

# Biobehavioural Survey Guidelines

For Populations At Risk For HIV

## Supplemental Materials



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# Table of Contents

<b>Section I - Appendices</b>	<b>1</b>
<b>Appendix I-1</b>	<b>2</b>
Protocol Checklist	2
Guide For General Protocol Checklist	4
<b>Appendix I-2</b>	<b>10</b>
Sample Budget Calculator and Gantt Chart (Survey Timeline)	10
<b>Appendix I-3</b>	<b>30</b>
Sample Consent Form	30
<b>Appendix I-4</b>	<b>33</b>
Survey Design Checklist	33
<b>Appendix I-5</b>	<b>39</b>
Brief Demographic Survey for Key Informants and Focus Groups	39
<b>Appendix I-6</b>	<b>41</b>
Formative Interview Guide for Gatekeepers	41
<b>Appendix I-7</b>	<b>46</b>
Formative Assessment Questionnaire Guide for Target Population	46
<b>Appendix I-8</b>	<b>59</b>
Formative Mapping	59
<b>Appendix I-9</b>	<b>66</b>
Safety and Security Guide	66
<b>Appendix I-10</b>	<b>63</b>
Specimens Used for HIV Testing	63
<b>Appendix I-11</b>	<b>69</b>
Material Transfer Agreement	69
<b>Appendix I-12</b>	<b>72</b>
Interpretation of Hepatitis Serologic Test Results	72
<b>Appendix I-13</b>	<b>74</b>
Specimen Tracking Form	74
<b>Appendix I-14</b>	<b>76</b>
Specimen Transportation Driver Log	76
<b>Appendix I-15</b>	<b>78</b>
Comparison of HIV Testing Technologies	78

<b>Appendix I-16</b>	<b>80</b>
Specimen Temperature Monitoring Logs	80
<b>Appendix I-17</b>	<b>84</b>
Sample HIV Rapid Testing Results Log	84
<b>Appendix I-18</b>	<b>86</b>
Equal Probability Sampling (EPS) and Probability Proportional to Size (PPS) Cluster Sampling Guide	86
<b>Appendix I-19</b>	<b>91</b>
Survey Implementation & Quality Assurance – Data Collection - TLS	91
<b>Appendix I-20</b>	<b>94</b>
Venue Observation Forms	94
<b>Appendix I-21</b>	<b>99</b>
Unique Participant Code (UPC)	99
<b>Appendix I-22</b>	<b>100</b>
Sample Size Requirements to Detect Differences	100
<b>Appendix I-23</b>	<b>101</b>
Calculator for the Number of Unique Objects for Estimating Population Size	101
<b>Appendix I-24</b>	<b>102</b>
Qualitative Interview Guide	102
<b>Appendix I-25</b>	<b>109</b>
Qualitative Interview for Target Population (FSW) Consent Form	109
<b>Appendix I-26</b>	<b>110</b>
Formative Assessment Consent Form for Key Informants	110
<b>Appendix I-27</b>	<b>112</b>
Data Management SOP for RDS Survey Using QDS	112
<b>Appendix I-28</b>	<b>114</b>
Sample Data Dictionary	114
<b>Appendix I-29</b>	<b>116</b>
Staff Data Agreement	116
<b>Appendix I-30</b>	<b>118</b>
Specimen Handling (Collection, Processing, and Storage) SOP	118
<b>Appendix I-31</b>	<b>120</b>
Recruitment Training Script	120

<b>Appendix I-32</b>	<b>122</b>
RDS Participant Checklist	122
<b>Appendix I-33</b>	<b>125</b>
Data Error Audit Log	125
<b>Appendix I-34</b>	<b>126</b>
Sample Table of Contents for Survey Report	126
<b>Appendix I-35</b>	<b>128</b>
Sample Press Release	128
<b>Appendix I-36</b>	<b>130</b>
Data Presentation Guide	130
<b>Appendix I-37</b>	<b>132</b>
Data Use (Confidentiality) Agreement	132

<b>Section II - Questionnaire Modules</b>	<b>133</b>
<b>1. Questionnaire Parameters</b>	<b>136</b>
<b>2. Eligibility</b>	<b>140</b>
<b>3. RDS Recruiter-Recruit Relationship</b>	<b>151</b>
<b>4. RDS Personal Network Size</b>	<b>154</b>
<b>5. Size Estimation</b>	<b>156</b>
<b>6. ACASI Tutorial</b>	<b>159</b>
<b>7. Demographics</b>	<b>162</b>
<b>8. Transgender Characteristics</b>	<b>171</b>
<b>9. Sex Work Characteristics</b>	<b>176</b>
<b>10. Clients Of Sex Workers Characteristics</b>	<b>185</b>
<b>11. Incarceration Characteristics</b>	<b>188</b>
<b>12. Transport Worker Characteristics</b>	<b>196</b>
<b>13. Reproductive Health</b>	<b>200</b>
<b>14. Sexual History</b>	<b>208</b>

<b>15. Recall Sexual Behavior</b>	<b>218</b>
<b>16. Partner Concurrency</b>	<b>239</b>
<b>17. Last Sex Act</b>	<b>243</b>
<b>18. Condom Use/Accessibility</b>	<b>249</b>
<b>19. Lubricant Use</b>	<b>256</b>
<b>20. Microbicides</b>	<b>261</b>
<b>21. Alcohol Use</b>	<b>264</b>
<b>22. Non-Injection Drug Use</b>	<b>270</b>
<b>23. Injection Drug Use</b>	<b>277</b>
<b>24. Drug Overdose</b>	<b>295</b>
<b>25. Sexually Transmitted Infections</b>	<b>301</b>
<b>26. Hepatitis B and C</b>	<b>306</b>
<b>27. Services Uptake</b>	<b>309</b>
<b>28. PEP and PrEP</b>	<b>341</b>
<b>29. Shame, Stigma, Harassment &amp; Discrimination</b>	<b>346</b>
<b>30. Physical Violence</b>	<b>369</b>
<b>31. Sexual Violence: Coercion and Rape</b>	<b>383</b>
<b>32. Internalized Homophobia</b>	<b>403</b>
<b>33. Depression</b>	<b>406</b>
<b>34. Suicide Ideation and Attempts</b>	<b>410</b>
<b>35. Social Support</b>	<b>415</b>
<b>36. Social Cohesion, Social Participation and Collective Agency</b>	<b>431</b>
<b>37. Game of Contacts</b>	<b>437</b>

<b>38. HIV Knowledge and Perceptions</b>	<b>439</b>
<b>39. Questionnaire Feedback/Interview Status</b>	<b>442</b>
<b>40. RDS, Peer Recruitment</b>	<b>444</b>
<b>Section III: Indicators</b>	<b>451</b>
<b>Introduction</b>	<b>454</b>
What are indicators?	454
How are data collected for indicators?	455
How are indicators used?	456
Indicator selection for these guidelines	457
<b>Indicators</b>	<b>460</b>
Sexual debut	460
Condom use at last sex	461
Consistent condom use	463
Buying sex	464
Selling sex	465
Unprotected receptive anal intercourse	466
Alcohol use	467
Injecting drug use	470
Received clean needles or syringes	471
Sharing injecting equipment	472
Sharing drug-preparation equipment	473
Use of sterile injecting equipment	474
Received medication for drug dependency	475
Drug overdose	476
Drug overdose prevention training	477
Targeted information, education and communications	478
Received condoms	479
Never tested for HIV	480
HIV test in last 12 months	481
Tuberculosis screening	482
Received tuberculosis treatment	483
Currently in care	484
CD4 count	485
Currently on antiretroviral therapy	486
Prevention of mother-to-child transmission	487
Hepatitis B virus testing	488
Hepatitis C virus testing	489
Discussed pre-exposure prophylaxis	490
Taken pre-exposure prophylaxis	491
Current use of modern family planning methods	492
Antenatal clinic access and HIV testing	493

Seeking care for sexually transmitted infection symptoms	494
Sexually transmitted infection screening	495
Received sexually transmitted infection treatment	496
Received lubricants	497
HIV knowledge and perceptions	498
Incarceration	499
Health-care stigma	500
Discrimination and social exclusion	501
Violence	502
Condom use at last sex (sex workers only)	504

#### **INTRODUCTION OF BIOMARKER INDICATORS**

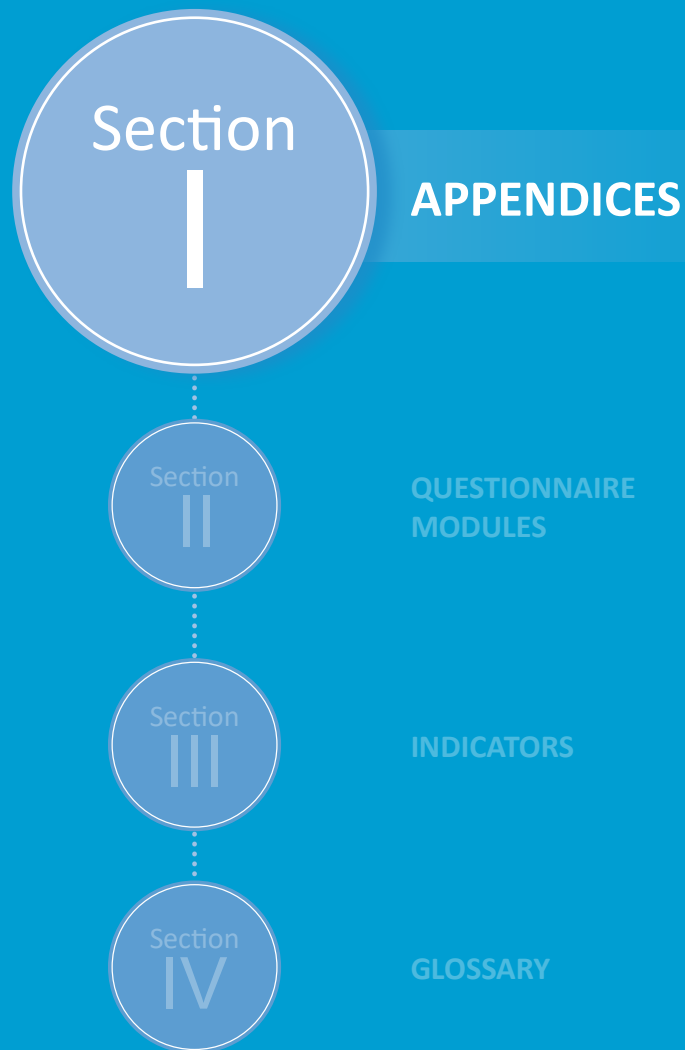
Awareness of HIV-positive status	505
Eligible but not on HIV treatment	506
HIV treatment coverage	507
Viral load suppression	508
Unsuppressed viral load	509
Population viral load	510
HIV/sexually transmitted infection coinfection	511
HIV/hepatitis coinfection	512
HIV prevalence	513
Sexually transmitted infection prevalence	514

### **Section IV: Glossary**



# Supplemental Materials

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## PROTOCOL CHECKLIST

This checklist provides essential components of standard protocols.

### 1. PROJECT OVERVIEW

- Title (including protocol date and version)
- Table of contents
- Protocol summary
- Investigators/collaborators and roles/funding sources
- Abbreviations and acronyms

### 2. INTRODUCTION

- Literature review/current state of knowledge about topic
- Justification for survey
- Intended / potential use of survey findings
- Survey design / locations / timeline
- Objectives (including any size estimation activities)
- Hypotheses or questions
- General approach

### 3. ETHICAL CONSIDERATIONS

- Risks (physical, social, psychological) to participants
- Methods to reduce/minimize risks to participants
- Anticipated benefits
- Risk/benefit ratio
- Vulnerable populations (pregnant women, prisoners, children)
- Implementation/documentation of informed consent
- Justification for waiver/alteration of documentation of informed consent
- Implementation/documentation of assent (children)
- Implementation/documentation of parent/guardian permission (children)

- Protection of privacy of individual
- Confidentiality of data
- Assurance/certificate of confidentiality (individuals and institutions)
- Consent process (participation, specimen collection, storage, potential future testing)
- Reimbursements and compensation

#### 4. PROCEDURES / METHODS

##### Design

- Survey design and how it addresses hypotheses and meets objectives
- Special considerations for sampling designs
- Formative assessment protocol
- Stakeholder participation

##### Survey Population

- Description of survey population, catchment area
- Special considerations for population being surveyed
- Participant inclusion criteria
- Participant exclusion criteria
- Justification of exclusion of any sub-segment of population
- Sampling methods (including sampling design, sampling units/units of analysis, sample size calculation, statistical power)
- Recruitment
- Enrollment
- Notification/return of results

##### Variables

- Survey variables and indicators (summarize)
- Survey data collection instruments, including eligibility screening, questionnaires, laboratory instruments, etc.

##### Survey data and biological specimen collection, management and analysis

- Data collection procedures
- Biological specimen collection procedures (including national algorithms, tests, testing procedures, other relevant specimen-related processes, return of results, treatment provision, specimen transportation and storage)
- Method of interview administration: paper, ACASI, face-to-face, other
- Data analysis plan, including statistical methodology and planned tables and figures
- Data / information management and analysis software
- Data entry, editing, and management (including handling data collection forms, different versions of data and data storage and disposition)
- Survey and laboratory data quality control/assurance procedures
- Measurement / estimation and adjustment methods
- Data monitoring procedures
- Limitations of survey (including potential bias in data collection, measurement, analysis)

## 5. NOTIFICATION, REPORTING AND OTHER DISSEMINATION OF SURVEY RESULTS

- Notifying participants and stakeholders of survey findings
- Preparing and publishing anticipated reports, presentations, or other materials to be published
- Disseminating results to public

## 6. REFERENCES

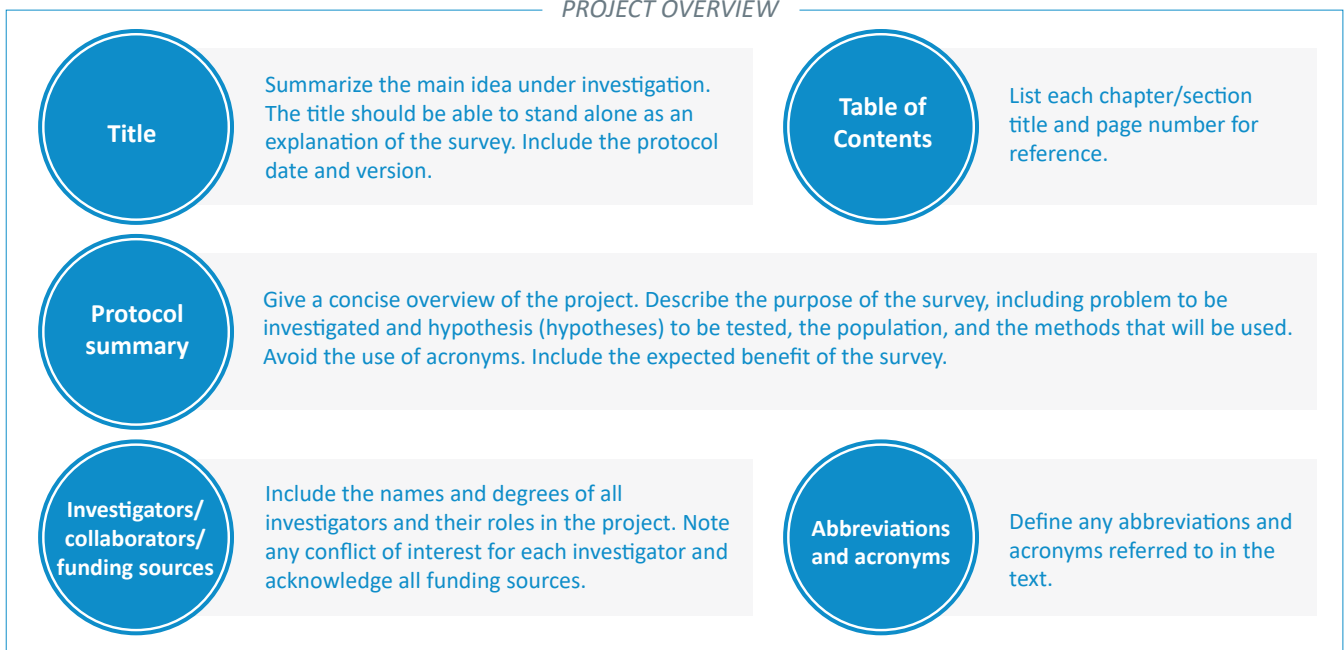
- References
- Additional resources

## 7. APPENDIX MATERIALS

- Survey instruments, including enrollment forms, questionnaires, laboratory instruments, etc.
- Consent forms
- Memoranda of understanding, data use agreements, confidentiality agreements
- Other relevant documents including proposed tables and figures

# GUIDE FOR GENERAL PROTOCOL CHECKLIST

### PROJECT OVERVIEW



## INTRODUCTION

### **Literature review/current state of knowledge about project topic:**

Discuss relevant information about the subject of the project based on a review of the literature. In the Reference section, attach a bibliography of the sources used.

### **Justification for survey:**

Explain the public health and scientific importance of the survey. In the context of previous studies, describe the contribution this survey will make.

### **Intended/potential use of survey findings:**

Define the primary target audiences and discuss the expected applicability of survey findings.

### **Survey design/locations:**

Describe the survey design and the locations where the survey will be conducted.

### **Objectives:**

Clearly and concisely list the objectives that the project will address.

### **Hypotheses or questions:**

List the clear and focused question(s) that the survey will answer. State the type of hypothesis that will be explored or tested.

### **General approach:**

Describe whether the approach used will be descriptive, exploratory (hypothesis-generating), confirmatory (hypothesis testing), or developmental (focused on corrective action).

## ETHICAL CONSIDERATIONS

### **Description of risks (physical, social, psychological) to the individual or group. Include methods to minimize risks:**

Define the nature, magnitude, probability, and duration of potential harms that a person may receive by participating in this research. Describe steps that have been taken to minimize risks, including the use of sound research design and by using procedures already being performed on the participant or other routine procedures that will be provided to the participant. Define the procedures that will be followed to identify, report and correct any social harm that may result from participating in the survey.

### **Training:**

Describe the process for human subjects research ethics training for key staff and personnel.

### **Description of anticipated benefits to the research participant:**

Discuss benefits to research participants resulting from the research. Describe the steps that have been, or will be, taken to maximize benefits.

### **Description of the potential risks to anticipated benefit ratio:**

Justify that the potential risks are reasonable in relation to anticipated benefits and the importance of the knowledge that may reasonably be expected to result from the research.

### **Justification for involving vulnerable participant populations:**

If survey participants include a special or vulnerable population, such as children, prisoners or mentally incompetent, provide justification for their use in terms of the purpose of the research.

### **Procedures for implementing and documenting informed consent:**

Describe procedures for informing participants and methods to obtain and document consent.

#### **Justification for waiver or alteration of informed consent:**

If informed consent will not be obtained or will be altered, describe the justification for waiver. The justification must address the four criteria for waiving or altering consent:

- 1) the research involves no more than minimal risk to the participants,
- 2) the waiver or alternation will not adversely affect the rights and welfare of the participants,
- 3) the research could not practicably be carried out without the waiver or alteration, and
- 4) whenever appropriate, the participants will be provided with additional pertinent information after participation.

#### **Justification for waiver of documentation of informed consent:**

If written informed consent will not be obtained, provide justification for obtaining consent through other means. The justification must address one of the two criteria for waiving documentation:

- 1) that the only record linking the subject and the research would be the consent document and the principal risk would be potential harm resulting from a breach of confidentiality or
- 2) that the research presents no more than minimal risk of harm to participants and involves no procedures for which written consent is normally required outside of the research context.
- 3) If the first criterion is used, describe the procedures to ensure that participants' wishes regarding documentation linking them to the research will be ascertained and honored.

**Description of procedures for implementing and documenting the assent process of children:** Describe procedures for informing children and methods to document assent.

**Description of procedures for implementing and documenting parents or guardians permission:** Describe procedures for informing participants and methods to document parental permission.

#### **Provisions for protecting privacy/confidentiality:**

Explain provisions for protecting survey participants from being identified either directly or indirectly. If for any reason data identifying subjects will be published or released to persons outside of the project, explain why this is necessary.

#### **Statement about need or lack of need for assurance or certificate of confidentiality:**

This refers to formal assurances and certificates of confidentiality.

#### **Consent Process:**

Describe procedures for informing participants about survey and methods and for obtaining consent.

#### **Description and justification of reimbursements or compensation that will be used:**

Self explanatory.

## **PROCEDURES / METHODS**

### **Design**

**How survey design or surveillance system addresses hypotheses and meets objectives:** Explain the appropriateness of the survey design to the project and to the questions and objectives previously outlined. Distinguish between procedures that are experimental and those that involve routine care. Identify specific design attributes that characterize the survey design (e.g. cross-sectional survey, case/control, cohort, focus group, chart review, etc.) or surveillance system (e.g. description of the system as active or passive, defining reported cases as individual versus aggregate and as laboratory confirmed or not). Include a formative assessment protocol. Provide a calendar with estimated dates for implementing and completing key activities.

**Audience and stakeholder participation:** Define the primary audiences for the project. Assess the major stakeholders and describe ways they can (and cannot) participate in the survey. Explain the process by which those affected by the survey can express their views, clarify their needs, and contribute to the project.

## Survey Population

*Description and source of survey population and catchment area:* Demographically and in terms of the specific public health conditions to be studied, define the population from which the participants, sample, or surveillance subjects will be drawn and to what population inferences will be made. Include any special considerations for the population being surveyed.

*Participant inclusion criteria:* Describe conditions or characteristics applicable to the identification and selection of participants in the survey and the conditions necessary for eligible persons to be included.

*Participant exclusion criteria:* Describe characteristics that would disqualify otherwise eligible participants from the project.

*Justification of exclusion of any sub-segment of the population:* If a sub-population as defined by gender, race/ethnicity, or age is excluded, provide reasons. In accordance with CDC's policy for inclusion of women and minorities in research, state how these populations are included in the sponsoring CIO's overall program of research if excluded in this particular survey.

*Sampling, including sample size and statistical power:* Describe the sample (e.g. the sample will be one of convenience, a population-based representation, or systematically chosen for some other purpose). State the sampling units and units of analysis. Estimate required sample sizes to answer questions and test statistical hypotheses (based on available information from pilot studies or previous reports). Include statistical power estimates. Explain the conditions under which sampling estimates would be revised. If group-level or aggregate information will be collected (e.g. from focus groups), explain how the groups will be comprised, or what procedures will be followed to create appropriate groups.

*Recruitment:* Describe the manner in which potential participants will be identified and approached.

*Enrollment:* Describe the manner in which potential participants will be contacted, screened, and registered in the survey. Describe procedures for tracking the number of persons who withdraw from the survey. Explain the procedures for assigning participants to different groups. Include a discussion of how departures from the intended enrollment procedures will be handled and documented.

*Notifying participants of their individual results:* Describe the process used to notify survey participants of their results, including those of immediate importance. Include precipitating circumstances and whether or not counselors will be used.

## Variables

*Survey variables:* List and briefly describe the categories, topics, or domains of information to be explored and variables to be collected. Address consistency of definition of variables for data collected from multiple sources. Explain how the variables will be used and the process by which variables will be defined.

*Survey data collection instruments, including questionnaires, laboratory instruments, tests:* Describe strategies to elicit information, including specific techniques and survey and laboratory instruments, and explain how they will be used. Describe the attributes of those strategies/ instruments as demonstrated in other studies, including appropriateness, validity, and reliability within the particular survey populations, sensitivity and specificity of instruments, how well they yield reproducible results, and whether any controversial methods are being used. Include a discussion of how changes to the survey instruments will be handled and documented.

## SURVEY DATA AND BIOLOGICAL SPECIMEN COLLECTION, MANAGEMENT AND ANALYSIS

*Data collection:* Describe data collection procedures, processes and documentation. For data emanating from a surveillance system, this would include frequency of reports.

*Biological specimen collection:* Describe biological specimen collection procedures (including national algorithms, tests, testing procedures, other relevant specimen-related processes, return of results, treatment provision, specimen transportation and storage).

*Method of interview administration:* Describe how the interview will be administered, i.e. paper, ACASI, face-to-face, or other method.

*Data analysis plan, including statistical methodology and planned tables and figures:* Describe the sampling methods, information collection procedures, methods to maximize response rates, test procedures and relevant statistical quantities (e.g. variance, confidence intervals, and power based on data from the survey) in sufficient detail that the methods are reproducible. This includes calculation of relevant quantitative measures for tests and instruments, such as sensitivity and specificity. In outbreak investigations, it is common to employ an iterative process in the analysis (consisting of developing and testing hypotheses and planning and evaluating interventions) to identify the source of the outbreak and control it. For projects establishing or utilizing data from a surveillance system, this could include how and how often the surveillance system will be evaluated. Describe what tables and figures are planned to present survey results.

*Data/information management and analysis software:* Provide the names of data entry, management and analysis software packages, and computer programming languages to be used for the project.

*Data entry, editing and management, including handling of data collection forms, different versions of data, and data storage and disposition:* Describe the overall procedures for management of the data collected. Include in the description the process for entering and editing data. Describe how survey materials, including questionnaires, statistical analyses, unique reagents, annotated notebooks, computer programs and other computerized information, whether used for publication or not, will be maintained to allow ready, future access for analysis and review. Document operating procedures for managing and accessing different versions of data sets. State who the data belong to and any rights to and limitations to access for any primary and secondary data analyses and publications. Document procedures regarding confidentiality of the data, including how confidentiality will be preserved during transmission, use and storage of the data and the names of persons or positions responsible for technical and administrative stewardship responsibilities. Document what the final disposition of records, data, computer files, and specimens will be, including location for any relevant information to be stored. Records must be stored in compliance with CIO or Agency guidelines.

*Survey and laboratory data quality control/assurance:* Describe the steps that will ensure no unintended consequences that could affect the quality of the data. Those steps might include methods to capture all reported data exactly as received, assuring logical consistency among all parts of a record, ensuring that manipulation or transformation of the data (e.g. from audio tape to transcribed text) produces no unintended changes, and verifying that statistical and arithmetic calculations are performed as proposed in the data analysis plan. For outbreak investigations, this would include verifying diagnosis and confirming the outbreak. Describe procedures for ongoing data quality monitoring to assure that information of appropriate depth, breadth, and specificity is collected and remains consistent within and among staff over time, and acceptable levels of such attributes as validity, reliability, reproducibility, sensitivity and specificity are achieved.

*Measurement/estimation and adjustment for cross reactivity:* Describe how cross reactivity will be measured, its potential effects on test results, and how it will be accounted/adjusted for in the analysis.

*Data Monitoring:* Describe the ways that progress will be tracked and the survey will be evaluated prior to assessing final results.

*Limitations of survey and bias in data collection, measurement and analysis:* Explain factors that might reduce the applicability of survey results. Discuss potential weak points or criticisms of the survey, including alternative methods. Describe the kinds of bias that may occur in collecting the data or in the measurement or analysis phases, and the steps that will be taken to avoid, minimize, and compensate for the bias. Include factors in the survey population or in survey personnel that could bias results, as well as the steps that will be taken to assure valid self-reporting or recording of observations. Include any randomization and blinding procedures that will be used to eliminate/minimize bias by investigators, other survey staff, or participants (e.g. in selection of participants, allocation to treatment groups, providing/receiving treatment).



## DISSEMINATION, NOTIFICATION, AND REPORTING OF RESULTS

*Notifying participants of survey findings:* Explain whether the participants will be offered the option of receiving overall survey findings and the form they will take.

*Disseminating results to public:* Define effective communication channels and best formats for presenting information that will be used to disseminate project results to specific target audiences.

## REFERENCES

List bibliographic references and any additional resources used to create and delimit all aspects of the survey.

## APPENDIX MATERIALS

*Survey instruments/data collection/other forms:* Include any forms or documents used to collect data or from which data are abstracted.

*Proposed tables and figures:* Provide table shells and examples of figures for presentation of data and survey results.

*Consent forms:* Provide the consent forms used in the survey.

*Memoranda of understanding/data use agreements:* Provide any MOUs or data use agreements pertaining to the study.

*Other relevant documents:* Include any other relevant supplementary materials.

## SAMPLE BUDGET CALCULATOR AND GANTT CHART (SURVEY TIMELINE)

This Appendix includes a budget calculator template along with a sample budget for RDS and a sample Gantt Chart (depicting the survey timeline). This file is a reference as you prepare a budget and project timeline for a BBS. Please note that this calculator is for preliminary budgeting purposes; the line items should be adjusted accordingly for specific budgetary needs of the survey and implementing institution. The categories covered are core components of a budget and are not exhaustive. For example, the budget includes some point of care (POC) tests and some laboratory tests-- all of these will not necessarily be used in every survey. This template should guide planning for surveys that may be completely POC. This calculator was not designed to be used as a bookkeeping tool or to track expenses; it is a tool for estimating costs in the budgeting process. Discuss with your agency how to track the exact costs. For actual pricing, contact each manufacturer for a specific quote. It is important to review the RDS and TLS sections of the Guidelines to determine the kind and the number of staff needed and related costs. When resources are limited or a survey is on a small scale, one person may perform multiple tasks.

This budget template will be available as an Excel file for download from the WHO website.

*Although not included in the Budget Calculator, the following two categories may need to be considered when preparing a budget:*

Consultant costs	<i>This category is appropriate when hiring an individual to give advice or services (e.g. training, expert consultant, etc.) for a fee but not as an employee of the organization.</i>
Cost sharing	<i>A subcontract may be required if a part of the survey effort will be performed by one or more other organizations.</i>

Description of the Budget Calculator	
Colour Scheme	Description
	<i>Items that may be needed depending on survey type, such as RDS or TLS</i>
	<i>Major budget categories</i>
	<i>Inputs</i>
	<i>Output</i>
	<i>Subtotal of each category</i>
	<i>Grand total of budget</i>

Title	Notes and Instruction
<b>A. Personnel salaries/fringe benefits</b>	<p>Category A combines personnel salaries and fringe benefits. When needed, they can be separated into two entries.</p> <p>Fringe benefits are any nonwage payment or benefit granted to employees by employers. Examples include pension plans, profit-sharing programs, vacation pay, and company-paid life, health, and unemployment insurance.</p>
Number needed	Enter the number of staff needed.
Annual salary	Enter annual salary.
No. of months	Enter the length of the survey in months. Different staff may work for different lengths. For example, a PI works the entire survey, but a field staff works only while the survey is conducted in the field.
Time (%)	Enter percentage of time to show the effort contributed during the survey period. For example, a PI may have several projects and other responsibilities (such as teaching as a professor) at the same time. If the PI will contribute part of her/his time to the current survey, say 4 hours a week (40 hours), her/his percentage of time effort is $4/40=10\%$ .
Salary total	Salary = annual salary*No. of Month/12*Time (%). It will be auto-filled.
Fringe rate	<p>A fringe benefit rate is the cost of an employee's benefits divided by the wages paid for the hours working on the job. Some employees may not receive such benefit from their employer.</p> <p>Enter fringe rate for eligible staff. This can be 0 for non-eligible staff.</p>
Total salary and fringe benefits	This is the total of salary+fringe rate*salary. This will be auto-filled.
Field staff	The staff listed here are some essential personnel. Staff may vary depending on the type and scale of the survey. The list can be expanded to add a staff for one specific function, or reduced if one staff can perform multiple duties in a smaller scaled survey setting.
Additional field staff for RDS	For RDS, there are additional needs, such as testing counselors, quantitative interviewer, qualitative interviewer, transcribers and translators in qualitative interview. The list can be expanded based on survey need, such as the object distributor during size estimation, cleaner, and security staff.
Data management/analysis staff	List staff for data management and data analysis. Some staff, such as a GIS developer, can be added depending on survey need. Or, in a small budgeted survey, data management and data analysis can be performed by one person.
Laboratory staff	For a survey that involves biomarker testing only. The list can be expanded based on bio-survey need.
<b>B. Trainings and meetings</b>	<p>Training expenses, including the cost of the conference room, handouts, and other expenses, apply to any type of training or meeting.</p> <p>Enter number of participants for handout cost. Enter number days of training for conference room.</p> <p>For simplicity, the calculator lists only one training example for fieldwork preparation/size estimation. Other trainings/meetings that may need to be included in the calculator:</p> <ul style="list-style-type: none"> <li>Formative assessment training</li> <li>Survey implementation training</li> <li>Data analysis, interpretation, and writing workshop</li> <li>Community forum</li> <li>Local/national dissemination meeting</li> </ul>

Title	Notes and Instruction
Training expenses	<p>Common expenses are bags for transporting materials, badges/IDs, pens and paper, large flip-chart paper and markers, communication (telephone and internet), refreshments for participants.</p> <p>For formative assessment training, also consider expenses for city/area map, copies of coupons, etc.</p>
Number of participants	Enter the number of participants.
No. of units needed	Enter the quantity of handouts needed, including extra copies (e.g. 5 extra for a group of 20 participants).
Number of days	Enter number of days for conference room rental.
Cost per unit	Enter unit price for handouts, or rent per day.
<b>C. Fieldwork preparation, formative assessment, and size estimation implementation</b>	Use this section to budget expenses for field preparation, formative assessment, and size estimation implementation.
<b>Formative assessment preparation</b>	
Formative assessment supplies	Enter costs for maps, coupons, camera, audio recordings, batteries, etc.
Transportation for key informants and focus group participants	Enter number of participants and key informants, and unit price (cost per person).
Phone vouchers for formative assessment staff	Enter number of assessment staff and unit price.
Participants compensation (incentive)	Enter number of participants and unit price (amount paid per person).
<b>Field work size estimation implementation</b>	See above for Formative Assessment. Additional staff for distributing objects may be budgeted here also if they are not included in the Section A (Personnel).
Unique event	Enter number of days, and unit cost.
Unique objects for size estimation	Enter unit price for objects and number of participants.
<b>D. Survey implementation</b>	Items listed in section D are items regularly used for survey implementation. This list may not include everything. Keep a detailed checklist for all supplies needed. Subcategories may be added for separate costs for RDS or TLS.
<b>E. Laboratory expenses</b>	Complete this section if any biomarker is used. The estimation of laboratory expenses is very complicated. Working with a laboratory professional to develop the budget is strongly recommended.
INPUT box	Input assumed prevalence to generate numbers in "OUTPUT" below (number of specimens) and calculate cost of consumables.
	Enter number of participants.
Assumed HIV prevalence	Enter assumed prevalence HIV prevalence based on survey population. This is used for budgeting HIV biomarker consumables that only test blood samples from HIV-positive participants, such as CD4 and VL.

Title	Notes and Instruction
Assumed syphilis prevalence	<i>Enter assumed prevalence rate for syphilis among survey population to budget for syphilis biomarker consumables.</i>
Assumed STI prevalence	<i>Enter assumed prevalence rate for STI to be surveyed, such as HCV, to budget for STI biomarker consumables.</i>
Number of trainees	<i>Enter number of trainees in lab training, which may determine certain equipment needed, such as a timer.</i>
Number of labs performing testing	<i>The number of labs determines the number of certain equipment needed.</i>
OUTPUT (Number of specimens)	
Expected number of HIV positive	<i>Calculated as: Assumed HIV prevalence*Number of participants</i>
Expected number of syphilis positive	<i>Calculated as: Assumed syphilis prevalence*Number of participants</i>
Expected number of other STI positive	<i>Calculated as: Assumed STI prevalence*Number of participants</i>
Equipment	<p><i>Equipment estimate assumes all required equipment needs to be purchased and therefore reflects a maximum cost. This calculator does not take into account equipment that may already be in place in individual laboratories. The equipment items may be expanded depending on the survey need, such as common equipment of plate washer, reagent reservoirs, etc.</i></p> <p><i>This section may be expanded according to survey needs. For example, for on-site testing and handling, mobile phones, tables, and chairs may be included.</i></p>
Consumables for biomarkers	<i>The consumables for laboratory assays listed can be revised according to bio-survey need, such as HIV genotyping, HIV DR, TB, chlamydia, HSV, HBV, etc. For example, testing kit for HCV among PWID.</i>
Consumables for blood collection	<i>The list includes common items, It should be adjusted according to the survey.</i>
Consumables for other specimen collection	<i>See above.</i>
Other consumables	<i>Other items may be considered here are: distilled or de-ionized water, Band-Aids, cotton balls, latex-free gloves, latex gloves (powdered and powder free), paper towels and absorbent covers for lab benches, marking pens, pads for lab table, hand soap, facemasks, zip lock bags, protective eyewear, bins and liners, paper towels, spray bottles, etc.</i>
Manufacture & unit description	<i>Enter brand/name of manufacture, catalog number, and description such as "10/pk, size large" for lab coat.</i>
Unit dimension	<i>Enter number of 1 unit here, such as "10" for 10-piece pack.</i>
No. of units needed	<i>Enter the number of units needed. The number of units for biomarkers is determined by estimating the number of positive participants in the OUTPUT box, and Unit dimension, then multiplying by 110%. This includes an extra 10% buffer.</i>
Cost per unit	<i>Enter price of unit.</i>

Title	Notes and Instruction
<b>For TLS</b>	<i>Please refer to TLS chapter for other costs/items, although only mobile van is listed here.</i>
Mobile van and clinic rentals for HIV testing	<i>If the survey uses TLS, mobile van and clinic rentals for HIV testing may be needed. Please add any additional costs, such as gasoline and parking, if they are needed.</i>
Additional notes for point of care	<i>The items listed in this section are not comprehensive list of health services/care/treatment. Modify the budget as needed to account for specific point of care activities including STI treatment.</i>
<b>F. Travel</b>	<i>Cost for travel may be budgeted on an anticipated actual cost basis. The cost for consultant should be included in Consultant cost only.</i>
<b>G. Other expenses</b>	<i>Enter other expenses in this category. Revise accordingly to include items such as software, toner, postage, delivery fees, etc.</i>
RDS survey sites	<i>Refer to the RDS implementation chapter to add items.</i>
Site maintenance	<i>Including cleaning and bathroom: toilet cleaning, toilet paper, toilet brush, floor cleaner, mop, bucket, absorbent pad, washing liquid, dish drainer, sponge, and hand soap.</i>
<b>Description of the Gantt Chart of the Survey Timeline</b>	
Gantt charts are used for project management. They are helpful for defining and scheduling tasks and deadlines as well as tracking progress.	

## BUDGET CALCULATOR TEMPLATE

NOTE: Please refer to Instructions for use of this calculator

A. Personnel salaries/fringe benefits	Number needed	Annual salary	Number of months	Time (%)	Salary total	Fringe rate (% of salary total)	Total salary and fringe benefits
Principal investigator							
Project coordinator							
<b>Field staff</b>							
Site supervisor							
Enumerator							
Coupon manager							
Interviewer							
Counselor							
Community outreach worker							
Driver							
Additional field staff							
<b>Data management/analysis staff</b>							
Data manager							
Data analyst							
<b>Laboratory staff</b>							
Laboratory supervisor/coordinator							
Laboratory technician							
Phlebotomist							

A. Personnel salaries/fringe benefits	Number needed	Annual salary	Number of months	Time (%)	Salary total	Fringe rate (% of salary total)	Total salary and fringe benefits
Laboratory assistant							
Driver							
Subtotal of personnel salaries and fringe benefits							
B. Trainings and meetings			Number of participants	Number of units needed	Number of days	Cost per unit	Total
<b>Fieldwork preparation/size estimation training</b>							
Conference room							
Handouts							
Refreshments							
Transportation for meeting attendees							
Subtotal: Trainings and meetings							
C. Fieldwork preparation, formative assessment, and size estimation implementation			Number of participants	Units needed	Number of days	Cost per unit	Total
<b>Site selection visits (RDS)</b>							
Car Hire + driver							
Fuel							
Compensation							



C. Fieldwork preparation, formative assessment, and size estimation implementation	Number of participants	Units needed	Number of days	Cost per unit	Total
Communication (Internet/phone calls, Mobile phones, Smart phones, External hard drive, USB GB, internet hub)					
<b>Formative assessment</b>					
Transportation for key informants and focus group participants, and site selection visits					
Unique objects for size estimation					
Formative assessment supplies					
Phone vouchers for formative assessment staff					
<b>Field work size estimation implementation</b>					
Unique event					
Unique objects for size estimation					
Phone vouchers for size estimation staff					
Subtotal: Fieldwork preparation					
D. Survey implementation	Number of participants	Units needed	Number of days	Cost per unit	Total
<b>General supplies and miscellaneous</b>					
Tablets					
Fingerprint scanner					
Software, include antivirus					
Laptops					

D. Survey implementation	Number of participants	Units needed	Number of days	Cost per unit	Total
Scanner, printer and toner					
Participants compensation (incentive)					
Transport reimbursements for participants					
Health referral brochure					
Field team supplies (backpacks, clipboards, etc.)					
Transportation of DBS cards to central office					
Shipping and freight cost for lab equipment and consumables					
Other operational expenses (e.g. utilities, equipment based on security)					
<b>For RDS</b>					
Printing of survey coupons					
Secondary incentive RDS					
<b>For TLS</b>					
Clicker for enumerator					
<b>Subtotal: Survey implementation</b>					
<b>E. Lab expenses</b>					
<b>INPUT</b>		<b>OUTPUT (Number of specimens)</b>			
<i>Number of participants</i>		<i>Expected number HIV positive</i>			
<i>Assumed HIV prevalence</i>		<i>Expected number syphilis positive</i>			
<i>Assumed syphilis prevalence</i>		<i>Expected number other STI positive</i>			

INPUT		OUTPUT (Number of specimens)			
<i>Assumed other STI prevalence</i>					
<i>Number of trainees</i>					
<i>Number of labs performing testing</i>					
Equipment	Manufacturer & unit description	Unit dimension	Number of units needed	Cost per unit	Total
Incubators					
Standard mini-centrifuge					
Countdown timers					
Pipettes (disposable transfer pipettes, precision pipettes, etc.)					
UPS Units					
Power cord extension leads					
Portable generator					
Cooler boxes					
<b>Consumables for biomarker testing</b>					
DBS cards					
Humidity monitoring cards					
Desiccants					
Consumables for CD4 testing					
Consumables for VL testing					
Consumables for syphilis testing					
Consumable for HBsAg testing					
Consumable for MTB testing					

Equipment	Manufacturer & unit description	Unit dimension	Number of units needed	Cost per unit	Total
Consumables for other STIs testing					
<b>Consumables for blood collection</b>					
Needles					
Tourniquets					
Alcohol					
Vacutainer tubes					
Vacutainer sleeves					
Vacutainer holder rack					
Centrifuge tube					
<b>Consumables for other specimen collection</b>					
Vaginal swabs					
Rectal swabs					
Oral fluid					
Sputum cup					
Urine collection jars					
<b>Other consumables</b>					
Biohazard bags					
Biohazard bag holder					
Disinfectant/bleach					
Sharps containers					

Equipment	Manufacturer & unit description	Unit dimension	Number of units needed	Cost per unit	Total
Lab coats					
Labels (water- and freeze-proof labels)					
Gloves					
Cotton balls					
Bandages or adhesive tapes					
Other					
<b>For TLS</b>			<b>Days needed</b>	<b>Cost per unit</b>	
Mobile van rental for HIV testing					
Subtotal: Lab					
F. Travel	Number of trips	Per diem & lodging	Mileage	Rate per mile	Total
Local transportation (site visit)					
Staff travel					
Subtotal: Travel					
G. Other expenses			Units needed	Cost per unit	Total
IRB fees					
Cell phones					

G. Other expenses	Units needed	Cost per unit	Total
Air time			
Internet			
Report printing and dissemination			
Other communication expenses (external hard drive, USB & internet hub)			
Stationery			
Paper per box (white and colored)			
Pens			
Highlighters			
Sticky notes			
White board			
White board markers and permanent markers			
Notebooks			
Files and tabs for cabinet			
Filing cabinet 4 drawer			
Folders			
Stapler			
Staples			
Tape			
Staple remover			
Paper clips			

G. Other expenses	Units needed	Cost per unit	Total
Equipment (TV, video players)			
<b>RDS survey sites</b>			
Site facility rental			
Utilities			
Site maintenance			
Furniture			
Filing cabinet locking			
Book shelf			
Refrigerator			
Subtotal: Other expenses			
<b>TOTAL BUDGET</b>			

## SAMPLE BUDGET FOR RDS\*

Amounts are in US\$ based on conservative cost estimates in a moderately expensive city. RDS at one site, sample size=400

A. Personnel salaries/fringe benefits	Number needed	Annual salary	Number of Months	Time (%)	Salary total	Fringe rate (% of salary total)	Total salary and fringe benefits
Principal investigator	1	\$75,000.00	12	10%	\$7,500	20%	\$9,000
Project coordinator	1	\$50,000.00	12	100%	\$50,000	15%	\$57,500
<b>Field staff</b>							
Site supervisor	1	\$15,000.00	3	100%	\$3,750	0%	\$3,750
Interviewer	2	\$8,000.00	3	100%	\$4,000	0%	\$4,000
Counselor	3	\$8,000.00	6	100%	\$12,000	0%	\$12,000
Community outreach worker	1	\$6,000.00	3	100%	\$1,500	0%	\$1,500
Coupon manager	1	\$6,000.00	6	100%	\$3,000	0%	\$3,000
Security	1	\$6,000.00	3	100%	\$1,500	0%	\$1,500
Additional field staff (cleaner, receptionist)	2	\$6,000.00	6	100%	\$6,000	0%	\$6,000
<b>Data management/analysis staff</b>							
Data manager/data analyst	1	\$12,000.00	12	100%	\$12,000	15%	\$13,800
<b>Laboratory staff</b>							
Laboratory coordinator	1	\$20,000.00	12	10%	\$2,000	15%	\$2,300
Laboratory technician	1	\$8,000.00	3	100%	\$2,000	0%	\$2,000



A. Personnel salaries/fringe benefits	Number needed	Annual salary	Number of Months	Time (%)	Salary total	Fringe rate (% of salary total)	Total salary and fringe benefits
Phlebotomist	1	\$10,000.00	3	100%	\$2,500	10%	\$2,750
Driver	1	\$7,000.00	3	100%	\$1,750	0%	\$1,750
Subtotal of Personnel Salaries and fringe benefits							\$120,850
B. Trainings and meetings			Number of participants	Number of units needed	Number of days	Cost per unit	Total
<b>Fieldwork preparation/size estimation training (6 participants)</b>							
Conference room				1	2	\$100.00	\$200
Handouts				10		\$5.00	\$50
Training expenses				10		\$25.00	\$250
<b>Formative assessment training (8 participants, 5 days)</b>							
Conference room				1	5	\$100.00	\$500
Handouts				12		\$10.00	\$120
Training expenses				60		\$25.00	\$1,500
<b>RDS implementation training (10 participants, 10 days)</b>							
Conference room					10	\$100.00	\$1,000
Handouts				14		\$10.00	\$140
Training expenses				140		\$25.00	\$3,500
Subtotal: Trainings and meetings							\$7,260

C. Fieldwork preparation, formative assessment, and size estimation implementation	Number of participants	Units needed	Cost per unit	Total
<b>Formative assessment</b>				
Unique event		1	\$2,000	\$2,000
Unique objects for size estimation		500	\$2	\$1,000
Formative assessment supplies		1	\$200	\$200
Transportation for key informants and focus group participants		60	\$4	\$240
Phone vouchers for formative assessment staff		18	\$20	\$360
<b>Field work size estimation implementation</b>				
Unique event		1	\$2,000	\$2,000
Transport for key informants and focus group participants		60	\$4	\$240
Phone vouchers for formative assessment staff		18	\$20	\$360
<b>Subtotal: Fieldwork preparation</b>				<b>\$3,800</b>
<b>D. Survey implementation</b>				
D. Survey implementation	Number of participants	Units needed	Cost per unit	Total
<b>General supplies and miscellaneous</b>				
Notebook		6	\$500	\$3,000
Laptops		1	\$1,200	\$1,200
Printing of survey coupons	400	1200	\$2	\$2,400
Printer and toner		1	\$1,000	\$1,000
Reproduction/copies (6 months)		6	\$100	\$600
Participant reimbursements	400	440	\$10	\$4,400

D. Survey implementation	Number of participants	Units needed	Cost per unit	Total
Participant secondary compensation x 3	400	1320	\$4	\$5,280
Transport reimbursements for participants	400	440	\$4	\$1,760
Health referral brochures	400	440	1	\$440
Field team supplies (backpacks, clipboards, etc.)		10	40	\$400
Transport of DBS cards to central office		12	50	\$600
Other operational expenses (e.g. utilities, equipment based on security)		1	1000	\$1,000
<b>Subtotal: Survey implementation</b>				<b>\$22,080</b>

D. Lab Expenses					
INPUT			OUTPUT (Number of specimens)		
<i>Number of participants</i>	400		<i>Expected number HIV positive</i>	100	
<i>Assumed HIV prevalence</i>	25.0%				
<i>Number of trainees</i>	4				
<i>Number of labs performing testing</i>	1				
Equipment	Manufacture & unit description	Unit dimension	Number of units needed	Cost per unit	Total
Incubators	Fisher Scientific	1	1	4800	
Standard mini-centrifuge	Fisher	1	1	425	
Countdown timers	Fisher Scientific	1	4	50	
Cooler box			2	50	
Consumables for biomarkers					

Equipment	Manufacture & unit description	Unit dimension	Number of units needed	Cost per unit	Total
DBS cards	Whatman, Pack of 100	100	5	800	\$4,000
Other consumables					
All other lab supplies			1	5,000	\$5,000
<b>Subtotal: Lab</b>					<b>\$14,525</b>
F. Travel	Number of trips	Per diem & lodging	Mileage	Rate per mile	Total
Local transportation (site visit)	1				\$2,000.00
<b>Subtotal: Travel</b>					<b>\$2,000.00</b>
G. Other expenses			Unit needed	Cost per unit	Total
IRB fees			1	\$200.00	\$200.00
Cell phones			2	\$100.00	\$200.00
Air time (10 staff, 6 months)			10	\$120.00	\$1,200.00
Internet			12	\$300.00	\$3,600.00
<b>RDS survey site</b>					
Site facility rental			6	\$1,500.00	\$9,000.00
Utilities			6	\$100.00	\$600.00
Site maintenance			6	\$50.00	\$300.00
Filing cabinet			2	\$100.00	\$200.00
Bookshelf			1	\$100.00	\$100.00
Refrigerator			1	\$600.00	\$600.00
<b>Subtotal: Other expenses</b>					<b>\$16,000</b>
<b>TOTAL BUDGET</b>					<b>\$186,515</b>

\*Global Strategic Information. Toolbox for conducting integrated HIV bio-behavioral surveillance (IBBS) in key populations. University of California, San Francisco. 2014. pp. 131–133.

