility of mother-to-child transmission (MTCT) is encouraging. What is unclear is to what extent options for the prevention of transmission are understood. Given that the majority of respondents had at least one child, but less than 60% of deliveries were in a clinical setting, awareness of MTCT may not translate to significant prevention of MTCT.

The experience of gender violence in the sample population was nearly universal. Given the multidimensional experience of violence in women who live on the streets—including structural, symbolic, and physical aspects—this is not surprising (Epele, 2002). Little data is available on the association between IDU and gender violence, but high rates of gender violence have been observed in populations with high rates of sex work or at high risk for HIV (Decker et al., 2012; Schwartz et al., 2014).

There are a number of limitations to this data. A primary limitation is the lack of a non-IDU comparison group. This makes it difficult to draw conclusions about some of the more troubling outcomes. For example, given the near-universal experience of gender violence among respondents, in-group associations with possible predictors are not possible.

Another limitation is sample size. While the sample size is more than adequate for the analysis of broader trends, it does not allow for conclusions about smaller subgroups—for example, ART adherence among the small number of respondents who are both PLWH and receiving access to treatment. Lastly, although the questionnaire used was developed in Kenya, a

standardized tool for investigating socio-demographic and substance use issues was not used, and thus items may have limited reliability and validity. Results should be interpreted with caution.

This data, given its limitations, should be interpreted cautiously. This said, despite its limitations, it provides unique and useful insights on a highly vulnerable population about which very little is known. Some of these insights are research oriented, and point toward particular gaps. For example, the data highlights the promise of a more comparative analysis. As discussed, the ability to draw comparisons between IDUs and non-IDU peers would provide information on the extent to which the extremely high experience of gender violence is associated with IDU, and to what extent it is an experience common to a marginalized community (for example, undereducated women with negligible housing security).

The data also indicates some potentially promising ways forward. While causal inferences are difficult here, the research indicates that higher levels of education are associated with a later age of initial substance use, and that the latter is in turn associated with decreased risk of lifetime sexual assault. That education itself may delay substance use and consequently decrease the risk of sexual assault is perhaps the most promising line of inquiry suggested by this research.

Table 1

Socio-Demographic Characteristics of Study Participants					
Age(yrs)	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>SD</i>	
	15	38	24.7	5.3	
Marital Status(%)	<i>Single</i>	<i>Married</i>	<i>Cohabiting</i>	<i>Divorced</i>	<i>Separated</i>
	50.6	3.4	38.1	4.5	10.1
Housing(%)	<i>Renting</i>	<i>Street</i>	<i>Injection Site</i>	<i>Missing</i>	
	30.3	41.6	27.0	1.1	
Highest level of education(%)	<i>Primary (1-4)</i>	<i>Primary (5-8)</i>	<i>Secondary (1-2)</i>	<i>Secondary (3-4)</i>	
	25.8	44.9	21.3	6.7	
Sources of income(%)	<i>Formal employment</i>	<i>Self-employed</i>	<i>Sex work</i>	<i>Drug sales</i>	
	0.0	23.6	57.3	18.0	

Table 2

Substance Use Profiles						
Starting age of substance use(%)	< 8 years	9-13 years	14-18 years	19-23 years	24 > years	
	7.9	27.0	48.3	14.6	2.2	
Frequency of use(% , daily)	1-3 times	4-6 times	7-9 times	10-12 times		
	42.0	45.5	8.0	4.5		
Source of syringe(%)	<i>Friends</i>	<i>Chemist</i>	<i>Dump</i>	<i>Hospital</i>		
	75.3	64.0	2.2	1.1		
Sharing needles(%)	<i>No</i>	<i>Yes</i>				
	14.9	85.1				
Substances of use(%)	<i>Heroin</i>	<i>Bhang</i>	<i>Cocaine</i>	<i>Valium</i>	<i>Glue</i>	<i>Alcohol</i>
	93.3	42.7	4.5	34.8	23.6	10.1
Been in treatment(%)	<i>No</i>	<i>Yes</i>				
	72.7	27.3				
Would like to stop using(%)	<i>No</i>	<i>Yes</i>				
	9.2	90.8				

Table 3

Outcomes of Interest				
HIV				
	<i>HIV-</i>	<i>HIV+</i>	<i>Declined</i>	<i>Missing</i>
HIV status(%)	33.7	37.1	22.5	6.7
	<i>No</i>	<i>Yes</i>		
Have received HIV care(%)	41.4	58.6		
	<i>No</i>	<i>Yes</i>		
Are adherent(%)	16.7	83.3		
	<i>No</i>	<i>Yes</i>		
Are aware of MTCT(%)	12.6	87.4		
Reproductive and Sexual Health				
	<i>No</i>	<i>Yes</i>		
Aware of family planning(%)	2.3	97.7		
	<i>No</i>	<i>Yes</i>		
Using family planning(%)	53.9	46.1		
	<i>Condoms</i>	<i>Depo</i>	<i>Implant</i>	<i>Pills</i>
Current method(%)	34.2	4.9	14.6	46.4
	<i>None</i>	<i>1-2</i>	<i>3-4</i>	
Number of children living(%)	34.5	51.7	13.8	
	<i>At home</i>	<i>On street</i>	<i>Health facility</i>	
Location of last delivery(%)	21.7	20.0	58.3	
	<i>No</i>	<i>Yes</i>	<i>Missing</i>	
Unprotected vaginal sex(%)	9.0	91.0	0.0	
	<i>No</i>	<i>Yes</i>	<i>Missing</i>	
Unprotected anal sex(%)	49.4	36.0	14.6	
Gender Based Violence				
	<i>No</i>	<i>Yes</i>		
Sexual assault(%)	31.4	68.6		
	<i>No</i>	<i>Yes</i>		
Other GV(%)	4.6	95.4		
Other Outcomes				
	<i>No</i>	<i>Yes</i>		
History of arrest(%)	5.7	94.3		