## SAMPLE GANTT CHART - SURVEY TIMELINE

Proposed Activity	Month													
	2017										2018			
	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
Formative Protocol Approval Proposed Activity		X												
Formative Training		X												
Formative Implementation		X	X											
Formative Assessment analysis			X	X										
Pre-test tools				X										
Protocol Development	X	X	X	X										
SOPs adapted		X	X	X										
Submit protocols and receive approval from all IRBs, <Country> Ethics Committee				X	X	X								
Recruit study team					X									
Development of data collection systems		X	X	X	X	X								
Study Implementation Training						X								
Study Implementation							X	X	X	X	X			
Data cleaning/lab QA/data merging							X	X	X	X	X	X		
Data analysis and preliminary report												X	X	
Present preliminary findings to stakeholders													X	
Final Report														X
National Dissemination Workshop														X

## SAMPLE CONSENT FORM

This is an example of an informed consent form to be shared with and signed by all participants before they begin survey procedures

### INFORMED CONSENT FORM FOR <Survey Name> <TARGET POPULATION>

#### INTRODUCTION AND OVERVIEW

Hello, my name is <name of survey staff>. I am working with the <name of project> with <institutions affiliated with the project>. We are doing a survey with <target population> to better understand their HIV related health needs. This information will help improve HIV and other health services.

This document is a consent form. It says what we do in this survey. That way you can make an informed decision about joining the survey. You are free to ask questions at any time. If you do not understand any words, please ask.

#### YOUR ROLE IN THIS SURVEY

We ask you to take part in this survey, because <insert key eligibility criteria>. About <insert number> <insert target population> will take part in this survey.

#### Interview:

- 1) If you join, you will do an interview on a computer. It is easy. Our staff will show you how to do this. The interview takes about 45–60 minutes to complete.
- 2) The interview asks questions about you and your sexual and drug use behavior. It also asks about your use of HIV services. You can refuse to answer any questions.

#### Testing:

- 1) We will test your blood for HIV <and other diseases>. If you agree we will draw <XX> cc blood from a vein [and XX, indicate other specimens as appropriate].
- 2) If you test positive for HIV, we will count your CD4. CD4 are the cells in your body that fight HIV. The more CD4 cells you have, the better for your health. If you have HIV, we will also count how much virus you have. This is called viral load. The fewer viruses you have in your body, the better for your health. We will do all these tests from the same blood specimen. <Insert other specimens and testing as appropriate.>
- 3) We will return the test results to you <by when>. If you test positive for HIV, we will refer you to a clinic for treatment. If you test positive for <STIs, e.g. syphilis>, we will give you treatment and refer you to services for follow-up.

## After the Survey

We will look at all the answers of all the people in the survey. We may share the survey records with other researchers. We make sure that no one will know who was in the survey.

We will keep the leftover blood [and other specimens, as applicable] for other tests later. We do not know yet which tests we will do. These tests may be about other diseases, or about your body's reaction to diseases. Because we do not know your name, we cannot return to you the results of tests done later.

## POSSIBLE RISKS AND BENEFITS

### Risks

Some questions may make you feel uncomfortable. You can refuse to answer any question. The blood draw may cause some pain and bruises.

### Benefits

Taking part in the survey is free. For your time <and transport> we will give you <money value>. You can help make HIV services better for <target population> by joining this survey. We will also give you condoms, lubricants, and information on HIV and STIs. You will also receive your HIV and STI test results.

### For RDS surveys only:

For completion of the survey you will get <primary compensation amount>. During your second visit, you may also get <secondary compensation amount> each for up to <maximum number of coupons> people whom you recruit for the survey.

## CONFIDENTIALITY

We do not record your name or anything else that shows who you are. We keep all your answers and test results private. We do not collect your name. Instead you will be given a survey participant number.

## PARTICIPATION

You are free to join or not join. There is no problem if you do not join. You can leave the survey at any time. You can refuse to answer any question. If you do not join, you can get an HIV test and other services at <name/location of service providers>.

## YOUR RIGHTS

<Name of relevant Research Ethic Committees (RECs)> gave us permission to do this survey. You may have a question about your rights in this survey. If you think you were hurt by taking this survey you may contact:

<Name of relevant Research Ethic Committees (RECs)> gave us permission to do this survey. You may have a question about your rights in this survey. If you think you were hurt by taking this survey you may contact:

<Name and contact information of RECs>

If you have a questions about this survey, you may contact the survey's investigator:

<Name and contact information of PI/co-PIs>

## PARTICIPANT AGREEMENT

I understand what it means to join the survey. I understand my rights and risks. I had time to ask questions. I understand that I can join the survey at my free will. I understand that I can leave the survey at any time.

Have all your questions been answered?      YES      NO      (Circle answer)

Do you agree to do an interview?      YES      NO      (Circle answer)

Do you agree to the blood draw and tests?      YES      NO      (Circle answer)

Do you agree that we may keep the leftover  
blood for future testing?      YES      NO      (Circle answer)

\_\_\_\_\_  
Signature of survey staff

\_\_\_\_\_  
Date



# APPENDIX I-4

## SURVEY DESIGN CHECKLIST

Consider using this checklist to inform survey design. Items on the checklist are organized by topic area.

### PREVIOUS SURVEYS

- Research on this target population and geographic area has been done before. If so:
  - Method(s) used
  - HIV testing performed
- Primary outcomes/results
- HIV prevalence
- How data were used
- What the previous research hasn't answered or what findings are missing
- Any previous experiences with surveys that might inhibit participation

### TARGET POPULATION CHARACTERISTICS

- Primary risk behavior
- Whether the target population is large enough to obtain the needed sample size
- Languages spoken
- Literacy rate
- Any laws that impact target population's behaviors/sexual practices
- Consequences to being caught as someone who engages in risk behavior or gender/sexual identity (or other stigma that is related to target population)
- Perception of HIV risk among the target population
- Whether target population members have mobile phone?
- Whether they use internet
- Drugs commonly used and what they are called (non-injection and injection drug use questionnaire modules)
- Any other (non-HIV) conditions of interest for this population is diagnostic testing and/or treatment available for those conditions?

## SAMPLING AND PROCEDURAL CONSIDERATIONS

- Whether a complete list of individuals in this group (e.g. prisoners, schoolchildren) currently exists (conventional cluster sampling)
- Whether it is possible to create a complete list of individuals in the cluster once the study team arrives there (conventional cluster sampling)
- Whether the target population gathers in sufficient numbers at venues where they can be recruited (TLS)
- Whether the target population is socially networked or they are isolated from one another (RDS)
- Any changes to the environment that would influence the number of people in the target population, or the frequency or type of risk; any since last survey, if there was one

## SERVICES AVAILABLE IN EACH CATCHMENT AREA

- Condoms available
- Lubricants available
- Clean needles available
- Clean syringes available
- HIV service providers the population can safely access and the services they provide

## TARGET POPULATION PREFERENCES FOR IMPLEMENTATION

- Method Method/mode that should be used to administer interview: ACASI or face-to-face
- Whether interviewer should be member of target population. If this is not possible, who else would they be comfortable talking to?
- Whether recruiter should be member of target population. If this is not possible, who else would they be comfortable talking to? (TLS)
- Compensation amount and type
- Standard mode of transportation
- Suggestions to engage subjects in survey
- Assessment of exposure to services and for referrals to care, etc. for participants (from participants' point of view)
- Participants' confidentiality concerns
- Reasons people might not want to take an HIV test as part of the survey and ways to encourage them

## LOCAL LEGAL AND POLICY

- Age of consent
- If including non-adult participants:
  - Definition of emancipation
  - Assent requirement
- Any special requirements from IRB regarding target population
- Whether the participant is required to sign the consent form

- Use of a consent script rather than a consent form (i.e. talking points)
- Whether it is legal to provide an HIV test without requiring name and results
- Any policies in place that make it difficult for the target population to access (HIV) services
- HIV treatment policy with respect to foreigners: Can they get access to treatment? Do they risk deportation?
- How compensation will be determined

## TARGET POPULATION SPECIFIC INFORMATION

### SEX WORKERS

- Whether sex work is legal
- Whether FSW are registered; if yes, are they tested for HIV on a regular basis? If yes, what happens to those who test HIV+?
- Brothel based
- Street based
- Internet based
- Phone/SMS based
- Pimps: If they exist, what is generally the relationship between pimp and SW? Between pimp and client?
- Whether SW are networked? If yes:
  - How do they meet other sex workers?
  - How do they recognize other sex workers?
  - What activities do they engage in together?
- Proportion of sex workers considered “indirect” (i.e. meet clients while doing other activities such as working at a restaurant or hotel)

### MEN WHO HAVE SEX WITH MEN

- Relevant sub-types and the labels used to describe them (e.g. top, bottom, kothi, ponthi, yossi, etc.)
- Whether they are networked. If yes:
  - How do they meet other MSM?
  - Where do they meet other MSM?
  - How do they recognize other MSM?
  - What activities do they engage in together?

### TRANSGENDER WOMEN

- Relevant sub-types and the labels used to describe them (e.g. hijira, eunuch, heshes, etc.)
- How TG access hormone therapy, silicone/filler injections, plastic surgery
- Whether they are networked. If yes:
  - How do they meet other TG?
  - How do they recognize other TG?
  - What activities do they engage in together?

## PEOPLE WHO INJECT DRUGS

- Where they get injection equipment
- Most commonly used drugs
- Typical drug prices (to detect non-PWID who are trying to pose as PWID for compensation)
- Are drug treatment services available?
- Whether methadone-assisted therapy is available
- How they get drugs
- Whether they are networked. If yes:
  - How do they meet other drug users?
  - How do they recognize other drug users?
  - What activities do they engage in together?

## CLIENTS OF SEX WORKERS

- Whether they are networked. If yes:
  - How do they meet other clients of sex workers?
  - How do they recognize other clients of sex workers?
  - What activities do they engage in together?

## IMPLEMENTATION INFORMATION

- RDS: Preliminary list of possible survey sites
- TLS: Preliminary list of possible venues
- TLS: Systematic method for finding venues, including internet, newspaper searches, key informants approach, etc.

## LOCAL TERMINOLOGY

- Vaginal sex
- Anal sex
- Oral sex
- Drugs used (and names for them)
- Other: \_\_\_\_\_

## SELECTION/CHOICE OF SAMPLING METHODOLOGY

### CONVENTIONAL CLUSTER SAMPLING

- Primary stakeholders
- Estimated size of each cluster
- Whether a list of target population members is available at each site

## TIME LOCATION SAMPLING

- Approach criteria
- Proportion of eligible respondents
- Whether to allow non-random events
- Method for executing simple random sample of venues
- Method for executing simple random sample of day-time periods
- Minimum number of eligible respondents in a venue during venue-day-time period
- Maximum number of participants per venue-day-time
- Number of venue-day-time periods per month
- Length of sampling event
- Plan for interviewing & testing outside venue
- Whether to allow other/next day appointments
- List of potential venues
- Venue types
- Other venues in the area that may be suitable (FG & KII)

## RESPONDENT-DRIVEN SAMPLING

- Whether multiple interview sites needed
- Electronic or paper coupon tracking (electronic recommended)
- How potential participants know each other
- Whether population forms one large network
- Potential sub-networks
- Plan for recruiter training
- Whether sample size is over 4% of total target population size
- Number of seeds proposed
- Plan for finding seeds
- Plan for seed diversification
- Specific coupon tracking method
- Proposed 'standard' number of coupons
- Maximum number of coupons per participant
- Coupon description (style, material)
- Information needed to be included on coupon (address, phone number, potential incentive amount, directions)
- Network size questions
- Recruiter training
- System for identifying and paying recruiter for each recruit (unique ID)
- System for tracking recruiter payments
- Whether recruiters can be paid more than once (i.e. come in twice for two different recruits)
- Info regarding both compensation and how the type and amount was determined
- Whether people are willing to recruit one another

- Hours and days of week
- Location of study site
- Interview appointment, walk-in, or both

#### **POPULATION SIZE ESTIMATION**

- Lists that can be used as service or event-based multipliers
- What kind of unique object is recommended for capture/recapture or unique-object multiplier method
- Number of unique objects needed for distribution
- Whether other methods may be feasible for population size estimation

# APPENDIX I-5

## BRIEF DEMOGRAPHIC SURVEY FOR KEY INFORMANTS AND FOCUS GROUPS

This is a brief demographic survey to be administered to key informants and focus group participants (for target population only).

Survey ID: \_\_\_\_\_

Circle one:   interview   focus group

Date of interview or focus group: \_\_\_\_\_  
DD/MM/YYYY

Location of interview or focus group: \_\_\_\_\_

*Administer verbal consent first. If no consent is given, stop here and do not ask any further questions. This form may be self-administered. Question 6 should be asked only in surveys of sex workers. Question 7 should be asked only in surveys of PWID. Delete these questions for all other groups.*

*Interviewer read:* Before we begin the (interview/focus group), we would like to ask you a few questions. This information will help us describe some basic characteristics of our participants. We will not take your name. All your answers will be kept private.

1. What is your age? \_\_\_\_\_

2. How long have you lived in <city>? \_\_\_\_\_ years \_\_\_\_\_ months

3. What is your highest level of school you completed? Please mark the line next to your answer.

- a.   None \_\_\_\_\_
- b.   Primary school \_\_\_\_\_
- c.   Secondary school \_\_\_\_\_
- d.   University \_\_\_\_\_
- e.   Other \_\_\_\_\_

4. What is your main source of income? Please mark the line next to your answer.

- a. No income \_\_\_\_\_
- b. Student only \_\_\_\_\_
- c. Local option A \_\_\_\_\_
- d. Local option B \_\_\_\_\_
- e. Local option C \_\_\_\_\_
- f. Local option D \_\_\_\_\_
- g. Other \_\_\_\_\_

5. What is your current marital status? Please mark the line next to your answer.

- a. Single, never married \_\_\_\_\_
- b. Married \_\_\_\_\_
- c. Separated/divorced \_\_\_\_\_
- d. Widowed \_\_\_\_\_

6. For FSW only:

How long have you been selling sex? \_\_\_\_\_ years  
(Write 0 if less than 1 year)

7. For PWID only:

How long have you been injecting drugs? \_\_\_\_\_ years  
(Write 0 if less than 1 year)





## INTRODUCTION (To be read by interviewer to participant)

START RECORDING HERE

Before I start the interview, please turn off your cell phone and other mobile devices. I will ask you questions about yourself and your friends. Please do not use your name or anyone else's.

We want to improve health services for <target population> and need your help to do this. We want to learn about the HIV risks and health needs of <target population>. To do this we are planning a survey with <target population> in <city name>. What we learn from this future survey will help improve services for <target population> in <country name>.

We will ask you some questions today about <target population>, about how they get together and spend time with one another and about what different groups of <target population> there are. We will also ask about what we can do to get <target population> here in <city name> to join the survey. We want to know what you think people will accept, find difficult to do, or refuse. We will also ask questions about how to improve services for <target population> and about your experience using these services.

During the interview, we ask that you not use real names or anything that would identify others. Please feel comfortable to share your view and experiences. This will help us plan the survey and inform health services. It is okay if you do not want to answer certain questions. Also, when I say "friends", "colleagues", "peers" or "people like you", I mean people you know who are <target population>.

Do you have any questions before we start? *(Take time to address all questions and concerns)*

### 1. BACKGROUND QUESTIONS

- 1.1. Can you describe your relationship with the <target population> you meet?
  - a. How have you come to know <target population>? In what situations do you meet them?
  - b. How often do you interact with <target population>?
- 1.2. When you come into contact with <target population>, how do you know they are <target population>?
  - a. If you guess, what makes you assume they are <target population>?
  - b. What do you think about <target population>?
- 1.3. Regarding the <target population> you know, where do you see them or meet with them?
  - a. Where do they get together?
  - b. In what kind of places?
  - c. Bars, clubs, brothels, parks, ceremonies, etc.?
- 1.4. How do people generally view your association with <target population>?
- 1.5. Without telling us names, do you know any <target population> who are influential among their peers? These would be people who know a lot of other <target population> and are well liked in this community. Would they be willing to talk to us?

*If yes, then sensitively ask the interviewee to refer the person to the survey team by giving them the contact card with the information of the Field Coordinator.*

- 1.6. Can you describe the different kinds of <target population> in <city>?
  - a. What names do they go by?
- 1.7. Have you noticed any changes or trends over the past year with regard to <target population>? (e.g. new populations/groups, new hangouts, new or changing risk behaviors)

## 2. FOR CLINICIANS/SERVICE PROVIDERS

The following questions relate to your organization and their relation with <target population>.

- 2.1. What is your role at your clinic/organization?
- 2.2. What services does your organization provide?
- 2.3. What have been some of the challenges for you or your organization in providing services to or interacting with <target population>?
- 2.4. What have been some of the successes? What has worked well?
- 2.5. What are the main service needs for <target population>?
- 2.6. When you come into contact with <target population> for work, how do you know they are <target population>?
  - a. If you guess, what makes you assume they are <target population>?
  - b. What do you think about <target population>?
- 2.7. Please tell me how you interact with <target population> as part of the work in your clinic/organization.
  - a. Can you discuss their problems openly with them?
  - b. How do you get them to talk openly with you? Please give an example.
- 2.8. What health problems do <target population> have?
  - a. Are there any health problems that <target population> have more than people who are not <target population>?
  - b. How do they explain that they have such problems (directly or indirectly)? Please give an example.
- 2.9. What problems do <target population> have when they seek health care?
  - a. Probe to see if there is stigmatization, perception of lack of confidentiality, etc.
- 2.10. Among your colleagues, what proportion is comfortable working with <target population>?
  - a. Most, some, few? Probe to ascertain why certain healthcare practitioners might not be comfortable treating <target population>.
  - b. How do health care providers ensure confidentiality?
  - c. Can you give an example where confidentiality may have been breached?

## 3. Acceptability of Survey/ MSM Participation

### Say to participant:

As you know, we are planning a future survey of <target population>. In the future survey we will interview <target population> about HIV and what they do to prevent it. We will ask questions about how they meet people and about things they do that might put them at risk for HIV. We also want to give free HIV and STI testing and counselling. People who choose to be tested for HIV and STIs will learn their test results. If they test positive for HIV, we will refer them for care and treatment. The future survey will take at least two hours for participation.

- 3.1. What are your initial thoughts about this survey?
  - a. How would <target population> feel about participating in this survey?
  - b. What would discourage them from participating in this survey?
  - c. What would make them feel more comfortable about participating?
- 3.2. **Only for clinicians:** We plan to offer free testing and treatment for HIV and sexually transmitted infections as part of the study. The tests involve collecting some blood. What challenges have you experienced collecting blood and vaginal/rectal swabs from people in general and specifically from <target population> ?

Probe for fear of learning they have HIV, fear of lack of confidentiality, infecting others, use in “witchcraft”, etc.

- a. What would make participants feel more comfortable providing specimens?
- b. Would people feel more comfortable with a male or female nurse? Any other things?

3.3. We will offer HIV and STI testing and referral. What other services would <target population> benefit from in your view?

Probe to see what services are currently lacking or how existing services could be improved (medical, psycho-social, etc.)

3.4. We want this survey to be helpful to <target population>. We also want to make it safe for people to join. What can we do to keep people safe?

3.5. Should we tell the police or other law enforcement agencies about the survey so they don’t bother people trying to join? Or is it better not to inform them? What about others (religious, military, local level government, etc.)?

3.6. How do you think more hidden <target population> will feel about joining the survey?

- a. What can we do to make it easier for such <target population> to join the survey?
- b. Are there any groups or individuals we can mobilize to make it easier for more hidden <target population> to participate?

3.7. What type of people do you know who are influential among <target population>? Peer leaders? Gatekeepers? This person need not be <target population>. This would be someone who knows a lot of other <target population> and is well liked by peers. Would they be willing to talk to us?

That is the end of our interview.

Thank you so much for sharing your thoughts with me.

Do you have any questions, or is there anything that you would like to add before we end?

If you have further thoughts about any of the issues we discussed today, please call [NUMBER WHERE INTERVIEWER CAN BE CONTACTED]

*END RECORDING HERE*

**TO BE COMPLETED BY THE INTERVIEWER:**

*Please note your impressions about the session, its main themes, and the comments and reactions of participants.*

INTERVIEW WAS: \_\_\_\_ ROUTINE \_\_\_\_ NOT ROUTINE

IF NOT ROUTINE, WHY:

ANY ADVERSE REACTIONS IN THE INTERVIEW: \_\_\_\_ YES \_\_\_\_ NO  
IF YES, SPECIFY:

OTHER OBSERVATIONS/COMMENTS:

## FORMATIVE ASSESSMENT QUESTIONNAIRE GUIDE FOR TARGET POPULATION

Qualitative interviews should be conducted as guided conversations. This appendix provides a questionnaire guide for semi-structured individual interviews with gatekeepers during the formative assessment. The bulk of the questionnaire guide should be used in places where no BBS has previously been conducted with the target population. If a BBS has already been conducted, investigators may focus on specific questions whose answers may change over time.

Before starting the interview or focus group, the interviewer should describe the purpose and the procedures of the data collection activity, and then explain why the participant has been selected for the interview.

Interviewers should stress that participants are the experts and interviewers are there to learn.

This questionnaire guide covers the topics below. The topics are organized to go from those applicable to all methods to those applicable to only some methods. The guide starts with non-sensitive topics to help make participants comfortable and covers more sensitive topics later.

1. Background and rapport building (for all populations)
2. General information/trends (for all populations)
3. Information on population behaviors
4. Stigma, violence, and service provision
5. Survey participation
6. Biological testing
7. Interview administration
8. Survey logistics
9. RDS: compensation
10. RDS: location, days, times, etc.
11. RDS: coupon design and recruitment
12. Terminology

Sections 9–11 should only be asked if RDS is likely to be the sampling method for the BBS. Questions specific to a target population (i.e. SW, MSM/TG, PWID) have been highlighted. Mapping is a key component of formative assessment. Appendix I-8 provides a guide for a mapping activity. Mapping is especially important if a cluster-based sampling method such as TLS will be used.

Date	_ / _ / _ _ _ _  (DD/MM/YYYY)
Interviewer name	
Note Taker name	
Venue	
Start time	_ : _  (HOUR/MIN)
End time	_ : _  (HOUR/MIN)
How was this participant referred to be interviewed?	
Name of electronic file	

## Introduction (To be read by interviewer to participant(s))

*START RECORDING HERE*

*For all:* Before I start the interview, please mute your mobile phone. I will ask you questions about yourself and your friends. Please do not use your name or anyone else's.

*For focus groups:* Other rules are that we should respect what others say and not speak while others are speaking. After the focus group, do not share with others what people in the group say today.

*For all:* We want to improve health services for <target population> and need your advice. We want to learn about the HIV risks and health needs of <target population>. To do this we are planning a survey with <target population> in <city>. What we learn from this future survey may help us improve services for <target population> in <country>.

We ask for your advice on how to best prepare for the survey. We will ask questions about <target population>. About how they socialize with one another and about the different types of <target population> there are. We want to know what you think people will accept or find difficult in the future survey. We will also ask questions about how to improve services for <target population> and about your experience using these services. Today's interview is completely separate from the future survey. It will not change your chances of participating in the future survey.

During the interview, we ask that you not use real names or anything that would identify you or others. Please be comfortable to share your opinions and experiences. It is okay if you do not want to answer certain questions. Also, when I say "friends", "colleagues", "peers" or "people like you", I mean people you know who are <target population>. Do you have any questions before we start? Take time to address all questions and concerns)

## 1. Background and Rapport Building

Please tell me about yourself.

- 1.1. How old are you?
- 1.2. Where are you from?
- 1.3. What is your tribe/ethnicity?
- 1.4. How did you come to live here in <insert city>?

## 2. General Information/Trends

Let's start by talking a bit about <target population> in <city>.

- 2.1. Some people use other words or terms to describe <target population> in <city>. What term would you like to use during our interview/focus group?
- 2.2. Please tell me about <target population> in <city>.
- 2.3. How large do you think the population of <insert risk behavior/population name> is in <insert city>?
  - a. How many <target population> do you think there are?
  - b. For SW: Are there more formal or informal sex workers? Are there more brothel-based or street-based sex workers? Where do most sex workers find clients (i.e. street, brothel, restaurant, bar, club, internet)?
  - c. For MSM only: Out of every hundred men in <city>, how many men do you think are MSM, or have sex with other men?
- 2.4. When you see a stranger, how do you know if he/she is also a <target population>?
  - a. How do you recognize or identify other <target population>?
  - b. If we wanted to find <target population> in a public place (bar, street, hotel, club), how would we be able to identify them?
- 2.5. What are the different sub-groups or types of <target population>? How would you describe them? (i.e. age, socio-economic status, ethnicity/language, education)
  - a. For SW: venue-based (i.e. brothel, restaurant, club, bar), street based, formal, informal, client type (working class, business class, trade, foreign/local)
  - b. For MSM/TG: openness/identity (i.e. bi, gay, out, straight/closeted, married); sexual positions, public presentation (masculine/feminine, leather, sugar daddy), pre/post-operation, those who sell sex
  - c. For PWID: sex, drug of choice, where they purchase drugs, where or with whom they use drugs, where they use drugs, those who sell sex.
- 2.6. How much contact is there between the different sub-groups? How often and when do you see or meet <target population> who are different from you (i.e. different sub-group, age, ethnicity, places they sell sex, meet other MSM, buy/use drugs, etc.)?
- 2.7. Gently prompt for any issues or tensions between different groups of <target population> in the city.
- 2.8. Have you noticed any changes or trends among <target population> over the past year?  
For example:
  - a. Populations/groups
  - b. Hangouts
  - c. Risk behaviors
- 2.9. How do you think we can reach different sub-groups of <target population>?



### For sex workers:

2.10. Could you please describe how the SW you know interact with each other?

How often and how do SW see each other? (e.g. work, social activities, social or community organizations)

a. Prompt for frequency of contact (i.e. daily, weekly, monthly, never), who these other sex workers are in terms of age, where they work, if they are from this town or travel in and out, etc.

b. Probe further to see if this is reflective of all sex workers in the city.

2.11. Do SW who work in different brothels have contact with each other? What about SW who work at different bars or streets? Do sex workers who work at brothels have contact with sex workers who don't work at brothels?

2.12. Where and how often do they see or meet each other?

### For men who have sex with men or transgender women:

Could you please describe how the MSM/TG you know interact with each other?

2.13. How often and when do MSM/TG see each other (e.g. work, social activities, social or community organizations)?

2.14. Which bars, restaurants or similar places do you and your friends go to? Are these places mainly for MSM/TG or are they "mixed"?

2.15. How old are most of your peers? Do MSM of different ages get together often or do they largely keep separate? What other factors might MSM social groups form around (e.g. where they live or work, drug use, whether they go to big parties, frequency of sexual activity, public presentation (gay/straight, male/female), interests [sports, parties, fashion, arts, MSM rights], income)?

### For people who inject drugs:

Could you please describe how the PWID you know interact with each other?

2.16. How often and when do PWID see each other? (e.g. buying drugs, using drugs, sleeping/living, social, looking for work, social or community organizations)

2.17. Where do PWID hang out when they don't use drugs? Where do they go to find drugs? Where do they use drugs?

2.18. How old are most of your peers? Do PWID mix with PWID of different ages? Or do young and old PWID largely keep separate? What other factors might bring PWID?

### For all populations:

2.19. How often and in what situations do you meet with <target population> who are from other parts of the city?

2.20. Do <target population> move in and out of <city> a lot? How many <target population> move to <city> from other regions? If so, why do they move here? How often?

2.21. Besides <country>, from which countries are some of the <target population> you know?

2.22. How many <target population> do you know? Please take your time to think about this. Don't tell me their names; I just want to know about how many people you know.

a. How many live in <city>?

b. How many have you seen in the past month?

c. How many of these people have you seen in the past two weeks?

### 3. Information on the Population's Behaviors

Information in this section can be used to design the survey as well as develop response categories for the questionnaire.

#### For sex workers:

- 3.1. Where do people in <city> sell sex?
  - a. What hours of the day/night do they usually work in each of these places?
  - b. What days of the week do they usually work in each of these places?
  - c. How many sex workers usually work in in each of these places on a given day, evening, or night?
- 3.2. Do most SW sell sex in just one place or many places?
- 3.3. Where do SW normally find clients?  
[Probe] → Lodge/brothel, hotel, street, market, bar, club, restaurant, private home.
- 3.4. Where do SW normally have sex with clients?  
[Probe] → At the place they meet or somewhere else? Where?
- 3.5. Does anyone monitor the money SW make or the clients they bring in?  
[Probe] → Brothel owner, pimp, “mama”

#### For men who have sex with men, or transgender women:

- 3.6. How do you meet other MSM/TG?
- 3.7. How and where do you meet sex partners?
- 3.8. What internet sites to people use to meet?
- 3.9. What kinds of lubricants do MSM/TG use?

#### For people who inject drugs:

- 3.10. Where do you normally find drugs?
- 3.11. Where do you normally find injecting equipment?
- 3.12. What kinds of drugs do people you know use?
- 3.13. What kinds of drug mixtures do people use?

### 4. Stigma, Violence, and Service Provision

- 4.1. What is it like to be <target population> in <country><target population>? What about in <city>?
- 4.2. What kind of problems do <target population> face in <country> because they are <target population>? What about in <city>?
- 4.3. If an <target population> faces verbal abuse, stigma, or violence, who can they turn to? Who can help them?
- 4.4. What <target population> support organizations exist?
  - a. What is the name of the organization (formal or informal)?
  - b. Is it only for <target population>?
  - c. How does it give support?

- 4.5. How many of these groups do you belong to?
- 4.6. How common is violence against <target population>?
- 4.7. What healthcare services exist for <target population>
  - a. What is the name of the organization/clinic (formal or informal)?
  - b. Is it only for <target population>?
  - c. What services can people get there?
- 4.8. What kinds of HIV or STI prevention services are available for <target population> in <city>?
  - a. Which of these HIV/STI prevention services did you get?
  - b. What did you like or not like about the HIV/STI prevention services you got?
- 4.9. What do the <target population> you know think about the HIV/STI services available here? Can you tell me about their experiences using these services?
- 4.10. What specific advice do you have to improve HIV/STI services for <target population>?

## 5. SURVEY PARTICIPATION

As you know, we are looking for advice for our future survey. In the future survey we will interview people about HIV and what they do to prevent it. We will ask questions about how they meet people and about things they do that put them at risk for HIV. We also want to give free HIV and STI testing and counselling. We will give back the test results to the people tested in the survey. If they test positive for HIV, we will tell them where they can get care and treatment. People will spend up to two hours in the future survey.

- 5.1. What are your initial thoughts about this survey?
  - a. How would you feel about joining this survey?
  - b. What would keep you from joining this survey?
  - c. What would make you feel more comfortable about joining?
- 5.2. Do you think other <target population> would be willing to join in that future survey? Why, or why not?
  - a. What would make your friends feel more comfortable about joining?
  - b. How would you encourage a friend to join the survey? Especially one who is reluctant?
- 5.3. Would you or your peers be willing to talk openly with an interviewer about personal sexual behavior if it is anonymous and in a private setting? What about your drug use?
- 5.4. What do we need to know to make the survey a success?
  - a. How can we let people know about the survey?
  - b. What can we do to get a lot of people to join the survey?
  - c. Who are the key people or groups we should talk to, to gain support for the survey?

## 6. BIOLOGICAL TESTING

- 6.1. How do you feel about taking a free HIV test as part of this survey?
  - a. How do you feel about giving blood from a vein in your arm or finger prick?
  - b. Would free HIV testing make people more or less likely to join the survey? Why?
  - c. How can we make HIV testing more acceptable?

We are also thinking of offering testing for other STDs. This would involve collecting specimens from the <vagina>, <rectum>, <urine>. We can show people how to collect the specimens themselves or a trained health care worker can do it.

- 6.2. Would you be willing to give a vaginal swab, rectal swab, or urine to test for other STDs?
  - a. How would your peers feel about this? What may be the problems with this?
  - b. Would it be better to have the healthcare worker collect the swab or for people to collect it

themselves? (Explain how a swab is collected.)

c. What might make STD testing more acceptable?

- 6.3. Have you ever been checked for STDs before? Did the healthcare worker do a physical examination?
- How would you feel if a healthcare worker looked at your genitals to see if you have a STD as part of this survey?
  - Would getting STD checkup be seen as a benefit?
- 6.4. If you were told you had a STD, would you go to a clinic for treatment?
- Why or why not?
  - Would getting STD treatment as part of the survey encourage participation?
- 6.5. Which kind of person would you prefer to take swabs and test you for HIV?
- Would men and women both be okay?
  - Are there people you would not be comfortable with?

## 7. Interview Administration

Now I have some questions about how to collect personal information in the next survey.

- 7.1. Would you feel comfortable being honest with an interviewer? Would you be more comfortable being honest to a computer?
- 7.2. How would you feel about using a touchscreen computer or tablet to answer interview questions? Would you like the computer to read the questions to you? (It may be beneficial to show people what a tablet looks like.)
- 7.3. How would you feel about a trained researcher asking you the interview questions?
- 7.4. Describe the type of person with whom you would feel ok to answer personal questions in an interview.
- Would men and women both be okay as interviewers?
  - Would you prefer other <target population> or people who are not <target population>?
  - Are there people you would not be okay with?

### Languages

- 7.5. What languages do you speak? What is your main language? What do most of your peers speak? How many of your friends would speak neither of these languages?
- 7.6. What languages can you read? Can most of your peers read? Are there <target population> who cannot read? What can you tell me about these people? Are they of a certain sub-group of <target population>?
- Is there a difference between the <target population> who can read and those who cannot read? (i.e. SW who are literate may be more likely to be brothel-based, MSM who are literate may self-identify differently from those who are not, PWID who are literate may use different drugs than those who are not).
  - How can we make the study known amongst <target population> who cannot read?

## 8. Survey Logistics

Now I would like to ask you a few questions about where and when we do the survey.

### For sex workers:

- 8.1. For the future HIV survey, would you like us to come to your place of work to do the survey?  
For TLS: Would you be okay to leave to do the survey?
- 8.2. Would you want to be invited to a specific private location like a clinic, private office/building, or other space where you can do the survey when you want?

### For men who have sex with men, or transgender women:

- 8.3. For the future HIV survey, would you like us to come to the places you socialize to do the survey?  
For TLS: Would you be okay to leave to do the survey?
- 8.4. Would you want to be invited to a specific private location like a clinic, private office/building, or other space where you can do the survey when you want?

### For people who inject drugs:

- 8.5. For the future HIV survey, would you like us to come to the places you buy or use drugs to do the survey?  
For TLS: Would you be okay to leave to do the survey?
- 8.6. Would you want to be invited to a specific private location, like a clinic, private office/building, or other space where you can do the survey when you want?

### Contact with authorities

- 8.7. We want this survey to be helpful to <insert target population>. We also want to make sure it is safe for people to be in the survey. What can we do to keep people safe?
- 8.8. Should we tell the police or other law enforcement agencies about the survey so they don't bother people trying to participate? What about others (religious, military, local-level government, etc.)?

## 9. RDS: Compensation

We will want to give something to participants for their time and transport. We want to make sure we do not give too much to avoid people pretending that they are a <target population>. We also do not want to give something so big that people will join the survey just to get it.

- 9.1. How do you think we can best compensate people for their time and transport?
  - a. Would a gift (ie, phone credit/airtime, food voucher) be acceptable?
  - b. Would money be acceptable?
  - c. How much would it cost to get to the survey site?
  - d. How much should we give for time spent doing the survey?

- 9.2. Would health screenings make people more likely to join?

We will ask participants to return to the survey office for a second visit about two weeks after the first. This second visit will take about 30 minutes. During the visit, participants will get their test results and will be given compensation for each of their recruits who participated.

- 9.3. Would you and your peers be able to return for a second visit after two weeks? Why/why not?
- 9.4. We would like to compensate participants who recruit peers. What do you think we should give participants for recruiting peers?

## 10. RDS: Location, Days, Times, Etc.

- 10.1. What kind of place would you like to see as the main survey site location? What might be some convenient and safe locations?
- 10.2. Where would you and your peers feel comfortable coming to participate in a survey? Rented apartment or office? Clinic? NGO? Other location?

- 10.3. How easy is it for people to get there? How do you think you and your peers would travel to the survey site? Probe for public transit, shared taxi, private taxi, private motorcycle, etc.
- 10.4. About how much would you expect transport to the interview site to cost for most people? Probe to see if this cost is for public transit, shared taxi, private taxi, private motorcycle etc.
- 10.5. What areas of town are unsafe and should be avoided for the survey?
- 10.6. What types of <target population> would not feel comfortable going to certain areas?
  - a. For SW: e.g. brothel-based, street-based, higher class, foreigners?
  - b. For MSM: e.g. non-gay identified, men from other areas?
  - c. For PWID: e.g., professionals, homeless?
- 10.7. Are there any locations where you would not want to be surveyed?
- 10.8. What would make a survey site most comfortable for other <target population>?
- 10.9. What times of the day are best for <target population> to go to an interview site to take part in a survey?
  - a. Morning (8 AM–12 PM)?
  - b. Afternoon (12 PM–5 PM)?
  - c. Evening (5 PM–10 PM)?
- 10.10. What days of the week do you think <risk behavior/population name> are best for people to join the survey? What about the weekend?
- 10.11. Would appointments or open-walk in times work better?
- 10.12. We may also ask other groups to participate in a similar study at the same time, such <risk behavior/ population name of other population to be studied>. How would you feel about being at the same survey site as they?

## 11. RDS: Coupon Design and Recruitment

Let me describe one method we want to use to find people to join the survey. We would give participants three coupons to give out to peers who are also <target population>. For each friend who shows up to the study location with the coupon and participates, the person who referred them will get a small amount of money.

Your friend would also be interviewed, get free HIV testing and STI screening and treatment, be told about HIV and how to prevent it, and get coupons to give out to his friends so they can also participate. Now we would like to know:

- 11.1. How would you feel about giving a coupon to your peers and asking them to do the survey?
  - a. Do you think these people would agree to join in the study?
  - b. Do you think these people would be willing to refer others to participate?
- 11.2. Do you know of any especially influential <target population> who may be good at referring people? This would be someone who knows a lot of other sex workers and is well liked by peers.
  - a. Would they be willing to talk to us?
  - b. Can you tell us a little bit about them? [Ask participants to ask identified peer leaders to contact survey coordinator. Give them referral card with contact information for survey coordinator.]
- 11.3. What color should the coupon be?
- 11.4. What information should on the coupon? Survey hours, contact phone number, survey location, survey name?
  - a. Can you think of any information that really needs to be there to make it easy for participants to come see us?
  - b. Can you think of anything that if on the coupon would make you not want to join?
  - c. What languages should be on the coupon?

- d. How could we adapt the coupon for those who can't read?
- e. Do you think a map on the coupon is helpful for finding the survey site?

11.5 We may want to collect fingerprints from two fingers [Show the respondent the fingers you are referring to] to make sure the same person does not try to join the survey several times. The computer will turn your fingerprint into a secret code. No one can use the code to identify you. How would you feel about giving your fingerprint for such a survey? What concerns might your peers have about this?

## 12. TERMINOLOGY

Now I'm going to ask you to give me the local term of some terms related to <target population>.

SEX WORKERS		
Terms	Local terms/Slang	
	Language 1 (specify)	Language 2 (specify)
1. Sex workers that are paid only in money		
2. Sex workers that are paid only in goods and favors (e.g. food, lodging)		
3. Sex workers that work on the streets		
4. Sex workers who work in brothels/lodges		
5. Young SW		
6. SW that are new to selling sex		
7. SW from other parts of the country		
8. Foreign SW		
9. SW who sell to "rich" clients or who charge a lot of money		
10. People who have sex for money or goods and may act as long- term girlfriends/boyfriends.		
11. Oral sex		
12. Anal sex		
13. Vaginal sex		
14. Sex without a condom		
15. Pimp or other person who controls SW or his/her money, may identify clients for SW		
16. Other local terms that may come up when discussing sex workers or sex work		

MEN WHO HAVE SEX WITH MEN/TRANSGENDER WOMEN:		
Terms	Local terms	
	Language 1 (specify)	Language 2 (specify)
1. Gay-identified man		
2. Non-gay-identified man		
3. Insertive or top partner		
4. Receptive or bottom partner		
5. Male SW		
6. Club or venue for gay men		
7. Oral sex		
8. Anal sex		
9. Older gay man		
10. Younger gay man		
11. Sex without a condom		
12. Versatile, someone who is sometimes the insertive and sometimes the receptive partner		
13. Out person who is effeminate		
14. Gay-friendly person		
15. Men who think of themselves as women, and who may dress as women, and have sex with other men (e.g. transgender)		
16. Men who have cut/altered their genitals and have sex with other men (e.g. transgendered)		
17. A trans person who sells sex on the street		
18. Very effeminate MSM, especially young ones		
19. Married men who have sex with other men (e.g. down low)		
20. Men who have sex with men and women		
21. Other local terms that may come up when discussing male sex workers or male sex work		



PEOPLE WHO INJECT DRUGS		
Terms	Local terms	
	Language 1 (specify)	Language 2 (specify)
1. Terms in the injecting process		
2. Someone who has sex in order to get drugs		
3. Someone who is wealthy and injects drugs		
4. Overdosing		
5. Methadone assisted therapy		
6. Name of drugs		
7. Other local terms/slang that may come up when discussing injection drug use		

That is the end of our interview. Thank you so much for sharing your thoughts with me. Do you have any questions, or is there anything that you would like to add before we end? If you have further thoughts about any of the issues we discussed today, please call [insert number where interviewer can be contacted].

*END RECORDING HERE*

**TO BE COMPLETED BY THE INTERVIEWER:**

*Please note your impressions about the session, its main themes, and the comments and reactions of participants.*

INTERVIEW WAS: \_\_\_\_ ROUTINE \_\_\_\_ NOT ROUTINE

IF NOT ROUTINE, WHY:

ANY ADVERSE REACTIONS IN THE INTERVIEW: \_\_\_\_ YES \_\_\_\_ NO

IF YES, SPECIFY:

OTHER OBSERVATIONS/COMMENTS:

# APPENDIX I-8

## FORMATIVE MAPPING

Mapping can be conducted as part of a formative assessment interview or a focus group. It can also be an exercise on its own. If on its own, participants involved will need to be consented before they can participate. This guide can help investigators conduct the mapping exercise.

### Validation of Known Locations

We are interested in learning more about the experiences of <target population>, but we are not sure we know where all <target population> are in <city>. I am going to show you a map. Please tell me where on the map groups of <target population> can be found. This can include places such as streets, markets, brothels, bars/clubs, hotels, barracks, or any other publicly accessible place.

For each location, please confirm if <target population> can be found there, then tell me:

- a. What kind of <target population> are there (age, nationality, religion, <sub-group>, etc.)?
- b. About how many <target population> are at this location on a typical day, evening, or night? Please give me your best estimate or a range.
- c. Could we talk freely to <target population> there?
- d. Must we obtain permission from someone (owner, manager, madame, etc.) first?
- e. Could we conduct interviews there?
- f. Could we test people for HIV there?
- g. For SW: What types of clients go there?

### Identification of New Locations

There might also be places on this map that we have not identified, where [target population] can be found. Do you know of any other such places that are not on this map?

For each new site identified, ask the following questions:

- a. What kind of [target population] are there (age, nationality, religion, <sub-group>, etc.)?
- b. About how many [target population] are at this location? Please give me your best estimate or a range.
- c. Could we talk freely to [target population] there?
- d. Must we get permission from someone (owner, manager, madame, etc.) first?
- e. Could we do interviews there?
- f. Could we test people for HIV there?
- g. For SW: What types of clients go there?

## SAFETY AND SECURITY GUIDE

This appendix provides guidance on safety issues that may be encountered while implementing a BBS.

### PHYSICAL SAFETY

Survey staff must be alert to their own and survey participants' safety. Advanced planning can help prevent problems. Generally, the survey site supervisor is responsible for maximizing the safety, security and privacy of survey participants and staff, and that clients feel comfortable at the site. It is vital that all survey investigators and site staff prioritize privacy and safety of all participants and survey staff.

Emergency contact information for each member of the team should be easily accessible to the site supervisor.

### SITE SAFETY

An RDS survey will have at least one site where data collection takes place. For safety reasons, sites should ideally have more than one exit which can be opened from the inside without a key. For TLS, security guards should be considered, especially when data collection takes place at night.

Receptionists should be stationed at any entrance during site hours, and anyone in the reception area should not be able to see or hear individuals while they are participating in survey procedures.

For all surveys, develop a code word or phrase to call for assistance from a co-worker. For example, if a staff member needs help with an uncooperative participant, but does not want to alarm the individual in question or other people at the site, she/he would ask one of her/his co-workers to bring them the "blue folder" to indicate that they needed assistance. Also, if an unwanted visitor comes into the survey site, staff could use a code word to alert other staff that a breach of confidentiality or possible danger to clients may occur. This should trigger the supervisor to come to assist and enact all other emergency security actions. In general, people who are not survey staff or participants should not be allowed into the survey site. Sometimes participants will want to bring friends or their young children to the survey site. Investigators should predetermine if this constitutes an acceptable risk and institute their decision as a policy. However, under no circumstances should friends or family be allowed in the interview or testing area.

### How to handle visitors or callers in different scenarios

The best way to deal with a problem is to prevent a sensitive situation from escalating. Be polite and friendly to any visitor or caller to the site. If a visitor or client becomes angry:

- Remain as calm as possible and assure them that you are trying to help them
- Listen to and acknowledge concerns
- Lower your voice, tone, and tempo
- Avoid becoming defensive

## Questions about the survey

Any individual who comes to or calls the site asking about sensitive matters regarding the survey should be referred to the supervisor. The supervisor should follow the following guidelines:

- Obtain the following information from the visitor(s) before disclosing ANY information
  - o Who do they represent (legal, law enforcement, concerned or curious citizen, relative, participant, or others)
  - o What is the purpose of the visit and how you can help them
  - o What information they are seeking
- Provide only basic information about the survey.
  - o Indicate that the survey provides HIV testing, counseling and referrals for ALL people (This is the single, overriding communication objective regarding questions about specific risk groups.)
  - o Do not talk about specific key populations participating in the survey or their risk behaviors
  - o Avoid specifying what types of questions are asked or data are collected
  - o If pressed, refer the individual to the principal investigator or Ministry of Health representative
    - If the individual makes implied or direct threats, state that the site does not collect information or knowingly serve any particular group including the group under question (e.g. MSM or FSW), but provides non-discriminatory services to everyone.
- Prevent or limit access to data or client information
  - o Stress and show IRB approvals. State that survey staff are obliged to abide by the data access and confidentiality procedures outlined in the protocol and may not breach them without informing/seeking permission from these bodies.
  - o If the country's laws allow: Request a warrant, state that data are not stored on location, and that participants have a right to privacy under the law
  - o State that data are stored at a central location and not onsite. Refer the individual to the principal investigator or Ministry of Health representative for more information
  - o If a law enforcement officer provides a warrant OR makes direct threats of physical harm and refuses to provide a warrant:
    - Inform them that protocol dictates that you are required to contact the funding agency and the local IRB before releasing information
    - Provide the individual with what he or she requests, making an attempt to de-identify all information first and immediately contact individuals on the chain of command afterwards
    - Instruct staff to emergency security actions if necessary

## Proper procedures to report incidents

Not every staff member can be expected to know how to respond to requests for information or access to the site. Therefore, there should be standard operating procedures (SOP) to direct staff how to refer questions or requests to a higher authority. The chain is:

1. *Supervisor/Field staff coordinator*: If asked for any information on the survey, all staff should refer questions to the site supervisor. The site supervisor can answer basic questions about the survey activities, but should not release data, participate in interviews with the media, or allow visitors to interact with participants.
2. *Principal investigators*: The principal investigators are the only individuals who should respond to requests for data, conduct interviews with the media, or allow visitors to interact with participants. In cases of serious events, or for legal and security recommendations, the PI should contact the appropriate government official (e.g. ethics committees and Ministry of Health representative).

Discuss the SOP as a team and adapt it accordingly. Ensure that all staff members know the SOP. All staff should know who to inform in case of an emergency and how they can be contacted.

## Emergency security actions

In the event of a possible security breach or safety concern, the following positions have specific responsibilities.

### Supervisor/Field staff coordinator:

1. Speak to the individuals who attempt to enter the facility.
2. Minimize risk to participants and staff.
3. Secure all personally identifiable data (names, addresses, phone numbers).
4. Contact offsite management staff in the chain of command.
5. Evacuate the facility if necessary. In case of fire or other emergency, the site supervisor should be the last person to leave the facility

### Interviewers/HIV counselor/nurse:

1. Ensure that participants are safe and protected from access by intruders. Escort them to safe exits if necessary.
2. Secure personally identifiable information (names, addresses, phone numbers), or deliver sensitive data to data entry/data management staff.

### Data entry/data management staff:

1. Shut down all computers and other data capture devices with password encryption.
2. Lock up all paper forms with sensitive information and portable data devices (audio recorders, PDAs, laptops, etc.) in locking cabinets or safes.
3. Lock rooms where possible.

## Security with participants sexual harassment

If a participant makes inappropriate sexual advances or sexually harasses staff, staff should feel comfortable to address the participant as needed. If a participant is behaving inappropriately, first remind him/her of the survey objectives and procedures and indicate that sexual offers are not appropriate. If the participant continues, tell it is acceptable to terminate survey participation.

Immediately terminate participation if a staff member feels uncomfortable or unsafe. Make note of it and report it to the site supervisor.

## Drunk, high, or drowsy participants

A participant may not be able to complete the interview, give accurate answers, or may appear to be very drowsy during survey participation due to sleep deprivation, alcohol, or drugs.

Such a person may not be able to provide informed consent and therefore is ineligible for survey participation. Explain to the participant that the computer has not selected him/her to participate in the survey and thank the individual for his/her time. Document the incident accordingly. It is acceptable to terminate participation partway through if a participant stops being coherent or becomes mentally unable to participate. Thank the participant for their time and document what happened.

## Friends or family of participants

Individuals accompanying participants or purporting to be friends/family of participants must be asked to remain in the reception area or other location where they cannot observe or disrupt data collection activities.

# APPENDIX I-10

## SPECIMENS USED FOR HIV TESTING

The following information, excerpted from the UNAIDS/WHO *Guidelines for Using HIV Testing Technologies in Surveillance: Selection, Evaluation, and Implementation – 2009 update*,<sup>1</sup> provides an overview of specimens used for HIV testing; advantages and disadvantages of specimen types; specimen collection, processing, storage, and testing; and labeling and recording specimens. This appendix can be used to supplement information in Chapter 6: Biomarker Considerations.

### Specimens Used for HIV Testing

Many types of specimens can be used for biological surveillance of HIV: plasma, serum, whole blood, DBS and oral fluid. The choice of specimen collected depends on the logistics, populations and sites selected, and the HIV testing strategy and algorithm. Specimens must be collected, tested and stored in an appropriate manner in order to obtain accurate and reliable results.

For serosurveillance activities, specimens are usually collected and stored prior to HIV testing at a regional or national laboratory. Serum, plasma and DBS can be stored and tested at a later date; specifications for storage will depend on the type of specimen collected.

Specimens not tested on site at the local level will need to be transported to a regional or national laboratory for testing. The methods by which specimens are transported will depend on the country's infrastructure. Few countries may have courier systems linking health care facilities and laboratories. More frequently, the field surveillance staff members themselves transport the specimens from the local to the national laboratory. However, other options such as public transportation can be explored.

### Selecting Specimens

#### Advantages and disadvantages of serum and plasma

HIV testing of serum and plasma, which can be collected by venipuncture (see below), have the following advantages and disadvantages:

##### Advantages

- Have higher concentrations of HIV antibodies than oral fluids
- Have the potential for additional routine testing (e.g. syphilis, hepatitis B, hepatitis C) from a single specimen
- Have the potential for special studies (e.g. testing for recent infections, HIV typing [HIV-1 vs. HIV-2], HIV subtyping, antiretroviral [ARV] resistance)
- Are easy to collect and test with a trained phlebotomist and a laboratory

<sup>1</sup> [http://www.unaids.org/en/media/unaids/contentassets/dataimport/publications/irc-pub02/jc602-hivsurvuide1\\_en.pdf](http://www.unaids.org/en/media/unaids/contentassets/dataimport/publications/irc-pub02/jc602-hivsurvuide1_en.pdf)

### Disadvantages

- Require invasive collection technique
- Require skilled staff to collect and process
- Compared with oral fluid, require more equipment (e.g. needles, tubes or lancets) and biohazard waste facilities
- May be challenging to collect in non-clinical settings as venipuncture is required
- Pose a greater risk to health-care workers and staff through inadvertent exposure, both because of higher HIV concentrations and the use of sharp collection devices

### Advantages and disadvantages of whole blood

HIV testing of whole blood, which can be collected by venipuncture or finger-stick (see below), has the following advantages and disadvantages:

#### Advantages

- Has higher concentrations of HIV antibodies than oral fluids
- Has the potential for additional routine testing (e.g. syphilis, hepatitis B, hepatitis C) from a single specimen
- Is easy to collect and test with trained phlebotomist, if venous whole blood
- Is easy to collect in non-clinical settings if finger-stick

#### Disadvantages

- Requires invasive collection technique
- Requires skilled technician for collection
- Compared with oral fluid, requires more equipment (e.g. needles, tubes or lancets) and biohazard waste facilities
- May be challenging to collect in non-clinical settings if venipuncture is required
- Poses a greater risk to health-care workers and technicians through inadvertent exposure, both because of higher HIV concentrations and the use of sharp collection devices

### Advantages and disadvantages of dried blood spots

Dried blood spots can be prepared for HIV testing by collecting venous or finger-stick whole blood and dropping an amount onto a filter paper. DBS have the following advantages and disadvantages:

#### Advantages

- Are easy to collect in a clinical or non-clinical setting, depending on whether venipuncture is available
- Do not require a centrifuge or other equipment for processing the blood specimen
- Once dried, can be stored at room temperature for a short time
- Can be transported easily to the central laboratory for further testing
- Facilitate testing for prevalence, incidence and special studies such as resistance testing

#### Disadvantages

- Require specific filter paper (see below) for preparation
- Potential for less accuracy (false-positives and/or false-negatives) if the test is not optimized for DBS
- Modified procedure required for DBS elution and HIV testing
- Make the testing process more lengthy as an elution step needs to be performed
- Limited number of tests validated for use with DBS specimens

### Advantages and disadvantages of oral fluid

Other specimens besides blood and blood products can be used for HIV testing. For linked testing, where informed consent must be obtained, oral fluid may be used.



### Advantages

- Does not require a trained laboratory technician for specimen collection and processing, can be collected by a trained health worker
- Does not require contact with possibly contaminated laboratory materials, e.g. used needles or lancets that need biohazard waste facilities for sharps disposal
- Can be collected in a variety of field settings, including non-clinical settings
- May be more acceptable to hard-to-reach populations than specimen collection requiring venipuncture or finger-stick. Therefore, a greater percentage of the target population may agree to be tested.

### Disadvantages

- May require special collection devices
- Currently available testing technologies used for oral fluid specimens are limited but additional new tests are being validated
- Cannot be used to perform additional testing for special studies (e.g. testing for recent infections, HIV subtyping, ARV resistance)
- Same specimen cannot be used to confirm initial reactivity with a second test; therefore, a second specimen must be taken, i.e. whole blood, serum, plasma for further testing (this is specific to the OraQuick HIV rapid test as the oral fluid collection device and test are one and the same)
- Should not be used for confidential linked testing (i.e. with the return of results to the individual)

### Recommendation

Blood (serum, plasma, DBS) is the preferred specimen for testing because it has a higher concentration of HIV antibodies than oral fluid. It also allows for additional testing, including for syphilis, hepatitis B and hepatitis C, and for special studies of HIV type and subtype, and ARV resistance.

## Collecting, processing and storing blood, serum and plasma specimens

Blood needed for an HIV test can be collected either by venipuncture (whole blood, serum, plasma) or by finger-stick (whole blood). To ensure proper specimen labeling, label the blood collection device (either vacutainer, cryovial, or DBS card) before collecting the specimen. Put the participant at ease by explaining the blood collection process and which test(s) will be performed.

### Processing blood collected by venipuncture

To collect blood by venipuncture, follow local clinical or laboratory procedures and adhere to safety procedures.

The following steps are recommended for processing blood collected by venipuncture: Collect up to 10 ml of blood from the patient's vein into a sterile 10 ml tube.

**For serum**, blood is collected in a red-top tube (without anticoagulants).

**For plasma**, blood is collected in a purple-top tube (with anticoagulants, e.g. EDTA).

For safety reasons, the use of an evacuated blood collection system (e.g. Vacutainer® tube) is recommended. Note: Obtaining an additional tube of blood during routine blood collection solely for the purpose of unlinked anonymous testing is considered unethical and is not advised.

1. If the blood specimen will not or cannot be processed immediately (e.g. no centrifuge is available), collect the blood in a red-top tube and allow it to stand at room temperature for at least 20–30 minutes, and then remove the serum. Usually, plasma takes longer (~1 hour) to separate without centrifugation than serum collected in a red-topped tube. Process (see Step #3) and test within 24 hours to avoid hemolysis of the specimen.

2. Centrifuge the specimen to separate the serum (without EDTA) or plasma (with EDTA). If blood is collected for serum, allow the blood to stand for at least 20–30 minutes so that a clot forms before the specimen is centrifuged. In general, the specimen should be centrifuged at 300–400 g or 1200–1500 rpm for 10 minutes.

After the specimen is centrifuged or has had time to separate, use a clean plastic pipette (do not pour) to remove an aliquot of 0.5–2.0 ml off the top layer. Transfer this to another sterile labelled plastic tube or cryovial (1.5–2.0 ml with a screw cap) and tighten the cap. The specimen is ready for storage and testing.

### Storing serum and plasma collected by venipuncture

To store serum and plasma, consider the following:

- Make sure the cap is tight on the labelled cryovial or plastic tube. Do not use glass tubes for storing specimens. Place the cryovials in a cardboard freezer box with a partitioned insert.
- If the specimens are to be transported to the testing laboratory, store the specimens at 4–8° C for up to a maximum of 1 week. For longer-term storage, the specimens should be frozen at –20° C or below.
- Pack the specimens upright in a cooler containing cold packs for transport to the testing facility.
- Limit the number of freeze/thaw cycles because it may impact the HIV test results and subsequent additional testing.

### Collecting blood by finger-stick

Blood collected by finger-stick can be used to perform rapid tests or make DBS on filter paper. Finger-stick collection may be preferred in rural and non-clinical settings, which often do not have trained phlebotomists or laboratory facilities with appropriate equipment (e.g. centrifuges).

1. To obtain a finger-stick specimen, massage the finger (preferably the middle or ring finger), which will cause blood to accumulate at the tip of the finger.
2. Cleanse the finger pad (not just the tip or side of the finger) with 70% isopropyl (rubbing) alcohol. Wipe away the alcohol with a sterile gauze pad.
3. Use a sterile lancet to firmly prick the finger pad. Wipe the first drop of blood off the finger with sterile gauze before collecting subsequent blood using a collection device to place on the rapid test device or on the filter paper for the DBS. If the original puncture is inadequate, the same site should not be reused; another site or finger should be used. Avoid milking or squeezing the puncture as this may cause hemolysis of the specimen and could invalidate the test result.

The ear lobe may be pricked instead of the finger.

### Preparing and storing DBS specimens for an HIV test

Blood from a finger- or ear-lobe stick can be used to make DBS. Although finger-stick is the most typical method, DBS can also be prepared by using blood collected in a tube with an anticoagulant. DBS have the advantage of being easy to transport, without the need for a cold chain.

Apply blood directly from a finger or a pipette onto special filter-paper (Schleicher and Schuell Grade 903 filter paper). The paper may come with preprinted circles that will contain approximately 100 µl blood when completely filled. If the paper does not have preprinted circles, place blood on the paper so that it makes a circle with a 1.5 cm diameter. Allow the blood to soak through and fill the entire circle. Caution: If the blood does not saturate the filter-paper, do not use that paper.

1. Label the side of the filter paper with a specimen reference code after the filter paper is saturated with blood (circle is filled).
2. Suspend filter-paper strips containing the filled circles during the drying process to allow air to circulate around the paper. Stands for holding the strips are commercially available. However, strips may also be dried by placing them between two books (taping the edges of the strips to the books with sticky tape) on a table or a laboratory bench top so that the blood-containing part of the paper is not in contact with the surface of the table or laboratory bench top. Be sure not to get tape on the blood spots.

3. Let the blood spots air dry horizontally at room temperature for at least 4 hours or (and for at least 24 hours in humid climates). Do not heat or stack blood spots, do not allow them to touch other surfaces while they are drying, and keep them away from direct sunlight, dust, and insects while they are drying.
4. After blood spots have been adequately dried, wrap the strip in one sheet of glassine paper or plastic to prevent carryover of specimen from one sheet to another.
5. Place the wrapped strips in a gas-impermeable bag (zip-lock bag) with desiccant and humidity indicator cards. Approximately 20 strips may be placed in each bag. Bags may be kept at room temperature for up to 30 days and then stored at 4° C for up to 90 days. If the DBS in their plastic bags are to be stored for more than 90 days, they should be maintained at –20° C. Properly stored DBS have been shown to be stable for at least two years. The bags should be placed with appropriate documentation in a sturdy envelope for shipment. If additional testing, such as resistance testing, is anticipated, DBS must be stored at –20° C or below immediately after the DBS specimens are dry.

## Collecting and storing oral fluid

### Collecting oral fluid

For specimen collection, follow test instructions as part of a standard operating procedure. Oral fluid collection devices are available and may be used, if indicated. Some rapid test devices contain an oral fluid collection pad at one end which facilitates collection and testing.

Oral fluid can only be used with certain EIAs and rapid tests designed for oral fluid specimens, such as the OraQuick brand. Additional rapid tests using oral fluid are currently under field evaluation.

The following are the general steps for collecting a specimen:

1. Use a specially treated absorbent pad attached to a plastic stick (usually provided by the test kit manufacturer).
2. Collect the specimen. Collection procedures are specified by the manufacturers of collection devices and must be carefully followed. Then place the pad into a vial containing a preservative solution (usually provided by the test kit manufacturer).
3. If an oral fluid-specific rapid test (e.g. OraQuick) is performed, storage and transport are not necessary.

Due to the complexity of the test, oral fluid specimens collected for EIAs should be sent to a laboratory performing EIAs for analysis.

### Storing oral fluid

Oral fluid specimens should be stored at 4° C for a short period of time. They should be refrigerated during shipment. Specimens should be frozen (–20° C or below) if stored for an extended period of time. Once thawed, they can be refrozen once. Consult the test kit insert for more specific storage information.

## Labelling and recording collected specimens

### Labelling specimens

The plastic tube, cryovial or filter-paper containing the specimen must be labelled with a specimen code at the time of collection and processing. If labels are used, make sure the label is placed on the side of the tube, not on the cap. Pre-printed cryolabels designed to adhere during freezer storage should be used when specimens are stored in cryovials. It is important that freezing does not affect the visibility of the printing on the label.

Surveillance coordinators should provide the field staff responsible for specimen collection with a series of labels or permanent markers and the codes to be used.

For unlinked anonymous testing, label the tube only with a new specimen code unlinked to personal identifying information.

### **Recording specimens and test results**

A separate laboratory logbook or line-listing for surveillance activities should be maintained to record HIV test results by the corresponding code. The logbook should be accessible only to laboratory and surveillance staff; it should be secured in a locked drawer or cabinet when not in use to ensure confidentiality of the persons' test results as well as their participation in surveillance activities.

For unlinked anonymous testing, the logbook or line-listing should contain only the new specimen codes and corresponding HIV test results; no personal identifying information on the participants whose specimens are tested should be included. HIV test results can be matched by the new specimen code to the demographic information abstracted earlier on the surveillance form.

# APPENDIX I-11

## MATERIAL TRANSFER AGREEMENT

The purpose of this appendix is to provide a template of a material transfer agreement for off-site testing.

This Agreement is by and between the:

- <INSTITUTION A>: Address
- <INSTITUTION B/TESTING FACILITY>: Address

### PURPOSE

1. This Agreement establishes the terms and conditions under which <INSTITUTION A> will provide <TYPE OF BIOLOGIC SPECIMENS> to <INSTITUTION B/TESTING FACILITY> in order to evaluate the specimens collected in the survey <"SURVEY NAME"> and how <INSTITUTION B/TESTING FACILITY> will store, maintain, and use the <BIOLOGICAL SPECIMENS> collected from <COUNTRY> citizens.
2. This Agreement covers the sharing of <TYPE OF BIOLOGIC SPECIMENS> from <INSTITUTION A> with <INSTITUTION B/TESTING FACILITY> for the specific purpose of <SURVEY OBJECTIVES> and the sharing of the findings by <INSTITUTION A> with its <COUNTRY> stakeholders: <ALL PARTIES>.
3. The investigators and collaborating institutions as outlined in the protocol <ALL PARTIES> retain shared ownership of the data and coauthor rights.
4. The terms of this Agreement can be changed only by a written modification of the agreement by the authorized signatories of the Parties (or their designated representatives) to this Agreement or by the parties adopting a new agreement in place of this Agreement.
5. Any other uses will be subject to prior approval by <ALL PARTIES> and the survey's Principal Investigators (PIs).

### PERIOD OF AGREEMENT

The material transfer agreement will begin immediately upon the signatures of all responsible parties and will be terminated upon the mutual agreement between <INSTITUTION(S)> and <INSTITUTION B/TESTING FACILITY>.

## BACKGROUND

1. The above named survey relies on an approved protocol. The goal of this survey is to <SURVEY OBJECTIVES>. <INSERT SHORT SUMMARY OF PURPOSE AND SIGNIFICANCE OF THE SURVEY/RESULTS>.
2. This is a/an <SURVEY DESIGN>. <INSERT SHORT DESCRIPTION OF STUDY PARTICIPANTS, LOCATION, ENROLLMENT INFORMATION AND CONSENT PROCESS, BLOOD DRAW PROCESS, AND DATA MEASURES>.
3. Overview of enrolled participants (EXAMPLE BELOW IS BY SEX, ART STATUS AND DURATION).

Category	ART Naive	6 months	12 months	24 months	Total
Male					
Female					
Total					

4. No personal identifiers are used to label specimens. This survey is not expected to have clinical utility for the survey participants. There will be no (further) contact with human subjects. There is minimal or no risk involved with this transfer since serum specimens have previously been collected and contain no patient identifiers.

### Justification for testing outside <Country>

Estimating the <SURVEY MEASURES> provides important benchmark data for future studies in <COUNTRY> that estimate <DISEASE PREVALENCE/INCIDENCE> using <SPECIFY TESTS>. It is therefore critical to <INSERT PROPOSED PROCESS/TESTING HERE>.

### PREPARATION AND TRANSPORT OF THE SPECIMENS FROM <CITY>, <COUNTRY> TO <CITY>, <COUNTRY>

1. All specimens will be shipped to <CITY>, <COUNTRY>
2. Each specimen will be <SPECIFY PREPARATION FOR SHIPPING PROCEDURES >. Any remaining <TYPE OF BIOLOGIC SPECIMEN> will be <SPECIFY HOW THIS WILL BE HANDLED AND STORED>.
3. The <SPECIFY SPECIMEN CONTAINERS> will be transferred from the central repository to <INSTITUTION B/TESTING FACILITY> laboratories in <CITY>, <COUNTRY> in <SPECIFY PACKAGING> with appropriate documentation for shipping.
4. <SPECIFY BIOLOGICAL SPECIMENS> will be shipped following <NAME OF TRANSPORTING ENTITY> and United Nations packaging recommendations, with valid <REGULATING BODY FOR BIOLOGICAL SPECIMENS AS APPROPRIATE> permits for the shipping and receiving of tissues from human origin.

### INTENDED USE AND CONSTRAINTS ON USE OF THE SERUM SPECIMENS

<INSTITUTION B/TESTING FACILITY> in <CITY>, <COUNTRY> will perform the laboratory testing.

1. <SPECIFIC TESTING> using <SPECIFIC TESTS> such as <EXAMPLES>.
2. Additional testing may include <SPECIFIC INFORMATION>.

### GOVERNING LAW

This agreement is subject to the governing Laws of <COUNTRY>.

### DISPUTE RESOLUTION

#### 1. Amicable Settlement

The parties shall use their best efforts to settle amicably any dispute arising from or in connection with this Agreement or the interpretation thereof. Each Party shall select its representatives to carry out such amicable discussions

**2. Arbitration**

If the dispute has not been settled amicably within fourteen days or such longer period as may be agreed upon between the parties from when the discussions were commenced, any party may elect to commence arbitration. Such arbitration shall be referred to arbitration by a single arbitrator to be appointed by agreement between the Parties. Such arbitration shall be conducted in <CITY>, <COUNTRY>.

To the extent permissible by <COUNTRY> Law, the determination of the arbitrator shall be final and binding upon the parties.

On behalf of both parties the undersigned individuals hereby attest that he or she is authorized to enter into this Agreement and agrees to all the terms specified herein.

Signed for and on behalf of:

**<INSTITUTION A>**

\_\_\_\_\_  
<Name of Institution A Director>, Director

\_\_\_\_\_  
**Date:**

**<INSTITUTION B/TESTING FACILITY>**

\_\_\_\_\_  
<Name of Institution B Director>, Director

\_\_\_\_\_  
**Date:**

## INTERPRETATION OF HEPATITIS SEROLOGIC TEST RESULTS

Hepatitis B serologic testing involves measurement of several hepatitis B virus (HBV)-specific antigens and antibodies. Different serologic biomarkers or combinations of biomarkers are used to identify different phases of HBV infection and to determine whether a person has acute or chronic HBV infection, is immune to HBV as a result of prior infection or vaccination, or is susceptible to infection. This chart can be used for classifying phases of HBV infection when analyzing BBS HBV test results.

Antigen/Antibody	Result	Interpretation
<b>HBsAg</b> <b>Anti-HBc</b> <b>Anti-HBs</b>	Negative Negative Negative	Susceptible
<b>HBsAg</b> <b>Anti-HBc</b> <b>Anti-HBs</b>	Negative Positive Positive	Immune due to natural infection
<b>HBsAg</b> <b>Anti-HBc</b> <b>Anti-HBs</b>	Negative Negative Positive	Immune due to hepatitis B vaccination
<b>HBsAg</b> <b>Anti-HBc</b> <b>IgM anti-HBc</b> <b>Anti-HBs</b>	Positive Positive Positive Negative	Acutely infected
<b>HBsAg</b> <b>Anti-HBc</b> <b>IgM anti-HBc</b> <b>Anti-HBs</b>	Positive Positive Negative Negative	Chronically infected



Antigen/Antibody	Result	Interpretation
<b>HBsAg</b> <b>Anti-HBc</b> <b>Anti-HBs</b>	Negative Positive Negative	<b>Interpretation unclear; four possibilities:</b> <ol style="list-style-type: none"> <li>1. Resolved infection (most common)</li> <li>2. False-positive anti-HBc, thus susceptible “Low level” chronic infection Resolving acute infection</li> <li>3. “Low level” chronic infection</li> <li>4. Resolving acute infection</li> </ol>

**Definitions:**

- Hepatitis B surface antigen (HBsAg):** A protein on the surface of hepatitis B virus; it can be detected in high levels in serum during acute or chronic hepatitis B virus infection. The presence of HBsAg indicates that the person is infectious. The body normally produces antibodies to HBsAg as part of the normal immune response to infection. HBsAg is the antigen used to make hepatitis B vaccine.
- Hepatitis B surface antibody (anti-HBs):** The presence of anti-HBs is generally interpreted as indicating recovery and immunity from hepatitis B virus infection. Anti- HBs also develops in a person who has been successfully vaccinated against hepatitis B.
- IgM antibody to hepatitis B core antigen (IgM anti-HBc):** Positivity indicates recent infection with hepatitis B virus (≤6 mos). Its presence indicates acute infection.
- Total hepatitis B core antibody (anti-HBc):** Appears at the onset of symptoms in acute hepatitis B and persists for life. The presence of anti-HBc indicates previous or ongoing infection with hepatitis B virus in an undefined time frame.

Adapted from:

(1) A Comprehensive Immunization Strategy to Eliminate Transmission of Hepatitis B Virus Infection in the United States: Recommendations of the Advisory Committee on Immunization Practices. Part I: Immunization of Infants, Children, and Adolescents. MMWR 2005;54(No. RR-16).

(2) CDC Division of Viral Hepatitis fact sheet on Interpretation of Hepatitis B Serologic Test Results: <http://www.cdc.gov/hepatitis/HBV/PDFs/SerologicChartv8.pdf>

## SPECIMEN TRACKING FORM

This form can be used to track a group of specimens (a “batch”) that are moved from one site (such as a survey site) to another (such as a laboratory for testing or storage). This form is used along with the Specimen Transportation Log and should be adapted for local use. The form should be completed as follows:

### INSTRUCTIONS:

#### Line 1: Fill in--

- a. The survey site or sending laboratory code number or name.
- b. The driver log batch number. Each batch of specimens sent with a driver should have a number that can be matched with the Specimen Transportation Log.
- c. Time of departure from the sending site. Circle a.m. or p.m. as appropriate.

#### Line 2: Fill in--

- a. The receiving lab code number or name.
- b. Temperature in coolbox (or container in which specimens are carried) on arrival at the receiving lab.

### Table:

- a. Column 2—Place labels with pre-printed participant or specimen ID numbers in the cells as indicated. If labels were not used, write in the participant or specimen ID number.
- b. Column 3—Staff who placed specimen in the batch should enter initials.
- c. Column 4—Staff (from sending site) who verified that each specimen listed on the form is included in the batch should enter initials before transferring the batch to the driver.
- d. Column 5—Staff (from receiving laboratory) who verified that each specimen listed on the form was received should enter initials and indicate the date the specimens were received.
- e. Column 6—Receiving laboratory staff may enter comments about specimens when received (e.g. dried blood spot specimen moldy; plasma hemolyzed; tube cracked and leaking; serum thawed; etc.)
- f. Column 7— Receiving laboratory staff should note where the specimen is being stored so that it may be retrieved as necessary (e.g. refrigerator number 2, -80°C freezer, etc.).

## SPECIMEN TRACKING FORM

Specimens sent from SURVEY SITE or LAB #:

DRIVER LOG Batch No:

Time of departure from SENDING SITE: \_\_\_\_\_ a.m./p.m.

RECEIVING LAB #:

Temp on arrival at RECEIVING LAB:   °C

Serial No.	Participant / Specimen ID (Place Label Here)	STAFF who prepared batch (initials)	STAFF who checked and transferred batch to DRIVER (initials)	RECEIVING LABORATORY STAFF who checked specimens in and date received (initials/date)	Comments about specimens received	Specimen storage location at RECEIVING LAB
1	<div style="border: 1px solid black; border-radius: 15px; height: 80px; width: 100%;"></div>					
2	<div style="border: 1px solid black; border-radius: 15px; height: 80px; width: 100%;"></div>					
3	<div style="border: 1px solid black; border-radius: 15px; height: 80px; width: 100%;"></div>					
4	<div style="border: 1px solid black; border-radius: 15px; height: 80px; width: 100%;"></div>					

## SPECIMEN TRANSPORTATION DRIVER LOG

The purpose of this form is to track the transportation of a group of specimens (referred to as a “batch”) that are moved from one site (such as a survey site) to another (such as a laboratory for testing or storage). This form is intended to be used along with the Specimen Tracking Form and should be adapted for local use.

### INSTRUCTIONS:

#### Line 1: Fill in--

- a. Driver name (each driver should maintain his or her own log)
- b. Supervisor name

#### Line 2: Fill in--

- a. Survey site or lab code number or name from which driver received batch
- b. Date the transportation log was reviewed by a supervisor

### Table:

- a. Column 1—Enter the batch number that corresponds with the batch number on line 1 of the Specimen Tracking Form
- b. Column 2—Enter the number of specimens included in the batch
- c. Columns 3 and 4—Enter the date and time of departure from the sending survey site or laboratory
- d. Column 5—The sending site staff who transferred batch to the driver should enter their initials
- e. Column 6—Enter time that batch arrived at receiving lab. If date of arrival is different than date of departure, it should be entered here. If this is a common occurrence a column for date of arrival should be added to the form.
- f. Column 7—Enter receiving lab staff initials

g. Column 8—Driver should sign when the batch has been delivered

h. Column 9—Any comments (by driver, sending site staff, or receiving lab staff) about the batch or delivery should be entered here. Comments about individual specimens should be entered on the Specimen Tracking Form.

### Specimen Transportation Driver Log

Driver name: \_\_\_\_\_ Supervisor name: \_\_\_\_\_ Batch picked up from survey site or lab #: \_\_\_\_\_ Date reviewed: \_\_\_\_\_

Batch No.	No. of specimens in batch	Date (DD/MM/YY)	Time of departure from survey site or lab	Sending site staff initials	Time of arrival at receiving lab	Receiving lab staff initials	Driver signature	Additional comments

*When log is full, please give to receiving Lab Manager who will keep logs in a binder for record keeping. Please use a new form to log additional shipments.*

## COMPARISON OF HIV TESTING TECHNOLOGIES

The table below compares various HIV testing technologies for survey investigators to consider when planning a survey. Investigators need to consider which methods are appropriate for their survey. For example, rapid tests may be a good choice if specimens will be tested one at a time for providing same-day test results to participants. If specimens will be batched for testing larger quantities at a time by skilled technicians, EIAs may be a better choice.

Table. Comparison of HIV testing technologies: Enzyme immunoassays (EIAs) and rapid tests<sup>1</sup>.

HIV testing technology	Specimens	Advantages	Limitations	Cost per test (US\$)	Complexity, from simple (1) to highly complex (4)
<b>Enzyme immuno - assays (EIAs)</b>	<ul style="list-style-type: none"> <li>• Serum</li> <li>• Plasma</li> <li>• Dried blood spots</li> <li>• Oral fluid</li> </ul>	<ul style="list-style-type: none"> <li>• Can be batched: good for <math>\geq 90</math> specimens at a time</li> <li>• Can be automated</li> <li>• May identify HIV positives earlier in infection; highly sensitive—window period reduced in fourth-generation EIAs</li> <li>• Standardized classification (i.e. dependent on OD value rather than qualitative (subjective) assessment of rapid test results)</li> <li>• Quality control may be easier as control specimens are tested on plate with test specimens</li> </ul>	<ul style="list-style-type: none"> <li>• Requires skilled, trained lab technicians to perform testing and calculate results</li> <li>• Can take <math>\pm 2</math> hours</li> <li>• Requires special equipment</li> <li>• Kits require refrigeration</li> </ul>	0.5–1	(4)

HIV testing technology	Specimens	Advantages	Limitations	Cost per test (US\$)	Complexity, from simple (1) to highly complex (4)
<b>Rapid test</b>	<ul style="list-style-type: none"> <li>• Serum</li> <li>• Plasma</li> <li>• Whole blood</li> <li>• Oral fluid</li> </ul>	<ul style="list-style-type: none"> <li>• Requires minimal equipment and reagents</li> <li>• Can be performed outside a laboratory (on-site testing)</li> <li>• Test results easy to interpret</li> <li>• Results in 30 min or less</li> <li>• Most kits can be stored at up to 30°C</li> </ul>	<ul style="list-style-type: none"> <li>• Not suitable for large numbers of specimens</li> <li>• Positive and negative control specimens often not included in the kit</li> <li>• May cost more per test than EIA (unless EIA plate used to test small numbers of specimens)</li> </ul>	1–3	For tests based on: <ul style="list-style-type: none"> <li>• Immunochromatography (1)</li> <li>• Dipstick and flow-through devices (1–2)</li> <li>• Agglutination (2–3)</li> </ul>

Adapted from:

<sup>1</sup> WHO/UNAIDS Guidelines for Using HIV Testing Technologies in Surveillance: Selection, Evaluation, and Implementation—2009 update

## SPECIMEN TEMPERATURE MONITORING LOGS

Each of the tables below is an example of a monthly temperature log for freezers, refrigerators, and incubators. Each table can be copied, pasted, adapted as necessary, and printed on a separate sheet of paper. Usually each piece of equipment being monitored has a log either attached to it or very close by (such as on the wall next to the equipment). Persons responsible for monitoring the temperature should record the temperature (on the line marked Temp.) at least once a day. If a protocol requires twice-daily monitoring, an extra line may be added, so that the log includes a line for a.m. and p.m. (see last table below for example). The person who checks and records the temperature should also record their initials in the bottom row (marked Initials). If temperatures are found to be outside of the acceptable range or the thermostat is not working properly, corrective action, date, and supervisor's initials should be recorded for each incident.

\*Templates adapted from the Global Laboratory Initiative

### Example -80°C freezer log

Temperature monitoring form																															
Month/year:	January 2017																														
Equipment:	-80°C Freezer [INSERT ROOM NUMBER AND FREEZER NAME OR NUMBER]																														
Critical temperature range:	≥-65°C (acceptable variation)																														
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Temperature																															
Initials																															

Corrective action:

---

Date (DD/MM/YY): \_\_\_\_\_

Supervisor's initials: \_\_\_\_\_



**Example -20°C freezer log**

Temperature monitoring form																															
Month/year:	January 2017																														
Equipment:	-20°C Freezer [INSERT ROOM NUMBER AND FREEZER NAME OR NUMBER]																														
Critical temperature range:	-18 °C ± 2 °C (acceptable variation)																														
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Temperature																															
Initials																															

Corrective action:

---

Date (DD/MM/YY): \_\_\_\_\_

Supervisor's initials: \_\_\_\_\_

**Example refrigerator log**

Temperature monitoring form																															
Month/year:	January 2017																														
Equipment:	Refrigerator [INSERT ROOM NUMBER AND REFRIGERATOR NAME OR NUMBER]																														
Normal temperature range:	+6 °C ± 2 °C (acceptable variation)																														
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Temperature																															
Initials																															

Corrective action:

---

Date (DD/MM/YY): \_\_\_\_\_

Supervisor's initials: \_\_\_\_\_

**Example incubator log**

Temperature monitoring form																															
Month/year:	January 2017																														
Equipment:	Incubator [INSERT ROOM NUMBER AND INCUBATOR NAME OR NUMBER]																														
Normal temperature range:	36 °C ± 1 °C (acceptable variation)																														
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Temperature																															
Initials																															

Corrective action:

\_\_\_\_\_

Date (DD/MM/YY): \_\_\_\_\_

Supervisor's initials: \_\_\_\_\_

**Example generic log**

Temperature monitoring form																															
Month/year:	January 2017																														
Equipment:	[INSERT EQUIPMENT TYPE, ROOM NUMBER, AND EQUIPMENT NAME OR NUMBER]																														
Normal temperature range:	[INSERT EQUIPMENT NORMAL TEMPERATURE RANGE AND ACCEPTABLE VARIATION]																														
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Temperature																															
Initials																															

Corrective action:

\_\_\_\_\_

Date (DD/MM/YY): \_\_\_\_\_

Supervisor's initials: \_\_\_\_\_

**Example generic log**

Temperature monitoring form																															
Month/year:	January 2017																														
Equipment:	[INSERT EQUIPMENT TYPE, ROOM NUMBER, AND EQUIPMENT NAME OR NUMBER]																														
Normal temperature range:	[INSERT EQUIPMENT NORMAL TEMPERATURE RANGE AND ACCEPTABLE VARIATION]																														
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Temperature																															
Initials																															

Corrective action:

---

Date (DD/MM/YY): \_\_\_\_\_

Supervisor's initials: \_\_\_\_\_

**Example generic log**

Temperature monitoring form																															
Month/year:	January 2017																														
Equipment:	[INSERT EQUIPMENT TYPE, ROOM NUMBER, AND EQUIPMENT NAME OR NUMBER]																														
Normal temperature range:	[INSERT EQUIPMENT NORMAL TEMPERATURE RANGE AND ACCEPTABLE VARIATION]																														
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
a.m.																															
p.m.																															
Temperature																															
Initials																															

Corrective action:

---

Date (DD/MM/YY): \_\_\_\_\_

Supervisor's initials: \_\_\_\_\_

## SAMPLE HIV RAPID TESTING RESULTS LOG

This is an example of a test results form for HIV rapid testing using a two-test serial algorithm. This form should be adapted for the HIV testing algorithm being used or other biomarker testing.

### Instructions:

1. Survey name (e.g. Country X BBS among PWID) and survey site (e.g. RDS site name or number) should be filled in. This information may be filled in ahead of time so that copies may be made and distributed to the survey sites.
2. The first three rows in the table show examples of how to complete the form. It may be helpful to color-code or highlight reactive results to indicate that a second test is required.
3. In example 1, a second test is required because test 1 was reactive. If test 2 is reactive, the final result is interpreted as HIV-positive and recorded as shown. Survey staff also should record whether the result was provided to the participant and where they were referred for services and any other relevant notes (e.g. specimen quality, participant left without receiving results, etc.)
4. In example 2, the second test was non-reactive. Depending on the national guidelines, a third (tie-breaker test) or a repeat of the first two tests may be required. Some guidelines specify the result as indeterminate and refer the participant for re-testing after a specified period of time.
5. In example 3, a non-reactive result for test 1 is interpreted as HIV-negative, and in this two-test algorithm a second test would not be done.

## HIV Rapid Testing Results Log

SURVEY NAME: \_\_\_\_\_

SURVEY SITE: \_\_\_\_\_

Survey ID	Lab ID number (if different from Survey ID in first column)	Testing staff ID number or initials	Date of test (DD/MM/YY)	Specimen type (serum, plasma, whole blood or finger-prick whole blood)	Test 1 name	Test kit lot no.	Result	Test 2 name	Test kit lot no.	Result	Final result	Result provided to participant	Referral to	Notes
Example 1	123	XYZ	15/08/17	Whole blood	Determine	999999	Reactive	UniGold	888888	Reactive	Positive	Y	Care facility X	N/A
Example 2	456	XYZ	15/08/17	Whole blood	Determine	999999	Reactive	UniGold	888888	Non-Reactive	Indeterminate	Y	Testing site X per national guidelines	N/A
Example 3	789	XYZ	15/08/17	Whole blood	Determine	999999	Non-reactive	N/A	N/A	N/A	Negative	Y	N/A	Specimen moderately hemolyzed

## EQUAL PROBABILITY SAMPLING (EPS) AND PROBABILITY PROPORTIONAL TO SIZE (PPS) CLUSTER SAMPLING GUIDE

This appendix describes steps for sampling clusters using Equal Probability Sampling (EPS) and Probability Proportional to Size (PPS) sampling. It is meant to be used in conjunction with the cluster sampling section with CCS.

The number of clusters to be selected must first be determined before selecting clusters by PPS or EPS. The figure on the next page provides a decision tree for selecting between EPS and PPS.

### *Terms used in this Appendix*

**EMoS**

**Estimated Measure of Size:** The estimated number of individuals who meet the approach criteria in a specific venue at a specific time. The word “Estimated” is used to designate the number of people observed in a venue during venue observation, i.e. before sampling has started.

**AMoS**

**Actual Measure of Size:** The actual number of individuals who meet the approach criteria during a sampling event.

**CMoS**

**Cumulative Measure of Size:** The cumulative sum of the estimated number of individuals who meet the approach criteria in a specific venue at a specific time.

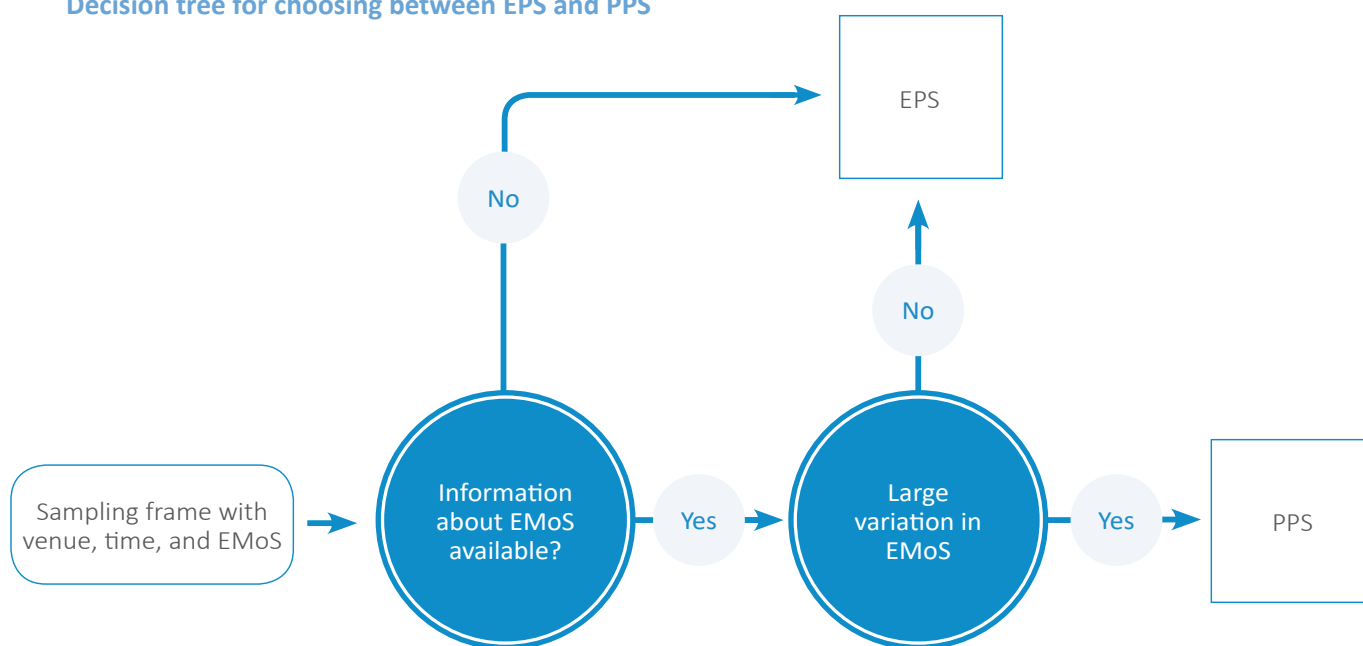
**RS**

**Random Start:** A randomly selected number between 1 and the Sampling Interval.

**SI**

**Sampling Interval:** The selection of every Nth person as a participant in a study. The SI allows for random selection throughout the population.

## Decision tree for choosing between EPS and PPS



Once clusters have been selected using either EPS or PPS, save the selected clusters with their unique cluster IDs on a separate worksheet for planning fieldwork. Maintain the original sampling frame for reference and in case a second round of cluster selection is required. Document the sampling information in accordance with the steps above; this information is required to calculate sampling probabilities and non-response.

## Selecting Clusters with Equal Probability Sampling (EPS)

M = Number of clusters in the sampling frame

EMoS= Estimated measure of size

a = Number of clusters to select

SI = Sampling interval

RS = Random start

1. Finalize the sampling frame and prepare a sequential list of clusters with unique identification codes for venues and time periods.
2. Calculate the number of clusters to select:  
 Number of clusters to select =  $a = \text{Target sample size} / \text{Average cluster size}$   
 EMOs For example:  $a = 450 / 10 = 45$
3. Calculate the sampling interval (SI) by dividing the total number of clusters in the sampling frame (M) by the number of clusters to be selected (a).  
 Sampling interval =  $M/a$   
 For example:  $SI = 150 / 45 = 3.3$   
 (If the SI is not a whole number, create a column that rounds the SI to the nearest whole number.)
4. Select the random start (RS): this is a randomly selected number between 1 and the SI. (One method for selecting the random start is to write numbers from 1 to the SI on small pieces of paper, put them in a container, and select one piece of paper from the container.)
5. Start at the first cluster in the sampling frame and count to the cluster in the RS position.  
 For example, if the selected RS is 3.3, select the third cluster in the sampling frame.
6. Select the subsequent clusters by adding the SI to the RS. In other words:  
 Cluster 1 =  $RS = 2$   
 Cluster 2 =  $RS + SI = 5.3 = 5$   
 Cluster 3 =  $RS + 2*SI = 8.6 = 9$   
 Cluster 4 =  $RS + 3*SI = 11.9 = 12$  (and so on)

Example: Sampling frame for EPS		
#	Location	Time
1	Venue 1	Time 1
2	Venue 1	Time 2
3	Venue 1	Time 3
4	Venue 2	Time 1
5	Venue 2	Time 2
6	Venue 3	Time 1
7	Venue 3	Time 2
8	Venue 3	Time 3
9	Venue 3	Time 4
10	Venue 4	Time 1
11	Venue 5	Time 1
12	Venue 5	Time 2
13	Venue 5	Time 3
14	Venue 6	Time 1
15	Venue 7	Time 1
16	Venue 8	Time 1
17	Venue 8	Time 2
18	Venue 8	Time 3
(etc)		

Example: Equal Probability Sampling of Time Location Clusters		
	Target Sample Size	450
M	Total Number of Clusters	150
a	Number of Clusters to Select	45
SI	Sampling Interval	3.3
RS	Random Start	2
Average Estimated Measure of Size = 10		

Equation for Sampled Cluster	Result	Selected Cluster
Random Start (RS)	2	2
RS + 1* SI	5.3	5
RS + 2* SI	8.6	9
RS + 3* SI	11.9	12
RS + 4* SI	15.2	15
RS + 5* SI	18.5	19
RS + 6* SI	21.8	22
RS + 7* SI	25.1	25
RS + 8* SI	28.4	28
RS + 9* SI	31.7	32
RS + 10* SI	35	35

Example: Sampling frame for EPS with selected clusters			
Order #	Location	Time	Selected?
1	Venue 1	Time 1	
<b>2</b>	<b>Venue 1</b>	<b>Time2</b>	<b>Y</b>
3	Venue 1	Time 3	
4	Venue 2	Time 1	
<b>5</b>	<b>Venue 2</b>	<b>Time2</b>	<b>Y</b>
6	Venue 3	Time 1	
7	Venue 3	Time2	
8	Venue 3	Time 3	
<b>9</b>	<b>Venue 3</b>	<b>Time 4</b>	<b>Y</b>
10	Venue 4	Time 1	
11	Venue 5	Time 1	
<b>12</b>	<b>Venue 5</b>	<b>Time2</b>	<b>Y</b>
13	Venue 5	Time 3	
14	Venue 6	Time 1	
<b>15</b>	<b>Venue 7</b>	<b>Time 1</b>	<b>Y</b>
16	Venue 8	Time 1	
17	Venue 8	Time2	
18	Venue 8	Time 3	



## Selecting Clusters with Probability Proportional to Size (PPS)

a = Number of clusters to select

SI = Sampling interval

M = Number of clusters in the sampling frame

RS = Random start

EMoS = Estimated measure of size

CMoS = Cumulative measure of size

### To select the clusters using PPS, follow these steps:

1. Finalize the sampling frame and prepare a sequential list of clusters with unique identification codes for venues and time periods and EMoS.
2. Starting at the top of the list, calculate the cumulative MoS (CMoS), and enter these figures in a column next to the MoS for each cluster.
3. Calculate the number of clusters to select:  
Number of clusters to select = Required sample size / Average EMoS
4. Calculate the SI:  
 $SI = MoS / \text{Number of clusters to select}$
5. Select an RS between 1 and the SI.
6. Select subsequent clusters by adding the sampling interval to the previously calculated interval.  
For example:  
Cluster 1 = RS  
Cluster 2 = RS + SI  
Cluster 3 = RS + 2SI (etc.)
7. Repeat step 6 until the list has been exhausted.

Example: Sampling frame for PPS				
Order #	Location	Time	EMoS	CMoS
1	Venue 1	Time 1	8	8
2	Venue 1	Time2	15	23
3	Venue 1	Time 3	10	33
4	Venue 2	Time 1	5	38
5	Venue 2	Time2	15	53
6	Venue 3	Time 1	4	57
7	Venue 3	Time2	18	75
8	Venue 3	Time 3	26	101
9	Venue 3	Time 4	15	116
10	Venue 4	Time 5	10	126
11	Venue 5	Time 1	15	141
12	Venue 5	Time2	5	146
13	Venue 5	Time 3	30	176
14	Venue 6	Time 1	12	188
15	Venue 7	Time 1	18	206
16	Venue 8	Time 1	14	220
17	Venue 8	Time2	11	231
18	Venue 8	Time 3	40	271
(etc.)				
	Sum			2 250

Example: Probability proportional to size of time-location clusters		
	Target Samples Size	450
M	Total Number of Clusters	150
AMoS	Average Measure of Size	15
a	Number of Clusters to Select	30
SI	Sampling Interval	22.5
RS	Random Start	11
CMoS	Cumulative Measure of Size	2250

Equation for Sampled Cluster	Result	Selected Cluster (rounded)
Random Start	11	11
RS + 1* SI	33.5	34
RS + 2* SI	56	56
RS + 3* SI	78.5	79
RS + 4* SI	101	101
RS + 5* SI	123.5	124
RS + 6* SI	146	146
RS + 7* SI	168.5	169
RS + 8* SI	191	191
RS + 9* SI	213.5	214
RS + 10* SI	236	236

Example: Sampling frame for PPS							
Order #	Location	Time	EMoS	CMoS	CMoS Range	Selected?	
1	Venue 1	Time 1	8	8	1	8	
<b>2</b>	<b>Venue 1</b>	<b>Time2</b>	<b>15</b>	<b>23</b>	<b>9</b>	<b>23</b>	<b>Y</b>
3	Venue 1	Time 3	10	33	24	33	
<b>4</b>	<b>Venue 2</b>	<b>Time 1</b>	<b>5</b>	<b>38</b>	<b>34</b>	<b>38</b>	<b>Y</b>
5	Venue 2	Time2	15	53	39	53	
<b>6</b>	<b>Venue 3</b>	<b>Time 1</b>	<b>4</b>	<b>57</b>	<b>54</b>	<b>57</b>	<b>Y</b>
7	Venue 3	Time2	18	75	58	75	
<b>8</b>	<b>Venue 3</b>	<b>Time 3</b>	<b>26</b>	<b>101</b>	<b>76</b>	<b>101</b>	<b>Y*</b>
9	Venue 3	Time 4	15	116	102	116	
<b>10</b>	<b>Venue 4</b>	<b>Time 5</b>	<b>10</b>	<b>126</b>	<b>117</b>	<b>126</b>	<b>Y</b>
11	Venue 5	Time 1	15	141	127	141	
<b>12</b>	<b>Venue 5</b>	<b>Time2</b>	<b>5</b>	<b>146</b>	<b>142</b>	<b>146</b>	<b>Y</b>
<b>13</b>	<b>Venue 5</b>	<b>Time 3</b>	<b>30</b>	<b>176</b>	<b>147</b>	<b>176</b>	<b>Y*</b>
14	Venue 6	Time 1	12	188	177	188	
<b>15</b>	<b>Venue 7</b>	<b>Time 1</b>	<b>18</b>	<b>206</b>	<b>189</b>	<b>206</b>	<b>Y</b>
<b>16</b>	<b>Venue 8</b>	<b>Time 1</b>	<b>14</b>	<b>220</b>	<b>207</b>	<b>220</b>	<b>Y</b>
17	Venue 8	Time2	11	231	221	231	
<b>18</b>	<b>Venue 8</b>	<b>Time 3</b>	<b>40</b>	<b>271</b>	<b>232</b>	<b>271</b>	<b>Y*</b>
(etc.)							
	Sum			2250			

\* Clusters with an Estimated Measure of Size that is larger than the sampling interval are selected with certainty.

# APPENDIX I-19

## TIME-LOCATION SAMPLING INTERCEPT FORM

### INTERCEPT FORM

The Intercept Form is an example of the information that recruiters should collect during an intercept (or recruitment attempt) in a venue. It is designed to allow field staff to quickly record the result of any one intercept/recruitment attempt using tick marks. Adapt this form to include all of the information needed to calculate response rates (i.e. the percentage of people intercepted who agreed to be screened for eligibility) for the specific data needs of the survey. It should be printed in large enough font. Each recruiter must have his/her own Intercept Form.