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APPENDIX A:
SAPTA BASELINE SURVEY TOOL FOR WOMEN WHO INJECT DRUGS

PART A.

DEMOGRAPHIC INFORMATION.

Date-----

Province-----

District-----

Name of Interviewer-----

- 1) How old are you?
 - a. ---years
 - b. Don't know

- 2) Where were you born?
District-----province-----
- 3) If born outside Nairobi when did you come to Nairobi?
 - a. 1-5 year ago
 - b. 5-10 year ago
 - c. 10-20 years ago
 - d. >20 years ago
- 4) Do you have a Mother, Father, brothers and sisters? Please tick
 - a) Father
 - b) Mother
 - c) Brothers
 - d) Sisters

- 5) If yes do you have any contact with them?
 - a). yes
 - b) No

- 6) Does any of your relatives use drugs?
 - e) Father
 - f) Mother
 - g) Brothers
 - h) Sisters

7) What is your marital status?

- a) Single
- b) Married
- c) Cohabiting(living with partner but not married)
- d) Divorced
- e) Separated(married but separated with partner)
- f) Widow

8) If married or cohabiting, does your partner also use drugs?

- a) Yes
- b) No

9) Religious background

- a) Christian
- b) Muslim
- c) Pagan
- d) Other (specify).....

10) Where do you live?

- a) Own home
- b) Rented house
- c) Street
- d) Injecting site(base)

11) What is your level of education?

- a) primary school(1-4)
- b) primary school (5-8)
- c) secondary school(form 1-2)
- d) secondary school (form 3-4)
- e) Tertiary –Certificate, Diploma, Degree.

PART B

DRUG TAKING HISTORY.

12). At what age did you start taking drugs?

- a) < 8 year

- b) 9-13 year
- c) 14-18 years
- d) 19-23year
- e) >24 yrs.

13). Who initiated you to drugs?

- a) Boyfriend.
- b) Brother/Sister
- c) Mother
- d) Father
- e) friends

14). Which type of drugs do you use?

- a) Alcohol/illicit –changaa etc.
- b) Heroin
- c) Bhang
- d) Glue
- e) Valium.
- f) Cocaine.
- g) Other (Specify).....

15). How do you normally use the above mentioned drug?

- a) Injection
- b) Sniffing
- c) Smoking
- d) Chewing
- e) Drinking
- f) Other (specify).....

16). What is your source of income?

- a) Formal employment/salaried
- b) Self employment
- c) Transactional sex
- d) Sex work
- e) Drug peddling
- f) Others (specify).....

17).How much money do you spend on drugs every day?

- a) <500
- b) 501-1000
- c) 1001-1500

- d) 1501-2000
- e) 2001-2500
- f) 2501-3000
- g) >3000

18). If you inject drugs have you ever shared needles or syringes with a friend?

- a) Yes
- b) No (if no skip number 22)

19).How do you clean the needles before sharing?

- a) I don't clean/ I don't see my friends cleaning
- b) Soap and water
- c) Jik and water.
- d) Water only
- e) Other

20).

20).Why do you share syringes and Needles?

- a) I don't know.
- b) I don't have mine
- c) It is fun
- d) The withdrawal symptoms are too strong.

21) How often do you share needles and syringes?

- a) Always
- b) Sometimes

22) Have you seen your peers sharing?

- c) Yes
- e) No

23 Where do you get your syringe or needle?

- a) Friends
- b) Hospital
- c) From the dumpsite
- d) Chemist
- e) Other ... (specify).....

24).How many times do you injected drugs per day?

- a) 1-3
- b) 4-6
- c) 7-9
- d) 10-12

25). Have you ever been to a rehabilitation Centre for drug use treatment?

- a) Yes
- b) No

26).Would you like to stop using drugs?

- a) Yes
- b) No

27) Have you ever been arrested by police and how long did you stay in prison/cell?

- a) Yes
- b) No

28) Why were you arrested?

- a) Sex work
- b) Shop lifting
- c) Mugging.
- d) Other (specify)

PART C

HIV/AIDS INFORMATION

29). Have you ever been tested for HIV?

- a) Yes
- b) No

- 30). If yes,
What is your status?
- a) HIV+
 - b) HIV-
 - c) Declined
- 31).If not tested would you like to be tested?
- a) Yes
 - b) No
- 32).If HIV+ are you on care and treatment?
- a) Yes
 - b) No
- 33).If on ARVs have you ever forgotten to take your drugs?
- a) Yes
 - b) No
- 34) If yes to the above question what were the reasons?
- a) Lack of ARV
 - b) Was under influence of alcohol or any drugs
 - c) They got lost
 - d) Other (specify).....
- 35).If not on treatment, would you like to be linked to a treatment site?
- a) Yes
 - b) No
- 36). If HIV negative or declined to share results, when was the last time you received Testing and Counseling?
- a) The last three months
 - b) The last six months
 - c) The last 12 months
 - d) Cannot remember
- 37). Do you know of any drug user who is HIV+
- a) Yes
 - b) No
- 38) Does he/she share needles and syringes with other drug users?
- a) Yes
 - b) No
- 39). Which modes of HIV transmission do you know?
- a) Through sex

- b) Through sharing needles and syringes
- c) Through blood transfusion
- d) mother to child
- e) Other (specify).....

- 40) How can one prevent HIV transmission?
- a) Consistent and correct use of condoms
 - b) Abstinence
 - c) PMTCT
 - d) Being faithful to one HIV negative partner
 - e) Not sharing needles

- 41).Have you had unprotected vaginal sex?
- a) Yes
 - b) No

42) If yes,

Why didn't you use a condom?

Explain.....

- 43). Have you had unprotected anal sex?
- a) Yes
 - b) No

44) If yes, why didn't you use a condom?

Explain.....

PART D:

REPRODUCTIVE HEALTH/MCHC

- 45). Have you ever heard of sexually Transmitted Infections?
- a) Yes
 - b) No

46). If yes give one symptom?

.....

47).Did you seek treatment for the STI?

- a) Yes
- b) No

48) If yes, were you treated?

- a) Yes
- b) No

49). If no,

Explain why.....

50). What is the mode of transmission of STI?

- a) Through sex
- b) Through blood transfusion
- c) Sharing of needles or syringes
- d) Others (specify)

51). How many living children do you have?

- a) None
- b) 1-2
- c) 3-4
- d) 4-6
- e) >6

52) What challenges does a woman IDU (single or Married) with children experience?

.....

.....

.....

53). How many children are not alive?

- a) None
- b) 1-2
- c) 3-4

d) 4-6

e) >6

54). At what age did they die and why?

.....
.....

55). Where did you deliver your last child?

- a. At Home
- b. On the street
- c. Health facility

If delivered at home or on the streets, who delivered you?

56). If you have a child less than six months are you exclusively breastfeeding?

- a) Yes
- b) No.

57). If your youngest child is less than 5 years are they fully immunized for age? (Produce clinic card)

- a) Yes
- b) No
- c) No clinic card

58). Have you ever accessed these maternal Health Services?

- a) Antenatal care: Yes No
- b) Delivery services: Yes No
- c) Post natal care: Yes No

59). If yes, where did you get these services?

- a) Local health Centre
- b) Local district hospital
- c) Local NGO/CBO
- d) City council dispensary.

60). Do you think HIV can be transmitted from a HIV + mother to her child during pregnancy, delivery or breastfeeding?

- a) Yes
- b) No.

61). If yes to the above question how can transmission be prevented?

.....

62).Are you aware of any family planning methods?

- a) Yes
- b) No

63). If yes to the above which one?

- a) Condoms
- b) Depo-Provera
- c) Implant
- d) Pills
- e) Tubal Ligation
- f) Other (specify).....

64) Are you currently using a Family Planning method?

- a) Yes
- b) No

65) If yes, which one?

- a) Condoms
- b) Depo-Provera
- c) Implant
- d) Pills
- e) Tubal Ligation
- f) Other (specify).....

66). If you are not using family planning why?

.....
.

67). Would you like to be put on family planning method?

- a) Yes
- b) No

68). Have you ever had an abortion?

- a) Yes

- b) No
- 69). If yes, how did you procure the abortion?
 - a) Self
 - b) Friends
 - c) Health facility

- 70). Did you suffer any complications?
 - a) Yes
 - b) No

71) If yes, which one and what did you do?

Explain-----

PART E

GENDER BASED VIOLENCE

- 72). Have you ever heard of rape?
 - a) Yes
 - b) No

- 73).Have you ever been raped?
 - a) Yes
 - b) No

- 74). If yes who raped you?
 - a) Police
 - b) City council askaris
 - c) Boyfriend
 - d) Members of the public
 - e) A drug user
 - f) A gang

- 75). what action did you take after being raped?
 - a) Went to health facility
 - b) Washed myself and stayed home
 - c) Reported to the police
 - d) Other (specify)

- 76). Have you ever experienced other forms of Gender Based Violence?
 - a) Yes
 - b) No

77). If yes, what form of Gender Based Violence did you experience?

- a) Battered/assaulted by husband/partner
- b) Battered by police/city council askaris
- c) Other drug users
- d) client
- e) Other (specify).....

THANK YOU.