### Local Adaptation

Adapt this form to fit local procedures and protocol. The information collected here provides non-response and eligibility information needed to validate survey results. The eligibility information is used in data analysis.

Be sure to update the instructions once the form is adapted. See the “SURVEY PREP TLS” section for more information and an example of how this form would be used.

### Instructions for the Intercept Form

**Step 1:** Fill in the information about the recruitment event in the form’s header.

**Step 2.1:** Recruiter approaches venue attendee as directed by counter and attempts to engage him/her in conversation.

- If the person ignores the recruiter, mark a tick next to “No” on line A.

**Step 2.2:** If the person is willing to talk, briefly describe the survey to the prospective participant and determine whether he/she previously participated in the survey.

- If the person has previously participated, mark a tick next to “Yes” on line B.

**Step 3:** Invite the person to participate in eligibility screening for the survey.

- If the person is not willing to be screened for eligibility, mark a tick next to “No” on line C.
- If the person is willing to be screened for eligibility, mark a tick next to “Yes” on line D. The number of marks on line D should equal the number of eligibility screening records in the data.

**Step 4:** Add tick marks to calculate number of people approached. Write total on line E.

## INTERCEPT FORM

Event Data		
Date:		
Event #:		
Venue ID:		
Recruiter ID:		
Line	Intercept data	Sum
	Accepted Intercept?	
A	No:	
	Previous Participant?	
B	Yes:	
	Recruited to be Screened for Eligibility?	
C	No:	
D	Yes:	
E	Total:	

### Instructions for the Summary Intercept Information Form

Once the recruitment event is over, collect all the intercept forms from the recruiters. To calculate recruitment rates for each recruiter and for the event as a whole:

**Step 1:** Add the number of ticks on each line of each intercept form.

**Step 2:** Enter the event information on the Summary Intercept Information Form for each event.

**Step 3:** Copy the sum of ticks on each line from the Intercept Form to the Summary Intercept Information form for each recruiter.

**Step 4:** Calculate the sum of lines A, B, C, and D to determine the total number of approaches for each recruiter. **Step 5:** Calculate the event total for lines A, B, C, and D by summing all recruiters' totals for each line.

**Step 6:** Calculate the recruitment percentages for each recruiter and for the event.

## SUMMARY INTERCEPT INFORMATION FORM

Calculate recruitment rates for each recruiter and for the event by using the table below (or a similar one adapted for the survey). Review response rates with recruiters and provide tips for improvement.

Summary Intercept Information Form for each event										
Date										
Event #										
Venue ID										
	Recruiter ID:							Total for event		% values
		#	%	#	%	#	%	#	%	
<b>A</b>	# Did not accept intercept									$(A/E)\%$
<b>B</b>	# Previous participant									$(B/E)\%$
<b>C</b>	# Refused to be screened									$[C/(E-B)]\%$
<b>D</b>	# Screened									$[D/(E-B)]\%$
<b>E</b>	Total # of approaches (A+B+C+D)									

## VENUE OBSERVATION FORMS

Multiple forms (Forms A–I) are included in this appendix to help organize the venue information necessary for inclusion in the final sampling frame. In addition to venue details needed for the sampling frame, there are a number of forms that may be further tailored to describe logistical issues and population characteristics that the survey team may find useful to plan and set up sampling events. Please note that the information collected by each form is needed for each individual venue being considered for inclusion in the sampling frame.

### Form A. Venue Sampling Frame Details

THIS FORM SHOULD CONTAIN ALL DETAILS NEEDED FOR EACH VENUE TO CONSTRUCT THE SAMPLING FRAME. IT IS A SUMMARY FORM THAT COMPILES INFORMATION COLLECTED ON EACH INDIVIDUAL VENUE IN THE FORMS LISTED BELOW.

Venue name		Venue type						
		Venue code						
Describe details needed for stratification of sampling frame:								
Contact Person			Contact Phone #					
<b>Final time-location combinations to enter into Sampling Frame</b> Complete the final day/time combinations below after observing the venue (and filling out the rest of the forms) and reaching consensus among informants. Add more rows if needed.								
	Day of the week	Time period (24-hour clock)		Estimated Measure of Size (EMoS)		Special event?		
1		From:    :	To       :			<input type="checkbox"/>		
2		From:    :	To       :			<input type="checkbox"/>		
3		From:    :	To       :			<input type="checkbox"/>		
4		From:    :	To       :			<input type="checkbox"/>		
5		From:    :	To       :			<input type="checkbox"/>		
6		From:    :	To       :			<input type="checkbox"/>		

## Form B. Venue Geographical and Layout Details

Use this form to record venue location information for GIS mapping and to describe the geography and physical layout of the venue.

Venue Location	
GPS coordinates:	
	Name / Code
Name/code of province	/
Name/code of district	/
Name/code of town	/
Name of local area	/
Address or description of area	
Indoor or outdoor venue?	<input type="checkbox"/> Indoor <input type="checkbox"/> Outdoor <input type="checkbox"/> Both
<p>Draw the layout of the venue below. Please include the following items:</p> <ul style="list-style-type: none"> <li>• Landmarks, street names, intersections, and other identifying information.</li> <li>• Boundaries of the site (indicating the general area encompassing the venue/site).</li> <li>• Use arrows to indicate the direction of entry to the venue/site.</li> <li>• Any other information that will help the field team when they arrive at the sampling event. For example, if the site is a room in a building, be specific about which floor and side of the hall the room is on and which room it is by showing all rooms on that floor in the drawing and highlighting the specific one(s) to be used for sampling.</li> <li>• If the site is an area along a street, show the side(s) of the street where the target population members are found.</li> </ul>	

## Form C. Venue Observations for Consideration in Sampling Frame

Use this form to record all the days and times the venue was observed to determine eligibility for inclusion in the sampling frame. Add more lines as needed to the bottom of the form.

Venue Observations					
	Date	Day of week	Time period observed	Staff initials	Should more observations take place at this day/time?
1.					Y <input type="checkbox"/> N <input type="checkbox"/>
2.					Y <input type="checkbox"/> N <input type="checkbox"/>
3.					Y <input type="checkbox"/> N <input type="checkbox"/>
4.					Y <input type="checkbox"/> N <input type="checkbox"/>
5.					Y <input type="checkbox"/> N <input type="checkbox"/>
6.					Y <input type="checkbox"/> N <input type="checkbox"/>
7.					Y <input type="checkbox"/> N <input type="checkbox"/>

### Form D. Venue Challenges

Use this form to keep track of any barriers that may be encountered by survey staff during recruitment at the venue. Also indicate which items are sufficient reasons for removing the venue from the sampling frame.

Venue Challenges	
Include notes below for each item encountered	Remove from frame? If yes, check <input type="checkbox"/>
Safety concerns?	<input type="checkbox"/>
Potential interview/HIV testing location outside venue needed?	<input type="checkbox"/>
Barriers to recruiting?	<input type="checkbox"/>
Barriers to interviewing?	<input type="checkbox"/>
Barriers to HIV testing?	<input type="checkbox"/>
Parking for staff or project vehicle?	<input type="checkbox"/>

### Form E. Venue Type Determination

Use this form to document how key informants characterize the venue for final venue-type determination. The information in this section should be completed once key informants provide enough information to allow the team to characterize what type of venue this represents. For example, after talking to key informants at the site, Venue A is characterized as a brothel. Adapt the list as needed.

Venue Type	
<b>Final venue type characterization:</b>	
<b>Tally votes of informants</b>	
Brothel	City block
Home	Street
Massage parlor	Public Park
Hair salon	Bathhouse
Bar	Railway platform
Restaurant	Beach
Disco	Other, specify:



**Form F. Estimated Measure of Size of Target Population for the Venue**

Use this form to summarize various EMOs estimates of interest to plan productive sampling events.

Number Of Target Population Members Encountered (Estimated Measure Of Size)		
	EMoS	Notes
Maximum number of target pop members present at the site		
Minimum number of target pop members present at the site		
Operational days (days of the week when the target population members are likely to be at the site)	N/A	
Peak days and times (days of the week when the maximum number of target pop members are likely to be found) and estimated measure of size on those days		
Lean days and times (days of the week when the minimum number of target pop members are likely to be found) and estimated measure of size on those days		

**Form G. Listing of Potential Time Periods to Include in Sampling Frame**

Use the form below to record the range of days and time periods that may be included in the final sampling frame. In addition to days and time periods, it is important to document the Estimated Measure of Size (EMoS) of the target population encountered during the observation (adjusted to your full sampling event duration). The lower part of the form is to document any special sampling events that may be included in the frame.

Time Information							
Which days of the week and time periods do you find <target population> at this site? (Select all that apply) Please identify time periods that are the same length as the length of the sampling events.							
		Time 1 (24-hour clock)	EMoS	Incl. in sampling frame?	Time 2 (24-hour clock)	EMoS	Incl. in sampling frame?
<input type="checkbox"/>	Mon	From: : To :		<input type="checkbox"/>	From: : To :		<input type="checkbox"/>
<input type="checkbox"/>	Tues	From: : To :		<input type="checkbox"/>	From: : To :		<input type="checkbox"/>
<input type="checkbox"/>	Wed	From: : To :		<input type="checkbox"/>	From: : To :		<input type="checkbox"/>
<input type="checkbox"/>	Thur	From: : To :		<input type="checkbox"/>	From: : To :		<input type="checkbox"/>
<input type="checkbox"/>	Fri	From: : To :		<input type="checkbox"/>	From: : To :		<input type="checkbox"/>
<input type="checkbox"/>	Sat	From: : To :		<input type="checkbox"/>	From: : To :		<input type="checkbox"/>
<input type="checkbox"/>	Sun	From: : To :		<input type="checkbox"/>	From: : To :		<input type="checkbox"/>
Are there any special or one-time events at this venue that should be on the sampling frame?							
Date	Time period	EMoS	Description of event				

### Form H. Characteristics of Target Population at the Venue

Document any characteristics of the target population that may be encountered by the survey team at the venue. This will help the team consider special needs for language capacity, matching of team members to population characteristics (e.g. age group, language group, etc.).

Population Characteristics	
	Notes
Potential language barriers	
Observed behaviors	
Observations about demographic characteristics	
Seasonal variations	
Mobility	
Sub-groups of interest at venue	

### Form I. Venue Details for Data and Specimen Collection

Please provide specific details to describe how the team should set up data collection and specimen collection areas associated with the sampling venue.

Location For Data And Biological Specimen Collection	
	Notes
Name and address of the space (if different)	
Nearest landmark	
Contact person	
Number of rooms available	
Is a toilet available for collecting urine samples?	
Is running water available?	

# APPENDIX I-21

## UNIQUE PARTICIPANT CODE (UPC)

A unique participant code (UPC) in an RDS survey is used on the second visit to verify that the person presenting for the second visit is the same person who participated in the first visit. The UPC is created using a series of questions that can only be answered by the participant. This form should be filled out by a member of the survey staff. After the UPC is created, record the UPC in the coupon tracking system. To recreate the code and confirm participant identity at the second visit, simply ask the participant the questions below.

*Instructions:* Ask each question to each participant and fill in the boxes with one or two letters or digits, as appropriate.

<b>1</b>	What are the first two letters of your family name?	<input type="text"/> <input type="text"/> L1      L2
<b>2</b>	What are the first two letters of the village, town, or city you were born? <i>If unknown, enter "ZZ".</i>	<input type="text"/> <input type="text"/> L3      L4
<b>3</b>	What are the first two letters of your mother's first name? <i>If unknown, enter "ZZ".</i>	<input type="text"/> <input type="text"/> L5      L6
<b>4</b>	What month were you born? <i>Use two digits for month of birth. For example, if the participant was born in March, use "03". If unknown, enter "99".</i>	<input type="text"/> <input type="text"/> D1      D2
<b>5</b>	What are the first two letters of the village, town, or city of your mother's birth? <i>If unknown, enter "ZZ".</i>	<input type="text"/> <input type="text"/> L7      L8

*Instructions:* Transfer the letters and numbers from the boxes directly to the boxes below. Match the appropriate codes from each question (L1 to L1, L2 to L2, etc.) to create the unique identifier code.

UPC:                                       

L1      L2      L3      L4      L5      L6      D1      D2      L7      L8

## SAMPLE SIZE REQUIREMENTS TO DETECT DIFFERENCES

This table displays various scenarios showing the necessary sample sizes (for each survey round) to detect a given change in a desired proportion (e.g. HIV testing in the last 12 months) between two survey rounds. The required sample sizes shown consider a 95% confidence level, 80% power, and design effects ranging from 2.0 to 4.0. Survey sample sizes need to be further inflated for assumed missing data (not shown here).

A sample size calculator will be available as an Excel file for download from the WHO website.

Round 1 (P1)	Round 2 (P2)	P1 and P2	2.0	3.0	4.0
0.10	0.20	0.10	398	597	796
0.10	0.25	0.15	200	300	400
0.20	0.30	0.10	587	881	1174
0.20	0.35	0.15	276	414	552
0.30	0.40	0.10	712	1068	1424
0.30	0.45	0.15	325	488	650
0.40	0.50	0.10	775	1163	1550
0.40	0.55	0.15	346	519	692
0.50	0.60	0.10	775	1163	1550
0.50	0.65	0.15	339	509	678
0.60	0.70	0.10	712	1068	1424
0.60	0.75	0.15	304	456	608
0.70	0.80	0.10	587	881	1174
0.70	0.85	0.15	241	362	482
0.80	0.90	0.10	398	597	796
0.80	0.95	0.15	151	227	302

*Adapted from WHO. Regional Office for the Eastern Mediterranean. Introduction to HIV/AIDS and sexually transmitted infection surveillance: Module 4: Introduction to respondent driven sampling. p. WHO-EM/STD/134/E*

# APPENDIX I-23

## CALCULATOR FOR THE NUMBER OF UNIQUE OBJECTS FOR ESTIMATING POPULATION SIZE

This appendix can be used to determine the number of unique objects needed for distribution to estimate the size of a population with a certain level of precision.

This unique object calculator will be available as an Excel file for download from the WHO website.

### Step 1: Estimate the number of unique objects to distribute

Estimated population size	Desired precision (½ width of CI as % of estimate)	Survey sample size	Survey design effect	Precision on N (½ width of CI)	Number of objects to distribute	Expected number of objects recaptured	Verification: population size estimate
13000	33.0%	1000	2.00	±4290	826	64	13000
2500	33.0%	1000	2.50	±825	172	69	2500
2500	25.0%	1000	3.00	±625	344	138	2500
2500	10.0%	1000	3.50	±250	1359	544	2500
2500	25%	500	2.5	625	551	110	2500
2500	10.00%	500	3.5	250	1793	359	2500

### Step 2: Determine the precision with which population size can be estimated given the number of objects

Number of objects distributed	Survey sample size	Number of objects found in survey	Survey design effect	Population size estimate	Std error	Lower bound	Upper bound	Relative bounds
826	1000	27	2.00	30588	8144.5	14625	46552	±52.2%
172	1000	56	2.50	3079	589.6	1923	4235	±37.5%
344	1000	91	3.00	3785	625.8	2559	5012	±32.4%
1359	1000	290	3.50	4686	420.3	3862	5510	±17.6%

## QUALITATIVE INTERVIEW GUIDE

Qualitative interviews should be conducted as guided conversations. This appendix provides a guide for semi-structured interviews of target population members.

The order and wording of questions should be changed based on the local context. Questions may also be added or deleted to meet local needs and circumstances. The purpose of a domain and guidance as to when it should be included are presented in italics. They should not be read to participants.

Domain selection should consider the local context as well as participant responses in the quantitative interview. It is recommended that only a few key domains be covered in each interview. For each interview domain we list possible probes. These domains and probes are not meant to be exhaustive, and it may not be necessary to probe them in their entirety. The first probe in each domain helps introduce the domain and should be asked when the domain is used.

Before starting the interview, the interviewer should describe the survey goals and process to the participant. Then explain why the participant has been selected for the interview. Interviewers should emphasize that participants are the experts and interviewers are there to learn from participants.

This questionnaire guide covers the following domains:

- Introduction and starting the conversation
- Upbringing and self-perception
- Alcohol and drug use
- Violence
- Relationships and sexual attraction and behaviors.
- Transgender women
- HIV and <target population>
- HIV protective behaviors and access to HIV and STI services
- Ending the interview

Date	_ / _ / _ _ _ _  (DD/MM/YYYY)
Interviewer name	
Note Taker name	
Venue	
Start time	_ : _  (HOUR/MIN)
End time	_ : _  (HOUR/MIN)
How was this participant referred to be interviewed?	
Name of electronic (audio) file	

## INTRODUCTION (To be read by interviewer to participant)

I want to thank you again for participating in this survey. Today we will talk about some of the same topics you were asked about during the main interview. What you tell us will help us understand and put in context the responses of all participants.

Before I start the interview, please turn off your cell phone and other mobile devices. I will ask you questions about yourself. Please do not use your name or anyone else's. Please feel comfortable to share your opinions and experiences. Also, when I say "friends", "colleagues", "peers" or "people like you", I mean people you know who are <target population>.

Do you have any questions before we start? *(Interviewer: Take time to address all questions and concerns)*

### 1. Domain: Introduction and starting the conversation

*Purpose:* To make participants comfortable and build rapport by having the participants tell the interviewer some basic information about themselves. The purpose is not to learn everything at once but to start a conversation, a story.

*Guidance:* Recommended to ask of all participants.

- 1.1 Let's start by learning a little about you. Can you tell me something about yourself? Where were you born?
- 1.2 How long have you lived in this town?
- 1.3 Where have you spent most of your adult life?
- 1.4 What things do you and your friends do here to relax? How do you earn money?
- 1.5 Tell me about someone special in your life.

## 2. Domain: Upbringing and self-perception

*Purpose:* To elicit what it was like growing up in their home and community and how they were viewed as a child. To understand some of the significant moments in their childhood that may impact their current lives.

*Guidance:* Useful to include when seeking to learn more about self-perception and the roots of shame, self-stigmatization, or risky behaviors.

### Possible probes:

- 2.1 Can you tell me about growing up? How would you describe your childhood?
- 2.2 Tell me about the things that you enjoyed? What didn't you like as a child? What things were important to you as a child?
- 2.3 Who were the most important people in your life and why? What challenges did you face growing up?
- 2.4 What was your family life like growing up? What was it like growing up in your community?
- 2.5 Can you tell me about the best moment as a child? What about the worst moment of your childhood?

## 3. Domain: Alcohol and drug use

*Purpose:* To focus on personal experiences with alcohol and drugs, with a particular focus on injecting drug use and access to clean syringes/needles.

*Guidance:* This domain should only be asked of people who indicated in the quantitative interview that they use alcohol and drugs. Most useful in settings where high alcohol consumption is common. Should be asked of PWID.

### Probes:

- 3.1 Can you tell me about your use of alcohol and drugs? How would you describe your drinking/drug use?
- 3.2 How old were you when you started using drugs and drinking alcohol? Who introduced you to alcohol and/or drugs?
  - o Why did you start drinking alcohol/using drugs? How do you feel when drinking/using drugs?
  - o How has your use of alcohol/drugs changed over the years?
  - o Are there certain times/moments of your life that you drink/use more often?
- 3.3 Have you ever tried to stop drinking/using? What was it like trying to stop?
- 3.4 How accessible is drug treatment?
  - o Have you ever gone on treatment? Can you tell me about your experience with it?
  - o What might encourage you to seek treatment?
- 3.5 Can you tell me about how people access drugs here?
  - o Where can you go to get clean/sterile syringes/needles?
  - o In what situations do you share syringes/needles?
  - o What types of issues do people face trying to access clean/sterile syringes/needles?

## 4. Domain: Violence

*Purpose:* To focus on experiences of violence, particularly intimate partner violence and other types of violence that are common in the community and the person's individual experience of violence, particularly if related to gender, sexuality or involvement in the selling and exchanging of sex.



*Guidance: This domain is recommended in settings where violence is common. It may be asked of people who have and have not experienced violence.*

**Probes:**

- 4.1 Some people experience different types of violence – physical, emotional, sexual – can you tell me about violence in your community?
- 4.2 How do people view violence in your community?
  - o How frequent are these acts of violence?
  - o Who usually carries out this kind of violence?
  - o Are some forms of violence more common than others? Which people experience more violence than others and why?
- 4.3 What services are there for people who have been raped/sexually assaulted/ physically abused? How are people who have experienced these types of violence treated in the community?
- 4.4 How are people who are violent treated in the community?
- 4.5 Are there some types of violence that are not really seen by people as violence?
- 4.6 What is it like for people to report violence to the authorities and what happens if they do? What other ways is violence resolved in your community?
- 4.7 What do people in your community do to reduce the risk of violence?
- 4.8 What has been your personal experience with violence? (perpetrator or victim or both)
  - o If you have been violent to another person, can you tell me about what provoked you to be violent and what you did?
  - o If you have been the victim, can you tell me what happened and about the type of support you received?

## **5. Domain: Relationships and sexual attraction and behaviors**

*Purpose: To elicit information on relationships, including but not exclusive to sexual relationships.*

*Guidance: This domain includes questions that target all populations as well as others that target only SW, MSM, or TG.*

**Probes:**

- 5.1 I would like to talk to you about the different types of relationships. Can you tell me about the most important person in your life and why?
- 5.2 Can you tell me about your first memory of being sexually attracted to someone? Who was it? How old were you?
- 5.3 Have you always been attracted to the same type of people?
  - o How has it changed over the years?
  - o Who are you most attracted to now (men, women, both) and why?
- 5.4 How do you describe your sexual attraction?
- 5.5 Can you tell me about the last time you had sex?
  - o Who was it with (main partner/casual partner/client/sex worker)?
  - o Where did you have sex? Did you use a condom?
  - o How did you talk about using a condom?
- 5.6 What do you think about the number of people you have had sex with in the past 6 months?

- 5.7 How come you have different partners?
- 5.8 Are there ever times when you receive money or goods in exchange for sex? Can you tell me more about that?
  - o How often, to whom, where, types of sex, etc.?
  - o How do you find people who will give you something for sex? What challenges do you face exchanging sex?
  - o How do the authorities treat people who exchange sex?
- 5.9 Are there ever times when you give money or goods in exchange for sex? Can you tell me more about it? Include how often, to whom, where, types of sex, etc.

## 6. Domain: TG

*Purpose:* To elicit information about the lives of transgendered persons.

*Guidance:* Should be asked of all TG due to the limited data on this population.

### Probes:

- 6.1 What do you say when people ask your gender? How do they respond? How did you decide whether to live as a man or a woman?
- 6.2 What is it like being a TG in <city>? What are some challenges you face as a TG?
- 6.3 How do you meet other TG?
- 6.4 How do you choose your sex partners?
- 6.5 Have you had a gender enhancement/transition procedure or used hormones? What kind of person helps you with this?

## 7. Domain: HIV and <target population>

*Purpose:* To elicit information about the social context of HIV, how people talk about HIV, and acceptance of people living with HIV.

*Guidance:* Useful when policy makers and service providers have little experience with the target population in the survey city.

### Probes:

- 7.1 Can you tell me about HIV in your community and among <target population>?
- 7.2 What do people say about HIV in your community? Prompt for government, churches/mosques, leaders, friends, family, etc.
- 7.3 How common is it for you to hear, see, or read something about HIV in your community? What types of messages are usually shared?
- 7.4 How relevant are the messages to you and other <target population>? How do people think HIV is transmitted? What do you think?
- 7.5 How are people with HIV treated in your community? Are all people with HIV treated the same? How long ago did you first hear about HIV?

- 7.5 Do you know people who have HIV?
- 7.6 How open are people in your community about having HIV?

## 8. Domain: HIV protective behaviors and access to HIV and STI services

*Purpose:* To focus on the role of HIV in individuals' lives and learn about the availability, accessibility, and quality of HIV and STI services.

*Guidance:* Recommended for use in all surveys.

### Probes:

- 8.1 What role does HIV play in your life? How much do you think about HIV / STIs when you have sex with others? Why/Why not?
- 8.2 Can you tell me about how you take care of yourself in terms of HIV and other STIs?
  - o How do you protect yourself from becoming infected with HIV/STIs? Probe: only have sex with certain kinds of people, always use a condom, always insertive partner, take PrEP, always use clean syringes or needles
- 8.3 How often do you use condoms during sex?
  - o How do you decide when to use a condom during sex?
  - o Tell me about the last time you did not use a condom. What was the reason for that?
- 8.4 Have you ever heard of preexposure prophylaxis or PrEP to prevent HIV?
  - o What are your thoughts about using PrEP?
  - o What has been your experience using PrEP? How do people respond when they learn you use PrEP?
  - o What do you think of your peers who use PrEP? And those who don't?
- 8.5 How do you decide when to use a clean needle or syringe?
- 8.6 What things make it easier or harder for you to protect yourself or others?
  - o *If HIV-positive*, can you tell me if and how you tell your sexual partner(s) about your HIV status? What things make it harder/easier for you to tell someone you have HIV?
- 8.7 Can you tell me about HIV and STI services in your community?
  - o What types of HIV services are available in your community?
  - o What other sexual and reproductive health services are there? Who uses them?
  - o What do people do when they get an STI?
- 8.8 Which of the HIV and STI services in your community have you accessed/not accessed and why?
  - o What was your experience like accessing these services? How do you feel telling the health care worker that you <risk behavior>? How do health care workers treat you when you tell them that you <risk behavior>?
  - o How often do you use these services?
  - o What do you like about them? What do you not like about them?
- 8.9 How could these services be improved to meet your needs and that of your friends? What things are important for you when deciding where to get services from?
- 8.10 What challenges do people face accessing condoms? What about water-based lubricants? What about clean needles and syringes?
- 8.11 How easy is it for someone to have a free and confidential HIV test in your community? Have you ever been tested for HIV before being in this survey?
  - o *If no*, how come? What might encourage you to get tested in the future?
  - o *If yes*, can you tell me more about that? (counseling, consent, and results) How did you decide to get tested?

- 8.12 How often do you get tested? How come?
- 8.13 *If HIV-positive*, how has HIV impacted your life?
- o What happened when you learned your test result? What did you do?
  - o What types of support have been made available to you? Who have you told about your status? How did/why did you make this/these decisions?
  - o How important is HIV in your daily life in terms of how you feel emotionally, your relationships with family and friends, peers and your health?
  - o How do people treat you when they learn you are living with HIV? What types of issues have you faced living with HIV?
- 8.14 *If HIV-positive*, how long after learning your HIV status did you seek care or treatment?
- o How come you went so quickly?
  - o How come you delayed in going?
  - o Are you on treatment now? How come you are not on treatment? How long have you been on treatment?
- 8.15 *If on treatment*, what is your experience of accessing HIV treatment services?
- o How has it affected your life?
  - o What challenges do you face being on ART?
  - o In what ways, if any, has living with HIV affected your sexual behavior?

## 9. Ending the interview

*Purpose:* To ask the person to reflect on the future rather than only the past. It can help participants leave the interview feeling more in control of their future.

*Guidance:* This domain is especially useful for emotional interviews.

### Possible prompts:

- 9.1 Can you tell me about what you see as your future?
- 9.2 Can you describe what you would like to see happen in your future? What changes would you like to see for your population?
- 9.3 What things need to change in your community and in your life to ensure you are happy and healthy in the future?

# APPENDIX I-25

## QUALITATIVE INTERVIEW FOR TARGET POPULATION (FSW) KEY INFORMANT CONSENT FORM

This appendix provides a sample consent form for a qualitative interview among FSW.

**OVERVIEW:** Hello, my name is <interviewer name>. I am working with <institution name>. Thanks for taking the time to speak with us. We invite you to join a detailed interview. This interview will help us understand how we can do our work better. You are free to join. You can stop taking part at any time.

**PROCEDURES:** We would like you to take part in a survey. If you agree, we will do an interview with you. You and approximately <number of participants> others are being asked to participate in this survey, because we think you have ideas and opinions that can help us plan a larger survey. Please feel comfortable to be honest. One of our staff will write down your answers and record the interview with a recording device.

**CONFIDENTIALITY:** What you tell us will be kept confidential. We will not ask for your name, address, or any other personal information that can be used to identify you. We will code your interview with a number to assist in tracking our notes. You can ask the interviewer to turn off the recorder temporarily if you are not comfortable having what you say recorded. However, if during the interview you say you are planning to harm yourself or others, or that you are a victim of human trafficking, we are required to report that information to the <name of local authority, for example, Ministry of Health>.

**RISKS AND BENEFITS OF THE INTERVIEW:** We will ask about activities that are sensitive or stigmatized. Some interview questions are of a personal nature. You do not have to answer a question if you do not want to. There is no direct benefit to you for taking part in this activity. You may find the interview interesting and learn more about yourself. What we learn from the surveys may help us to make plans for how to improve health services for sex workers in <city>. This may help sex workers protect themselves and their partners from HIV and infections spread by sexual contact.

**COMPENSATION:** You will receive <compensation amount> for taking part in this survey to compensate you for your time. If you travel to the interview you will receive <compensation amount> for your transportation. You will also get condoms, lubricants, and HIV prevention information.

**YOUR RIGHTS:** If you have questions about the study or believe that you have been harmed by being in the study, you may call <principal investigator> at Tel. xxx-xxxxxxx. If you have questions about your rights as a research subject, you may contact <name> of the Research Ethics Committee, Tel. xxx-xxxxxxx.

I confirm that this information has been reviewed with the survey participant, who has had a chance to ask questions and agrees to take part in this survey.

\_\_\_\_\_  
Signature of Data Collector

\_\_\_\_\_  
Date

## FORMATIVE ASSESSMENT CONSENT FORM FOR NON-TARGET POPULATION KEY INFORMANTS

This appendix provides a sample consent form for a qualitative interview among non-target population key informants.

**DESCRIPTION OF THE INTERVIEW:** Hello, my name is <interviewer name>. I am working with <institution name>. We are conducting a survey that will interview <target population> in <city>. The interviews may help us plan a future survey of HIV risk and health behaviors.

**PROCEDURES:** We would like you to take part in a survey. You and approximately <number of participants> others are being asked to participate in this survey, because we think you have ideas and opinions that can help us plan a larger survey.

If you agree to be interviewed, we will ask you about:

- Characteristics of <target population> in <city>;
- The best way to find <target population> who may want to take part in the survey;
- Ways that we can increase the number of <target population> willing to take part in the future survey;
- What kind of services are available <target population> to prevent or treat HIV;
- Where we should have the future survey;
- What you think about the future survey.

We will take notes on paper. We will use an audio recorder if you agree. We will keep these notes in a locked place. No one outside the study will have access to the notes.

**RISKS AND BENEFITS OF THE INTERVIEW:** We will ask about activities that are sensitive or stigmatized. Some of the questions might make you uncomfortable. You do not have to answer a question if you do not want to. There is no direct benefit to you for taking part in this activity. What you share may help us to plan a better survey for <target population>. What we learn from the surveys may help us to make plans for how to improve health services for <target population> in <city>. This may help <target population> protect themselves and their partners from HIV and other infections.

**COMPENSATION:** You will receive <compensation amount> for taking part in this survey to compensate you for your time. If you travel to the interview you will receive <amount of compensation> for your transportation. You will also get condoms, lubricants, and HIV prevention information.

**CONFIDENTIALITY:** What you tell us will be kept confidential. We will not collect any information that can be used to identify you. We will code your interview with a number to assist in tracking our notes. You can ask the interviewer to turn off the recorder temporarily if you are not comfortable having what you say recorded. However, if during the

interview you indicate that an individual is plan to harm yourself or others, or that someone is a victim of human trafficking, we are required to report that information to the <Name of local authority, for example, Ministry of Health>.

**YOUR RIGHTS:** It is your choice if you want to be in the survey or not. You are free to choose not to be in the survey. There is no penalty for this. You may choose not to answer any question. You are free to stop at any time. You do not have to give us a reason for stopping. You do not need to talk about anything you do not want to.

**CONTACTS:** We will give you a copy of this consent form. If you have questions about your rights for taking part in this study, you can contact <principal investigator and institution> at Tel. xxx-xxxx.

I confirm that this information has been reviewed with the survey participant who has had a chance to ask questions and agrees to take part in this survey.

\_\_\_\_\_  
Signature of Data Collector

\_\_\_\_\_  
Date

## DATA MANAGEMENT SOP FOR RDS SURVEY USING QDS

<SURVEY NAME> SOP #: DATA MANAGEMENT FOR RDS SURVEY USING QDS:

These SOPs are written for: Data managers

SOPs referred to: X

SOP date: MM/DD/YYYY

---

### MAIN PROCEDURES IN INTERVIEW ROOM

- Maintain the laptops and power supply.
- Ensure that power outages cannot interrupt the interview. If the laptops run out of power, organize computer-assisted personal interviews (CAPI) with appropriate staff. If Coupon Managers (CM) are available, they could also help to conduct CAPI.
- Perform daily backups and data archiving.

### MAIN PROCEDURES OUTSIDE INTERVIEW ROOM

- Maintain, and repair as necessary, the IT infrastructure – servers, laptops not used for audio-computer-assisted self-interviews (ACASI), inverters, uninterruptible power supply (UPS), printer, barcode readers, and fingerprint scanners.
- Alert survey coordinator to IT supplies that need to be procured.
- Complete the relevant checklist parts.

### FIRST-VISIT PROCEDURES

- Have a coupon manager accompany participants to the interview room.
- If all ACASI laptops are busy, have the participant wait near your desk or in the waiting area.
- If some ACASI laptops are vacant, see if anyone in the waiting area is ready for the interview.
- Welcome the participant and validate his/her survey ID. Lead the participant to a vacant laptop. Log in, choose the questionnaire, choose the appropriate language, and demonstrate how to do the interview by using the tutorial questions. If you are satisfied that the participant will be able to handle the ACASI, have him/her start the interview.
- In the provided sheet, log in the participant's ID and start time to see how long the interview takes. If the participant is taking a long time but is not finished, see if he/she is having any trouble.
- If the participant feels uncomfortable with the interview questions:
  - o Say that the interview questions are the same for everybody and do not assume everyone has the same (sex/drug use) behaviors.
  - o Reassure the participant that this interview is completely confidential and anonymous and ask him/her to answer all questions truthfully.



- If the participant quits the interview, ask what the problem is.
- If the participant is unable to use the computer, organize a CAPI instead. A data manager should administer the CAPI within the same visit.
- If the participant refuses to continue, close the interview and record the reason in the checklist.
- When the interview is complete:
  - o Ask the participant to wait with you for a few minutes while you fill out the forms.
  - o Verify that the interview was completed.
  - o Escort the participant to an interviewer. If all interviewers are busy, ask the participant to wait in the waiting room.

## SECOND-VISIT PROCEDURES

- A participant's second visit includes a short peer recruitment interview. It is done in the same mode as the first visit (ACASI, CAPI, HAPI).
- A reception staff brings a participant to the interview room for a peer recruitment interview or non-response interview. Register the participant on the second-visit log.
- Check the room regularly for anyone waiting to do the peer recruitment interview non-response interview.

## DATA BACKUP AND SAFETY

- Protect the laptops from viruses:
  - o Do not use private flash drives on the survey laptops.
  - o Do not install software that is not used for the survey.
  - o Do not turn off the installed antivirus software.
  - o Do not share the administrator password with others.
- Perform data backup at the end of every day:
  - o Back up all participant data collected, including QDS and Epi Info.
- Transfer data into the data warehouse manager at the end of every day on the respective drives.
- Merge data into one main file for the day's data to be stored on the network drive (to be named with date suffix for the day's data).
- Back up these data on a CD-RW, DVD-RW, or flash drives. Erase the backed up data from the previous day and use the same CD/DVD, or flash drive again. Place the CD/DVD in the locked CD box and note the date of data backup on a piece of paper placed inside the CD box. Store the CD/DVD at the agreed-upon place.

## DATA SECURITY

As most BBS data have no personal identifiers and participants are usually linked by their unique participant ID number:

- Password protect all data and allow access only by authorized users.
- Keep in a locked and secure file cabinet all entered and un-entered questionnaires, logs of data activities, data printouts, data encryption, etc.

## DATA LINKING

- Link all data using the study ID number to make up the final data analysis dataset. This includes data collected by the ACASI, CAPI, and laboratory results. This should be done upon completion of data collection and before data cleaning.

## DATA QUALITY

- Check data systematically for completeness and consistency every week if not more often. This gives interviewers an opportunity to correct or fill in missing information when the participant comes back for the second visit.

## SAMPLE DATA DICTIONARY

The following is an example of a data dictionary using MODULE 7: DEMOGRAPHICS. A data dictionary should be created for each dataset.

At a minimum, a data dictionary should include:

- Variable name
- Description of the variable
  - o Usually the interview question from the survey
- Acceptable values
  - o Include all valid responses for the variable
  - o Field is not applicable for text responses
- Variable type
  - o Text/string
    - Can be open (i.e. name of participant)
    - Can be choice (i.e. categorical responses such as marital status)
  - o Numeric
  - o Date/time
  - o Boolean- only two possible responses (i.e. YES/NO, TRUE/FALSE)
- Checks or restrictions
  - o Includes ranges, including minimum and maximum values
  - o Logic checks
  - o Skip patterns

Variable Name	Description	Acceptable Values	Variable Type	Checks or Restrictions
<b>INT_DATE</b>	Date of interview	N/A	Date	
<b>INT_CODE</b>	Interviewer code	N/A	Text (Open)	
<b>SUBJECT_ID</b>	Participant unique ID	N/A	Text (Open)	
<b>DESEXNOW</b>	Do you consider yourself as male, female, transgender, or other?	Male = 1 Female = 2 Transgender = 3 Other = 4		
<b>DESEXBTH</b>	What was your sex at birth?	Male = 1 Female = 2 Other = 3	Text (Choice)	
<b>DEAGEY</b>	In what year were you born?	N/A	Numeric	

Variable Name	Description	Acceptable Values	Variable Type	Checks or Restrictions
<b>DEAGENUM</b>	How old were you at your last birthday?	N/A	Numeric	Current Year – Deagy = Deagenum
<b>DEEVER</b>	Have you ever attended school?	Yes = 1 No = 2	Yes/No	
<b>DEEDHIGH</b>	What is the highest level/grade/year of school you completed?	Primary = 1 Secondary = 2 Higher = 3	Text (Choice)	Asked If Deever = 1
<b>DEMARSTA</b>	What is your current marital status?	Single, Never Married = 1 Married = 2 Separated/Divorced = 3 Widowed = 4	Text (Choice)	
<b>DELIVESX</b>	Are you currently living with a sexual partner?	Yes = 1 No = 2	Yes/No	

## STAFF AGREEMENTS

A confidentiality agreement is an understanding between two or more parties that outlines rules and regulations for how the parties involved will manage. The agreement should be signed by each member of the survey team. The rules of conduct guide general staff behaviors and should also be signed by all staff.

### CONFIDENTIALITY AGREEMENT

I, \_\_\_\_\_ in my role as a team member on the <survey name>, representing <organization name>, understand and agree to comply with each of the following requirements:

1. I will treat all information collected for this survey as confidential before, during, and after the survey period. I will not use such information for any purposes other than for the work assigned to me during this study.
2. I will NOT tell anyone outside the study about any of the participants, including what I know about them and their HIV test results.
3. I will NOT remove participant information, whether in paper, audio, or electronic format, from authorized storage area unless I have explicit permission of the Study Coordinator.
4. I WILL refer all data-related questions asked of me that are not within my permission to disclose to the necessary survey team leader, study coordinator, supervisor, and/or study investigators.
5. I WILL maintain all related survey data/material in a secured location at all times. I will also make sure that persons not involved in this study do not have access to survey material.
6. I WILL report the loss of any survey data/material or corruption of any computer files containing survey data immediately to my immediate supervisor, who is responsible for reporting this information to the Principal Investigator.
7. If I use a computer to enter or store collected information, I WILL keep that information in password-protected electronic files only in a computer that has current virus protection software.
8. I will NOT misuse any information security privileges that I may have from working on this survey.
9. I WILL comply fully with any other data confidentiality procedures that I am instructed to follow for this survey. I understand that failure to comply with these rules and regulations could result in disciplinary action, including termination.
10. I WILL protect all electronic study data with passwords.
11. I WILL protect all electronic study data on portable media (e.g. flash drives, CDs) using passwords and encryption.
12. I will NOT give access or password(s) to study data to any person other than study personnel.
13. I will NOT produce copies or back-up of study data sets except as required for the maintenance of the systems. I WILL ensure that the back-up datasets are also stored according to the confidentiality guidelines mentioned above.
14. If I cause a breach or become aware of a breach in confidentiality, I will take immediate steps to secure the sensitive information and inform the survey coordinator/PI.
15. I WILL help facilitate any investigations into breaches of client confidentiality to the best of my ability.

\_\_\_\_\_  
Name/signature of staff person

\_\_\_\_\_  
Date:

\_\_\_\_\_  
Name/signature of survey coordinator

\_\_\_\_\_  
Date:

## RULES OF CONDUCT

As a team member on the <survey name>, I will:

1. Treat all participants with respect and in a professional manner.
2. Keep accurate data information and never forge data.
3. Keep truthful records of compensation returned by any participant who declines to be paid.
4. NOT interview a participant (or potential participant) if I know him/her personally.
5. Request other staff to conduct the interview with a participant if I have any issues or foresee potential problems with him/her.
6. NOT have sex with participants during the survey period, or collect contact information from participants for personal use during or after the survey period.
7. NOT drink and/or take drugs while performing survey duties.
8. NOT trade illicit drugs or engage in any commercial activities with participants.

My signature below indicates I have reviewed, understand, and accept the above requirements.

\_\_\_\_\_  
Name/signature of staff person

\_\_\_\_\_  
**Date:**

\_\_\_\_\_  
Name/signature of survey coordinator

\_\_\_\_\_  
**Date:**

## SPECIMEN HANDLING (COLLECTION, PROCESSING, AND STORAGE) SOP

This appendix provides a sample SOP for specimen handling.

<SURVEY NAME> SOP #: DATA MANAGEMENT FOR RDS SURVEY USING QDS

**These SOPs are written for:** Phlebotomist, Nurse Counselor

**Counselor These SOPs may be modified by:** Project Manager

**Investigator(s) SOP date:** MM/DD/YYYY

---

### VENIPUNCTURE

Steps for processing blood collected by venipuncture:

1. Collect 10 ml of blood from the patient's vein into a sterile 10 ml tube.
2. If the blood specimen will not or cannot be processed immediately (e.g. no centrifuge is available), collect the blood in a red-top tube and allow it to stand at room temperature for at least 20–30 minutes, and then remove the serum. Usually, plasma takes longer (~1 hour) to separate without centrifugation than serum collected in a red-top tube.
3. Centrifuge the specimen to separate the serum (without EDTA) or plasma (with EDTA). In general, centrifuge the specimen at 300–400 g or 1200–1500 rpm for 10 minutes.
  - a. If blood is collected for serum, allow blood to stand for 20–30 minutes so that a clot forms before specimen is centrifuged.
4. After specimen is centrifuged or has had time to separate:
  - a. Use clean plastic pipette (do not pour) to remove an aliquot of 1.0–2.0 ml off top layer.
  - b. Transfer aliquot to another sterile labelled tube (plastic, not glass) or cryovial (1.5–2.0 ml) with a screw cap and tighten cap.
  - c. Specimen is now ready for storage and testing

Steps for storing serum and plasma:

1. Make sure cap is closed tightly on labelled cryovial or plastic tube.
2. Place cryovial in cardboard freezer box with partitioned insert.
3. For specimens to be transported to testing laboratory, store specimens at 4–8°C for up to 1 week.
4. For longer-term storage, freeze specimens at -20°C or below.
5. Pack specimens upright in cooler containing cold packs for transport to testing facility.
6. Limit number of freeze/thaw cycles.

## FINGER-STICK

Blood collected by finger-stick can be used to perform rapid tests and for storage and transport using as dried blood spot (DBS) on filter-paper.

### Steps for collecting blood by finger-stick:

1. Massage the finger (preferably the middle or ring finger), causing blood to accumulate at the tip of the finger.
2. Cleanse finger pad (not just the tip or side of the finger) with 70% isopropyl (rubbing) alcohol.
3. Wipe away alcohol with sterile gauze pad.
4. Use finger prick collection kit or sterile lancet to firmly prick finger.
5. Wipe first drop of blood off finger with sterile gauze.
6. Collecting subsequent blood using a collection device (pipette) to place on rapid test device or on filter paper for DBS.
7. If original puncture is inadequate, repeat finger stick using another finger.
8. Avoid milking or squeezing puncture, which may cause hemolysis of specimen and could invalidate test result.
9. The earlobe may be pricked instead of the finger.

## STEPS FOR PREPARING AND STORING A DRIED BLOOD SPOT FOR AN HIV TEST

1. Apply blood directly from finger or pipette onto special filter paper (Schleicher and Schuell Grade 903 filter paper). Paper may come with preprinted circles that will contain approximately 100  $\mu$ l blood when completely filled. If paper does not have preprinted circles, place blood on paper so that it makes a circle 1.5 cm diameter.
2. Allow blood to soak through and fill the entire circle.
3. Label side of the filter paper with specimen code after filter paper is saturated with blood (circle is filled).

Suspend filter-paper strips containing filled circles during drying process to allow air to circulate around paper. Stands for holding strips are commercially available. However, strips may be dried by placing them between two books (taping the edges of strips to the books with sticky tape) on a table or lab bench top so that the blood-containing part of the paper is not in contact with surface of the table or lab bench top. Be sure not to get tape on the blood spot.

4. Let blood spots air dry at room temperature for at least 4 hours (and for at least 24 hours in humid climates).
5. Do not heat or stack blood spots, and do not allow them to touch other surfaces while they are drying.
6. After blood spots have been adequately dried, place filter papers between sheets of glassine paper or plastic to prevent carryover of specimen from one sheet to another.
7. Place wrapped strips in a gas-impermeable bag (zip-lock bag) with desiccant and humidity indicator cards. Approximately 20 strips may be placed in each bag. Bags may be kept at room temperature for up to 30 days.
8. Place bags in a designated envelope for shipment.
9. If DBS in their stored plastic bags will be stored for more than 90 days, they should be maintained at  $-20^{\circ}\text{C}$ . Properly stored DBS have been shown to be stable for at least two years.
10. If additional testing, such as resistance testing, is anticipated, DBS must be stored at or below  $-20^{\circ}\text{C}$  immediately after the DBS specimens are dry.

## RECRUITMENT TRAINING SCRIPT

The following is an example of a script to train participants in how to recruit peers for a survey using respondent-driven sampling (RDS). The use of a script can minimize recruitment selection bias by standardizing the way different staff members train participants in peer recruitment. This example is adapted from the NHBS-HET2 Operations Manual. Investigators should fill in the information within the “<>” (i.e. <number of coupons>) to tailor this script to their survey.

### SCRIPT:

#### Who to give the coupons to

We will give you <number of coupons> coupons to give to friends, relatives, or people you are close to so that they can be in the survey, too. The coupons will be used to recruit them to be in the survey. You should give the coupons to people you know who are <target population>. You should only give the coupons to people who live in <city>. Because people can be in the survey only once, do not give the coupons to anyone who has already participated. Most importantly, you should NOT give the coupons to strangers.

#### Coupons

To be in the survey, everyone has to have a coupon. Be sure to tell the people you give a coupon to that they need to have the coupon with them when they come in or call to make an appointment. The first thing we will do is check to see if their coupon is valid. Your coupons cannot be replaced if they are lost or stolen or if the person you recruited is not eligible. Each coupon has an expiration date, and after that date it cannot be used anymore.

#### Process

When you give the coupons out, be sure to tell the people you recruit about the survey. For example, tell them that the survey is confidential and that the information will be used to provide better services for <target population>. Mention that there is an interview and a test for HIV and that the whole survey process should take about 1 to 2 hours. People you give coupons to who complete the survey will be given <primary compensation amount>, like you will today. We will not admit anyone into the survey that is drunk or high on drugs.

#### Reward

You will get paid <secondary compensation amount> for each person you recruit who is eligible and completes the survey. But, it is not guaranteed that you will get the <secondary compensation amount> just for recruiting someone.

- You will not be paid for someone who is not eligible.
- You will not be paid for recruiting someone who has already participated in the survey.
- You will not be paid for someone who does not complete the entire survey.

Not everyone in this survey gets the opportunity to recruit others, and not everyone gets the same number of coupons. Our computer decides who gets to recruit other people for the survey and how many people they get to recruit. The survey is time-limited, so eventually there will be no more coupons given out.



## Recruiter Information

In order for us to be sure that we give the reward to the right person, we are going to ask you a few questions and enter the information into the computer to create a participant code that is unique to you. When you come in to get paid, we will ask you those same questions again to create the code and check it in the computer. The coupons we give you are linked to you so we will know which ones to pay you for and when.

We will schedule a second visit for you after your coupons have expired. The people you recruited should have participated by this date. When you come in for your second visit you will be reimbursed for each recruit who had participated. We will only pay you, so do not send someone else in to collect the money for you.

## Closing

Do you have any questions?

Okay, remember, give the coupons to people you know. Thanks for helping us!

## RDS PARTICIPANT CHECKLIST

This checklist allows survey staff to track the steps completed by each participant in a respondent-driven sampling (RDS) survey. There is one checklist for the participant's first visit and another for the second visit. These checklists provide documentation that the participant completed the required steps to receive compensation for completing any survey-related procedures (first visit) and referring peers to participate in the RDS survey (second visit). Additional rows may be added, as appropriate, for additional coupons, other specimen collection, treatment provided, and referrals to qualitative interviews.

### RDS Participant Checklist: 1st Visit

This form should be filled out only by authorized personnel. Each step should be initialed by the appropriate survey staff member.

<b>Coupon ID/Survey ID:</b>	
<b>Date:</b>	
<b>Site location:</b>	
<b>Unique participant code (UPC):</b>	

	Activity	Completed	Initials*	Comments
1	Arrival time	_____ : _____ am/pm	CM/REC	
2	Presented valid coupon	<input type="checkbox"/> Yes <input type="checkbox"/> No → FILL INELIGIBILITY FORM	CM/REC	
3	Eligible to participate	<input type="checkbox"/> Yes <input type="checkbox"/> No → FILL INELIGIBILITY FORM	INT	
4	Provided informed consent	Interview: <input type="checkbox"/> Y <input type="checkbox"/> N → FILL REFUSAL FORM	INT	
		Specimen/testing: <input type="checkbox"/> Y <input type="checkbox"/> N		
		Specimen storage: <input type="checkbox"/> Y <input type="checkbox"/> N		
5	Answered network size questions	<input type="checkbox"/> Yes <input type="checkbox"/> No	INT	

	Activity	Completed	Initials*	Comments
6	Completed the questionnaire	<input type="checkbox"/> Yes <input type="checkbox"/> No	INT	
7	Received (HIV) pre-test counseling	<input type="checkbox"/> Yes <input type="checkbox"/> No	CN	
8	Provided biological specimen(s)	<input type="checkbox"/> Yes <input type="checkbox"/> No	CN/PB	
9	Received (HIV) post-test counseling and all rapid test results	<input type="checkbox"/> Yes <input type="checkbox"/> No	CN	
10	Referred to appropriate services	<input type="checkbox"/> Yes <input type="checkbox"/> No	CN	
11	Received prevention commodities and supplies (such as informational brochures, condoms, and lubricants)	<input type="checkbox"/> Yes <input type="checkbox"/> No	CN	
12	Issued RDS coupons	<input type="checkbox"/> Yes → NUMBER GIVEN: _____ <input type="checkbox"/> No	CM	
13	Received recruitment training	<input type="checkbox"/> Yes <input type="checkbox"/> No	CM	
14	Received primary compensation	<input type="checkbox"/> Yes → AMT RECEIVED: _____ <input type="checkbox"/> No	CM/SS	
15	Date/time scheduled for second visit	<input type="checkbox"/> Yes → DATE: _____ <input type="checkbox"/> No	CM/REC	
16	Time of departure	_____ : _____ am/pm	CM/REC	

\*CM = coupon manager; REC = receptionist; INT = interviewer; CN = counselor; PB = phlebotomist; SS = site supervisor

## RDS Participant Checklist: 2nd Visit

This form should be filled out only by authorized survey personnel. Each step should be initiated by the appropriate survey staff member.

<b>Coupon ID/Survey ID:</b>	
<b>Date:</b>	
<b>Site location:</b>	
<b>Unique participant code (UPC):</b>	

	Activity	Completed	Initials*	Comments
1	Arrival time	_____ : _____ am/pm	CM/REC	
2	Validated UPC	<input type="checkbox"/> Yes <input type="checkbox"/> No → LEAVE SITE	CM/REC	
3	Completed peer recruitment questionnaire	<input type="checkbox"/> Yes <input type="checkbox"/> No	INT	
4	Received post-test counseling and results for non-rapid tests	<input type="checkbox"/> Yes <input type="checkbox"/> No	CN	
5	Verified coupons returned	<input type="checkbox"/> Yes <input type="checkbox"/> No	CM	
6	Provided secondary compensation	<input type="checkbox"/> Yes → AMT RECEIVED: <input type="checkbox"/> No	CM	
7	Time departed site	_____ : _____ am/pm	CM	

\*CM = coupon manager; REC = receptionist; INT = interviewer; CN = counselor



## SAMPLE TABLE OF CONTENTS FOR SURVEY REPORT

This sample table of contents can guide development of the survey report.

### **I. Foreword, Acknowledgement, Preface**

### **II. Executive summary**

### **III. Table of contents**

### **IV. List of tables**

### **V. List of figures**

### **VI. List of abbreviations and terms**

### **VII. List/map of survey locations**

#### **1. Background**

- a. Context of HIV in <country> among <population> during <time period>
- b. Survey rationale, goals, objectives, whether this is first or subsequent survey round

#### **2. Methods**

- a. Formative assessment
- b. Staff training
- c. Community mobilization
- d. Target population and study sites
- e. Sample size and sampling design
- f. Data collection
- g. Laboratory procedures
- h. Supervision and monitoring
- i. Data entry, cleaning, and management
- j. Data analysis
- k. Human subjects considerations
- l. Funding and collaborating institutions

#### **3. Findings**

- a. Survey response
- b. Sample (unweighted) and population (weighted) characteristics
- c. Uptake of services, exposure to interventions
- d. HIV-related risk behaviors
- e. HIV infection
  - i. Univariate analysis
  - ii. Bivariate analysis
  - iii. Multivariate analysis
  - iv. Trend analysis
- f. Other outcomes
  - i. Univariate analysis
  - ii. Bivariate analysis
  - iii. Multivariate analysis
- g. Size estimation

#### **4. Discussion**

- a. Summary of key findings
- b. Interpretation of findings
- c. Limitations

#### **5. Recommendations**

- a. For MOH and other policy makers
- b. For service providers
- c. For donors
- d. For surveyed population
- e. For future surveys

#### **6. References**

#### **7. Appendices**

- a. Consent language
- b. Data instruments
- c. Forms
- d. Data quality assessment results
- e. Testing quality (quality control testing)
- f. Access to individual survey data
- g. List of survey staff
- h. List of investigators

## SAMPLE PRESS RELEASE

This is sample text for a press release. A press release announces a media event and informs journalists of the main survey findings, implications, and recommendations. Investigators should carefully consider whether “going public” through a press release will be beneficial to the surveyed population (e.g., services, funding) without causing harm (e.g., stigma, police raids).

### MINISTRY OF HEALTH

<Name of AIDS Control Program>

### FOR IMMEDIATE RELEASE PRESS RELEASE

<Date>

HEADER (Describe one or two key points to highlight survey’s key findings)

Survey of men who have sex with men finds high level of HIV infection but low uptake of treatment, frequent mental health challenges

### SUB-HEAD:

Complete survey results to be disseminated on <weekday, date>

### SAMPLE TEXT:

The Ministry of Health, in collaboration with <organization name> and <organization name>, will release the results of the <name of survey> Survey on HIV and related risk behaviors among <key population surveyed> during a workshop and press briefing to be held at the <hotel or conference location name> in <city> on <day of week, date>, at <time>.

“The Ministry of Health is pleased to disseminate these findings and thanks the <donor names> for its support of this research,” said Dr. <name>, <position>, MoH. “The results of this important survey will be used not only to measure progress toward achieving health and other program and policy goals, but also to assess trends in HIV prevalence and risk behaviors/other biomarker results among <target population> and help understand the impact of interventions geared towards this population.”

The Survey examined the burden of HIV disease, uptake of HIV-related services, and a broad range of HIV-related risk factors among <target population> in <city>. In addition to sexual health and HIV infection, the survey measured <other HIV-related biomarkers>, mental health, alcohol use, drug abuse, uptake of HIV services, as well as exposure to <other issues, such as homophobia and violence>. A total of <number> respondents participated and completed <computer-based> anonymous interviews.



Among the key findings, the survey revealed that <number> in <number> <target population> are infected with HIV, and only <X%> of these are aware of their HIV infection. Of those HIV-infected, only <number> in <number> <X%> are on lifesaving anti-retroviral treatment. And of those on treatment, X% are virally suppressed. Almost <number> in <number> have a low CD4 count (below 500 cells), indicating that they are in urgent need of treatment. Levels of <depression> and <anxiety> are high. Non-injecting drug use is common (<number> in <number> consumed <drug names> in the last six months). Condom use varies by partner and is low within <kind of partnership> partnerships even if the partner’s serostatus is not known.

The survey was carried out by <name of organization> between <month> and <month> <year> as part of the overall key population based HIV surveillance system, a collaborative project among <organization name>, the <organization name>, and <organization name>. <Organization name> provided technical assistance in the implementation of the survey.

## BACKGROUND

The < survey name > is an HIV and health-related risk behaviors surveillance project in <city> that focuses on generating strategic HIV-related information with an aim of informing <country> ’s health policy makers, service delivery providers, and the public.

Since the establishment of <Survey activity> in <year>, <institution name> has focused on supporting the Government of <country> and the Ministry of Health in its efforts to scale up HIV prevention, care, treatment, and support services by providing both critical funding and key technical assistance at the national, district, community, and civil society levels.

The full survey report is downloadable at:

<http://websiteaddress.xxx>

(QR code below linking to website)



## DATA PRESENTATION GUIDE

The physical presentation of survey findings can increase their utility and impact. This appendix provides suggestions to improve data presentation.

### SLIDE PRESENTATIONS

- Provide a printout of your slides before presentation.
- Choose a basic template/background color for your slides. Use a text color that is distinguishable from the background.
- As a rule, the amount of text displayed in a slide should be minimal. Use “telegram style”; there should be fewer words on the slide than in your speech.
- Try to limit the text to no more than 5 lines of text per slide using bullets and no more than 25 words per slide. If necessary, split the slide’s text into two or more slides.
- Make the font size large enough so that people in the back of the room (or using printed handouts) can easily read it.
- Do not use animation, or use it sparingly. Do not use a busy (distracting) background.
- When presenting the slides, make your spoken words accompany the slides’ text, so that people hear and read the same content at the same time. Try to avoid speaking about things that are not shown on the slide, and do not include text on the slide without addressing it.
- Present data (numbers) in tables or as a graph (chart). It is better to have more graphs or tables with less information on each slide than to try to put all the data into one graph/table.

### FIGURES

Figures (graphs and charts) are an ideal way to present survey findings to an audience using slide presentations, and may also be used in technical reports. Survey findings presented through simple and clear graphs (or charts) are often much more persuasive to the majority of people than tables or text. Bear in mind that many people may want to reproduce graphs to use in their own presentations, so they should be self-contained and self-explanatory.

#### A good graph contains:

- A *title* that clearly specifies what is being shown, including the population in the numerator and denominator, the location and the time (e.g. year) of data collection.
- A *data source* (survey name).
- *Axis labels* in charts, explaining what each axis is displaying. Be sure to include units.
- *Value labels* for each data point, if not too many. This allows people to read values and either recreate the graph or refer to them in a text or speech. Where there are many data points on a graph and data labels are likely to cause confusion, the base data for the graph may accompany it in a small table. Truncate any decimals that imply unwarranted precision.
- *Legends* should be used in charts with more than one series.
- *Significance levels* and/or confidence intervals. In technical reports, the p-value itself may be reported on the data series for the graph. For more general presentations, relevant data series can simply be labeled “statistically significant.” Alternatively, indicate statistical significance through the use of one or more asterisks.

## DATA TABLES

Tables are an ideal way to present data in technical reports and manuscripts. In contrast to figures, tables are well suited to display many and detailed data points, using exact decimals, confidence limits, and p values. When presenting data in tables, many of the same standards for graphs hold true. Each table should stand on its own; it should have a full title (person, place, time) and clear row and column headings. Special care should be taken to clearly show who is included or excluded in the denominator. The table should include the number of observations that make up proportional or relative risk values. When presenting percent values, be clear whether these are row, column, or cell percent values. Indicate missing data points.

## SUPPORTING EVIDENCE

No single survey can provide definitive evidence or answers, and all survey data are estimates. People are more likely to be persuaded that observations are real if different data from various data sources all point in the same direction. A graph showing a significant rise in self-reported HIV testing will be more powerful if it is presented in conjunction with other data showing a rise in the uptake of care or treatment. These different data may not necessarily come from the same source, and may include other surveys, routine health system reporting, or marketing data.

## DATA USE (CONFIDENTIALITY) AGREEMENT

The purpose of this sample text is to provide a template for an agreement to share data between investigators and other researchers. Investigators may want to share all or part of the collected data. Investigators may ask to be acknowledged and/or informed of any publication as a result of a data sharing agreement. Adapt the text below as needed.

### DATA USE AND CONFIDENTIALITY AGREEMENT

#### Parties to this agreement:

<Institution Name>, represented by: <Person name> (“Data provider” or “DP”)

<Institution Name>, represented by: <Person name> (“Data recipient” or “DR”)

- A. This agreement refers to: <Survey Name, Year, Location>
- B. This agreement serves for the purpose of: <Data analysis to evaluate correlates of HIV infection among *survey group*>
- C. This agreement expires on DD/MM/YYYY.

Through this agreement, the Data Recipient:

1. Agrees to safeguard the received information against any use inconsistent with the Data Use Agreement and against any further disclosure or dissemination. The received data will be stored on password-protected computers and/or in locked cabinets.
2. Agrees to maintain a list of those persons who are provided with access to the data within their own organization.
3. Agrees not to use the provided data beyond the purpose stated in B.
4. Agrees to make no use of the identity of any person discovered, inadvertently or otherwise, and advise the principal investigator of any such discovery (<email address>).
5. Agrees not to link these data files with individually identifiable data from any other data set.
6. Pledges not to publish the received individual data on the World Wide Web, and not to distribute them to any other organization or individual.
7. Agrees to refer any request for these data by third parties to the DP.
8. Agrees to inform the DP in writing within X days of any request by authorities to have access to these data.
9. Agrees not to use these data in any way that would put the surveyed population at risk or in harm’s way, or stigmatize them.
10. Agrees to inform the DP in writing of any breach of this agreement, including but not limited to any possible or confirmed unauthorized transfer of these data to third parties.
11. Agrees to acknowledge and inform the DR when publishing or disseminating results and findings stemming from this data analysis.

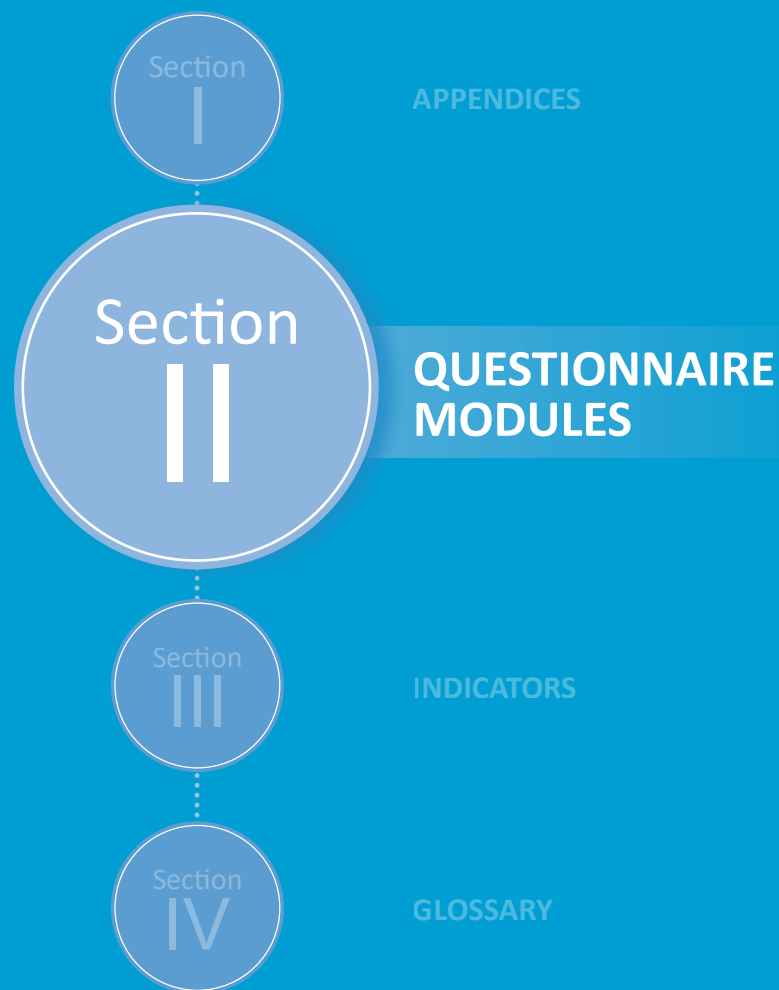
Signature: \_\_\_\_\_

Date: \_\_\_\_\_

*Type DR representative name Type DR organizational name*

# Supplemental Materials

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## Section II- Questionnaire Modules

1. Questionnaire Parameters	136
2. Eligibility	140
3. RDS Recruiter-Recruit Relationship	151
4. RDS Personal Network Size	154
5. Size Estimation	156
6. ACASI Tutorial	159
7. Demographics	162
8. Transgender Characteristics	171
9. Sex Work Characteristics	176
10. Clients Of Sex Workers Characteristics	185
11. Incarceration Characteristics	188
12. Transport Worker Characteristics	196
13. Reproductive Health	200
14. Sexual History	208
15. Recall Sexual Behavior	218
16. Partner Concurrency	239
17. Last Sex Act	243
18. Condom Use/Accessibility	249
19. Lubricant Use	256
20. Microbicides	261
21. Alcohol Use	264
22. Non-Injection Drug Use	270
23. Injection Drug Use	277
24. Drug Overdose	295
25. Sexually Transmitted Infections	301

<b>26. Hepatitis B and C</b>	<b>306</b>
<b>27. Services Uptake</b>	<b>309</b>
<b>28. PEP and PrEP</b>	<b>341</b>
<b>29. Shame, Stigma, Harassment &amp; Discrimination</b>	<b>346</b>
<b>30. Physical Violence</b>	<b>369</b>
<b>31. Sexual Violence: Coercion and Rape</b>	<b>383</b>
<b>32. Internalized Homophobia</b>	<b>403</b>
<b>33. Depression</b>	<b>406</b>
<b>34. Suicide Ideation and Attempts</b>	<b>410</b>
<b>35. Social Support</b>	<b>415</b>
<b>36. Social Cohesion, Social Participation and Collective Agency</b>	<b>431</b>
<b>37. Game of Contacts</b>	<b>437</b>
<b>38. HIV Knowledge and Perceptions</b>	<b>439</b>
<b>39. Questionnaire Feedback/Interview Status</b>	<b>442</b>
<b>40. RDS, Peer Recruitment</b>	<b>444</b>

# 1. QUESTIONNAIRE PARAMETERS

This module collects administrative information about the survey activity and participant to facilitate data management. It can be used at the start of all electronic data collection instruments including screening, size estimation, interview, exit interview, and RDS second visit interview. Unlike other modules, this module is not asked of participants. The data are either computer generated or entered by survey staff.

Investigators may choose to program the questionnaire to automatically fill in information that will be the same for every participant, including questionnaire version, survey-design, and city.

NA	QP	Questionnaire Parameters	Response Options	Core or Secondary*	Data Generator	Comments
1.	QPVER	Questionnaire version	<TEXT>	C	Computer-generated	
2.	QPDE	Device name	<TEXT>	S	Staff	
3.	QPIDATE	Date	<DATE>	C	Computer-generated	
4.	QPITIME	Interview start time	<TIME>	C	Computer-generated	



NA	QP	Questionnaire Parameters	Response Options	Core or Secondary*	Data Generator	Comments
5.	QPSURVD	What survey design is being used?	NON-PROBABILITY..... 1 RDS ..... 2 TLS ..... 3 CCS ..... 4 OTHER ..... 5	C	Staff	This is a filter question.
6.	KEYPOP	What population is this person sampled for?	SEX WORKERS (SW) ..... 1 MEN WHO HAVE SEX WITH MEN (MSM) ..... 2 TRANSGENDER WOMEN (TG) ..... 3 PEOPLE WHO INJECT DRUGS (PWID) .... 4 INCARCERATED POPULATION ..... 5 TRANSPORT WORKERS ..... 6 CLIENTS OF SEX WORKERS ..... 7 OTHER ..... 8	C	Staff	
7.	QPMODE	What mode of interview administration is being used?	ACASI ..... 1 CASI ..... 2 FACE-TO-FACE CAPI ..... 3 FACE-TO-FACE HAPI ..... 4 PAPER ..... 5 OTHER ..... 6	C	Staff	

NA	QP	Questionnaire Parameters	Response Options	Core or Secondary*	Data Generator	Comments
8.	QPLANG	What interview language is being used?	LANGUAGE A ..... 1 LANGUAGE B ..... 2 LANGUAGE C ..... 3 OTHER LANGUAGE ..... 6	C	Staff	
9.	QPCITY	In which city is this survey being implemented?	CITY A ..... 1 CITY B ..... 2 CITY C ..... 3 OTHER CITY ..... 6	C	Staff	Required only if survey is being conducted in multiple cities.
10.	QPSITE	(RDS) At which site is this survey being implemented?	SITE A ..... 1 SITE B ..... 2 SITE C ..... 3	C	Staff	ONLY IF QPSURVD = 2 Required only if an RDS survey has multiple sites or offices in the same city.
11.	QPVENUE	TLS/CCS Venue/Cluster At which venue is this survey being implemented?	VENUE A ..... 1 VENUE B ..... 2 VENUE C ..... 3	C	Staff	ONLY IF QPSURVD = 3 or 4 Required for TLS or CCS.
12.	QPICODE	Please enter interviewer code.	[       ]	C	Staff	Required if an interviewer is used.
13.	QPID	Survey ID	[       ]	C	Staff	SKIP IF ELIGIBILITY SCREENING

NA	QP	Questionnaire Parameters	Response Options	Core or Secondary*	Data Generator	Comments
14.	QPIDCK	Re-enter Survey ID	[       ]	C	Staff	SKIP IF ELIGIBILITY SCREENING Should be entered twice.

\*C=Core, S= secondary

All survey participants must meet the eligibility criteria. Responses to the eligibility screening questions are used to determine who is eligible to participate in the survey. This is the only module that does not allow the participant to refuse to answer a question. This module also includes questions to help survey staff confirm that the prospective participant is in fact part of the target population. For example, the eligibility questions for persons who inject drugs include asking how to prepare or inject drugs.

All eligibility questions should be asked before a prospective participant is informed whether he/she is eligible to participate in the survey. The interviewer can then determine eligibility based on the responses to all questions. If using electronic data collection instruments, the interviewer can inform the prospective participant that the computer determines who is or is not eligible to participate and that there are no 'correct' answers. For RDS surveys, ensure that prospective participants have a valid coupon before screening them for eligibility.

**This module should be conducted face-to-face by the interviewer.**

N/A	Variable ID: EL	Eligibility	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
N/A	EL1MSG	<i>[Instructions to interviewer]: Before asking population-specific questions to determine eligibility, all prospective participants should be asked the first few questions on age, sex and geographic locations.</i>								
N/A	EL2MSG	<i>[Interviewer should read]: Thank you for being here. We will now ask you some questions to determine if you meet the requirements to take the full survey.</i>								
1.	ELCIN	Please enter participant's RDS coupon number.			ONLY IF QPSURVD = 2  Required for RDS. Should be entered twice to avoid data entry errors.					

N/A	Variable ID: EL	Eligibility	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
2.	ELCINCK	Please re-enter participant's RDS coupon number.			ONLY IF QPSURVD = 2 Required for RDS.					
3.	ELAGEL	How old were you at your last birthday?	AGE IN COMPLETED YEARS: [   ] DON'T KNOW 97		Age must be above pre-determined minimum value.	C	C	C	C	C
4.	ELLOC	Do you live or work in [insert name of city]?	YES ..... 1 NO ..... 2		BACKGROUND/ RISK Only for RDS/VBS/TLS	S	S	S	S	S
5.	ELLONG	How long have you lived or worked in [insert name of city]? CODE 00 IF <1 YEAR	# YEARS: [   ] DON'T KNOW 97	IF KEYPOP=1 → ELSWSX IF KEYPOP=2 → ELMSMM IF KEYPOP=3 → ELTGNOW IF KEYPOP=4 → ELINJ	BACKGROUND/ RISK Only for RDS/VBS/TLS	S	S	S	S	S
	<b>PWID</b>	<b>PWID Eligibility</b>								
6.	ELINJ	Have you ever in your life shot up or injected any drugs other than those prescribed for you? By shooting up, I mean anytime you might have used drugs with a needle, either by mainlining, skin popping, or muscling.	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7	'2', '7' → SKIP TO EL5MSG	RISK/ VULNERABILITY	N/A	N/A	N/A	C	N/A

N/A	Variable ID: EL	Eligibility	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
7.	ELINJMN	How long ago did you last inject?	LESS THAN 1 MONTH AGO ..... 1 1 OR MORE MONTHS AGO BUT LESS THAN 12 MONTHS AGO ..... 2 1 OR MORE YEARS AGO ..... 3 DON'T KNOW ..... 7	'1' → SKIP TO ELINJMND  '2' → SKIP TO ELINJMNM  '3' → SKIP TO ELINJMNY  '7' → SKIP TO EL5MSG	RISK	S	S	S	C	S
8.	ELINJMND	How many DAYS ago did you last inject?	# DAYS [   ] MAX: 31 DON'T KNOW 97		RISK	S	S	S	C	S
9.	ELINJMNM	How many MONTHS ago did you last inject?	# MONTHS [   ] MAX: 12 DON'T KNOW 97		RISK	S	S	S	C	S
10.	ELINJMNY	How many YEARS ago did you last inject?	# YEARS [   ] MAX: CURRENT AGE DON'T KNOW 97		RISK	S	S	S	C	S
N/A	EL3MSG	<i>[Instructions for interviewer]: The following questions are to validate injection behavior.</i>								

N/A	Variable ID: EL	Eligibility	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
11.	ELINJDR	The last time you injected, which drug did you Inject?	HEROIN ..... 1 COCAINE ..... 2 MORPHINE/OPIUM ..... 3 SPEEDBALL (HEROIN & COCAINE MIX) ..... 4 OTHER ..... 6 DON'T KNOW ..... 7		BACKGROUND/ RISK/ VULNERABILITY  Use locally defined responses.	N/A	N/A	N/A	S	N/A
12.	ELINJB	Where on your body do you usually inject?  <i>[Interviewer: Have participant show ALL injection areas on body. Check for physical signs of injection and indicate accordingly]</i>	FRESH TRACK MARKS ..... 1 NEEDLE-SIZE SCABS ..... 2 ABSCESSSES ..... 3 OLD TRACK MARKS OR SCABS ..... 4 NO PHYSICAL SIGNS/INJECTS IN COVERED AREA ..... 5	'1','2','3','4' →SKIP TO ELINJBT	BACKGROUND/ RISK/ VULNERABILITY	N/A	N/A	N/A	S	N/A
N/A	EL4MSG	<i>[Instructions for interviewer]: If the participant does not have any visible injection marks, then ask the following questions:</i>								
13.	ELINJDES	Can you please tell me, step by step, how you prepare your drugs?  <i>Description could include: Mix drugs with water or lemon juice/vinegar Use cooker/heat drugs Use filter</i>	DESCRIPTION OK ..... 1 DESCRIPTION NOT OK ..... 2		BACKGROUND/ RISK/ VULNERABILITY	N/A	N/A	N/A	S	N/A

N/A	Variable ID: EL	Eligibility	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
14.	ELINJSTP	Can you please describe to me, step-by-step, how you inject your drugs?  <i>Description could include: Tie off and find vein (IVDU) Clean injection site Register (IVDU)</i>	DESCRIPTION OK ..... 1 DESCRIPTION NOT OK ..... 2			N/A	N/A	N/A	S	N/A
15.	ELINJSYR	What type of syringe do you usually inject with?  <i>Description could include: Syringe size (in cc's or units) Needle size (gauge, length) Cap (color, number)</i>	DESCRIPTION OK ..... 1 DESCRIPTION NO OK ..... 2		RISK/ PREVENTION	N/A	N/A	N/A	S	N/A
16.	ELINJBT	The last time when you injected [insert response from ELINJDR], did you buy the drug or did someone give you the drug?	BOUGHT MYSELF ..... 1 SOMEONE GAVE TO ME ..... 2 DON'T KNOW ..... 7	'2', OR '7'→ SKIP TO EL5MSG	RISK/ PREVENTION	N/A	N/A	N/A	S	N/A
17.	ELINJMNY	How much did you pay to buy the amount of drugs you got?	[insert local currency] DON'T REMEMBER 9997		RISK/ PREVENTION	N/A	N/A	N/A	S	N/A
N/A	EL5MSG	<i>[Interviewer should read]: We have finished the first series of questions. Now the computer will determine whether you've been selected to participate in the survey.</i>								
N/A	ELINJNO	<i>[Interviewer should read]: The computer has determined that you are not eligible to participate in the study. Thank you for your time and interest.</i>		SKIP TO END OF SURVEY	Eligibility is determined based on survey criteria.	N/A	N/A	N/A	C	N/A
N/A	ELINJYES	<i>[Interviewer should read]: The computer has determined that you are eligible to participate in the study.</i>		Skip to QPID	Eligibility is determined based on survey criteria.	N/A	N/A	N/A	C	N/A



N/A	Variable ID: EL	Eligibility	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
	MSM	MSM Eligibility								
18.	ELMSMW	Have you ever had sex? By sex, we mean either vaginal sex or anal sex?  With vaginal sex we mean a penis enters a vagina. With anal sex we mean a penis enters a person's anus	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7	'2', '7' → SKIP TO EL6MSG		N/A	S	N/A	N/A	N/A
19.	ELMSMM	Have you ever had anal sex with a man?  With anal sex we mean a penis enters a person's anus.	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7			N/A	C	N/A	N/A	
20.	ELMSMSXT	How long ago did you last have anal sex with a man?	LESS THAN 1 MONTH AGO ..... 1 1 OR MORE MONTHS AGO BUT LESS THAN 12 MONTHS AGO ..... 2 1 OR MORE YEARS AGO ..... 3 DON'T KNOW ..... 7	'1' → SKIP TO ELMSMSXTD  '2' → SKIP TO ELMSMSXTM  '3' → SKIP TO ELMSMSXTY  '7' → SKIP TO EL6MSG	RISK	S	C	S	S	S
21.	ELMSMSXTD	How many DAYS ago did you last have anal sex with a man?	# DAYS [   ] MAX: 31 DON'T KNOW 97		RISK	S	C	S	S	S

N/A	Variable ID: EL	Eligibility	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
22.	ELMSMSXTM	How many MONTHS ago did you last have anal sex with a man?	# MONTHS [   ] MAX: 12 DON'T KNOW 97		RISK	S	C	S	S	S
23.	ELMSMSXTY	How many YEARS ago did you last have anal sex with a man?	# YEARS [   ] MAX: CURRENT AGE DON'T KNOW 97	SKIP TO END OF SURVEY	RISK	S	C	S	S	S
N/A	EL6MSG	<i>[Interviewer should read]: We've finished the first series of questions. Now the computer will determine whether you've been selected to participate in the survey.</i>								
N/A	ELMSMNO	<i>[Interviewer should read]: The computer has determined that you are not eligible to participate in the study.Thank you for your time and interest.</i>		SKIP TO END OF SURVEY	Eligibility is determined based on survey criteria	N/A	C	N/A	N/A	N/A
N/A	ELMSMYES	<i>[Interviewer should read]: The computer has determined that you are eligible to participate in the study.</i>		Skip to QPID	Eligibility is determined based on survey criteria	N/A	C	N/A	N/A	N/A
	<b>TG</b>	<b>TG Eligibility</b>								
24.	ELTGNOW	Do you consider yourself as male, female, or other?	MALE ..... 1 FEMALE ..... 2 OTHER ..... 3			N/A	N/A	C	N/A	N/A

N/A	Variable ID: EL	Eligibility	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
25.	ELSX BORN	What was your sex at birth?	MALE ..... 1 FEMALE ..... 2 OTHER ..... 3		If responses to ELTGNOW and ELSXBORN differ the person meets the TG-specific eligibility criteria.	N/A	N/A	C	N/A	N/A
26.	ELTGSX	Have you ever had sex?  By sex, we mean either vaginal sex or anal sex. With vaginal sex we mean a penis enters a vagina. With anal sex we mean a penis enters a person's anus.	YES ..... 1 NO ..... 2	'2' → SKIP TO EL7MSG	Given relatively small population of TG individuals, consider not basing eligibility on having had sex in a given recall period.	N/A	N/A	S	N/A	N/A
27.	ELTGSXM	Have you ever had anal sex with a man?  With anal sex we mean a penis enters a person's anus.	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7	'2', '7' → SKIP TO EL7MSG		N/A	N/A	S	N/A	N/A
28.	ELTGSXT	How long ago did you last have anal sex with a man?	LESS THAN 1 MONTH AGO ..... 1 1 OR MORE MONTHS AGO BUT LESS THAN 12 MONTHS AGO ..... 2 1 OR MORE YEARS AGO ..... 3 DON'T KNOW ..... 7	'1'→SKIP TO ELTGSXTD '2' → SKIP TO ELTGSXTM '3' → SKIP TO ELTGSXTY '7' → SKIP TO EL7MSG	RISK	S	C	S	S	S

N/A	Variable ID: EL	Eligibility	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
29.	ELTGSXTD	How many DAYS ago did you last have anal sex with a man?	# DAYS [   ] MAX: 31 DON'T KNOW 97		RISK	S	C	S	S	S
30.	ELTGSXTM	How many MONTHS ago did you last have anal sex with a man?	# MONTHS [   ] MAX: 12 DON'T KNOW 97		RISK	S	C	S	S	S
31.	ELTGSXTY	How many YEARS ago did you last have anal sex with a man?	# YEARS [   ] MAX: CURRENT AGE DON'T KNOW 97		RISK	S	C	S	S	S
N/A	EL7MSG	<i>Interviewer should read: We've finished the first series of questions. Now the computer will determine whether you've been selected to participate in the survey.</i>								
N/A	ELTGNO	<i>[Interviewer should read]: The computer has determined that you are not eligible to participate in the study. Thank you for your time and interest.</i>		SKIP TO END OF SURVEY	Eligibility is determined based on survey criteria.	N/A	N/A	C	N/A	N/A
N/A	ELTGYES	<i>[Interviewer should read]: The computer has determined that you are eligible to participate in the study.</i>			Eligibility is determined based on survey criteria.	N/A	N/A	C	N/A	N/A

N/A	Variable ID: EL	Eligibility	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
	SW	SW Eligibility								
32.	ELSWSX	Have you ever had sex with someone for money?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7	'2', '7' → SKIP TO EL8MSG		C	N/A	N/A	N/A	N/A
33.	ELSWSXT	How long ago did you last have sex with someone for money?	LESS THAN 1 MONTH AGO ..... 1 1 OR MORE MONTHS AGO BUT LESS THAN 12 MONTHS AGO ..... 2 1 OR MORE YEARS AGO ..... 3 DON'T KNOW ..... 7	'1'→SKIP TO ELSWSXTD '2' →SKIP TO ELSWSXTM '3' →SKIP TO ELSWSXTY '7' → SKIP TO EL8MSG	RISK	C	S	S	S	S
34.	ELSWSXTD	How many DAYS ago did you last have sex with someone for money?	# DAYS [   ] MAX: 31 DON'T KNOW 97		RISK	C	S	S	S	S
35.	ELSWSXTM	How many MONTHS ago did you last have sex with someone for money?	# MONTHS [   ] MAX: 12 DON'T KNOW 97		RISK	C	S	S	S	S

N/A	Variable ID: EL	Eligibility	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
36.	ELWSXTY	How many YEARS ago did you last have sex with someone for money?	# YEARS [   ] MAX: CURRENT AGE DON'T KNOW 97		RISK	C	S	S	S	S
N/A	EL8MSG	<i>Interviewer should read: We've finished the first series of questions. Now the computer will determine whether you've been selected to participate in the survey.</i>								
N/A	ELSWNO	<i>[Interviewer should read]: The computer has determined that you are not eligible to participate in the study. Thank you for your time and interest.</i>		SKIP TO END OF SURVEY	Eligibility is determined based on survey criteria.	C	N/A	N/A	N/A	N/A
N/A	ELSWYES	<i>[Interviewer should read]: The computer has determined that you are eligible to participate in the study.</i>			Eligibility is determined based on survey criteria.	C	N/A	N/A	N/A	N/A
		FOR ALL POPULATIONS								
37.	QPID	Survey ID				C	C	C	C	C
38.	QPIDCK	Re-enter Survey ID			Enter twice	C	C	C	C	C
39.	ELSWCONT	Are you ready to proceed with the rest of the questions?	YES ..... 1 NO ..... 2		Only skip to end of survey if participant refuses to continue. Otherwise, allow participant a short break.	C	C	C	C	C

\*C=Core, S= secondary

### 3. RDS RECRUITER-RECRUIT RELATIONSHIP

One assumption of respondent driven sampling (RDS) about recruitment is that the population being recruited must know one another as members of the target population. Without satisfying this assumption, investigators cannot successfully use RDS to produce a sample of the target population. This assumption can be verified by determining if there is an existing relationship between the recruiter and the recruit. The first few questions verify the relationship between the recruiter and the recruit as well as the strength of that relationship. The responses for relationships can be modified according to the target population and the context of the survey. The last few questions in this module determine whether the participant was coerced to participate in the survey. These questions should be used for all RDS surveys. This module should be conducted face-to-face by interviewer.

N/A	Variable ID: RC	RDS Recruiter-Recruit Relationship	Response Options	Skips	Comments	Core or Secondary*
N/A	RC1MSG	[Interviewer should read]: We're going to start by asking you about the person who gave you the coupon and about others that [insert eligibility behavior] you know in [insert eligibility locality]. Please remember that your answers will be kept private.				
1.	RCRELA	Which of the following describes how you know the person who gave you this coupon?  CHECK ALL THAT APPLY.	A RELATIVE OR FAMILY MEMBER ..... A A SEX PARTNER ..... B A PERSON YOU USE DRUGS WITH OR BUY DRUGS FROM ..... C A FRIEND/AN ACQUAINTANCE ..... D A STRANGER ..... E OTHER ..... X DON'T KNOW ..... Y REFUSE TO ANSWER ..... Z	'A', 'C', 'D', 'E', 'X', 'Y', 'Z' → SKIP TO RCLENTH	ONLY FOR RDS.	C

N/A	Variable ID: RC	RDS Recruiter-Recruit Relationship	Response Options	Skips	Comments	Core or Secondary*
2.	RCSXTYP	<p>What kind of a sex partner is this person?</p> <p>A main sex partner is someone you are committed to, for example could be your spouse, live-in sex partner, or boyfriend. There is no payment or exchange of goods or services for sex with these partners.</p> <p>A casual sex partner is someone you have sex with but don't feel committed to. There is no payment or exchange of goods and services for sex with these partners.</p>	<p>MAIN ..... 1</p> <p>CASUAL ..... 2</p> <p>COMMERCIAL- I PAID HIM/HER ..... 3</p> <p>COMMERCIAL- HE/SHE PAID ME ..... 4</p> <p>DON'T KNOW ..... 7</p> <p>REFUSE TO ANSWER ..... 8</p>		ONLY FOR RDS.	S
3.	RCLENTH	Do you know this person for some days, or some months, or for years?	<p>DAYS ..... 1</p> <p>MONTHS ..... 2</p> <p>YEARS ..... 3</p> <p>DON'T KNOW ..... 7</p> <p>REFUSE TO ANSWER ..... 8</p>		ONLY FOR RDS.	S
4.	RCSEE	How many times did you see this person in the last 30 days?	<p># TIMES [     ]</p> <p>DON'T KNOW 997</p> <p>REFUSE TO ANSWER 998</p>		ONLY FOR RDS.	S



N/A	Variable ID: RC	RDS Recruiter-Recruit Relationship	Response Options	Skips	Comments	Core or Secondary*
5.	RCEXCH	Was your coupon exchanged for something?	NO, NOTHING ..... 1 MONEY OR GOODS ..... 2 FAVORS OR SERVICES ..... 3 SEXUAL FAVORS ..... 4 OTHER ..... 6 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		ONLY FOR RDS.	C
6.	RCREAS	What is the main reason you joined this study?	INTERESTED IN THE STUDY ..... 1 WANT TO KNOW MY HIV STATUS ..... 2 WANT TO KNOW IF I HAVE AN STD ... 3 WANT THE INCENTIVE ..... 4 WAS FORCED TO COME ..... 5 OTHER ..... 6 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		ONLY FOR RDS.	S

\*C=CORE, S=SECONDARY for all KP groups.

#### References:

Heckathorn DD. Extensions of respondent driven sampling: analysing continuous variables and controlling for differential recruitment. *Sociological Methodology*. 2007; 37(1): 151-207

## 4. RDS PERSONAL NETWORK SIZE

The weighting of estimates derived from respondent-driven sampling primarily depends on self-reported network sizes. Therefore, because these questions are crucial to obtain adjusted estimates in a respondent-driven sampling survey, this module should not be self-administered. Participants are asked about their networks broadly at first and with each question network sizes should decrease based on survey-specific eligibility characteristics. These questions should be used for all populations using RDS for recruitment.

N/A	Variable ID: DG	RDS Personal Network Size	Response Options	Skips	Comments	Core or Secondary*	
N/A	DG1MSG	[Interviewer should read]: Now I'm going to ask you a few questions about how many people you know.					
1.	DGBEHAV	How many people [insert number of males/females] do you know who [insert eligibility behavior]?	# PEOPLE [     ] MAX: 99 DON'T KNOW 997 REFUSE TO ANSWER 998	'0' → SKIP TO END OF CURRENT SECTION	ONLY FOR RDS.	C	
2.	DGLOCAL	Of [insert number from DGBEHAV] people, how many live or work in [eligibility locality]?	# PEOPLE [     ] MAX: NUMBER FROM DGBEHAV DON'T KNOW 997 REFUSE TO ANSWER 998	'0' → SKIP TO END OF CURRENT SECTION	ONLY FOR RDS. Only applicable if locality is an eligibility criterion.	C	

N/A	Variable ID: DG	RDS Personal Network Size	Response Options	Skips	Comments	Core or Secondary*
3.	DGAGE	Of [insert number from DGLOCAL] how many are aged [insert eligibility age range]?	# PEOPLE [     ] MAX: NUMBER FROM DGLOCAL DON'T KNOW 997 REFUSE TO ANSWER 998	'0' → SKIP TO END OF CURRENT SECTION	ONLY FOR RDS.	C
4.	DG14SEEN	Of [insert number from DGAGE], how many have you seen in the past two weeks?	# PEOPLE [     ] MAX: NUMBER FROM DGAGE DON'T KNOW 997 REFUSE TO ANSWER 998	'0' → SKIP TO END OF CURRENT SECTION	ONLY FOR RDS. Consider changing time based on coupon validity and local context.	C
5.	DGINVITE	Finally, of [insert number from DG14SEEN], who would you consider inviting to participate in this survey?	# PEOPLE [     ] MAX: NUMBER FROM DG14SEEN DON'T KNOW 997 REFUSE TO ANSWER 998		ONLY FOR RDS. Should be used to determine network size for RDS.	C

\*:C=CORE, S= SECONDARY for all KP groups.

# 5. SIZE ESTIMATION

An estimate of the size of the population helps in the design of an appropriate programmatic response, advocate for resources or policy changes, and facilitate program monitoring and evaluation.

One version of the multiplier method compares two independent sources of data for populations to estimate the total number in the population. The first source is a count or listing from program data including only the population whose size is being estimated, and the second source is a representative survey of the populations whose size is being estimated. Another version of multiplier method involves the distribution of a unique object to members of the population. It relies on access to members of the key populations where a particular unique object is distributed broadly. During the survey the participants are asked if they had received services at the particular institution or if they had received the object that had been distributed prior to implementation of the survey. **This module should be conducted face-to-face.**

Details of these methods are provided in the guidelines or other references. Information collected using these questions will help estimate the size of the population being surveyed.

N/A	Variable ID: SZ	Size Estimation	Response Options	Skips	Comments	Core or Secondary*
N/A		Service multiplier method				
A	QPSIZEST	Size estimation method CHECK ALL THAT APPLY	SERVICE MULTIPLIER ..... 1 UNIQUE EVENT MULTIPLIER ..... 2 UNIQUE OBJECT MULTIPLIER ..... 3			C
N/A	SZ1MSG	<i>[Interviewer should read]: The next question is about a service or event that may or may not be familiar to you.</i>		ONLY ASK IF QPSIZEST = '2' OR '3'		

N/A	Variable ID: SZ	Size Estimation	Response Options	Skips	Comments	Core or Secondary*
1.	SZSMLT	Did you go to or attend [insert facility/location/event] for [insert service] during [insert time period]?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	ONLY ASK IF QPSIZEST = 'A' OR 'B'		C
N/A		<b>Unique object multiplier method</b>				
N/A	SZ2MSG	The next set questions are asked of survey participants who are being recruited into survey, and unique object has been distributed to members of the key (source) population from which the sample is to be drawn prior to the start of the recruitment (with the intention of using the information as a multiplier to calculate the size of the population).		ONLY ASK IF QPSIZEST = 'C'  IF QPSIZEST='A' OR 'B' SKIP TO END OF CURRENT SECTION	ONLY IF QPSIZEST = '4'	
2.	SZKEY	Before we started this survey we passed out some [insert distributed object] in the community. This was done by [insert outreach workers/healthcare worker/community member] and they may have told you to keep it and not to give anyone. Did you get a [insert distributed object]?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	IF '2','7','8' → SKIP TO END OF CURRENT SECTION.	ONLY IF QPSIZEST = '4'	C
3.	SZSHOW	Can you show it to me?  <i>Interviewer should verify and key in response.</i>	CANNOT SHOW ..... 1 SHOWS THE WRONG OBJECT ..... 2 SHOWS THE RIGHT OBJECT ..... 3	'2' → SKIP TO END OF CURRENT SECTION  '3' → SKIP TO SZ4MSG	ONLY IF QPSIZEST = '4'	C

N/A	Variable ID: SZ	Size Estimation	Response Options	Skips	Comments	Core or Secondary*
N/A	SZ3MSG	<i>Show the participant a number of unique objects including the ones distributed and then ask:</i>			ONLY IF QPSIZEST = '4'	
4.	SZSEEN	We have distributed some of these objects. Can you identify the one you may have received?	IDENTIFIED THE CORRECT OBJECT .. 1 COULD NOT IDENTIFY CORRECTLY .. 2	'2' → SKIP TO END OF CURRENT SECTION	ONLY IF QPSIZEST = '4'	S
N/A	SZ4MSG	<i>Probe participant for the following questions:</i>			ONLY IF QPSIZEST = '4'	
5.	SZNUM	How many [insert distributed object] did you receive?	# [   ] MIN: 1 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'0' → SKIP TO END OF CURRENT SECTION.	ONLY IF QPSIZEST = '4'	C
6.	SZREC	When did you receive the [insert distributed object]?	BEFORE DISTRIBUTION ..... 1 DURING DISTRIBUTION ..... 2 AFTER DISTRIBUTION ..... 3 DON'T KNOW ..... 7		ONLY IF QPSIZEST = '4'	S
7.	SZBUY	Did you buy or pay for the object?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7		ONLY IF QPSIZEST = '4'	S

\*C=CORE, S=SECONDARY for all KP groups.

## 6. ACASI TUTORIAL

(Audio) Computer-Assisted Self-administered Interviews (ACASI) provide more privacy than face-to face-interviews. In doing so, ACASI provides participants more comfort when answering questions about sensitive issues or behaviors and reduces social desirability bias. Furthermore, the ACASI interview mode minimizes data entry by interview staff. The purpose of this tutorial is to teach the participant how to use ACASI on a computer, tablet, or smart phone. Most or all questions in this tutorial are sample questions that do not collect hard data for analysis.

This tutorial should precede the actual interview. It is recommended that a survey staff member is present during the tutorial in order to answer any questions and to determine whether the respondent is capable of conducting an ACASI. After demonstrating that the respondent is capable of conducting the ACASI, the survey staff should leave the respondent to him/herself but remain within earshot to answer any further questions. If the tutorial suggests that the respondent may not be competent enough to conduct an ACASI, staff may opt to administer the questionnaire as a computer-assisted personal interview (CAPI, i.e. face-to-face, electronic).

N/A	Variable ID: TU	ACASI Tutorial	Response Options	Skips	Comments	Core or Secondary*
N/A	TUT1MSG	<i>Welcome. First we will tell you how to use this computer for the interview. You can listen to and read the questions on the screen and then give your best answer. Use the "NEXT" button to go to the next question. Use the "BACK" button to return to the previous question if you need to.</i>			<i>Survey staff to observe and assist respondent.</i>	C
N/A	TUTWELC	<i>[Interviewer should read]: Thank you for your answers so far. We would like you to finish the rest of the survey on your own if possible. The following section will teach you the basics of using this device. I will remain here to help you and answer any questions you may have. Please give me the tablet after a few question when you are instructed to do so.</i>				C

N/A	Variable ID: TU	ACASI Tutorial	Response Options	Skips	Comments	Core or Secondary*
N/A	TUT1MSG	<p>Welcome to the device tutorial, where we will tell you how to use this device for the interview. You can read the questions on the screen (or listen if this is available) and then give your best answer. Use the “right arrow” button to go to the next question. Use the “left arrow” button to return to the previous question if you need to. You may also swipe left or right to switch between questions.</p>			Survey staff to observe and assist respondent.	C
1.	TUTYES	<p>Now we will explain to you the different types of questions and answers. Some questions you answer by clicking either “Yes” or “No”. Try it and click on “Yes”.</p>	<p>YES ..... 1 NO ..... 2</p>	IF ‘2’, PRESENT ERROR MESSAGE AND ASK TO REENTER CORRECT VALUE.		C
2.	TUTBEST	<p>For some questions you choose the best or correct answer. For example, what is the day after WEDNESDAY?</p>	<p>MONDAY ..... 1 TUESDAY ..... 2 WEDNESDAY ..... 3 THURSDAY ..... 4 FRIDAY ..... 5 SATURDAY ..... 6 SUNDAY ..... 7</p>	IF ANSWER NOT ‘THURSDAY’, PRESENT ERROR MESSAGE AND ASK TO REENTER CORRECT VALUE.		C
3.	TUTMLT	<p>For some questions you can choose more than one answer. For example, here is a list of things people do. Select the first three activities and then go on to the next question.</p>	<p>Y N LISTEN TO MUSIC ..... 1 ..... 2 REPAIR THINGS ..... 1 ..... 2 READ BOOKS ..... 1 ..... 2 WATCH TV ..... 1 ..... 2 GO ON A HOLIDAY ..... 1 ..... 2</p>			C



N/A	Variable ID: TU	ACASI Tutorial	Response Options	Skips	Comments	Core or Secondary*
4.	TUTNUM	For some questions you answer by entering a number, for example when we ask how old one is or how many children one has. Let's try that: Type the number "18".	<NUM>	IF ANSWER IS NOT '18', ASK TO REENTER CORRECT VALUE.		C
N/A	TUT2MSG	<i>Please give the tablet to the staff.</i>				C
5.	TUTPASS	<i>[Instruction to staff]: The respondent passes the tutorial if he/she correctly answers each question. Did the respondent pass the tutorial?</i>	YES ..... 1 NO ..... 2	'1' → PROCEED TO TUT3MSG  '2' → SKIP TO TUT4MSG		C
N/A	TUT3MSG	<i>[Instruction to staff]: Since the respondent passed the tutorial, please give the tablet back to him or her so that he or she may continue answering the questions individually.</i>				C
N/A	TUT4MSG	<i>[Instruction to staff]: Since the respondent did not pass the tutorial, please continue the interview by asking the questions aloud and recording the participant's responses.</i>				C
N/A	TUT5MSG	<i>Thank you. Remember that you can refuse to answer questions if you want to. For some questions if you do not know the exact answer, try to estimate it as best as you can. This completes the exercise. Please continue with the survey.</i>				C

\*C=CORE, S=SECONDARY for all KP groups.

# 7. DEMOGRAPHICS

This module is intended to capture key demographic information about participants. The questions presented here broaden understanding of social and economic determinants found to impact risk and vulnerability of key populations.

N/A	Variable ID: DE	Demographics	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
1.	DESEXNOW	Do you consider yourself as male, female transgender, or other?	MALE ..... 1 FEMALE ..... 2 TRANSGENDER ..... 3 OTHER ..... 4 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		BACKGROUND	C	C	C	C	C
2.	DESEXBTH	What was your sex at birth?	MALE ..... 1 FEMALE ..... 2 OTHER ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		BACKGROUND	C	C	C	C	C

N/A	Variable ID: DE	Demographics	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
3.	DEIDENT	Would you describe yourself as:	GAY/ HOMOSEXUAL/ LESBIAN ..... 1  BISEXUAL ..... 2  STRAIGHT/ HETEROSEXUAL ..... 3  OTHER ..... 6  DON'T KNOW ..... 7  REFUSE TO ANSWER ..... 8		BACKGROUND  ADAPT TERMS TO LOCAL CONTEXT.	S	C	C	S	S
4.	DEATTRA	What sex would you say you are most sexually attracted to?	ONLY OR MOSTLY MALE .... 1  EQUALLY MALE AND FEMALE ..... 2  ONLY OR MOSTLY FEMALE ..... 3  NONE ..... 4  DON'T KNOW ..... 7  REFUSE TO ANSWER ..... 8		BACKGROUND	S	C	C	S	S
5.	DEAGENUM	How old were you at your last birthday?	AGE IN COMPLETED YEARS:  [   ]  MIN: ELIGIBILITY CRITERIA  DON'T KNOW 97  REFUSE TO ANSWER 98	Answer provided must match answer for "ELAGEL". Provide assistance if necessary.	BACKGROUND	C	C	C	C	C

N/A	Variable ID: DE	Demographics	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
6.	DEBORN	In what country/nation were you born?	COUNTRY A ..... 1 COUNTRY B ..... 2 COUNTRY C ..... 3 OTHER ..... 6 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		BACKGROUND  Use locally defined responses. More options can be included.	S	S	S	S	S
7.	DEREADWR	Can you read and write?	CANNOT READ OR WRITE .. 1 CAN READ ONLY ..... 2 CAN READ AND WRITE ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		BACKGROUND	S	S	S	S	S
8.	DEEVER	Have you ever attended school?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2','7' OR '8'→SKIP TO DEMARSTA	BACKGROUND  Use locally defined responses. More options can be included.	C	C	C	C	C
9.	DEEDHIGH	What is the highest level/grade/year of school you attended?	PRIMARY ..... 1 SECONDARY ..... 2 HIGHER (UNIVERSITY OR OTHER POST-SECONDARY SCHOOL) ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		BACKGROUND  Use responses based on local context.	C	C	C	C	C

N/A	Variable ID: DE	Demographics	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
10.	DEEMPL	What best describes your current employment status?	EMPLOYED FULL-TIME ..... 1 EMPLOYED PART-TIME ..... 2 FULL-TIME STUDENT ..... 3 RETIRED ..... 4 UNEMPLOYED ..... 5 OTHER ..... 6 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		BACKGROUND	C	C	C	C	C
11.	DEMARSTA	What is your current marital status?	SINGLE, NEVER MARRIED .. 1 MARRIED ..... 2 SEPARATED/ DIVORCED ..... 3 WIDOWED ..... 4 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		BACKGROUND	C	C	C	C	C
12.	DELIVESX	Are you currently living with a sexual partner?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		BACKGROUND	C	C	C	C	C

N/A	Variable ID: DE	Demographics	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
13.	DEPOLYGM	Do you have more than one wife or live with other women as if married?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSES TO ANSWER ..... 8	MEN ONLY. '2', '7' OR '8' → SKIP TO DEREK.	BACKGROUND Appropriate in setting where polygamy is practiced.	S	S	S	S	S
14.	DEWIVESM	How many wives or live-in partners do you have?	# WIVES [   ] MIN: 2 DON'T KNOW 97 REFUSE TO ANSWER 98	MEN ONLY.	BACKGROUND Appropriate in setting where polygamy is practiced.	S	S	S	S	S
15.	DEPOLYGW	Does your husband have more than one wife or live with other women as if married?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	WOMEN ONLY. '2', '7' OR '8' → SKIP TO DEREK	BACKGROUND Appropriate in setting where polygamy is practiced.	S	S	S	S	S
16.	DEWIVESW	How many wives or live-in partners does your husband have, including you?	# WIVES [   ] MIN: 2 DON'T KNOW 97 REFUSE TO ANSWER 98	WOMEN ONLY.	BACKGROUND Appropriate in setting where polygamy is practiced.	S	S	S	S	S

N/A	Variable ID: DE	Demographics	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
17.	DEREG	Do you have a regular place to sleep at night?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		BACKGROUND  Adapt term 'regular place' to local context.	S	S	S	S	S
18.	DEHOMEL	Are you currently homeless?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		BACKGROUND	S	S	S	S	S
19.	DECURLIV	In which [select community/town/neighborhood/village] do you currently live?	AREA A ..... 1 AREA B ..... 2 AREA C ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		BACKGROUND & SAMPLING  Recommended for RDS/TLS  Adapt to local context. More options can be included.	S	S	S	S	S
20.	DERESIDE	How long have you lived here in [insert name of community/town/neighborhood/village from DECURLIV]?  TYPE '0' IF LESS THAN 1 YEAR.	# YEARS: [   ]  MIN: 0 MAX: 96  DON'T KNOW 97 REFUSE TO ANSWER 98		BACKGROUND	S	S	S	S	S

N/A	Variable ID: DE	Demographics	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
21.	DEAWAYT	In the last 6 months, how many times have you been away from home for one or more nights? By "home", we mean the place you usually live. By "away from home", we mean spending one or more nights away from the place you usually live.  TYPE '0' IF NONE.	# TIMES [     ] MIN: 0 MAX: 180 DON'T KNOW 997 REFUSE TO ANSWER 998	'0', '997' OR '998' → SKIP TO DEEMPSRC	BACKGROUND  Can be used to determine mobility.	S	S	S	S	S
22.	DEAWAYM	In the last 6 months, have you been away from home for more than one month at a time?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		BACKGROUND  Can be used to determine mobility.	S	S	S	S	S
23.	DEEMPSRC	What is your main source of income?	NO INCOME ..... 1 OPTION A ..... 2 OPTION B ..... 3 OPTION C ..... 4 OTHER ..... 6 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		BACKGROUND  Use locally defined responses.	S	S	S	S	S



N/A	Variable ID: DE	Demographics	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
24.	DEINCOME	What is your monthly income?	AMOUNT _____ DON'T KNOW 9997 REFUSE TO ANSWER 9998		BACKGROUND  Use local currency. MIN and MAX values of numeric field should be set as per local currency value.	S	S	S	S	S
25.	DECHILIV	How many children do you have currently living with you that you are responsible for (including those you may have adopted or care for)?  TYPE '0' IF NONE.	# CHILDREN [   ]  MIN: 0  MAX: 96  DON'T KNOW 97  REFUSE TO ANSWER 98		BACKGROUND	S	S	S	S	S
26.	DELANG	What is your primary spoken language?	LANGUAGE A ..... 1 LANGUAGE B ..... 2 LANGUAGE C ..... 3 OTHER ..... 6 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		BACKGROUND  Use locally defined responses.	S	S	S	S	S

N/A	Variable ID: DE	Demographics	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
27.	DEETHNIC	To which [ethnic group/race/tribe] do you belong?	ETHNICITY/RACE A ..... 1 ETHNICITY/RACE B ..... 2 ETHNICITY/RACE C ..... 3 MIXED ETHNICITY/RACE .... 4 OTHER ..... 6 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		BACKGROUND  Use locally defined responses.	S	S	S	S	S
28.	DERELIG	What religion are you?	RELIGION A ..... 1 RELIGION B ..... 2 RELIGION C ..... 3 OTHER ..... 6 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		BACKGROUND  Use locally defined responses.	S	S	S	S	S

\*: S=Sex Worker, M=MSM, T=Transgender, P=PWID, O=Other Vulnerable Population, C=Core, S=Secondary

## 8. TRANSGENDER CHARACTERISTICS

This module should only be asked of people identifying as transgender individuals in the Demographics module. Some surveys do not exclusively recruit people identifying as transgender. In surveys where transgender individuals are included in surveys of men who have sex with men, questions from this module should be included.

N/A	Variable ID: TG	Transgender Characteristics	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
1.	TGLIVE	In the last 6 months, have you lived as a woman? By living as a woman, I mean dressing and presenting yourself as a woman.	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2';'7' OR '8'→SKIP TO END OF CURRENT SECTION	BACKGROUND	N/A	S	N/A	N/A	N/A
N/A	TG1MSG	<i>Thank you. Now we are going to ask you some questions about your use of hormones and any gender enhancement/transition procedures you may have had.</i>								

N/A	Variable ID: TG	Transgender Characteristics	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
2.	TGHORM	Which type of hormones have you used?  CHECK ALL THAT APPLY.	NONE ..... A INJECTION ..... B GEL ..... C PILLS ..... D PATCH ..... E OTHER ..... X DON'T KNOW ..... Y REFUSE TO ANSWER ..... Z	IF 'A', 'Y' OR 'Z' SELECTED, NO OTHER CATEGORY CAN BE CHOSEN AS WELL.  'A', 'X', 'Y', 'Z' → SKIP TO TGENHANC  'C', 'D', 'E' → TGPROF	BACKGROUND & RISK	N/A	S	C	N/A	N/A
3.	TGINJ	In the last 6 months, how often did you get hormone injections?	NEVER ..... 1 AT LEAST ONCE A DAY ..... 2 ONCE A WEEK ..... 3 ONCE A MONTH ..... 4 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	ONLY ASK IF TGHORM='B'	RISK	N/A	S	C	N/A	N/A
4.	TGSHARE	In the last 6 months, with how many people did you use a needle after someone else had injected hormones with it?	# PEOPLE [   ] MIN: 0 MAX: 96 CODE '00' IF NONE DON'T KNOW 97 REFUSE TO ANSWER 98	ONLY ASK IF TGHORM='B'	RISK	N/A	S	C	N/A	N/A

N/A	Variable ID: TG	Transgender Characteristics	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
5.	TGPROF	Does a health care provider know about or supervise your use of hormones?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	ONLY ASK IF TGHORM='B', 'C', 'D', OR 'E'	COVERAGE	N/A	S	C	N/A	N/A
6.	TGENHANC	Other than hormones, have you had a gender enhancement/or transition procedure?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2','8' → SKIP TO TGAAWARE	BACKGROUND	N/A	S	C	N/A	N/A
7.	TGPROC	What type of procedures did you have? CHECK ALL THAT APPLY.	COLLAGEN ..... A INDUSTRIAL SILICONE GEL ..... B SEX OR GENDER REASSIGNMENT SURGERY ..... C IMPLANTS ..... D OTHER ..... X DON'T KNOW ..... Y REFUSE TO ANSWER ..... Z		BACKGROUND	N/A	S	C	N/A	N/A

N/A	Variable ID: TG	Transgender Characteristics	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
8.	TGBODY	What parts of your body did you have procedures on? CHECK ALL THAT APPLY.	GENITALS ..... A NOSE ..... B BUTTOCKS ..... C THIGHS ..... D BREASTS ..... E FOREHEAD ..... F CHEEKBONES ..... G LIPS ..... H CHIN ..... I HIPS ..... J DON'T KNOW ..... Y REFUSE TO ANSWER ..... Z		BACKGROUND	N/A	S	S	N/A	N/A
9.	TGVAGINA	Do you have a surgically constructed vagina?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	ONLY ASK IF DESEXBTH='1' AND DESEXNOW ='2'  '2','7','8' → TGAAWARE	BACKGROUND	N/A	S	C	N/A	N/A

N/A	Variable ID: TG	Transgender Characteristics	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
10.	TGESTAB	Where was the surgical procedure carried out?	PRIVATE HEALTH ESTABLISHMENT ..... 1 PUBLIC HEALTH ESTABLISHMENT ..... 2 PRIVATE HOME ..... 3 OTHER ..... 6 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	N/A	S	S	N/A	N/A
11.	TGAWARE	Think about the last time you had sex with a male partner. At that time was this partner aware you were transgender?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'1','7' OR '8' → SKIP TO END OF CURRENT SECTION	VULNERABILITY	N/A	S	S	N/A	N/A
12.	TGTELL	Did you tell him that you were transgender?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	S	S	N/A	N/A

\*: S= Sex Worker, M=MSM, T=Transgender, P=PWID, O=Other Vulnerable Population, C=Core, S=Secondary

#### References:

Silva-Santisteban, A; Raymond, HF; Salazar, X; et al. Understanding the HIV/AIDS Epidemic in Transgender Women of Lima, Peru: Results from a Sero- Epidemiologic Study Using Respondent Driven Sampling. *AIDS and Behavior*. 2012, 16:872–881.

## 9. SEX WORK CHARACTERISTICS

Engaging in sex work—the exchange of sex for money— places individuals at high risk of HIV. This module asks participants about their history of sex work, current engagement in sex work, and about vulnerability related to sex work. The module is essential for all surveys targeting sex workers. Investigators are encouraged to include questions from this module in other surveys to obtain information on sex workers who belong to other target groups as well. For survey populations that are not sex workers, this module should be placed after it has been determined that the participant has sold sex for money in the Recall Sexual Behavior module.

It is appropriate to decrease the recall period for sex workers given the higher expected number of partners he/she may have had creating difficulties in recalling events over a longer time period. This recall period should be modified depending on the frequency of selling sex in the sex worker population.

N/A	Variable ID: SW	Sex Work Characteristics	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
N/A	SW1MSG	<i>Now we are going to ask you some questions about getting money to have sex.</i>								
1.	SWAGE	How old were you when you first had sex with someone for money?	YEARS:       MIN: 1 MAX: CURRENT AGE DON'T KNOW 97 REFUSE TO ANSWER 98		RISK & VULNERABILITY	C	S	S	S	S



N/A	Variable ID: SW	Sex Work Characteristics	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
2.	SWREASON	What is the main reason you started selling sex for money?	MONEY FOR SELF OR FAMILY ..... 1 WAS FORCED/PRESSURED/COERCED .... 2 LIKE TO/PLEASURE/SELF-ESTEEM ..... 3 FRIENDS/FAMILY DOING IT ..... 4 MARITAL ISSUES ..... 5 OTHER ..... 6 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK, VULNERABILITY & PREVENTION	C	S	S	S	S
3.	SWDURAT	For how many years have you been selling sex for money?  TYPE '0' IF LESS THAN 1 YEAR.	YEARS:       MAX: CURRENT AGE - XX DON'T KNOW 97 REFUSE TO ANSWER 98		RISK  Value of "XX" depends on eligibility criteria.	C	S	S	S	S
4.	SWDURAT2	Just to be sure, could you please reenter the number of years you have been selling sex for money?  TYPE '0' IF LESS THAN 1 YEAR.	YEARS:       MAX: CURRENT AGE - XX DON'T KNOW 97 REFUSE TO ANSWER 98		RISK  Value of "XX" depends on eligibility criteria.	C	S	S	S	S

N/A	Variable ID: SW	Sex Work Characteristics	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
5.	SWLOC	In the last 6 months, in what part of town or neighborhood have you exchanged sex?  CHECK ALL THAT APPLY	NEIGHBORHOOD A ..... A NEIGHBORHOOD B ..... B NEIGHBORHOOD C ..... C OTHER ..... X DON'T KNOW ..... Y REFUSE TO ANSWER ..... Z		PREVENTION/ DESIGN-RDS  Adapt question and responses to local context.	C	S	S	S	S
6.	SWVENUE	Where do you usually meet or <i>find</i> clients?	BROTHEL, GUESTHOUSE, MASSAGE PARLOR ..... 1 HOTEL, CLUB, BAR, RESTAURANT ..... 2 STREET, PARK, OTHER PUBLIC PLACES ... 3 INTERNET, PHONE ..... 4 BROKER, ESCORT AGENCY ..... 5 OTHER ..... 6 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK & PREVENTION  Adapt responses to local context.	C	S	S	S	S

N/A	Variable ID: SW	Sex Work Characteristics	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
7.	SWPLACES	Where do you usually have <u>sex</u> with clients?	BAR, PUB, CLUB ..... 1 LODGE, HOTEL ..... 2 BROTHEL, MASSAGE PARLOR ..... 3 SEX WORKER'S HOME ..... 4 CLIENT'S OR OTHER HOME ..... 5 OTHER ..... 6 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		PREVENTION  Adapt responses to local context.	S	S	S	S	S
8.	SWAGENT	Do you have someone who helps you meet clients?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	C	S	S	S	S
9.	SWDECIDES	Who usually decides where to have sex?	YOU ..... 1 CLIENT ..... 2 BOTH ..... 3 PIMP ..... 4 OTHER ..... 6 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY  Adapt term "pimp" to local context.	S	S	S	S	S

N/A	Variable ID: SW	Sex Work Characteristics	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
10.	SWINCOME	Is selling sex your main source of income?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK & PREVENTION	C	S	S	S	S
11.	SWEMPL	Apart from sex work, what other work do you do to earn income?  CHECK ALL THAT APPLY	NOTHING ..... A OPTION A ..... B OPTION B ..... C OPTION C ..... D OTHER ..... X DON'T KNOW ..... Y REFUSE TO ANSWER ..... Z	IF 'A', 'Y' OR 'Z', NO OTHER CATEGORY CAN BE CHOSEN AS WELL.	BACKGROUND  Adapt responses to local context.	S	S	S	S	S
12.	SWEARNA	What is the approximate amount you earn per sex act?	VALUE: [       ] DON'T KNOW 9997 REFUSE TO ANSWER 9998		RISK  Use local currency.	C	S	S	S	S
13.	SWEARNW	In the last week, how much money did you earn from selling sex?	VALUE: [       ] DON'T KNOW 9997 REFUSE TO ANSWER 9998		RISK  Use local currency and adjust time period as needed.	C	S	S	S	S
14.	SWNOPAY	In the last 6 months, did a client ever refuse to pay you?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	S

N/A	Variable ID: SW	Sex Work Characteristics	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
15.	SWPAYLES	In the last 6 months, did a client ever pay you less than agreed?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	S
16.	SWNOCON	In the last 6 months, how often were you able to negotiate condom use, when a client told you he did not want to use a condom?	NEVER ..... 1 RARELY ..... 2 SOMETIMES ..... 3 FREQUENTLY ..... 4 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	S
17.	SWAVOID	In your experience, what do clients do to avoid using a condom?	THEY SIMPLY REFUSE ..... 1 OFFER MORE MONEY ..... 2 THREATEN ME ..... 3 BEAT ME IF I REFUSE ..... 4 OTHER ..... 6 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	S

N/A	Variable ID: SW	Sex Work Characteristics	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
18.	SWCUSE	What do you do to make clients use condoms?  CHECK ALL THAT APPLY.	NOTHING ..... A TALK TO HIM ..... B REFUSE TO HAVE SEX UNLESS HE USES A CONDOM ..... C ASK FOR MORE MONEY ..... D OTHER ..... X DON'T KNOW ..... Y REFUSE TO ANSWER ..... Z	IF 'A', 'Y' OR 'Z', NO OTHER CATEGORY CAN BE CHOSEN AS WELL.	VULNERABILITY	S	S	S	S	S
19.	SWINSI	Are there reasons why you do not insist on using a condom with a client?  CHECK ALL THAT APPLY.	I ALWAYS USE A CONDOM ..... A I CAN GET MORE MONEY ..... B SEX DOESN'T TAKE AS LONG WITHOUT A CONDOM ..... C I DON'T INSIST WHEN I AM AFRAID ..... D ASK FOR MORE MONEY ..... E OTHER ..... X DON'T KNOW ..... Y REFUSE TO ANSWER ..... Z	IF 'A', 'Y' OR 'Z', NO OTHER CATEGORY CAN BE CHOSEN AS WELL.	VULNERABILITY	S	S	S	S	S
20.	SWCARRY	In the past six months, have you stopped carrying condoms with you because you feared the police would identify you as a sex worker?	YES ..... 1 NO ..... 2 I DO NOT USUALLY CARRY CONDOMS ... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	S

N/A	Variable ID: SW	Sex Work Characteristics	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
21.	SWABUSE	In the last 6 months, has a client abused or threatened you?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	C	S	S	S	S
22.	SWFORCE	In the last 6 months, has a client forced you to have sex?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	C	S	S	S	S
23.	SWMOB	In the last 12 months, where else outside this town/city have you sold sex?  CHECK ALL THAT APPLY.	NOWHERE ELSE ..... A OUTSIDE THE TOWN/CITY BUT INSIDE PROVINCE/DISTRICT ..... B OUTSIDE THE PROVINCE/DISTRICT BUT INSIDE COUNTRY ..... C OUTSIDE COUNTRY ..... D DON'T KNOW ..... Y REFUSE TO ANSWER ..... Z	'A', 'Y', OR 'Z' → SKIP TO END OF CURRENT SECTION	PREVENTION	C	S	S	S	S
24.	SWOUT	In the last 12 months, how often did you travel outside of this town/city to sell sex?	DAILY ..... 1 WEEKLY ..... 2 MONTHLY ..... 3 A FEW TIMES A YEAR ..... 4 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		PREVENTION	C	S	S	S	S

N/A	Variable ID: SW	Sex Work Characteristics	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
25.	SWCLNR	In the last week, how many different men paid you money for sex that were <u>regular clients</u> ?  A regular client is someone you have had sex with on more than one occasion.	[       ] DON'T KNOW 9997 REFUSE TO ANSWER 9998	'0', '9997', OR '9998' à SKIP TO SWCLNO	RISK	C	S	S	S	S
26.	SWCLNRC	The last time you had sex with a regular client, did you use a condom?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	C	S	S	S	S
27.	SWCLNO	In the last week, how many different men paid you money for sex that were <u>one-time clients</u> ?  A one-time client is someone you have had sex with only once.	[       ] DON'T KNOW 9997 REFUSE TO ANSWER 9998	'0', '9997', OR '9998' à SKIP TO END OF CURRENT SECTION.	RISK	C	S	S	S	S
28.	SWCLNOC	The last time you had sex with a one-time client, did you use a condom?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	C	S	S	S	S

\*: S=Sex Worker, M=MSM, T=Transgender, P=PWID, O=Other Vulnerable Population, C=Core, S=Secondary



# 10. CLIENTS OF SEX WORKERS CHARACTERISTICS

Clients of sex workers are at high risk for HIV infection in most settings. A sex worker is someone who receives money for sex. While clients of sex workers often are not considered a key population, their HIV risk is defined by having sex with sex workers. As clients can be difficult to reach, surveys sometimes focus on occupationally-defined groups (e.g. transport workers or migrants) when formative research suggests that a high proportion of them have sex with sex workers. Other modules in these guidelines probe such occupational characteristics, whereas this module probes client-specific sex behaviors. Any population group that is surveyed as a proxy for clients of sex workers should be asked the questions from this module.

	Variable ID: CL	Clients Of Sex Workers Characteristics	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
N/A	CL1MSG	<i>Thank you for your answers so far. Next, a few questions about paying anyone for sex with money.</i>			Only for anyone who paid for sex					
1.	CLAGE	How old were you when you first paid for sex?  By sex, I mean vaginal and anal sex. With vaginal sex we mean a penis enters a vagina. With anal sex we mean a penis enters a person's anus (butt).	# YEARS [   ]  MIN: (CURRENT AGE)- (AGE AT FIRST SEX)  MAX: CURRENT AGE  DON'T KNOW 97  REFUSE TO ANSWER 98		RISK & VULNERABILITY  'Current age' from DEMOGRAPHICS	S	S	S	S	C

	Variable ID: CL	Clients Of Sex Workers Characteristics	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
2.	CLMEET	Where is the main place you find sex workers, either male, female, or transgender?  A sex worker is someone who receives money for sex.	BAR, PUB, CLUB ..... 1 LODGE, HOTEL ..... 2 BROTHEL, MASSAGE PARLOR ..... 3 STREET, PUBLIC OR OPEN SPACE .... 4 BY PHONE, SMS, INTERNET ..... 5 OTHER ..... 6 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK & PREVENTION	S	S	S	S	C
3.	CLSEX	Where do you have sex with sex workers most often?	BAR, PUB, CLUB ..... 1 LODGE, HOTEL ..... 2 BROTHEL, MASSAGE PARLOR ..... 3 SEX WORKER'S HOME ..... 4 MY OR OTHER HOME ..... 5 OTHER ..... 6 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK & PREVENTION	S	S	S	S	S
4.	CLSREG	Do you usually go to the same sex worker for sex?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	S	S

	Variable ID: CL	Clients Of Sex Workers Characteristics	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
5.	CLSRAPE	Have you ever used or threatened to use force to have sex with a sex worker?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK, VULNERABILITY	S	S	S	S	S
6.	CLHIVQ	The last time you paid for sex, did you ask the sex worker whether she or he has HIV?	YES ..... 1 NO, I DIDN'T ASK ..... 2 NO, I ALREADY KNEW STATUS ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	S	S
7.	CLTEST	There are home HIV test kits available. Have you ever tested a sex worker for HIV before having sex?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		PREVENTION & VULNERABILITY  In settings where home- based, self-testing is available	S	S	S	S	S

\*: S=Sex Worker, M=MSM, T=Transgender, P=PWID, C=Client/Other Vulnerable Population, C=Core, S=Secondary

# 11. INCARCERATION CHARACTERISTICS

This module captures information specific to the incarcerated population. Here, “detained” describes temporary, often pre-trial custody or police holding cells and “imprisoned” refers to being convicted of a crime and confined in a prison as punishment. “Incarceration” describes either type of confinement, detention or imprisonment. Formative assessment is crucial to understanding important factors including but not limited to the structural (i.e. how many prisoners share facilities, cells) and organizational (i.e. how are prisoners segregated—by sentence, crime, sex) environment, whether conjugal visits are allowed, and access to health care. Other modules, such as those on violence, drug use, alcohol use, and prevention services should be reviewed and modified for prisoners (male or female). This module focuses on risk during incarceration, thus consideration should be given to whether a minimum amount of time incarcerated (e.g. 6 months or 1 year) should be used as part of eligibility criteria to participate in biobehavioral surveys. Here, a recall period of six months was used, but the recall period should be based on the local context and should not exceed the time spent in prison to capture information specific to risk during incarceration.

There are two sections to this module. The first part addresses historical incarceration, whereas the second part contains questions about current incarceration. Reference periods, response categories and topics used in this module were based on those suggested by the United Nations Office on Drugs and Crime (UNODC) tool kit on HIV and prisons (2010).

N/A	Variable ID: IN	Incarceration	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
N/A	N/A	<i>HISTORICAL INCARCERATION</i>								
N/A	IN1MSG	<i>The next questions are about any incarceration before this survey.</i>								
1.	INHISTOR	Have you ever been detained or imprisoned before this time?	YES, DETAINED ..... 1 YES, IMPRISONED ..... 2 NO ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'3','7','8' →SKIP TO IN2MSG	BACKGROUND	S	S	S	S	C

N/A	Variable ID: IN	Incarceration	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
2.	INTIMES	Before this time, how many times have you been incarcerated?	ONCE ..... 1 TWO OR MORE TIMES ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		BACKGROUND	S	S	S	S	C
3.	INLASTM	The last time you were incarcerated, for how long were you detained or imprisoned?	[locally defined time period here] # MONTHS       CODE '00' IF LESS THAN ONE MONTH MORE THAN 12 MONTH 96 DON'T KNOW 97 REFUSE TO ANSWER 98	IF NOT 96→SKIP TO IN2MSG	BACKGROUND  Time period should be locally defined.	S	S	S	S	S
4.	INLASTY	If more than 12 months, how many years?	# YEARS       DON'T KNOW 97 REFUSE TO ANSWER 98		BACKGROUND	S	S	S	S	S
N/A		<i>CURRENT INCARCERATION</i>								
N/A	IN2MSG	<i>The next questions are about this incarceration.</i>								
5.	INSTATUS	Are you currently...	SENTENCED/CONVICTED ..... 1 REMANDED/AWAITING TRIAL ..... 2 OTHER ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		BACKGROUND	S	S	S	S	C

N/A	Variable ID: IN	Incarceration	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
6.	INREASON	For what crime are you charged?	[insert locally defined responses] DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK & VULNERABILITY	S	S	S	S	S
7.	INSENTNY	For how many years is your detention/remand or sentence this time?	# YEARS       CODE '00' IF LESS THAN ONE YEAR DON'T KNOW 97 REFUSE TO ANSWER 98	'00' → SKIP TO INSENTNM	BACKGROUND & RISK	S	S	S	S	S
8.	INTIMYR	For how many years have you been incarcerated this time?	# YEARS       CODE '00' IF LESS THAN ONE YEAR DON'T KNOW 97 REFUSE TO ANSWER 98		BACKGROUND & RISK	S	S	S	S	S
9.	INSENTNM	For how many months is your detention/remand or sentence this time?	[insert locally defined time period] # MONTHS       CODE '00' IF LESS THAN ONE MONTH DON'T KNOW 97 REFUSE TO ANSWER 98	ONLY ASK IF INSENTNY = 00	BACKGROUND & RISK  Time period should be locally defined.	S	S	S	S	S

N/A	Variable ID: IN	Incarceration	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
10.	INTIMMN	For how many months have you been incarcerated this time?	[insert locally defined time period] # MONTHS       CODE '00' IF LESS THAN ONE MONTH MORE THAN 12 MONTHS 96 DON'T KNOW 97 REFUSE TO ANSWER 98	ONLY ASK IF INSENTNY = 00	BACKGROUND & RISK  Time period should be locally defined.	S	S	S	S	S
N/A	IN3MSG	<i>The next few questions are about sex since you have been incarcerated this time.</i>								
11.	INSHARSP	With how many other people do you share sleeping quarters (i.e. cell)?	# PERSONS       DON'T KNOW 97 REFUSE TO ANSWER 98		RISK	S	S	S	S	C
12.	INSXVAGN	Have you had vaginal sex or anal sex with women since being detained/incarcerated this time?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2';'7';'8' →SKIP TO INSXANAL	RISK	S	S	S	S	C
13.	INSXFEML	With how many female partners have you had vaginal or anal sex during the past six months since you were detained/incarcerated this time?	# SEXUAL PARTNERS       DON'T KNOW 997 REFUSE TO ANSWER 998		RISK	S	S	S	S	C

N/A	Variable ID: IN	Incarceration	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
14.	INSXANAL	Have you had anal sex during the past six months since you were incarcerated this time?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2','7','8' →SKIP TO INSXCOND	RISK	S	S	S	S	C
15.	INSXMALE	With how many male partners have you had anal sex during the past six months since you were incarcerated this time?	# SEXUAL PARTNERS       DON'T KNOW 997 REFUSE TO ANSWER 998		RISK	S	S	S	S	C
16.	INSXRAPP	While incarcerated during the past six months, have you been forced or coerced to have sex by another prisoner?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2','7','8' →SKIP TO INSXEXCH	RISK & VULNERABILITY	S	S	S	S	C
17.	INSXRAPS	While incarcerated in the past six months, have you been forced or coerced to have sex by prison staff/ authority figure?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK & VULNERABILITY	S	S	S	S	C
18.	INSXCSTF	While incarcerated during the past six months, have you had sex with prison staff when it was not forced?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK & VULNERABILITY	S	S	S	S	C



N/A	Variable ID: IN	Incarceration	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
19.	INSXFOBJ	While incarcerated in the past six months, have you had an object inserted into your anus/vagina by another prisoner or staff against your will?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK & VULNERABILITY	S	S	S	S	C
20.	INSXEXCH	While incarcerated during the past six months, have you had sex with someone for money, goods, access, protection, or services?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK & VULNERABILITY	S	S	S	S	C
21.	INSXCOND	Are you able to obtain condoms in this prison?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		PREVENTION	S	S	S	S	C
N/A	IN4MSG	<i>Thank you for your answers. The next few questions are about drug use since you have been incarcerated.</i>								
22.	INEVRUSE	Have you used drugs to get high while in prison this time?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2','7' OR '8' →SKIP TO INBLADE	RISK  This can be used if specific drug use is not of interest; otherwise, refer to the questions below	S	S	S	S	C

N/A	Variable ID: IN	Incarceration	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
23.	ININJECT	Have you injected drugs while in prison this time?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2','7' OR '8' →SKIP TO INBLADE	RISK  Use if not interested in specific drugs; if specifics are needed see INIDUEVR	C	C	C	C	C
24.	INIDULOC	Did you share your injection equipment with others during the past six months since you were incarcerated this time?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	S	S
N/A	IN5MSG	<i>Thank you. This section is about experiences in prison.</i>								
25.	INBLADE	In the last six months since you were incarcerated this time, have you ever shared blades to shave or cut hair?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	S	C
26.	INTATTOO	In the last six months while incarcerated, have you ever been tattooed?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	S	C

N/A	Variable ID: IN	Incarceration	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
27.	INPIERCE	In the last six months while incarcerated, have you ever made a piercing or put in an earring?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	S	C

\*: S= Sex Worker, M=MSM, T=Transgender, P=PWID, O=Other Vulnerable Population, C=Core, S=Secondary

#### References:

United Nations Office on Drugs and Crime (UNODC). HIV and Prisons: Situation and Needs Assessment Tool Kit, 2010. [http://www.unodc.org/documents/hiv- aids/publications/HIV\\_in\\_prisons\\_situation\\_and\\_needs\\_assessment\\_document.pdf](http://www.unodc.org/documents/hiv- aids/publications/HIV_in_prisons_situation_and_needs_assessment_document.pdf)

## 12. TRANSPORT WORKER CHARACTERISTICS

This module is intended to capture characteristics of transport workers such as truckers and their assistants. Assistants are defined as any person employed either through informal or formal means to assist the driver of a vehicle in the transport, loading, off-loading, maintenance or other support provided during the transportation of goods from one site to another. This excludes persons who are receiving a ride to any point or destination that are not there exclusively to assist the driver in the transport of his cargo (i.e., vendors, friends, hitchhikers, etc.). The definition of an assistant must be clear when determining eligibility.

Formative research should inform local questions regarding specific routes or truck rest stops. Key concepts here are related to transport including the length of time spent away from home, multiple concurrent partnerships, condom use, and alcohol/drug use before sex. When conducting biobehavioral surveys among truckers, it is recommended to also include modules about alcohol, drug use, condom use, multiple concurrent partnerships, and STIs.

N/A	Variable ID: TR	Transport Worker Characteristics	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
N/A	TR1MSG	<i>Thank you for your answers so far. This next section is about the truck route including distance and time away from home and family.</i>								
1.	TROCCU	Are you a [insert local name for transport worker] or [insert local name for assistant]?	TRANSPORT WORKER ..... 1 ASSISTANT ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'7';'8' → SKIP TO END OF CURRENT SECTION.	BACKGROUND  Use locally defined term for transport worker and assistant and on occupation.  Should be excluded if already included in eligibility.	N/A	N/A	N/A	N/A	C
2.	TRORIG	On your last trip, which city was your origin?	<NUM>		PREVENTION	N/A	N/A	N/A	N/A	C

N/A	Variable ID: TR	Transport Worker Characteristics	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
3.	TRDEST	On your last trip, which city was your destination?	<NUM>		PREVENTION	N/A	N/A	N/A	N/A	C
4.	TRDISTND	On average, how many days does it take for you to travel between these two cities?  TYPE '0' IF LESS THAN A DAY.	# DAYS [   ]  DON'T KNOW 97  REFUSE TO ANSWER 98		PREVENTION	N/A	N/A	N/A	N/A	C
5.	TRLONG	For how long have you been a [insert local name for transport worker]/[insert local name for assistant]?	LESS THAN 1 MONTH ..... 1  1 OR MORE MONTHS BUT LESS THAN 12 MONTHS ..... 2  1 OR MORE YEARS ..... 3  DON'T KNOW ..... 7  REFUSE TO ANSWER ..... 8	'7' OR '8' → SKIP TO TR2MSG  '1' → GO TO TRLONGD  '2' → SKIP TO TRLONGM  '3' → SKIP TO TRLONGY	RISK	S	S	S	S	C
6.	TRLONGD	For how many DAYS have you been a [insert local name for transport worker]/[insert local name for assistant]?	# DAYS [   ]  MAX: 31  DON'T KNOW 97		RISK	S	S	S	S	C
7.	TRLONGM	For how many MONTHS have you been a [insert local name for transport worker]/[insert local name for assistant]?	# MONTHS [   ]  MAX: 12  DON'T KNOW 97		RISK	S	S	S	S	C
8.	TRLONGY	For how many YEARS have you been a [insert local name for transport worker]/[insert local name for assistant]?	# YEARS [   ]  MAX: CURRENT AGE  DON'T KNOW 97		RISK	S	S	S	S	C

N/A	Variable ID: TR	Transport Worker Characteristics	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
N/A	TR2MSG	<i>This section is about the time away from home.</i>								
9.	TRWAYHMD	In the past 30 days, how many nights have you spent away from home on work travel?	# NIGHTS [   ] MIN: 0 MAX: 30 DON'T KNOW 97 REFUSE TO ANSWER 98	'0'; 97' OR '98' → SKIP TO TRTRIPS	RISK	N/A	N/A	N/A	N/A	C
10.	TRWYNT	In the past 30 days, when you travel, where do you take your night rest?  CHECK ALL THAT APPLY.	IN VEHICLE ..... A AT A LODGE/REST HOUSE ..... B OTHER ..... X DON'T KNOW ..... Y REFUSE TO ANSWER ..... Z		PREVENTION & RISK	N/A	N/A	N/A	N/A	C
11.	TRTRIPS	In the past six months, how many trips did you do?	# TRIPS [   ] DON'T KNOW 97 REFUSE TO ANSWER 98		RISK  Time period can change depending on context.	N/A	N/A	N/A	N/A	C
N/A	TR3MSG	<i>This section is about sex you may have had while on a trip.</i>								
12.	TRAWAYSX	In the past 6 months, have you had sex with anyone on any of your trips?  By sex, I mean vaginal and anal sex. With vaginal sex we mean a penis enters a vagina. With anal sex we mean a penis enters a person's anus (butt).	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2'; 7' OR '8' → SKIP TO END OF CURRENT SECTION	RISK	N/A	N/A	N/A	N/A	C

N/A	Variable ID: TR	Transport Worker Characteristics	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
13.	TRSXWITH	In the past 6 months, with whom have you had sex on any of your trips?  CHECK ALL THAT APPLY.	LIVE-IN PARTNER/SPOUSE ..... A GIRLFRIEND/BOYFRIEND ..... B SEX WORKER ..... C OTHER ..... X DON'T KNOW ..... Y REFUSE TO ANSWER ..... Z		RISK  Adapt responses to local context.	N/A	N/A	N/A	N/A	C
14.	TRSXWR	In the past 6 months, where have you had sex during your trips?  CHECK ALL THAT APPLY.	INDOORS (HOTEL, HOME) ..... A OUTDOORS (BUS PARK, FOREST, STREET, TRUCK) ..... B OTHER LOCATION ..... X DON'T KNOW ..... Y REFUSE TO ANSWER ..... Z		PREVENTION	N/A	N/A	N/A	N/A	C

\*: S=Sex Worker, M=MSM, T=Transgender, P=PWID, O=Other Vulnerable Population, C=Core, S=Secondary

#### References:

Atiola GO, Akpab OM, Komolafea IOO. HIV/AIDS and the long-distance truck drivers in south-west Nigeria: A cross-sectional survey on the knowledge, attitude, risk behaviour and beliefs of truckers. *J Infect Pub Hlth* 2010; 3:166-178.

Agrawal KK, Agrawal L, Agrawal VK, Chaudhary V. Behavior surveillance survey amongst truck drivers regarding HIV/AIDS. *J Behav Hlth* 2012; 1(3):196-200.

ASHA/FHI. Integrated Biological and Behavioral Surveillance Survey (IBBS) among Truckers in 22 Terai Highway Districts of Nepal, 2009. [http://pdf.usaid.gov/pdf\\_docs/PNADU489.pdf](http://pdf.usaid.gov/pdf_docs/PNADU489.pdf)

# 13. REPRODUCTIVE HEALTH

The intent of this module is to capture information about family planning, pregnancies, spontaneous and induced abortions, and biological children. This module is intended only for females and is appropriate for sex workers (SW) and people who inject drugs (PWID).

N/A	Variable ID: RH	Reproductive Health	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
N/A	RH1MSG	<i>Now some questions about family planning, pregnancies, and children. First, we would like to ask you about pregnancy.</i>		SKIP ENTIRE SECTION FOR MALES						
1.	RHEVRPRG	Have you ever been pregnant?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2','7','8' → SKIP TO RHTRYPRG	BACKGROUND	C	N/A	N/A	C	C
2.	RHPRENUM	How many times have you been pregnant?	[   ] MIN: 1 DON'T KNOW 97 REFUSE TO ANSWER 98		BACKGROUND	S	N/A	N/A	S	S



N/A	Variable ID: RH	Reproductive Health	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
3.	RHPRGNOW	When were you last pregnant?	I AM PREGNANT NOW ..... 1 WITHIN THE LAST 12 MONTHS .. 2 BETWEEN 12 MONTHS AND 3 3 YEARS AGO ..... LONGER THAN 3 YEARS AGO .... 4 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		BACKGROUND	S	N/A	N/A	S	S
4.	RHPRGMIS	Have you ever had a pregnancy that miscarried?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2','7','8' → SKIP TO RHPRGABO	BACKGROUND	S	N/A	N/A	S	S
5.	RHPRGMIR	Were any of these miscarriages within the last 12 months?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		BACKGROUND	S	N/A	N/A	S	S
6.	RHPRGABO	Have you ever had a pregnancy that was aborted or terminated?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2','7','8' → SKIP TO RHPRGSTL	BACKGROUND	S	N/A	N/A	S	S

N/A	Variable ID: RH	Reproductive Health	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
7.	RHPRGABR	Were any of these abortions or terminations within the last 12 months?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		BACKGROUND	S	N/A	N/A	S	S
8.	RHPRGSTL	Have you ever had a pregnancy that ended in a stillbirth?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2','7','8' → SKIP TO RHEVBRTH	BACKGROUND	S	N/A	N/A	S	S
9.	RHPRGSTR	Were any of these stillbirths within the last 12 months?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		BACKGROUND	S	N/A	N/A	S	S
10.	RHEVBRTH	Have you ever given birth?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2','7','8' → SKIP TO RHTRYPRG	BACKGROUND	S	N/A	N/A	S	S
11.	RHNUMKID	How many living sons and daughters do you have?	# CHILDREN [   ] CODE '00' IF NONE DON'T KNOW 97 REFUSE TO ANSWER 98		BACKGROUND	S	N/A	N/A	S	S

N/A	Variable ID: RH	Reproductive Health	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
N/A	RH2MSG	<i>The next few questions are about the last pregnancy that resulted in a birth. This does not include a current pregnancy.</i>								
12.	RHANCUSE	Think about the last time you were pregnant that resulted in a live birth. A live birth is when the baby shows signs of life, such as breathing, heart beating of the movement.  Did you go to an antenatal care (ANC) clinic?	YES ..... 1 NO ..... 2  DID NOT HAVE A PREGNANCY THAT RESULTED IN A LIVE BIRTH ..... 3  DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2','3','7','8' → SKIP TO RHHIVTST	COVERAGE	C	N/A	N/A	C	S
13.	RHANCHIV	During the last time you were pregnant, were you offered an HIV test at any of your ANC visits?	YES ..... 1 NO ..... 2  DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		COVERAGE	C	N/A	N/A	C	S
14.	RHHIVTST	During the last time you were pregnant, how many times did you test for HIV?	NEVER ..... 1 ONE TIME ..... 2 TWO OR MORE TIMES ..... 3  DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'1','7','8' → SKIP TO RHANCTP	COVERAGE	C	N/A	N/A	C	S

N/A	Variable ID: RH	Reproductive Health	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
15.	RHHIVTRI	At what months during your last pregnancy, did you test for HIV?  CHECK ALL THAT APPLY.	0-3 MTHS/FIRST TRIMESTER ..... A  4-6 MTHS/SECOND TRIMESTER ..... B  7-9 MTHS/THIRD TRIMESTER .... C  DON'T KNOW ..... Y  REFUSE TO ANSWER ..... Z		COVERAGE & PREVENTION	S	N/A	N/A	S	S
16.	RHHIVRES	During the last time you were pregnant, what was the result of the last HIV test?	POSITIVE ..... 1  NEGATIVE ..... 2  UNCLEAR / NEITHER POSITIVE OR NEGATIVE ..... 3  DID NOT RECEIVE RESULT ..... 4  DON'T KNOW ..... 7  REFUSE TO ANSWER ..... 8	IF '2';'3';'4';'7';'8' → SKIP TO RHTPTEST	RESULT	C	N/A	N/A	C	S
17.	RHHIVARV	Some HIV-positive women who are pregnant take ARV medicine to reduce the risk of passing HIV on to their baby. Did you take ARVs before giving birth?	YES, TOOK ARVS BEFORE BIRTH ..... 1  YES, ALREADY ON ARVS ..... 2  NO ..... 3  DON'T KNOW ..... 7  REFUSE TO ANSWER ..... 8		COVERAGE	C	N/A	N/A	C	S
18.	RHANCTP	During the last time you were pregnant, were you offered a syphilis test?	YES ..... 1  NO ..... 2  DON'T KNOW ..... 7  REFUSE TO ANSWER ..... 8	'2';'7';'8' → SKIP TO RHTRYPRG	COVERAGE	C	N/A	N/A	C	S

N/A	Variable ID: RH	Reproductive Health	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
19.	RHTPTEST	The last time you were pregnant, were you tested for syphilis?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2','7','8' → SKIP TO RHTRYPRG	COVERAGE	C	N/A	N/A	C	S
20.	RHTPRSLT	The last time you were pregnant and had a syphilis test, what was the result of that syphilis test?	POSITIVE ..... 1 NEGATIVE ..... 2 UNCLEAR / NEITHER POSITIVE OR NEGATIVE ..... 3 DID NOT RECEIVE RESULT ..... 4 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'1','3','4','7','8' → SKIP TO RHTRYPRG	RESULT	C	N/A	N/A	C	S
21.	RHTPTX	Did you get treatment for your syphilis infection during the last time you were pregnant?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		COVERAGE	C	N/A	N/A	C	S
22.	RHSELL	Did you sell sex during the last time you were pregnant?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2','7','8' →SKIP TO RHTRYPRG		C	N/A	N/A	C	S

N/A	Variable ID: RH	Reproductive Health	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
23.	RHRETRN	How long after giving birth did you wait before selling sex again?	LESS THAN 1 YEAR ..... 1 1 YEAR OR LONGER ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'1' →SKIP TO RHRETRNM '2' →SKIP TO RHRETRNY '7','8' →SKIP TO RHTRYPRG		C	N/A	N/A	C	S
24.	RHRETRNM	How many MONTHS after giving birth did you wait before selling sex again?	# MONTHS [   ] MAX: 12 DON'T KNOW 97		RISK	C	N/A	N/A	C	S
25.	RHRETRNY	How many YEARS after giving birth did you wait before selling sex again? Type '0' if less than one year.	# YEARS [   ] DON'T KNOW 97		RISK	C	N/A	N/A	C	S
26.	RHTRYPRG	Are you currently trying to get pregnant?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'1','7','8' → SKIP TO END OF CURRENT SECTION	BACKGROUND	C	N/A	N/A	C	S
27.	RHCNNOW	Do you use any family planning method?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2','7','8' → SKIP TO END OF CURRENT SECTION	PREVENTION	C	N/A	N/A	C	S

N/A	Variable ID: RH	Reproductive Health	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
28.	RHTYPNOW	Which method do you mainly use?	PILL ..... 1 INJECTION ..... 2 NORPLANT ..... 3 IUD ..... 4 OTHER ..... 6 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'1','2','3','4','7','8' → SKIP TO END OF CURRENT SECTION	COVERAGE	C	N/A	N/A	C	S
29.	RHTYPOTH	You said "other".  Which of the following family planning methods do you mainly use?	I AM STERILIZED/PARTNER STERILIZED ..... 1 PATCH ..... 2 VAGINAL RING ..... 3 CONDOM ..... 4 OTHER ..... 6 REFUSE TO ANSWER ..... 8		COVERAGE	C	N/A	N/A	C	S

\*: S=Sex Worker, M=MSM, T=Transgender, P=PWID, O=Other Vulnerable Population, C=Core, S=Secondary

# 14. SEXUAL HISTORY

The first part of this module should be used with male/TG participants only and is intended to capture information about first sex and lifetime history of sex. Because MSM and TG may be recruited into surveys targeting sex workers or people who inject drugs, participants should be asked about their sexual experiences with males, females, and TG. The second part of this module should be used with non-TG female participants only.

When asking about first sex, countries should utilize formative research and knowledge of local customs to determine whether young ages of first sex should be coded as sexual abuse in the violence module or as sex in this module. This should be decided before survey implementation.

N/A	Variable ID: LI	Sexual History	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
N/A	LI1MSG	<i>The next few questions are about your lifetime sexual history. This includes vaginal and anal sex. With vaginal sex we mean a penis enters a vagina. With anal sex we mean a penis enters a person's anus (butt).</i>		FOR MALES AND TG ONLY. IF FEMALE SKIP TO LI8MSG						
N/A	LI2MSG	<i>First, we will ask you some questions about your sexual experiences with women.</i>								
1.	LIMFVAG	Have you ever had vaginal sex? By vaginal sex we mean your penis enter a woman's vagina.	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	C	C	C	C	C



N/A	Variable ID: LI	Sexual History	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
2.	LIMFANAL	Have you ever had anal sex with a woman? By anal sex we mean you put your penis into a woman's anus (butt).	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	IF LIMFVAG='2','7' OR '8' AND LIMFANAL='2','7' OR '8' → SKIP TO LI4MSG	RISK	C	C	C	C	C
3.	LIMFPART	In your lifetime with how many women have you had vaginal or anal sex?	# WOMEN [       ] MIN: 1 DON'T KNOW 9997 REFUSE TO ANSWER 9998		RISK	S	S	S	S	S
N/A	LI3MSG	<i>Now we will ask you some questions about the first time you had sex with a woman.</i>								
4.	LIMF1AGE	How old were you when you first had vaginal or anal sex with a woman?	# YEARS [   ] MIN: 10 MAX: CURRENT AGE DON'T KNOW 97 REFUSE TO ANSWER 98		RISK & VULNERABILITY	C	S	C	C	C

N/A	Variable ID: LI	Sexual History	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
5.	LIMFAGPA	Approximately how old was this woman at the time you first had sex?  <i>PLEASE GIVE YOUR BEST GUESS.</i>	MORE THAN 10 YEARS YOUNGER THAN ME ..... 1 5-10 YEARS YOUNGER THAN ME ..... 2 ABOUT THE SAME AGE ..... 3 5-10 YEARS OLDER THAN ME ..... 4 MORE THAN 10 YEARS OLDER THAN ME ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	S
6.	LIMFGIVE	Did you pay or give her something to have sex?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	S	S
7.	LIMFGET	Did she pay you or give you something in exchange for sex?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK & VULNERABILITY	S	S	S	S	S
N/A	LI4MSG	<i>Now we will ask you about your sexual experiences with TG women.</i>								
8.	LIMTANAL	Have you ever had anal sex with a TG woman?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	2;'7' OR '8' → SKIP TO LI6MSG	RISK & VULNERABILITY	S	S	S	S	S

N/A	Variable ID: LI	Sexual History	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
9.	LIMTPART	In your <b>lifetime</b> with how many <b>TG women</b> have you had anal sex?	# TG WOMEN [       ] DON'T KNOW 9997 REFUSE TO ANSWER 9998		RISK & VULNERABILITY	S	S	S	S	S
N/A	LI5MSG	<i>Please think back to the first time you had sex with a TG woman.</i>								
10.	LIMT1AGE	How old were you when you first had anal sex with a TG female partner?	# YEARS [   ] MAX: CURRENT AGE DON'T KNOW 97 REFUSE TO ANSWER 98		RISK & VULNERABILITY	S	S	S	S	S
11.	LIMTAGPA	Approximately how old was your TG female sex partner at the time you first had sex? <i>PLEASE GIVE YOUR BEST GUESS.</i>	MORE THAN 10 YEARS YOUNGER THAN ME ..... 1 5-10 YEARS YOUNGER THAN ME ..... 2 ABOUT THE SAME AGE ..... 3 5-10 YEARS OLDER THAN ME ..... 4 MORE THAN 10 YEARS OLDER THAN ME ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK & VULNERABILITY	S	S	S	S	S
12.	LIMTGIVE	Did you pay or give her something to have sex?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK & VULNERABILITY	S	S	S	S	S

N/A	Variable ID: LI	Sexual History	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
13.	LIMTGET	Did she pay you or give you something in exchange for sex?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK & VULNERABILITY	S	S	S	S	S
N/A	LI6MSG	<i>Now we will ask you about your sexual experiences with men.</i>								
14.	LIMMANAL	Have you ever had anal sex with a man?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2','7' OR '8' → SKIP TO END OF CURRENT SECTION	RISK	C	C	C	C	C
15.	LIMMPART	In your lifetime with how many men have you had anal sex?	# MEN [       ] DON'T KNOW 9997 REFUSE TO ANSWER 9998		RISK	S	S	S	S	S
N/A	LI7MSG	<i>Please think back to the first time you had sex with a man.</i>								
16.	LIMM1AGE	How old were you when you first had anal sex with a male partner?	# YEARS [   ] MAX: CURRENT AGE DON'T KNOW 97 REFUSE TO ANSWER 98		RISK & VULNERABILITY	C	C	C	C	C

N/A	Variable ID: LI	Sexual History	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
17.	LIMMAGPA	Approximately how old was your male sex partner at the time you first had sex?  <i>PLEASE GIVE YOUR BEST GUESS.</i>	MORE THAN 10 YEARS YOUNGER THAN ME ..... 1 5-10 YEARS YOUNGER THAN ME ..... 2 ABOUT THE SAME AGE ..... 3 5-10 YEARS OLDER THAN ME ..... 4 MORE THAN 10 YEARS OLDER THAN ME ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	S
18.	LIMMGIVE	Did you pay or give him something to have sex?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	S
19.	LIMMGET	Did he pay you or give you something in exchange for sex?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	S

N/A	Variable ID: LI	Sexual History	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
20.	LIMMID	How would you describe the first man you had sex with?	BOYFRIEND/PARTNER ..... 1 FRIEND/ACQUAINTANCE/ COWORKER ..... 2 RELATIVE ..... 3 STRANGER ..... 4 'AUTHORITY FIGURE' (GOVERNMENT OFFICIAL, RELIGIOUS LEADER, TEACHER, EMPLOYER, MILITARY, POLICE, PRISON GUARD) ..... 5 OTHER ..... 6 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'1','2','3','4','6','7','8' → SKIP TO END OF CURRENT SECTION	VULNERABILITY	S	S	S	S	S
21.	LIMMAUT	What kind of "authority figure" was he?	PROFESSOR/TEACHER ..... 1 RELIGIOUS LEADER ..... 2 EMPLOYER ..... 3 MILITARY MAN/POLICE OFFICER ..... 4 PRISON GUARD ..... 5 OTHER ..... 6 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	S
N/A	LI8MSG	<i>The next few questions are about your lifetime sexual history. This includes vaginal and anal sex. Vaginal sex is when the penis is inserted into the vagina. Anal sex is when a penis is inserted into the anus.</i>		FOR FEMALES ONLY. IF MALE, SKIP TO END OF CURRENT SECTION.						

N/A	Variable ID: LI	Sexual History	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
22.	LIFMVAG	Have you ever had vaginal sex? By vaginal sex I mean where a man inserts his penis into a woman's vagina.	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	C	N/A	N/A	C	C
23.	LIFMANAL	Have you ever had anal sex? By anal sex I mean where a man inserts his penis into another person's anus.	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	C	N/A	N/A	C	C
24.	LIFMPART	In your <b>lifetime</b> with how many different <b>men</b> have you had penetrative (vaginal or anal) sex?	# MEN [       ] MIN: 1 DON'T KNOW 9997 REFUSE TO ANSWER 9998	IF LIFMVAG='2', '7' OR '8' AND LIFMANAL='2', '7' OR '8' → SKIP TO END OF CURRENT SECTION	RISK	N/A	N/A	N/A	S	S
N/A	LI9MSG	<i>Please think back to the first time you had sex.</i>								
25.	LIFM1AGE	How old were you when you first had vaginal or anal sex with a male partner?	# YEARS [   ] MAX: CURRENT AGE DON'T KNOW 97 REFUSE TO ANSWER 98		RISK & VULNERABILITY	C	N/A	N/A	C	C

N/A	Variable ID: LI	Sexual History	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
26.	LIFMAGPA	Approximately how old was your male sex partner at the time you first had sex?  <i>PLEASE GIVE YOUR BEST GUESS.</i>	MORE THAN 10 YEARS YOUNGER THAN ME ..... 1 5-10 YEARS YOUNGER THAN ME ..... 2 ABOUT THE SAME AGE ..... 3 5-10 YEARS OLDER THAN ME ..... 4 MORE THAN 10 YEARS OLDER THAN ME ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	N/A	N/A	S	S
27.	LIFMGET	Did your first male sex partner pay you or give you something in exchange for sex?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	N/A	N/A	S	S
28.	LIFMGIVE	Did you pay or give your first male sex partner something in exchange for sex?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	N/A	N/A	S	S



N/A	Variable ID: LI	Sexual History	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
29.	LIFMID	How would you describe the first man you had sex with?	BOYFRIEND/PARTNER ..... 1 FRIEND/ACQUAINTANCE/ COWORKER ..... 2 RELATIVE ..... 3 STRANGER ..... 4 'AUTHORITY FIGURE' (GOVERNMENT OFFICIAL, RELIGIOUS LEADER, TEACHER, EMPLOYER, MILITARY, POLICE, PRISON GUARD) ..... 5 OTHER ..... 6 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'1';'2';'3';'4';'6';'7';'8' → SKIP TO END OF CURRENT SECTION	VULNERABILITY	S	N/A	N/A	S	S
30.	LIFMAUT	What kind of "authority" was he?	PROFESSOR/TEACHER ..... 1 RELIGIOUS LEADER ..... 2 EMPLOYER ..... 3 MILITARY MAN/POLICE OFFICE ..... 4 PRISON GUARD ..... 5 OTHER ..... 6 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	N/A	N/A	S	S

\*: S=Sex Worker, M=MSM, T=Transgender, P=PWID, O=Other Vulnerable Population, C=Core, S=Secondary.

# 15. RECALL SEXUAL BEHAVIOR

This instrument probes sexual behavior over defined recall time periods, focusing on the type and number of partners, type of sexual intercourse, as well as condom use. The recall period needs to be chosen with careful consideration. Shorter recall time periods (e.g. 1 or 3 months) benefit from better participant recall at the expense of fewer events of interest compared with longer recall periods (e.g. 6 or 12 months). Investigators need to weigh the need for better recall over shorter period of times against the risk of some participants recalling fewer or, in extreme cases, no events (e.g. number of sex acts) where the recall period is short. When determining the recall period, keep in mind the corresponding time frame used for eligibility. Eligibility criteria using a longer time period (e.g. did the participant have anal sex in the past 12 months?) may lead to zero values in an interview using a shorter recall period (e.g. did the participant have anal sex in the past 3 months) in the key behavior of some participants.

Suggested sex partner definitions include main partners, casual partners, clients and sex workers. These partner types may be changed depending on local context but in all cases should be clearly delineated from each other while capturing all possible types to prevent missed counts and duplicate reporting of sex partners.

This module includes three measures for each partner type: number of partners, type and number of sex acts, and condom use. The recall time periods vary by measure: The number of partners is probed for the last 6 months, the number of sex acts (“times”) for the last 4 weeks. This module includes a separate section on TG sexual partners. Depending upon the local context, you may opt to not include this section. If you opt to not include specific TG questions, MSM questions should be modified to include TG.

This module starts with male partners, followed by questions about TG women partners, and female partners. For male participants this order may be reversed so that the interview starts with questions about female partners due to the sensitivity required in certain contexts for questions regarding same-sex behavior.

N/A	Variable ID: RC	Recall Sexual Behavior	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	D	O
N/A		This next section is about your sexual behavior in the last 6 months. The questions are about different sex partners, how many times you had sex, and condom use. <b>With sex we mean either vaginal sex or anal sex.</b> With vaginal sex we mean a penis enters a vagina. With anal sex we mean a penis enters a person’s anus (butt). We will ask you about different sex partner types: main sex partners, casual sex partners, people you pay money for sex, and people who pay you money for sex. Each person you have had sex with in the last 6 months should be counted in one of these categories.								

N/A	Variable ID: RC	Recall Sexual Behavior	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	D	O
N/A		<b>MALE SEX PARTNERS</b>			(SECTION)					
1.	RCMAPA	First we will ask you some questions about any male sex partners you may have had. In the last 6 months, did you have sex with any males?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2';'7' OR '8→SKIP RCFEPA	RISK	C	C	C	C	C
N/A		<b>MAIN MALE PARTNERS</b>			(SUBSECTION)					
2.	RCMAMNPA	As mentioned earlier, we will ask you about different types of sex partners. First, we will ask you about any main male sex partners you may have had sex with in the last 6 months.  A main sex partner is someone you are committed to, for example your spouse, live-in sex partner, or boyfriend.  In the last 6 months, with how many different main male partners did you have sex? Type '0' if none.	# [   ] MAX: 20 DON'T KNOW 97 REFUSE TO ANSWER 98	'0';'97' OR '98'→SKIP TO RCMACSPA	RISK	C	C	C	C	C
3.	RCMAMNSX	In the last 4 weeks, what is the total number of times you had sex with your main male partners? By "times", we mean number of sex acts. For example, you could have sex 5 times with the same partner.  Type '0' if none.	# [       ] DON'T KNOW 9997 REFUSE TO ANSWER 9998		RISK	S	S	S	S	S
4.	RCMAMTYP	The last time you had sex with a main male partner, what type of sex did you have?	VAGINAL ..... 1 ANAL ..... 2 BOTH ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	WOMEN ONLY.	RISK	C	N/A	N/A	C	S

N/A	Variable ID: RC	Recall Sexual Behavior	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	D	O
5.	RCMAMNR	The last time you had anal sex with your main male partner, did you have receptive or insertive anal sex? Receptive anal sex is when he puts his penis in your anus (butt) and insertive anal sex is when you put your penis in his anus (butt).	RECEPTIVE ..... 1 INSERTIVE ..... 2 BOTH ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	MEN/TG WOMEN ONLY.	RISK	C	C	C	C	C
6.	RCMAMNRC	The last time you had sex with a main male partner, did you use a condom?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	C	C	C	C	C
7.	RCMAMNFQ	In the last 6 months, how often did you use condoms with your main male partners?	ALWAYS ..... 1 MOST OF THE TIME ..... 2 SOMETIMES ..... 3 RARELY ..... 4 NEVER ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	C	C	C	C	C

N/A	Variable ID: RC	Recall Sexual Behavior	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	D	O
N/A		<b>CASUAL MALE PARTNERS</b>			(SUBSECTION)					
8.	RCMACSPA	<p>These next questions are about any casual male partners you may have had sex with in the last 6 months.</p> <p>A casual male partner is a man you have sex with but don't feel committed to.</p> <p>There is no payment of money for sex with these partners.</p> <p>In the last 6 months, with how many different casual male partners did you have sex? Type '0' if none.</p>	<p># [     ]</p> <p>MAX: 100</p> <p>DON'T KNOW 997</p> <p>REFUSE TO ANSWER 998</p>	'0';997' OR '998' → SKIP TO RCMASWPA	RISK	C	C	C	C	C
9.	RCMACSSX	<p>In the last 4 weeks, what is the total number of times you had sex with your casual male partners? By "times", we mean number of sex acts. For example, you could have sex 5 times with the same partner.</p> <p>Type '0' if none.</p>	<p># [     ]</p> <p>DON'T KNOW 997</p> <p>REFUSE TO ANSWER 998</p>		RISK	S	S	S	S	S
10.	RCMACSA	<p>The last time you had sex with a casual male partner, what type of sex did you have?</p>	<p>VAGINAL ..... 1</p> <p>ANAL ..... 2</p> <p>BOTH ..... 3</p> <p>DON'T KNOW ..... 7</p> <p>REFUSE TO ANSWER ..... 8</p>	WOMEN ONLY.	RISK	C	C	C	C	C
11.	RCMACSAT	<p>The last time you had anal sex with your casual male partner, did you have receptive or insertive anal sex?</p> <p>Receptive anal sex is when he puts his penis in your anus (butt) and insertive anal sex is when you put your penis in his anus (butt).</p>	<p>RECEPTIVE ..... 1</p> <p>INSERTIVE ..... 2</p> <p>BOTH ..... 3</p> <p>DON'T KNOW ..... 7</p> <p>REFUSE TO ANSWER ..... 8</p>	MEN/TG WOMEN ONLY.	RISK	C	C	C	C	C

N/A	Variable ID: RC	Recall Sexual Behavior	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	D	O
12.	RCMACSAC	The last time you had sex with a casual male partner, did you use a condom?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	C	C	C	C	C
13.	RCMACSFQ	In the last 6 months, how often did you use condoms with casual male partners?	ALWAYS ..... 1 MOST OF THE TIME ..... 2 SOMETIMES ..... 3 RARELY ..... 4 NEVER ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	C	C	C	C	C
N/A		<b>MALE SEX WORKER PARTNERS</b>			<b>(SUBSECTION)</b>					
14.	RCMASWPA	These next questions are about buying sex with money. In the last 6 months, how many different men did you give money in exchange for sex?  Type '0' if none.	# [     ] MAX: 100 DON'T KNOW 997 REFUSE TO ANSWER 998	'0','997' OR '998' → SKIP TO RCMACLPA	RISK	S	C	C	C	C
15.	RCMASWSX	In the last 4 weeks, how many times did you have sex with male partners to whom you gave money? By "times", we mean the number of sex acts. For example, you could have sex 5 times with the same partner.  Type '0' if none.	# [       ] DON'T KNOW 9997 REFUSE TO ANSWER 9998		RISK	S	S	S	S	S

N/A	Variable ID: RC	Recall Sexual Behavior	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	D	O
16.	RCMASWA	The last time you had sex with any male you gave money for sex, what type of sex did you have?	VAGINAL ..... 1 ANAL ..... 2 BOTH ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	WOMEN ONLY.	RISK	S	S	S	S	S
17.	RCMASWNR	The last time you had anal sex with any male you gave money for sex, did you have receptive or insertive anal sex? Receptive anal sex is when he puts his penis in your anus (butt) and insertive anal sex is when you put your penis in his anus (butt).	RECEPTIVE ..... 1 INSERTIVE ..... 2 BOTH ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	MEN/TG WOMEN ONLY.	RISK	S	S	S	S	S
18.	RCMASWAC	The last time you had sex with any male you gave money for sex, did you use a condom?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	S	S
19.	RCMASWFQ	In the last 6 months, how often did you use condoms with men you gave money for sex?	ALWAYS ..... 1 MOST OF THE TIME ..... 2 SOMETIMES ..... 3 RARELY ..... 4 NEVER ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	S	S

N/A	Variable ID: RC	Recall Sexual Behavior	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	D	O
N/A		MALE CLIENT PARTNERS			(SUBSECTION)					
20.	RCMACLPA	Now we will ask you about getting money or goods for sex. In the last 6 months, how many different men gave you money or goods for sex?  Type '0' if none.	# [     ] MAX: 800 DON'T KNOW 997 REFUSE TO ANSWER 998	'0';997' OR '998' → SKIP TO RCFEPA	RISK	N/A	C	C	C	C
21.	RCMACL	In the last 4 weeks, how many times did you have sex with any male partner who gave you money? By "times", we mean number of sex acts. For example, you could have sex 5 times with the same partner.	# [       ] DON'T KNOW 9997 REFUSE TO ANSWER 9998		RISK	N/A	S	S	S	S
22.	RCMACLA	The last time you had sex with any male who gave you money for sex, what type of sex did you have?	VAGINAL ..... 1 ANAL ..... 2 BOTH ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	WOMEN ONLY.	RISK	N/A	C	C	C	C
23.	RCMACLAT	The last time you had anal sex with any male who gave you money for sex, did you have receptive or insertive anal sex?  Receptive anal sex is when he puts his penis in your anus (butt) and insertive anal sex is when you put your penis in his anus (butt).	RECEPTIVE ..... 1 INSERTIVE ..... 2 BOTH ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	MEN/TG WOMEN ONLY.	RISK	N/A	C	C	C	C



N/A	Variable ID: RC	Recall Sexual Behavior	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	D	O
24.	RCMACLAC	The last time you had sex with a man who gave you money, did you use a condom?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	N/A	C	C	C	C
25.	RCMACLFQ	In the last 6 months, how often did you use condoms with men who gave you money for sex?	ALWAYS ..... 1 MOST OF THE TIME ..... 2 SOMETIMES ..... 3 RARELY ..... 4 NEVER ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	N/A	C	C	C	C
N/A		<b>FEMALE PARTNERS</b>		<b>SKIP FOR FEMALE PARTICIPANTS</b>	<b>(SECTION)</b>					
26.	RCFEPA	Now we will ask you about female sex partners. In the last 6 months, did you have sex with any females?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2','7' OR '8' →SKIP TO RCTAPA	RISK	C	C	C	C	C

N/A	Variable ID: RC	Recall Sexual Behavior	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	D	O
N/A		MAIN FEMALE PARTNERS			(SUBSECTION)					
27.	RCFEMNPA	<p>As mentioned earlier, we will ask about different types of sex partners. First we will ask about any main female sex partners you may have had sex with in the last 6 months.</p> <p>A main sex partner could be your spouse, live-in sex partner, or girlfriend. There is no payment for sex with these partners.</p> <p>In the last 6 months, with how many different main female partners did you have sex? Type '0' if none.</p>	<p># [   ]</p> <p>MAX: 20</p> <p>DON'T KNOW 97</p> <p>REFUSE TO ANSWER 98</p>	'0';97' OR '98' → SKIP TO RCFCSPA	RISK	C	C	C	C	C
28.	RCFEMNSX	<p>In the last 4 weeks how many times did you have sex with these female main partners? By "times", we mean number of sex acts. For example, you could have sex 5 times with the same partner.</p> <p>Type '0' if none.</p>	<p># [       ]</p> <p>DON'T KNOW 9997</p> <p>REFUSE TO ANSWER 9998</p>		RISK	S	S	S	S	S
29.	RCFEMNA	<p>The last time you had sex with a female main partner, what type of sex did you have?</p>	<p>VAGINAL ..... 1</p> <p>ANAL ..... 2</p> <p>BOTH ..... 3</p> <p>DON'T KNOW ..... 7</p> <p>REFUSE TO ANSWER ..... 8</p>		RISK	S	S	S	S	S

N/A	Variable ID: RC	Recall Sexual Behavior	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	D	O
30.	RCFEMNAC	The last time you had sex with a female main partner, did you use a condom?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	S	S
31.	RCFEMNFQ	In the last 6 months, how often did you use condoms with main female partners?	ALWAYS ..... 1 MOST OF THE TIME ..... 2 SOMETIMES ..... 3 RARELY ..... 4 NEVER ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	S	S
N/A		<b>CASUAL FEMALE PARTNERS</b>			<b>(SUBSECTION)</b>					
32.	RCFECSPA	These next questions are about casual female partners. A female casual partner is woman you have sex with but don't feel committed to. There is no payment for sex with such partners. In the last 6 months how many different female casual partners did you have sex with? Type '0' if none.	# [     ] MAX: 100 DON'T KNOW 997 REFUSE TO ANSWER 998	'0','997' OR '998' → SKIP TO RCFESWPA	RISK	C	C	C	C	C
33.	RCFECSSX	In the last 4 weeks how many times did you have sex with these casual female partners? By "times", we mean number of sex acts. For example, you could have sex 5 times with the same partner.  Type '0' if none.	# [       ] DON'T KNOW 9997 REFUSE TO ANSWER 9998		RISK	S	S	S	S	S

N/A	Variable ID: RC	Recall Sexual Behavior	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	D	O
34.	RCFECSA	The last time you had sex with any casual female partner, what type of sex did you have?	VAGINAL ..... 1 ANAL ..... 2 BOTH ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	S	S
35.	RCFECSAC	The last time you had sex with a casual female partner, did you use a condom?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	S	S
36.	RCFECSFQ	In the last 6 months, how often did you use condoms with casual female partners?	ALWAYS ..... 1 MOST OF THE TIME ..... 2 SOMETIMES ..... 3 RARELY ..... 4 NEVER ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	S	S

N/A	Variable ID: RC	Recall Sexual Behavior	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	D	O
N/A		<b>FEMALE SEX WORKER PARTNERS</b>			(SUBSECTION)					
37.	RCFESWPA	These next questions are about buying sex. In the last 6 months how many different women did you pay money for sex? Type '0' if none.	# [     ] MAX: 100 DON'T KNOW 997 REFUSE TO ANSWER 998	'0';997' OR '998' → SKIP TO RCFECLPA	RISK	C	C	C	C	C
38.	RCFESWSX	In the last 4 weeks how many times did you have sex with these females you gave money? By "times", we mean number of sex acts. For example, you could have sex 5 times with the same partner.  Type '0' if none.	# [       ] DON'T KNOW 9997 REFUSE TO ANSWER 9998		RISK	S	S	S	S	S
39.	RCFESWA	The last time you had sex with any female you gave money for sex, what type of sex did you have?	VAGINAL ..... 1 ANAL ..... 2 BOTH ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	S	S
40.	RCFESWAC	The last time you had sex with a female you gave money for sex, did you use a condom?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	C	C	C	C	C

N/A	Variable ID: RC	Recall Sexual Behavior	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	D	O
41.	RCFESWFQ	In the last 6 months, how often did you use condoms with females you gave money for sex?	ALWAYS ..... 1 MOST OF THE TIME ..... 2 SOMETIMES ..... 3 RARELY ..... 4 NEVER ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	C	C	C	C	C
N/A		<b>FEMALE CLIENT PARTNERS</b>			<b>(SUBSECTION)</b>					
42.	RCFECLPA	Some people get money in exchange for sex. In the last 6 months how many different women gave you money for sex? Type '0' if none.	# [     ] MAX: 800 DON'T KNOW 997 REFUSE TO ANSWER 998	'0','997' OR '998' → SKIP TO SKIP TO RCTAPA	RISK	N/A	C	C	C	C
43.	RCFECL	In the last 4 weeks how many times did you have sex with these females who gave you money for sex? By "times", we mean number of sex acts. For example, you could have sex 5 times with the same partner.  Type '0' if none.	# [       ] DON'T KNOW 9997 REFUSE TO ANSWER 9998		RISK	N/A	S	S	S	S
44.	RCFECLA	The last time you had sex with any female who gave you money for sex, what type of sex did you have?	VAGINAL ..... 1 ANAL ..... 2 BOTH ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	N/A	S	S	S	S

N/A	Variable ID: RC	Recall Sexual Behavior	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	D	O
45.	RCFECLAC	The last time you had sex with a female who gave you money for sex, did you use a condom?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	N/A	S	S	S	S
46.	RCFECLFQ	In the last 6 months, how often did you use condoms with females who gave you money for sex?	ALWAYS ..... 1 MOST OF THE TIME ..... 2 SOMETIMES ..... 3 RARELY ..... 4 NEVER ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	N/A	S	S	S	S
N/A		<b>TG PARTNERS</b>			<b>(SECTION)</b>					
47.	RCTAPA	These next questions are about any TG women sex partners you may have had. In the last 6 months, did you have sex with any TG women?	ALWAYS ..... 1 MOST OF THE TIME ..... 2 SOMETIMES ..... 3 RARELY ..... 4 NEVER ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2','7' OR '8' → SKIP TO END OF CURRENT SECTION	RISK	S	S	S	S	S

N/A	Variable ID: RC	Recall Sexual Behavior	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	D	O
N/A		<b>MAIN TG PARTNERS</b>			(SUBSECTION)					
48.	RCTAMNPA	<p>First we will ask you about any main TG women sex partners you may have had sex with in the last 6 months.</p> <p>A main sex partner is someone you are committed to, for example your spouse, live-in sex partner, girlfriend, or boyfriend.</p> <p>In the last 6 months, with how many different main TG women partners did you have sex? Type '0' if none.</p>	<p># [   ]</p> <p>MAX: 20</p> <p>DON'T KNOW 97</p> <p>REFUSE TO ANSWER 98</p>	'0','97' OR '98' → SKIP TO RCTACSPA	RISK	S	S	S	S	S
49.	RCTAMNSX	<p>In the last 4 weeks, what is the total number of times you had sex with your main TG women partners? By "times", we mean number of sex acts. For example, you could have sex 5 times with the same partner.</p> <p>Type '0' if none.</p>	<p># [       ]</p> <p>DON'T KNOW 9997</p> <p>REFUSE TO ANSWER 9998</p>		RISK	S	S	S	S	S
50.	RCTAMTYP	<p>The last time you had sex with a main TG woman partner, what type of sex did you have?</p>	<p>VAGINAL ..... 1</p> <p>ANAL ..... 2</p> <p>BOTH ..... 3</p> <p>DON'T KNOW ..... 7</p> <p>REFUSE TO ANSWER ..... 8</p>	WOMEN ONLY.	RISK	S	N/A	N/A	S	S
51.	RCTAMNR	<p>The last time you had anal sex with your main TG woman partner, did you have receptive or insertive anal sex? Receptive anal sex is when she puts her penis in your anus (butt) and insertive anal sex is when you put your penis in her anus (butt).</p>	<p>RECEPTIVE ..... 1</p> <p>INSERTIVE ..... 2</p> <p>BOTH ..... 3</p> <p>DON'T KNOW ..... 7</p> <p>REFUSE TO ANSWER ..... 8</p>	MEN/TG WOMEN ONLY.	RISK	S	S	S	S	S



N/A	Variable ID: RC	Recall Sexual Behavior	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	D	O
52.	RCTAMNRC	The last time you had sex with a main TG woman partner, did you use a condom?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	S	S
53.	RCTAMNFQ	In the last 6 months, how often did you use condoms with your TG women partners?	ALWAYS ..... 1 MOST OF THE TIME ..... 2 SOMETIMES ..... 3 RARELY ..... 4 NEVER ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	S	S
N/A		<b>CASUAL TG PARTNERS</b>			<b>(SUBSECTION)</b>					
54.	RCTACSPA	<p>These next questions are about any casual TG women partners you may have had sex with in the last 6 months.</p> <p>A casual TG woman partner is a TG woman you have sex with, but don't feel committed to.</p> <p>There is no payment or exchange of goods and services for sex with these partners you have sex?</p> <p>In the last 6 months, with how many different casual TG women partners did you have sex?</p> <p>Type '0' if none.</p>	<p># [     ]</p> <p>MAX: 100</p> <p>DON'T KNOW 997</p> <p>REFUSE TO ANSWER 998</p>	'0','997' OR '998' → SKIP TO RCTASWPA	RISK	S	S	S	S	S

N/A	Variable ID: RC	Recall Sexual Behavior	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	D	O
55.	RCTACSSX	In the last 4 weeks, what is the total number of times you had sex with your casual TG women partners? By “times”, we mean number of sex acts. For example, you could have sex 5 times with the same partner.  Type ‘0’ if none.	# [       ] DON'T KNOW 9997 REFUSE TO ANSWER 9998		RISK	S	S	S	S	S
56.	RCTACSAT	The last time you had sex with a casual TG woman partner, what type of sex did you have?	VAGINAL ..... 1 ANAL ..... 2 BOTH ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	WOMEN ONLY.	RISK	S	S	S	S	S
57.	RCTACSAC	The last time you had anal sex with your casual TG woman partner, did you have receptive or insertive anal sex?  Receptive anal sex is when she puts her penis in your anus (butt) and insertive anal sex is when you put your penis in her anus (butt).	RECEPTIVE ..... 1 INSERTIVE ..... 2 BOTH ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	MEN/TG WOMEN ONLY.	RISK	S	S	S	S	S
58.	RCTACSAC	The last time you had sex with a casual TG woman partner, did you use a condom?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	S	S

N/A	Variable ID: RC	Recall Sexual Behavior	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	D	O
59.	RCTACSFQ	In the last 6 months, how often did you use condoms with casual TG women partners?	ALWAYS ..... 1 MOST OF THE TIME ..... 2 SOMETIMES ..... 3 RARELY ..... 4 NEVER ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	S	S
N/A		<b>TG SEX WORKER PARTNERS</b>			<b>(SUBSECTION)</b>					
60.	RCTASWPA	Now we ask questions about buying sex with money. In the last 6 months, how many different TG women did you give money for sex?  Type '0' if none.	# [     ] MAX: 100 DON'T KNOW 997 REFUSE TO ANSWER 998	'0';997' OR '998'→ SKIP TO RCTACLPA	RISK	S	S	S	S	S
61.	RCTASWSX	In the last 4 weeks, how many times did you have sex with TG women partners to whom you gave money? By "times", we mean the number of sex acts. For example, you could have sex 5 times with the same partner.  Type '0' if none	# [       ] DON'T KNOW 9997 REFUSE TO ANSWER 9998		RISK	S	S	S	S	S
62.	RCTASWA	The last time you had sex with any TG woman you gave money for sex, what type of sex did you have?	VAGINAL ..... 1 ANAL ..... 2 BOTH ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	WOMEN ONLY.	RISK	S	S	S	S	S

N/A	Variable ID: RC	Recall Sexual Behavior	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	D	O
63.	RCTASWNR	The last time you had anal sex with a TG woman you gave money for sex, did you have receptive or insertive anal sex? Receptive anal sex is when she puts her penis in your anus (butt) and insertive anal sex is when you put your penis in her anus (butt).	RECEPTIVE ..... 1 INSERTIVE ..... 2 BOTH ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	MEN/TG WOMEN ONLY.	RISK	S	S	S	S	S
64.	RCTASWAC	The last time you had sex with a TG woman you gave money for sex, did you use a condom?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	S	S
65.	RCTASWFQ	In the last 6 months, how often did you use condoms with TG women you gave money for sex?	ALWAYS ..... 1 MOST OF THE TIME ..... 2 SOMETIMES ..... 3 RARELY ..... 4 NEVER ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	S	S
N/A		<b>TG CLIENT PARTNERS</b>			<b>(SUBSECTION)</b>					
66.	RCTACLPA	Some people get money for sex. In the last 6 months, how many different TG women paid you money for sex? Type '0' if none.	# [     ] MAX: 800 DON'T KNOW 997 REFUSE TO ANSWER 998	'0','997' OR '998' → SKIP TO END OF CURRENT SECTION	RISK	N/A	S	S	S	S

N/A	Variable ID: RC	Recall Sexual Behavior	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	D	O
67.	RCTACL	In the last 4 weeks, how many times did you have sex with the TG women partners who gave you money? By “times”, we mean number of sex acts. For example, you could have sex 5 times with the same partner.  Type ‘0’ if none.	# [       ]  DON’T KNOW 9997  REFUSE TO ANSWER 9998		RISK	N/A	S	S	S	S
68.	RCTACLA	The last time you had sex with any TG woman who gave you money for sex, what type of sex did you have?	VAGINAL ..... 1  ANAL ..... 2  BOTH ..... 3  DON’T KNOW ..... 7  REFUSE TO ANSWER ..... 8	WOMEN ONLY.	RISK	N/A	S	S	S	S
69.	RCTACLAC	The last time you had anal sex with any TG woman who gave you money for sex, did you have receptive or insertive anal sex?  Receptive anal sex is when she puts her penis in your anus (butt) and insertive anal sex is when you put your penis in her anus (butt).	RECEPTIVE ..... 1  INSERTIVE ..... 2  BOTH ..... 3  DON’T KNOW ..... 7  REFUSE TO ANSWER ..... 8	MEN/TG WOMEN ONLY.	RISK	N/A	S	S	S	S
70.	RCTACLAC	The last time you had sex with a TG woman who gave you money, did you use a condom?	YES ..... 1  NO ..... 2  DON’T KNOW ..... 7  REFUSE TO ANSWER ..... 8		RISK	N/A	S	S	S	S

N/A	Variable ID: RC	Recall Sexual Behavior	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	D	O
71.	RCTACLFQ	In the last 6 months, how often did you use condoms with TG women who gave you money for sex?	ALWAYS ..... 1 MOST OF THE TIME ..... 2 SOMETIMES ..... 3 RARELY ..... 4 NEVER ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	N/A	S	S	S	S

\*: S=Sex Worker, M=MSM, T=Transgender, P=PWID, O=Other Vulnerable Population, C=Core, S=Secondary

# 16. PARTNER CONCURRENCY

Partner concurrency is suspected to be a key driver of HIV infection in generalized epidemics. Definitions of partner concurrency vary; the UNAIDS Reference Group on Estimates, Modeling, and Projections describes it as “Overlapping sexual partnerships where sexual intercourse with one partner occurs between two acts of intercourse with another partner.” Multiple approaches exist to measure partner concurrency. This module presents a modified version of the UNAIDS-proposed measurement questions. It aims at describing the duration of sexual relationships for the last three sexual partners of the participant. This instrument can easily be expanded to capture additional relationships. It may be helpful to have a calendar available with key time points (i.e. holidays) to aid the participant in determining the duration of each relationship.

N/A	Variable ID: CC	PARTNER CONCURRENCY	Response Options	Skip	Comments	Core or Secondary*				
						S	M	T	P	O
1.	CCNUM	<p>Think about all the sex partners you had in the last 6 months. With how many of these do you still have active sexual relationships? With ‘active relationships’ we mean you currently have sex with or expect to have sex again in the near future.</p> <p>With sex we mean either vaginal sex or anal sex. With vaginal sex we mean a penis enters a vagina.</p> <p>With anal sex we mean a penis enters a person’s anus.</p>	<p>PARTNERS [     ]</p> <p>DON’T KNOW 997</p> <p>REFUSE TO ANSWER 998</p>	<p>‘0’;1’, ‘997’ OR ‘998’ → SKIP TO END OF CURRENT SECTION</p>	<p>RISK</p> <p>This question is a stand- alone question, separate from the remaining questions which follow a UNAIDS recommended question set.</p>	N/A	S	S	S	S
2.	CC1LASTM	<p>Think about the person you had sex with most recently. How many months ago did you last have sex with this person?</p> <p>Type 0 if less than one month.</p> <p>With sex we mean either vaginal sex or anal sex. With vaginal sex we mean a penis enters a vagina. With anal sex we mean a penis enters a person’s anus.</p>	<p>MONTHS [   ]</p> <p>MAX: 12</p> <p>DON’T KNOW 97</p> <p>REFUSE TO ANSWER 98</p>		<p>RISK</p>	N/A	S	S	S	S

N/A	Variable ID: CC	PARTNER CONCURRENCY	Response Options	Skip	Comments	Core or Secondary*				
						S	M	T	P	O
3.	CC1FIRST	How long ago did you first have sex with this person?  With sex we mean either vaginal sex or anal sex. With vaginal sex we mean a penis enters a vagina.  With anal sex we mean a penis enters a person's anus.	WITHIN THE LAST 12 MONTHS .... 1  12 MONTHS OR MORE THAN 12 MONTHS AGO ..... 2  DON'T KNOW ..... 7  REFUSE TO ANSWER ..... 8	'2','7'OR '8' → SKIP TO CC1Y	RISK	N/A	S	S	S	S
4.	CC1M	How many months ago?	MONTHS [   ]  MIN: RESPONSE FROM CC1LAST  MAX: 12  DON'T KNOW 97  REFUSE TO ANSWER 98	SKIP TO CC2LASTM	RISK	N/A	S	S	S	S
5.	CC1Y	How many years ago?	YEARS [   ]  MIN: 1 MAX: CURENT AGE – AGE AT FIRST SEX  DON'T KNOW 97  REFUSE TO ANSWER 98		RISK  'Current age' from module DEMOGRAPHICS. 'Age at first sex' from LIFETIME SEX HISTORY.	N/A	S	S	S	S
6.	CC2LASTM	Think about the 2nd person you recently had sex with. How many months ago did you last have sex with this person? Type 0 if less than one month.  With sex we mean either vaginal sex or anal sex. With vaginal sex we mean a penis enters a vagina.  With anal sex we mean a penis enters a person's anus.	MONTHS [   ]  MAX: 12  DON'T KNOW 97  REFUSE TO ANSWER 98		RISK	N/A	S	S	S	S



N/A	Variable ID: CC	PARTNER CONCURRENCY	Response Options	Skip	Comments	Core or Secondary*				
						S	M	T	P	O
7.	CC2FIRST	How long ago did you first have sexual intercourse with this person?  With sex we mean either vaginal sex or anal sex. With vaginal sex we mean a penis enters a vagina.  With anal sex we mean a penis enters a person's anus.	WITHIN THE LAST 12 MONTHS ... 1  MORE THAN A YEAR AGO ..... 2  DON'T KNOW ..... 7  REFUSE TO ANSWER ..... 8	'2', '7', '8' → SKIP TO CC2Y	RISK	N/A	S	S	S	S
8.	CC2M	How many months ago?	MONTHS [   ]  MIN: RESPONSE FROM CC2LAST  MAX: 12  DON'T KNOW 97  REFUSE TO ANSWER 98	SKIP TO CC3LASTM	RISK	N/A	S	S	S	S
9.	CC2Y	How many years ago?	YEARS [   ]  MIN: 1  MAX: CURRENT AGE-AGE AT FIRST SEX  DON'T KNOW 97  REFUSE TO ANSWER 98		RISK  'Current age' from module DEMOGRAPHICS. 'Age at first sex' from LIFETIME SEX HISTORY.	N/A	S	S	S	S
10.	CC3LASTM	Think about the 3 <sup>rd</sup> person you recently had sex with. How many months ago did you last have sex with this person? Type 0 if less than one month.  With sex we mean either vaginal sex or anal sex. With vaginal sex we mean a penis enters a vagina.  With anal sex we mean a penis enters a person's anus.	MONTHS [   ]  MIN: 1  MAX: 12  DON'T KNOW 97  REFUSE TO ANSWER 98	IF CCNUM='2' → SKIP TO END OF CURRENT SCECTION	RISK	N/A	S	S	S	S

N/A	Variable ID: CC	PARTNER CONCURRENCY	Response Options	Skip	Comments	Core or Secondary*				
						S	M	T	P	O
11.	CC3FIRST	How long ago did you <b>first</b> have sexual intercourse with this person?  With sex we mean either vaginal sex or anal sex. With vaginal sex we mean a penis enters a vagina. With anal sex we mean a penis enters a person's anus.	WITHIN THE LAST 12 MONTHS ... 1  MORE THAN A YEAR AGO ..... 2  DON'T KNOW ..... 7  REFUSE TO ANSWER ..... 8	'2,' 7' OR '8' → SKIP TO CC3Y	RISK	N/A	S	S	S	S
12.	CC3M	How many months ago?	MONTHS [   ]  MIN: RESPONSE FROM CC3LAST  MAX: 12  DON'T KNOW 97  REFUSE TO ANSWER 98	SKIP TO END OF CURRENT SECTION	RISK	N/A	S	S	S	S
13.	CC3Y	How many years ago?	YEARS [   ]  MIN: 1  MAX: CURRENT AGE-AGE AT FIRST SEX  DON'T KNOW 97  REFUSE TO ANSWER 98		'Current age' from module DEMOGRAPHICS. 'Age at first sex' from LIFETIME SEX HISTORY.	N/A	S	S	S	S

\*: S=Sex Worker, M=MSM, T=Transgender, P=PWID, O=Other Vulnerable Population, C=Core, S=Secondary

#### References:

1. UNAIDS Reference Group on Estimates Modelling and Projections: Working Group on Measuring Concurrent Sexual Partnerships. Consultation on concurrent sexual partnerships: recommendations from a meeting of the UNAIDS Reference Group on Estimates, Modelling and Projections held in Nairobi, Kenya, 20–21 April 2009. [http://www.epidem.org/Publications/Concurrency%20meeting%20recommendations\\_Final.pdf](http://www.epidem.org/Publications/Concurrency%20meeting%20recommendations_Final.pdf).
2. UNAIDS Reference Group on Estimates Modelling and Projections: Working Group on Measuring Concurrent Sexual Partnerships. HIV: consensus indicators are needed for concurrency. Lancet 2010; 375:621–622.

# 17. LAST SEX ACT

The last sex act is often the sex act a participant best remembers. This instrument is applicable to male, female and TG participants. Many or most of the probes below are part of or may be incorporated in other modules. Additional skip patterns apply, related to, for example, participant sex, and HIV status. Investigators may want the participant to recall the last sex act with a particular partner type; for example, for a survey among men who have sex with men, the ‘last sex act’ may want to probe the last time the participant had sex with a man even if the chronologically last sex act was with a woman. Similarly, in a survey of sex workers, the last sex act module may want to focus on the last sex act with a client. This module can be repeated multiple times if investigators want to probe e.g. the last three sex acts, or want to probe the last sex act with a range of different partner types, e.g. a main and casual partner. If this module will be used to probe the last sex act with a specific type of partner, the questions and the responses must be modified accordingly.

N/A	VARIABLE ID: LS	LAST SEX ACT	Response Options	Skip	Comments	Core or Secondary*				
						S	M	T	P	O
1.	LSATIM	Which answer best describes when you last had sex?  By sex, I mean vaginal and anal sex. With vaginal sex we mean a penis enters a vagina. With anal sex we mean a penis enters a person’s anus (butt).	NEVER ..... 1 LAST 7 DAYS ..... 2 LAST 4 WEEKS ..... 3 LAST 3 MONTHS ..... 4 LONGER THAN 3 MONTHS AGO ..... 5 DON’T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK ‘1’ → SKIP TO END OF SECTION  ‘Never’ may be removed if having had sex is part of the eligibility criteria	S	S	S	S	S

N/A	VARIABLE ID: LS	LAST SEX ACT	Response Options	Skip	Comments	Core or Secondary*				
						S	M	T	P	O
2.	LSASEX	The last time you had sex, was this with a man, a woman, a transgender, or another person?	MAN ..... 1 WOMAN ..... 2 TRANSGENDER ..... 3 OTHER ..... 6 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	C	C	C	C	C
3.	LSAAGE	The last time you had sex, how old was this person? Please give your best guess.	YEARS: [ ] DON'T KNOW 97 REFUSE TO ANSWER 98		RISK	S	S	S	S	S
4.	LSAPRT1	What kind of sex partner was that person?  Remember, a main sex partner is someone you are committed to, for example your spouse, live-in sex partner, girlfriend or boyfriend. There is no payment or exchange of goods or services for sex with these partners. A casual partner is a man or woman you have sex with but don't feel committed to. There is no payment or exchange of goods and services for sex with these partners.	MAIN SEX PARTNER ..... 1 CASUAL SEX PARTNER ..... 2 SOMEONE I PAID MONEY OR GOODS FOR SEX ..... 3 SOMEONE WHO GAVE ME MONEY OR GOODS FOR SEX ..... 4 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'3';'4';'7' OR '8' → SKIP TO LSASXTY	RISK	N/A	S	S	S	S
5.	LSACC1	Do you have a sexual relationship with this person, meaning you have had sex with this person on more than one occasion?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2' → SKIP TO LSASXTY	RISK	N/A	S	S	S	S

N/A	VARIABLE ID: LS	LAST SEX ACT	Response Options	Skip	Comments	Core or Secondary*				
						S	M	T	P	O
6.	LSACC2	As far as you know, during the time you were having a sexual relationship with this partner did this person have sex with other people	DEFINITELY DID NOT ..... 1 PROBABLY DID NOT ..... 2 PROBABLY DID ..... 3 DEFINITELY DID ..... 4 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	N/A	S	S	S	S
7.	LSACC3	During the time you were having a sexual relationship with this person did you have sex with other people?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	N/A	S	S	S	S
8.	LSASXY	The last time you had sex with this person, what kind of sex did you have: vaginal, anal or both?	VAGINAL SEX ..... 1 ANAL SEX ..... 2 BOTH VAGINAL AND ANAL ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	SKIP IF DESEXNOW='1' AND LSASEX='1' OR DESEXNOW='2' AND LSASEX='2'  '1', '7', OR '8' → SKIP TO LSALBR	RISK	S	N/A	S	S	S
9.	LSAANAL	What kind of anal sex did you have at that time— receptive or insertive?  Receptive means your partner put his penis in your anus. Insertive means you put your penis in your partner's anus (butt).	RECEPTIVE ..... 1 INSERTIVE ..... 2 BOTH ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	MEN ONLY.	RISK	S	S	S	S	S

N/A	VARIABLE ID: LS	LAST SEX ACT	Response Options	Skip	Comments	Core or Secondary*				
						S	M	T	P	O
10.	LSACON	Did you use a condom the last time you had sex with this person?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'1', '7', or '8' → SKIP TO LSALBR	PREVENTION	C	C	C	C	C
11.	LSAREAS	The last time you had sex, what was the main reason you did not use a condom?	ALWAYS USE A CONDOM ..... 1 I DIDN'T HAVE ONE/ I DIDN'T THINK OF IT ..... 2 I DON'T LIKE THEM ..... 3 MY PARTNER OBJECTED ..... 4 I DIDN'T FEEL AT RISK BECAUSE I'M IN A MONOGAMOUS RELATIONSHIP ..... 5 OTHER ..... 6 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK  Adapt responses based on local context	S	S	S	S	S
12.	LSALBR	Did you or your partner use a lubricant the last time you had sex?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK, PREVENTION	S	S	S	S	S

N/A	VARIABLE ID: LS	LAST SEX ACT	Response Options	Skip	Comments	Core or Secondary*				
						S	M	T	P	O
13.	LSAARV	Some people take ARVs or HIV medications before or after sex so that they don't get HIV. Did you take ARVs (PrEP or HIV treatment) by mouth before or after you had sex with this person?	YES – BEFORE ..... 1 YES – AFTER ..... 2 NO ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		PREVENTION  Skip if PrEP not available in country	S	S	S	S	S
14.	LSAMBC	Did you use a microbicide before you had sex the last time with this person?	YES ..... 1 NO ..... 2 NO, I AM HIV POSITIVE ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		PREVENTION  Skip if microbicides not available in country.	S	S	S	S	S
15.	LSAALC	Did you or your partner drink alcohol before having sex?	YES I DID ..... 1 YES MY PARTNER DID ..... 2 WE BOTH DID ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK, VULNERABILITY	S	S	S	S	S
16.	LSADRG	Did you or your partner take drugs to get high before you had sex?	I TOOK DRUGS ..... 1 MY PARTNER TOOK DRUGS ..... 2 WE BOTH TOOK DRUGS ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK, VULNERABILITY	S	S	S	S	S

N/A	VARIABLE ID: LS	LAST SEX ACT	Response Options	Skip	Comments	Core or Secondary*				
						S	M	T	P	O
17.	LSARAP1	The last time you had sex, did the person force you?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'1' → SKIP TO LSAHIV1	RISK, VULNERABILITY	S	S	S	S	S
18.	LSARAP2	The last time you had sex, did you force that person to have sex with you?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK, VULNERABILITY	S	S	S	S	S
19.	LSAHIV1	With this sex partner, did you ever disclose each other's HIV status?	YES – ONLY I DISCLOSED ..... 1 YES – ONLY MY PARTNER DISCLOSED ..... 2 WE BOTH DISCLOSED ..... 3 NO ..... 4 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	IF '1', '4', '7', OR '8' → SKIP TO END OF CURRENT SECTION	PREVENTION	S	S	S	S	S
20.	LSAHIV2	What is that person's HIV status?	HIV-POSITIVE ..... 1 HIV-NEGATIVE ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK, PREVENTION	S	S	S	S	S

\*: S=Sex Worker, M=MSM, T=Transgender, P=PWID, O=Other Vulnerable Population, C=Core, S=Secondary



# 18. CONDOM USE/ACCESSIBILITY

This module assesses access to condoms and their use. It should be asked of all groups. It is useful to provide images of male and female condoms to participants so they will better understand what the questions refer to. Questions concerning female condoms may be skipped if it is believed that a small proportion, such as less than 5% of people, use female condoms.

N/A	Variable ID: CO	Condom Use	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
N/A	CO1MSG	<i>Now we are going to ask you some questions about condoms and your experience using them</i>								
1.	COMLOC	Where can a person get male condoms?  CHECK ALL THAT APPLY.	CLINIC/HOSPITAL ..... A KIOSK/SHOP..... B PHARMACY..... C LOCAL FREE DISPENSER ..... D FRIENDS/PEERS ..... E SEXUAL PARTNER ..... F NGO ..... G OTHER ..... X DON'T KNOW ..... Y REFUSE TO ANSWER ..... Z	IF 'Y' OR 'Z', NO OTHER CATEGORY CAN BE CHOSEN AS WELL.	KA  Adapt responses to local context.	S	S	S	S	S

N/A	Variable ID: CO	Condom Use	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
2.	COMGET	If you wanted to, could you get yourself a male condom?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		PREVENTION	S	S	S	S	S
3.	COFLOC	Where can a person get female condoms? CHECK ALL THAT APPLY.	CLINIC/HOSPITAL ..... A KIOSK/SHOP ..... B PHARMACY ..... C LOCAL FREE DISPENSER ..... D FRIENDS/PEERS ..... E SEXUAL PARTNER ..... F NGO ..... G OTHER ..... X DON'T KNOW ..... Y REFUSE TO ANSWER ..... Z	IF 'Y' OR 'Z', NO OTHER CATEGORY CAN BE CHOSEN AS WELL.	KA Adapt responses to local context.	S	S	S	S	S
4.	COFGET	If you wanted to, could you get yourself a female condom?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		PREVENTION	S	S	S	S	S

N/A	Variable ID: CO	Condom Use	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
5.	COBRND	What brands of condoms do you prefer to use?  CHECK ALL THAT APPLY.	DO NOT USE CONDOMS ..... A BRAND A ..... B BRAND B ..... C OTHER ..... X DON'T KNOW ..... Y REFUSE TO ANSWER ..... Z	IF 'Y' OR 'Z', NO OTHER CATEGORY CAN BE CHOSEN AS WELL.	COVERAGE & PREVENTION  Use brands from local context.  More brands can be added.	C	C	C	C	C
6.	COCARRY	Are you carrying any condoms with you right now?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		PREVENTION	S	S	S	S	S
7.	COASK	Could you ask your main sex partner to use a condom if you wanted? A main sex partner is someone you are committed to, for example your spouse, live-in sex partner, or boyfriend. There is no payment or exchange of goods or services for sex with these partners.	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	C	C	C	C	C

N/A	Variable ID: CO	Condom Use	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
8.	COVUSE	Under what circumstances do you tend not to use condoms during vaginal sex?  With vaginal sex we mean a penis enters a vagina.  CHECK ALL THAT APPLY.	WHEN I'M DRUNK OR HIGH ..... A  WHEN I AM AFRAID TO ASK MY PARTNER TO USE A CONDOM OR THEY REFUSE ..... B  WHEN HAVING SEX WITH A REGULAR PARTNER ..... C  WHEN HAVING SEX WITH A NON-REGULAR PARTNER ..... D  WHEN THE PERSON DOES NOT EJACULATE INSIDE ME ..... E  OTHER ..... X  DON'T KNOW ..... Y  REFUSE TO ANSWER ..... Z	ONLY ASK IF LIMFVAG='1' OR LIFMVAG='1'	RISK  Do not include option 5 for men.	S	S	S	S	S

N/A	Variable ID: CO	Condom Use	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
9.	COANO	Under what circumstances do you tend not to use condoms during anal sex? With anal sex we mean a penis enters a person's anus.  CHECK ALL THAT APPLY.	WHEN I'M DRUNK OR HIGH .... A  WHEN I AM AFRAID TO ASK MY PARTNER TO USE A CONDOM OR THEY REFUSE ..... B  WHEN HAVING SEX WITH A REGULAR PARTNER ..... C  WHEN HAVING SEX WITH A NON-REGULAR PARTNER ..... D  WHEN I AM THE INSERTIVE (TOP) PARTNER ..... E  WHEN I AM THE RECEPTIVE (BOTTOM) PARTNER ..... F  WHEN THE PERSON DOES NOT EJACULATE INSIDE ME ..... G  I CANNOT GET ONE ..... H  OTHER ..... X  DON'T KNOW ..... Y  REFUSE TO ANSWER ..... Z	ONLY ASK IF LIMFANAL='1' OR LIFMANAL='1'S	RISK  Do not include questions on insertive or receptive partners for females.  Adapt responses based on population and local context.	S	S	S	S	S
10.	COLIKELY	Are you more likely to use a condom when a man inserts his penis into your anus (butt) or when you put your penis in his or equally likely	WHEN HIS PENIS IS IN ME ..... 1  WHEN MY PENIS IS IN HIM/ HER ..... 2  EQUALLY LIKELY ..... 3  DON'T KNOW ..... 7  REFUSE TO ANSWER ..... 8	MALES ONLY.  SKIP IF LIMMANAL = '2', '7', OR '8'	RISK	S	S	S	S	S

N/A	Variable ID: CO	Condom Use	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
11.	COFREE	<i>Thank you. Now a question about getting condoms. In the last 12 months, have you been given condoms for free? For example, through an outreach</i>	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2','7','8' → CONOGT	COVERAGE	C	C	C	C	C
12.	COFREEU	Do you use free condoms?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		COVERAGE	S	S	S	S	S
13.	COPREF	Do you prefer free condoms or branded condoms that you pay for?	FREE ..... 1 BRANDED ..... 2 NO PREFERENCE ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		KA	S	S	S	S	S

N/A	Variable ID: CO	Condom Use	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
14.	CONOGT	In the last 12 months, what are some reasons you couldn't get condoms when you needed them?  CHECK ALL THAT APPLY.	CAN ALWAYS GET CONDOMS ... A COSTS TOO MUCH ..... B NOT CONVENIENT ..... C CLINIC DOES NOT PROVIDE THEM ..... D EMBARRASSED TO GET CONDOMS ..... E DO NOT KNOW WHERE TO GET CONDOMS ..... F CONDOMS NOT AVAILABLE ..... G OTHER ..... X DON'T KNOW ..... Y REFUSE TO ANSWER ..... Z	IF 'A', 'Y', OR 'Z', NO OTHER CATEGORY CAN BE CHOSEN AS WELL.	COVERAGE	S	S	S	S	S
15.	COINFO	In the last 12 months, have you received information on condom use and safe sex?  For example, through an outreach service, drop-in center or health clinic.	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		COVERAGE	C	C	C		C

\*: S=Sex Worker, M=MSM, T=Transgender, P=PWID, O=Other Vulnerable Population, C=Core, S=Secondary

# 19. LUBRICANT USE

This module assesses respondents' access to lubricants and their use. This section is especially important for studies with MSM and TG. Questions concerning dry sex (when a woman dries her vagina before sex), and types and brands of lubricants should be adapted to the local context based on information collected during formative assessment.

N/A	Variable ID: LU	Lubricant Use	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
N/A	LU1MSG	<p><i>Some people use lubricants during vaginal or anal sex. With vaginal sex we mean a penis enters a vagina. With anal sex we mean a penis enters a person's anus.</i></p> <p><i>Lubricants make your penis or your partner's penis more slippery and easier to insert into the vagina or anus. Lubricants also prevent the condom from breaking.</i></p> <p><i>Now we will ask you some questions about using lubricants in the last 6 months.</i></p>								
1.	LUDRY	Do you dry out your vagina before sex?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8	WOMEN  ONLY.	RISK  ADAPT TERMINOLOGY OF 'DRY SEX' TO LOCAL CONTEXT	S	N/A	N/A	S	S
2.	LU6LUB	In the last 6 months, have you used a lubricant during anal or vaginal sex?  Examples include water-based lube, oil-based lube and saliva.	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8	'2','7' OR '8' → SKIP TO END OF CURRENT SECTION	RISK  ADAPT TERMINOLOGY BASED ON LOCAL CONTEXT	C	C	C	C	C



N/A	Variable ID: LU	Lubricant Use	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
3.	LUTYPE	In the last 6 months, which lubricant did you use during vaginal or anal sex?  CHECK ALL THAT APPLY	WATER-BASED LUBE, KY JELLY, VENDOME .... A  SALIVA ..... B  VASELINE, POMADE OR OTHER PETROLEUM JELLY PRODUCT ..... C  BODY LOTION, SHEA NUT BUTTER, OR BABY OIL ..... D  COOKING OIL, MAYONNAISE, BUTTER OR MARGARINE ..... E  OTHER ..... X  DON'T KNOW ..... Y  REFUSE TO ANSWER ... Z	IF 'A' NOT SELECTED → SKIP TO LUAVAIL	RISK & PREVENTION  MODIFY RESPONSE OPTIONS BASED ON LOCAL CONTEXT	C	C	C	C	C
4.	LUGET	In the last 6 months, where did you usually get water-based lubricants?  CHECK ALL THAT APPLY	SHOP OR SUPERMARKET ..... A  PHARMACY OR CLINIC ..... B  NGO/ORGANIZATION .. C  FRIEND ..... D  SEX PARTNER ..... E  OTHER ..... X  DON'T KNOW ..... Y  REFUSE TO ANSWER .. Z		PREVENTION & COVERAGE	S	S	S	S	S

N/A	Variable ID: LU	Lubricant Use	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
5.	LUAVAIL	Are you able to get water-based lubricants when you need them?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8		PREVENTION	S	S	S	S	S
6.	LU3USEVA	In the last 6 months, how often did you use a lubricant during vaginal sex?	ALWAYS ..... 1 SOMETIMES ..... 2 NEVER ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8	ONLY ASK IF LIMFVAG='1' OR LIFMVAG='1'	RISK & PREVENTION	C	S	S	S	S
7.	LUUSEAN	In the last 6 months, how often did you use a lubricant during anal sex?	ALWAYS ..... 1 SOMETIMES ..... 2 NEVER ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8	ONLY ASK IF LIMFANAL='1' OR LIFMANAL='1'  '1','7' OR '8'→SKIP TO LUCOST	RISK & PREVENTION	C	C	C	S	S

N/A	Variable ID: LU	Lubricant Use	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
8.	LUNOTUSE	In the last 6 months, what is the main reason you do not always use a water- based lubricant during anal sex?  SELECT ONE ONLY.	CAN'T GET THEM EASILY/TOO EXPENSIVE ..... 1  DO NOT LIKE LUBRICANTS ..... 2  PARTNER DOESN'T LIKE THEM ..... 3  I'VE NEVER HEARD OF IT ..... 4  I'M ASHAMED/ EMBARRASSED TO BUY IT BECAUSE IT IS ASSOCIATED WITH HOMOSEXUALS ..... 5  OTHER ..... 6  DON'T KNOW ..... 7  REFUSE TO ANSWER .. 8	ONLY ASK IF LIMFANAL='1' OR LIFMANAL='1'	PREVENTION & VULNERABILITY	S	S	S	S	S
9.	LUCOST	Do you find water-based lubricants such as KY Jelly, Vendome or Assegai to be very affordable, somewhat affordable, or not affordable?	VERY AFFORDABLE ..... 1  SOMEWHAT AFFORDABLE ..... 2  NOT AFFORDABLE ..... 3  DON'T KNOW ..... 7  REFUSE TO ANSWER ... 8		KA  Adapt lubricant brands to local context.	S	S	S	S	S

N/A	Variable ID: LU	Lubricant Use	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
10.	LUOBTAIN	How easy is it to obtain water-based lubricants such as KY Jelly, Vendome or Assegai?	VERY EASY ..... 1 SOMEWHAT EASY ..... 2 NOT EASY ..... 3 CANNOT GET THEM .... 4 DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8		Adapt lubricant brands to local context.	S	S	S	S	S
11.	LUBREAK	In the last 6 months, did you ever have a condom break during vaginal or anal sex?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8	ONLY ASK IF LIMFVAG='1' OR LIFMVAG='1' OR LIMFANAL='1' OR LIFMANAL ='1'  '2','7' OR '8' →SKIP TO NEXT SECTION	RISK	S	S	S	S	S
12.	LUUSEBRK	Did you use lubricant the time that it broke?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8		RISK	S	S	S	S	S
13.	LUFREE	In the last 12 months, have you been given "packets" of lubricant for free? For example, through an outreach service, drop-in center or health clinic.	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8		COVERAGE	C	C	C	S	S

\*: S=Sex Worker, M=MSM, T=Transgender, P=PWID, O=Other Vulnerable Population, C=Core, S=Secondary

## 20. MICROBICIDES

This module is meant to assess awareness of and access to microbicides. Local knowledge should be used to modify the questions with local terminology. This module should only be used in settings where microbicides are available.

N/A	Variable ID: MI	Microbicides	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
N/A	MI1MSG	<i>The next few questions are about gels that can prevent HIV infection when inserted into the vagina or anus.</i>  <i>Some people call these gels “microbicides”.</i>								
1.	MIHEAR	Have you heard of a gel (product) that can help prevent HIV when you put it in your vagina or anus before sex? With sex we mean either vaginal sex or anal sex. With vaginal sex we mean a penis enters a vagina. With anal sex we mean a penis enters a person’s anus.	YES ..... 1 NO ..... 2 DON’T KNOW ..... 7 REFUSE TO ANSWER .... 8	‘2’;’7’ OR ‘8’→ SKIP TO END OF CURRENT SECTION	KA	S	S	S	S	S
2.	MIEUSE	Have you ever used this kind of gel before vaginal or anal sex?	YES ..... 1 NO ..... 2 DON’T KNOW ..... 7 REFUSE TO ANSWER .... 8	‘2’;’7’ OR ‘8’→SKIP TO END OF CURRENT SECTION	RISK & PREVENTION	S	S	S	S	S

3.	MIGUSE	In the last 6 months, have you used this kind of gel before sex?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER .... 8	'1','7' OR '8'→SKIP TO MIDISCUS  SKIP IF RCMAPA='2', '7', OR '8'; RCFEPA='2', '7', OR '8'; OR RCTAPA='2', '7', '8'	RISK & PREVENTION	S	S	S	S	S
4.	MINOTUSE	What is the main reason you have not used a microbicide?	HAVEN'T THOUGHT ABOUT IT ..... 1 DON'T LIKE IT ..... 2 TOO EXPENSIVE ..... 3 PARTNER OBJECTS ..... 4 CAN'T GET IT ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER .... 8	SKIP TO END OF CURRENT SECTION	PREVENTION	S	S	S	S	S
5.	MIDISCUS	Did you talk to your sex partner before starting to use a vaginal or anal microbicide?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER .... 8		PREVENTION	S	S	S	S	S
6.	MITELL	The last time you used a microbicide, did you tell your sex partner that you used it?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER .... 8		PREVENTION	S	S	S	S	S

7.	MIGET	Where do you usually get your microbicide?	PHARMACY ..... 1 LOCATION A ..... 2 LOCATION B ..... 3 LOCATION C ..... 4 DON'T KNOW ..... 7 REFUSE TO ANSWER .... 8		PREVENTION & COVERAGE  Use locally appropriate responses	S	S	S	S	S
----	-------	--	---	--	---	---	---	---	---	---

\*: S=Sex Worker, M=MSM, T=Transgender, P=PWID, O=Other Vulnerable Population, C=Core, S=Secondary

AUDIT (Alcohol Use Disorders Identification Test) scale is a validated identification tool with a high sensitivity (92%) and specificity (94%), making it an accurate screening tool for alcohol abuse. The AUDIT scale includes 10 questions about the frequency and quantity of alcohol use, as well as binge drinking, dependence symptoms, and alcohol-related problems. AUDIT asks quantitative questions on drinking which may be hard to be answered in some settings (e.g. communal drinking out of a plastic bucket through straws), therefore a standard unit should be defined and be country/setting specific.

AUDIT-C (Consumption) is a subset derived from the first 3 questions of the full AUDIT and indicates whether an individual is potentially drinking at increased or high risk levels. The AUDIT-C tool can be used to obtain an initial understanding of alcohol dependence and if a respondent's points are all from question 1 alone, then the full AUDIT can be used to confirm accuracy.

CAGE is another validated tool to determine usage patterns which may reflect problems with alcohol. CAGE has 71% sensitivity and 90% specificity. It is a shorter instrument than AUDIT. CAGE asks qualitative questions on alcohol use. It consists of 4 simple yes/no questions and does not require information such as the amount or frequency of drinking.

N/A	Variable ID: AL	Alcohol Use	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
N/A	AL1MSG	Now some questions about drinking alcohol during this past year.								
1.	ALFRQ	How often do you have a drink containing alcohol?	NEVER ..... 0 MONTHLY OR LESS ..... 1 2-4 TIMES A MONTH ..... 2 2-3 TIMES A WEEK ..... 3 4 OR MORE TIMES A WEEK .... 4 REFUSE TO ANSWER ..... 8	'0'→SKIP TO END OF CURRENT SECTION	AUDIT- C/AUDIT RISK	C	C	C	C	C



N/A	Variable ID: AL	Alcohol Use	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
2.	ALDAY	How many drinks containing alcohol do you have on a typical day when you are drinking?	1 OR 2 ..... 0 3 OR 4 ..... 1 5 OR 6 ..... 2 7-9 ..... 3 10 OR MORE ..... 4 REFUSE TO ANSWER ..... 8		AUDIT- C/AUDIT RISK	C	C	C	C	C
3.	ALBNGE	On one occasion, how often do you have six or more drinks?	NEVER ..... 0 LESS THAN MONTHLY ..... 1 MONTHLY ..... 2 WEEKLY ..... 3 DAILY OR ALMOST DAILY ..... 4 REFUSE TO ANSWER ..... 8	IF ALDAY='0' AND ALBINGE = '0' → SKIP TO END OF CURRENT SECTION	AUDIT- C/AUDIT RISK	C	C	C	C	C
4.	ALCTRL	During the last year, how often have you found that you were not able to stop drinking once you had started?	NEVER ..... 0 LESS THAN MONTHLY ..... 1 MONTHLY ..... 2 WEEKLY ..... 3 DAILY OR ALMOST DAILY ..... 4 REFUSE TO ANSWER ..... 8		AUDIT RISK	S	S	S	S	S

N/A	Variable ID: AL	Alcohol Use	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
5.	ALFAIL	During the last year, how often have you failed to do what was normally expected of you because of drinking?	NEVER ..... 0 LESS THAN MONTHLY ..... 1 MONTHLY ..... 2 WEEKLY ..... 3 DAILY OR ALMOST DAILY ..... 4 REFUSE TO ANSWER ..... 8		AUDIT RISK	S	S	S	S	S
6.	ALMORN	During the last year, how often have you needed a first drink in the morning to get yourself going after a heavy drinking session?	NEVER ..... 0 LESS THAN MONTHLY ..... 1 MONTHLY ..... 2 WEEKLY ..... 3 DAILY OR ALMOST DAILY ..... 4 REFUSE TO ANSWER ..... 8		AUDIT RISK	S	S	S	S	S
7.	ALGUILT	During the last year, how often have you had a feeling of guilt or remorse after drinking?	NEVER ..... 0 LESS THAN MONTHLY ..... 1 MONTHLY ..... 2 WEEKLY ..... 3 DAILY OR ALMOST DAILY ..... 4 REFUSE TO ANSWER ..... 8		AUDIT RISK	S	S	S	S	S

N/A	Variable ID: AL	Alcohol Use	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
8.	ALMEM	During the last year, how often have you been unable to remember what happened the night before because of your drinking?	NEVER ..... 0 LESS THAN MONTHLY ..... 1 MONTHLY ..... 2 WEEKLY ..... 3 DAILY OR ALMOST DAILY ..... 4 REFUSE TO ANSWER ..... 8		AUDIT RISK	S	S	S	S	S
9.	ALINJUR	Have you or someone else been injured because of your drinking?	NO ..... 0 YES, BUT NOT IN THE LAST YEAR ..... 1 YES, DURING THE LAST YEAR .. 3 REFUSE TO ANSWER ..... 8		AUDIT RISK	S	S	S	S	S
10.	ALCNCRN	Has a relative, friend, doctor, or other health care worker been concerned about your drinking or suggested you cut down?	NO ..... 0 YES, BUT NOT IN THE LAST YEAR ..... 1 YES, DURING THE LAST YEAR .. 3 REFUSE TO ANSWER ..... 8		AUDIT RISK	S	S	S	S	S

\*: S=Sex Worker, M=MSM, T=Transgender, P=PWID, O=Other Vulnerable Population, C=Core, S=Secondary

### Scoring of Audit-C:

The AUDIT-C is scored on a scale of 0-12. Generally, the higher the score, the more likely it is that the patient's drinking is affecting his or her safety. Each AUDIT-C question has 5 answer choices. Points given are:

- 0 points = Never
- 1 point = Less than monthly
- 2 points = Monthly

3 points = Weekly

4 points = Daily or almost daily

- In men, a score of 4 or more is considered positive, optimal for identifying hazardous drinking or active alcohol use disorders.
- In women, a score of 3 or more is considered positive (same as above).
- However, when the points are all from Question #1 alone (#2 & #3 are zero), it can be assumed that the patient is drinking below recommended limits and is suggested that the provider review the patient's alcohol intake over the past few months to confirm accuracy.
- Generally, the higher the score, the more likely it is that the patient's drinking is affecting his or her safety.

### Scoring of Audit:

Scores for questions 1 through 8 range from 0 to 4: Never= 0 points

Less than monthly = 1 point Monthly = 2 points

Weekly = 3 points

Daily or almost daily = 4 points

Total score interpretation:

A score of **8 or more** is associated with harmful or hazardous drinking.

A score of **13 or more** in women, and **15 or more** in men, is likely to indicate alcohol dependence.

### References:

Audit, the Alcohol Use Disorders Identification Test. [http://apps.who.int/iris/bitstream/10665/67205/1/WHO\\_MSD\\_MSB\\_01.6a.pdf](http://apps.who.int/iris/bitstream/10665/67205/1/WHO_MSD_MSB_01.6a.pdf) (Accessed 14 July, 2016)

OR

N/A	AL	Alcohol Use	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
1.	ALCUTDN	Have you ever felt you should cut down on your drinking?	NO ..... 0 YES ..... 1 REFUSE TO ANSWER ..... 8		CAGE	C	C	C	C	C
2.	ALCRITC	Have people annoyed you by criticizing your drinking?	NO ..... 0 YES ..... 1 REFUSE TO ANSWER ..... 8		CAGE	C	C	C	C	C

3.	ALFTBAD	Have you ever felt bad or guilty about your drinking?	NO ..... 0 YES ..... 1 REFUSE TO ANSWER ..... 8		CAGE	C	C	C	C	C
4.	ALEYEOP	Have you ever had a drink first thing in the morning to steady your nerves or to get rid of a hangover (eye opener)?	NO ..... 0 YES ..... 1 REFUSE TO ANSWER ..... 8		CAGE	C	C	C	C	C

\*: S=Sex Worker, M=MSM, T=Transgender, P=PWID, O=Other Vulnerable Population, C=Core, S=Secondary

#### Scoring Of Cage:

Item responses on the CAGE are scored 0 or 1, with a higher score, an indication of alcohol problems. A total score of 2 or greater is considered clinically significant.

#### References:

CAGE instrument: [http://www.integration.samhsa.gov/clinical-practice/sbirt/CAGE\\_questionnaire.pdf](http://www.integration.samhsa.gov/clinical-practice/sbirt/CAGE_questionnaire.pdf)

## 22. NON-INJECTION DRUG USE

The questions in this section focus on non-injection drug use. All participants should be asked the core questions from this module. The responses from these questions are useful in determining the extent of non-injection drug use among the population being surveyed. The information can also be useful to assess associations between non-injection drug use and sexual risks. While the questions only list certain types of drugs, questions can be added to collect information on use of other non-prescribed injected drugs, given the country context. Similarly, in order to make the questions more suitable to the local context, appropriate local drug names should be used.

N/A	Variable ID: DU	Non-Injection Drug Use	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
N/A	DU1MSG	<i>Thank you. Now some questions about drugs people may use to feel high. These include illicit drugs such as [insert drug names from local context].</i>								
1.	DUEVER	Did you ever use any drugs that you sniff, swallow, or inhale other than those prescribed for you?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2','7' OR '8' →SKIP TO END OF CURRENT SECTION	RISK	C	C	C	C	C
2.	DU6MO	In the last 6 months, did you use any drugs that you sniff, swallow, or inhale, other than those prescribed for you?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2','7' OR '8' →SKIP TO END OF CURRENT SECTION	RISK	C	C	C	C	C

N/A	Variable ID: DU	Non-Injection Drug Use	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
N/A	DU1MSG	<i>Now I am going to ask you some questions about your use of non-injection drugs that you have smoked, inhaled, or snorted during the last 6 months. For each of these drugs, please mention how often you smoked, inhaled, or snorted any of these drugs in the last 6 months.</i>			Questions should be asked for each drug based on local context.					
3.	DUMAR	In the last 6 months, did you use marijuana?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2','7' OR '8' →SKIP TO DUHER	RISK	S	S	S	S	S
4.	DUMARF	In the last 6 months, how often did you use marijuana?	LESS THAN ONCE A MONTH ..... 1 1 TO 4 TIMES A MONTH ... 2 1 TO 7 TIMES WK, ONCE A DAY ..... 3 2 TO 3 TIMES A DAY ..... 4 5 OR MORE TIMES A DAY .. 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	S	S
5.	DUHER	In the last 6 months, did you use heroin?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2','7' OR '8' →SKIP TO DUCOC	RISK	S	S	S	S	S

N/A	Variable ID: DU	Non-Injection Drug Use	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
6.	DUHERF	In the last 6 months, how often did you use heroin?	LESS THAN ONCE A MONTH ..... 1 TO 4 TIMES A MONTH ..... 2 TO 7 TIMES WK, ONCE A DAY ..... 3 2 TO 3 TIMES A DAY ..... 4 5 OR MORE TIMES A DAY .. 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	S	S
7.	DUCOC	In the last 6 months, did you use cocaine?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2','7' OR '8' →SKIP TO DUMET	RISK	S	S	S	S	S
8.	DUCOCF	In the last 6 months, how often did you use cocaine?	LESS THAN ONCE A MONTH ..... 1 TO 4 TIMES A MONTH ..... 2 TO 7 TIMES WK, ONCE A DAY ..... 3 2 TO 3 TIMES A DAY ..... 4 5 OR MORE TIMES A DAY .. 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	S	S



N/A	Variable ID: DU	Non-Injection Drug Use	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
9.	DUMET	In the last 6 months, how often did you use crystal meth?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2','7' OR '8' →SKIP TO DUCRK	RISK	S	S	S	S	S
10.	DUMETF	In the last 6 months, how often did you use crystal meth	LESS THAN ONCE A MONTH ..... 1 TO 4 TIMES A MONTH ..... 2 TO 7 TIMES WK, ONCE A DAY ..... 3 2 TO 3 TIMES A DAY ..... 4 5 OR MORE TIMES A DAY .. 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	S	S
11.	DUCRK	In the last 6 months, did you use crack?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2','7' OR '8' →SKIP TO DUSBL	RISK	S	S	S	S	S

N/A	Variable ID: DU	Non-Injection Drug Use	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
12.	DUCRKF	In the last 6 months, how often did you use crack?	LESS THAN ONCE A MONTH ..... 1 TO 4 TIMES A MONTH ..... 2 2 TO 7 TIMES WK, ONCE A DAY ..... 3 2 TO 3 TIMES A DAY ..... 4 5 OR MORE TIMES A DAY .. 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	S	S
13.	DUSBL	In the last 6 months, did you use speedball (cocaine and heroin mixed together)?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2';'7' OR '8' →SKIP TO DUSYN	RISK	S	S	S	S	S
14.	DUSBLF	In the last 6 months, how often did you use speedball (cocaine and heroin mixed together)?	LESS THAN ONCE A MONTH ..... 1 TO 4 TIMES A MONTH ..... 2 TO 7 TIMES WK, ONCE A DAY ..... 3 2 TO 3 TIMES A DAY ..... 4 5 OR MORE TIMES A DAY .. 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	S	S

N/A	Variable ID: DU	Non-Injection Drug Use	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
15.	DUSYN	In the last 6 months, did you use synthetic opioid?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2,'7' OR '8' →SKIP TO DUOTR	RISK	S	S	S	S	S
16.	DUSYNF	In the last 6 months, how often did you use synthetic opioid?	LESS THAN ONCE A MONTH ..... 1 TO 4 TIMES A MONTH ..... 2 TO 7 TIMES WK, ONCE A DAY ..... 3 2 TO 3 TIMES A DAY ..... 4 5 OR MORE TIMES A DAY .. 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	S	S
17.	DUOTR	In the last 6 months, did you use any other drug that I did not mention?	YES ..... 1 NO ..... 2 OTHER ..... 3 PLEASE SPECIFY _____ DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2,'7' OR '8' →SKIP TO DUMAIN	RISK	S	S	S	S	S

N/A	Variable ID: DU	Non-Injection Drug Use	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
18.	DUOTRF	In the last 6 months, how often did you use any other drug that I did not mention?	LESS THAN ONCE A MONTH ..... 1 1 TO 4 TIMES A MONTH .... 2 1 TO 7 TIMES WK, ONCE A DAY ..... 3 2 TO 3 TIMES A DAY ..... 4 5 OR MORE TIMES A DAY .. 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	S	S
19.	DUMAIN	In the last 6 months, which drug is your primary drug of choice?	HEROIN ..... 1 COCAINE ..... 2 CRACK ..... 3 CRYSTAL METH ..... 4 SYNTHETIC OPIOID ..... 5 OTHER ..... 6 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	S	S

\*: S=Sex Worker, M=MSM, T=Transgender, P=PWID, O=Other Vulnerable Population, C=Core, S=Secondary

## 23. INJECTION DRUG USE

Injecting drugs with used (contaminated) syringes or needles may lead to infection with HIV, Hepatitis B or Hepatitis C virus. The responses from these questions are useful in determining the extent of injection drug use among the population being surveyed. The information also helps to determine the extent of sharing of injection paraphernalia (equipment) and indirectly measures access to and use of sterile needle/syringes by people who inject drugs (PWID). These questions only list certain types of drugs. Based on the country context, questions can be added to collect information on the use of other non-prescribed drugs that are injected. In order to make the questions more suitable to the local context, appropriate local drug names should be used.

N/A	Variable ID: ID	Injection Drug Use	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
N/A	ID1MSG	<i>Now some questions about using a needle to inject drugs to get high. By injecting I mean sticking yourself with a needle</i>				S	S	S	C	S
1.	IDEVER	Have you ever injected any drugs to get high?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	2', '7' OR '8' →SKIP TO END OF CURRENT SECTION	RISK  Use terminology from local context for injecting into vein, under the skin or into the muscle.	C	C	C	N/A	C
2.	IDOLD	Think back the very first time you injected drugs, other than those prescribed for you. How old were you when you first injected drugs?	# AGE OLD [   ] DON'T KNOW 97 REFUSE TO ANSWER 98		RISK/VULNERABILITY	S	S	S	C	S

N/A	Variable ID: ID	Injection Drug Use	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
3.	IDFDR	The first time when you injected, what drug did you inject?	HEROIN ..... 1 COCAINE ..... 2 OPIUM/MORPHINE ..... 3 MIXTURE OF HEROIN & COCAINE ..... 4 METHAMPHETAMINE (CRYSTAL) ..... 5 CRACK/LOCAL DRUG ..... 6 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK  Use drugs and terminology from local context.	S	S	S	C	S
4.	IDREL	The first time you injected, what was your relationship to the person who injected you?	I INJECTED MYSELF ..... 1 SOMEONE I HAD SEX WITH ..... 2 A RELATIVE ..... 3 FRIEND ..... 4 DEALER/GALLERY OPERATOR/OTHER DRUG USER ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK/VULNERABILITY	S	S	S	S	S
5.	IDLENT	That first time you injected, did you share a needle or syringe, i.e. use a needle or syringe that someone else used before you?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	S	S

N/A	Variable ID: ID	Injection Drug Use	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
6.	IDDRGET	The very first time you injected, how did you get the drug?	BOUGHT FROM SOMEONE .. 1 TRADED SEX FOR IT ..... 2 GIVEN TO ME FREE ..... 3 I WAS A DRUG DEALER ..... 4 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	C	S
N/A	ID2MSG	<i>In your lifetime to the best of your knowledge, did you ever inject (share needles or syringe) with any of the following?</i>				S	S	S	C	S
7.	IDIHIV	Anyone who later found out he/she had HIV?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	S	S
8.	IDIHEP	Anyone who had Hepatitis B and/or C?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	S	S
9.	ID6MOS	In the last 6 months, have you injected any illicit drugs or prescription drugs in a way other than instructed by a health care provider?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2', '7' OR '8' → SKIP TO END OF CURRENT SECTION	RISK  Should be considered N/A for PWID  depending on eligibility criteria.	C	C	C	C	C

N/A	Variable ID: ID	Injection Drug Use	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
10.	ID6FRQ	<p><i>Now we want you to think about your overall injecting in the last 6 months.</i></p> <p>In the last 6 months, how often did you inject?</p>	<p>LESS THAN ONCE A MONTH ..... 1</p> <p>1 TO 4 TIMES A MONTH ..... 2</p> <p>2 TO 7 TIMES WK, ONCE A DAY ..... 3</p> <p>2 TO 3 TIMES A DAY ..... 4</p> <p>5 OR MORE TIMES A DAY ..... 5</p> <p>DON'T KNOW ..... 7</p> <p>REFUSE TO ANSWER ..... 8</p>		RISK	S	S	S	C	S
N/A	ID3MSG	<p><i>Thank you. Now we are going to ask you some questions about specific drugs that you have injected to get high in the last 6 months.</i></p>			Each 6 month question should be asked for each local drug.	S	S	S	C	S
11.	ID6HRN	In the last 6 months, did you inject heroin?	<p>YES ..... 1</p> <p>NO ..... 2</p> <p>DON'T KNOW ..... 7</p> <p>REFUSE TO ANSWER ..... 8</p>	'2', '7' OR '8' →SKIP TO ID6COC	RISK	S	S	S	C	S



N/A	Variable ID: ID	Injection Drug Use	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
12.	ID6HRFR	In the last 6 months, how often did you inject heroin?	LESS THAN ONCE A MONTH ..... 1 1 TO 4 TIMES A MONTH ..... 2 2 TO 7 TIMES WK, ONCE A DAY ..... 3 2 TO 3 TIMES A DAY ..... 4 5 OR MORE TIMES A DAY ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	C	S
13.	ID6COC	In the last 6 months, did you inject powdered cocaine?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2','7' OR '8' →SKIP TO ID6MIX	RISK	S	S	S	C	S
14.	ID6COFR	In the last 6 months, how often did you inject powdered cocaine?	LESS THAN ONCE A MONTH ..... 1 1 TO 4 TIMES A MONTH ..... 2 2 TO 7 TIMES WK, ONCE A DAY ..... 3 2 TO 3 TIMES A DAY ..... 4 5 OR MORE TIMES A DAY ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	C	S

N/A	Variable ID: ID	Injection Drug Use	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
15.	ID6MIX	In the last 6 months, did you use any drug combinations (this includes drugs mixed together such as cocaine+heroin, ATS+heroin or other combination)?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2','7' OR '8' →SKIP TO ID6CRCK						
16.	ID6MIXO	In the last 6 months, how often did you use this particular drug combination (e.g. cocaine+heroin, ATS+heroin or other combination)?	LESS THAN ONCE A MONTH ..... 1 1 TO 4 TIMES A MONTH ..... 2 2 TO 7 TIMES WK, ONCE A DAY ..... 3 2 TO 3 TIMES A DAY ..... 4 5 OR MORE TIMES A DAY ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8							
17.	ID6CRCK	In the last 6 months, did you inject crack?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2', '7' OR '8' →SKIP TO ID6METH	RISK	S	S	S	C	S

N/A	Variable ID: ID	Injection Drug Use	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
18.	ID6CRFR	In the last 6 months, how often did you inject crack?	LESS THAN ONCE A MONTH ..... 1 1 TO 4 TIMES A MONTH ..... 2 2 TO 7 TIMES WK, ONCE A DAY ..... 3 2 TO 3 TIMES A DAY ..... 4 5 OR MORE TIMES A DAY ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	C	S
19.	ID6METH	In the last 6 months, did you inject methamphetamine (crystal)?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2', '7' OR '8' →SKIP TO ID6SBALL	RISK	S	S	S	C	S
20.	ID6MTFR	In the last 6 months, how often did you inject methamphetamine (crystal)?	LESS THAN ONCE A MONTH ..... 1 1 TO 4 TIMES A MONTH ..... 2 2 TO 7 TIMES WK, ONCE A DAY ..... 3 2 TO 3 TIMES A DAY ..... 4 5 OR MORE TIMES A DAY ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	C	S

N/A	Variable ID: ID	Injection Drug Use	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
21.	ID6SBALL	In the last 6 months, did you inject speedball – heroin and cocaine combined?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2','7' OR '8' →SKIP TO ID6OTHR	RISK	S	S	S	C	S
22.	ID6SBFR	In the last 6 months, how often did you inject speedball?	LESS THAN ONCE A MONTH ..... 1 1 TO 4 TIMES A MONTH ..... 2 2 TO 7 TIMES WK, ONCE A DAY ..... 3 2 TO 3 TIMES A DAY ..... 4 5 OR MORE TIMES A DAY ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	C	S
23.	ID6OTHR	In the last 6 months, did you inject any other drugs that I have not mentioned?	YES ..... 1 PLEASE SPECIFY _____ NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2','7' OR '8' →SKIP TO IDNLOC	RISK	S	S	S	C	S

N/A	Variable ID: ID	Injection Drug Use	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
24.	ID6OTFR	In the last 6 months, how often did you inject any other drugs?	LESS THAN ONCE A MONTH ..... 1 1 TO 4 TIMES A MONTH ..... 2 2 TO 7 TIMES WK, ONCE A DAY ..... 3 2 TO 3 TIMES A DAY ..... 4 5 OR MORE TIMES A DAY ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	C	S
25.	IDSYN	In the last 6 months, did you inject synthetic opioid?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2','7' OR '8'→SKIP TO IDMAIN	RISK	S	S	S	S	S
26.	IDSYNF	In the last 6 months, how often did you inject synthetic opioid?	LESS THAN ONCE A MONTH ..... 1 1 TO 4 TIMES A MONTH ..... 2 2 TO 7 TIMES WK, ONCE A DAY ..... 3 2 TO 3 TIMES A DAY ..... 4 5 OR MORE TIMES A DAY ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	S	S

N/A	Variable ID: ID	Injection Drug Use	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
27.	IDMAIN	In the last 6 months, which drug is your primary drug of choice?	HEROIN ..... 1 COCAINE ..... 2 CRACK ..... 3 CRYSTAL METH ..... 4 SYNTHETIC OPIOID ..... 5 OTHER ..... 6 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	S	S

N/A	Variable ID: ID	Injection Drug Use	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
28.	IDNLOC	In the last 6 months when you injected, where did you get your needles/syringes from?  CHECK ALL THAT APPLY.	PHARMACY/CHEMIST DRUG STORE/OTHER STORE ..... A  DOCTOR'S OFFICE, CLINIC OR HOSPITAL, OTHER HEALTH AGENCY, OR HIV PREVENTION PROGRAM ..... B  MARKET PLACE OR STREET VENDOR ..... C  DRUG WORKER OR AGENCY/OUTREACH WORKER OR STREET UNIT ... D  SEX PARTNER, FRIEND, ACQUAINTANCE, RELATIVE .. E  DRUG DEALER OR OTHER DRUG USERS ..... F  NEEDLE/SYRINGE EXCHANGE PROGRAM ..... G  OTHER ..... X  DON'T KNOW ..... Y  REFUSE TO ANSWER ..... Z		COVERAGE  Use locations from local context.	S	S	S	C	S
29.	IDNSTE	Are sterile needles and syringes available when you need them?	YES ..... 1 NO ..... 2  DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8			S	S	S	S	C

N/A	Variable ID: ID	Injection Drug Use	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
30.	IDNEWN	In the last 6 months when you injected, how often did you use a new, sterile needle? By new, sterile needle, we mean a needle never used before by anyone, even you	NEVER ..... 1 RARELY ..... 2 HALF OF THE TIME ..... 3 MOST OF THE TIME ..... 4 ALWAYS ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK & PREVENTION	S	S	S	C	S
31.	IDBUYN	Why do you not always use a new needle or syringe?	NOT AVAILABLE ..... 1 DIFFICULT TO FIND ..... 2 EXPENSIVE ..... 3 PEER PRESSURED TO SHARE ..... 4 BELIEVE THE PERSON SHARING WITH HAS THE SAME HIV STATUS ..... 5 I ALWAYS USE A NEW NEEDLE OR SYRINGE ..... 6 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8			S	S	S	C	S
	ID4MSG	<i>Next, I'm going to ask you about your injecting behaviors in the last 6 months.</i>				S	S	S	C	S



N/A	Variable ID: ID	Injection Drug Use	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
32.	IDINJT	In the last 6 months, how often did you use needles that someone else had already injected with?	NEVER ..... 1 RARELY ..... 2 HALF OF THE TIME ..... 3 MOST OF THE TIME ..... 4 ALWAYS ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'1','7','8' → SKIP TO IDCOOK	RISK	S	S	S	C	S
33.	IDNIMN	In the last 6 months, with how many people did you use a needle after they injected with it?	# PEOPLE [   ] DON'T KNOW 97 REFUSE TO ANSWER 98		RISK	S	S	S	C	S
34.	IDCOOK	In the last 6 months when you injected, how often did you use cookers, cottons, or tourniquets of water that someone else had already used?	NEVER ..... 1 RARELY ..... 2 HALF OF THE TIME ..... 3 MOST OF THE TIME ..... 4 ALWAYS ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'1','7','8' → SKIP TO IDSYR	RISK	S	S	S	C	S
35.	IDCKMN	In the last 6 months, with how many people did you use the same cooker, cotton, or water (water for rinsing needles or preparing drugs)?	# PEOPLE [   ] DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	C	S

N/A	Variable ID: ID	Injection Drug Use	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
36.	IDSYR	In the last 6 months when you injected, how often did you use drugs that had been divided with a syringe that someone else had already injected with?	NEVER ..... 1 RARELY ..... 2 HALF OF THE TIME ..... 3 MOST OF THE TIME ..... 4 ALWAYS ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'1';'7';'8' → SKIP TO IDPOL	RISK	S	S	S	S	S
37.	IDPOL	In the last 6 months, did the police or other authorities ever confiscate any injecting equipment (needle, syringe, etc.) from you?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	C	S
	ID5MSG	<i>Now I'd like you to think about the last time you injected with someone. By "injecting with someone," I mean you shared drugs or drug injecting equipment, or both with at least one other person.</i>				S	S	S	C	S
38.	IDLAST	When was the last time you injected with one or more people?	I NEVER INJECTED WITH SOMEONE ..... 1 LESS THAN 1 MONTH AGO .. 2 1 OR MORE MONTHS AGO BUT LESS THAN 12 MONTHS AGO ..... 3 1 OR MORE YEARS AGO ..... 4 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'1', 7 or 8 → SKIP to IDSLF '2' → SKIP to IDLASTD '3' → SKIP to IDLASTM '4' → SKIP to IDLASTY	RISK	S	S	S	C	S

N/A	Variable ID: ID	Injection Drug Use	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
39.	IDLASTD	How many DAYS ago did you last inject with someone or with more than one person? By “injecting with someone”, I mean you shared drugs or drug injecting equipment, or both with at least one other person.	# DAYS [   ] DON'T KNOW 97 REFUSE TO ANSWER 98 MINIMUM: 1 MAXIMUM:30		RISK	S	S	S	C	S
40.	IDLASTM	How many MONTHS ago did you last inject with someone or with more than one person? By “injecting with someone”, I mean you shared drugs or drug injecting equipment, or both with at least one other person.	# MONTHS [   ] DON'T KNOW 97 REFUSE TO ANSWER 98 MINIMUM: 1 MAXIMUM: 11		RISK	S	S	S	C	S
41.	IDLASTY	How many YEARS ago did you last inject with someone or with more than one person? By “injecting with someone”, I mean you shared drugs or drug injecting equipment, or both with at least one other person.	# YEARS [   ] DON'T KNOW 97 REFUSE TO ANSWER 98 MINIMUM: 1 MAXIMUM: IDOLD (age first injected)		RISK	S	S	S	C	S
42.	IDLASTPL	Where did you last inject with someone?	HOME ..... 1 STREET..... 2 SUPERVISED INJECTION SITE ..... 3 PRISON ..... 4 OTHER ..... 5 DON'T KNOW ..... 97		RISK	S	S	S	C	S

N/A	Variable ID: ID	Injection Drug Use	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
43.	IDREL	The last time you injected with someone, what was your relationship with the person or people?  CHECK ALL THAT APPLY.	SEX PARTNER ..... A FRIEND OR ACQUANTANCE.. B RELATIVE ..... C NEEDLE OR DRUG DEALER ... D STRANGER ..... E OTHER ..... X DON'T KNOW ..... Y REFUSE TO ANSWER ..... Z		RISK  ADAPT RESPONSES TO LOCAL CONTEXT.	S	S	S	C	S
44.	IDNDSTR	The last time you injected with another person did you use a new sterile needle to inject? By new, sterile needle, we mean a needle never used before by anyone, even you.	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	C	S
45.	IDLSTND	The last time you injected with another person, did you share a needle with that person (i.e. use it after they had used it)?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	C	S
46.	IDWATR	The last time you injected with someone, did you use a cooker, cotton, or water that that that person had already used?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	C	S

N/A	Variable ID: ID	Injection Drug Use	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
47.	IDDRSR	The last time you injected with someone, did you use drugs that had been divided with a syringe that a person had already injected with?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	C	S
48.	IDSLF	The last time you injected drugs by yourself, did you use a new sterile needle to inject? By new, sterile needle, we mean needle never been used before by anyone, even you.	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8			S	S	S	C	S
	ID6MSG	<i>Next, we are going to ask you about drug treatment programs. These include out-patient, in-patient, residential, detox, and methadone maintenance treatment programs</i>				S	S	S	C	S
49.	IDAWR	Are you aware of any drug treatment program that may be available for you?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2','7' OR '8' → SKIP TO IDTRY	COVERAGE	S	S	S	C	S
50.	IDDRTR	Have you ever been in a drug treatment program?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		COVERAGE	S	S	S	C	S
51.	ID6TRT	In the last 6 months, have you been in a drug treatment program?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'1' → SKIP TO ID6METH	COVERAGE	S	S	S	C	S

N/A	Variable ID: ID	Injection Drug Use	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
52.	ID6TRYT	In the last 6 months, did you try to get into a drug treatment program but were unable to?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2','7' OR '8' →SKIP TO IDTRY	COVERAGE	S	S	S	C	S
53.	ID6MEDS	In the last 6 months, did you receive medication such as methadone or buprenorphine for your drug dependency?	YES ..... 1 NO - BUT I WOULD LIKE TO .. 2 NO - I DON'T KNOW ABOUT SUCH TREATMENT ... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'1' → SKIP TO IDSEX	COVERAGE & PREVENTION	S	S	S	C	S
54.	IDTRY	In the last 6 months, did you try to reduce or give up drug use?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		PREVENTION	S	S	S	C	S
55.	IDSEX	In the last 6 months, did you sell sex for drugs?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	C	S

\*: S=Sex Worker, M=MSM, T=Transgender, P=PWID, O=Other Vulnerable Population, C=Core, S=Secondary

## 24. DRUG OVERDOSE

Overdose is a risk when using many psychoactive drugs – but is much more common for some drugs (such as opioids) than others (such as cannabis and nicotine). It is especially common for people who use combinations of substances and those who inject drugs. The questions in this section focus on overdose experiences, if any, of the participant, if the participant had seen or witnessed another person go thru overdose, or s/he herself/himself experienced overdose. Information collected through this module can help understand the extent of overdose, if any, and possibly help in the development of interventions to minimize overdose, as in many cases, overdose can lead mortality.

N/A	Variable ID: OD	Overdose	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
N/A	OD1MSG	<i>Now we are going to ask you some questions about overdosing on drugs. Overdosing means that someone lost consciousness or stopped breathing as a result of taking drugs.</i>								
1.	ODEVR	Have you ever overdosed on narcotics to the point where you lost consciousness?	YES ..... 1 NO ..... 2 DON'T REMEMBER ..... 7 REFUSE TO ANSWER ..... 8	'2', '7' OR '8' →SKIP TO ODTRT	RISK Insert local term for "passed out".	S	S	S	C	S

N/A	Variable ID: OD	Overdose	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
2.	ODTIM	How many times has this happened?	NONE ..... 1 1 TO 5 ..... 2 TO 10 ..... 3 MORE THAN 10 ..... 4 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	C	S
3.	ODLSM	Please think about the last time you overdosed on narcotics. How long ago did that occur?	WITHIN 7 DAYS 1 ..... 1 BETWEEN 7 AND 30 DAYS .. 2 BETWEEN 1 AND 6 MONTHS ..... 3 BETWEEN 6 AND 12 MONTHS ..... 4 OVER 12 MONTHS ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	C	S
4.	ODOSNAR	What narcotics or other substances did you use (injected and/or non- injected) on that occasion?	SPECIFY: _____ DON'T KNOW 9997 REFUSE TO ANSWER 9998		RISK  ADAPT RESPONSES TO LOCAL CONTEXT	S	S	S	S	S



N/A	Variable ID: OD	Overdose	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
5.	ODSALN	Were you alone the last time you overdosed?	YES ..... 1 NO ..... 2 DON'T REMEMBER ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	S	S
6.	ODSHLP	Did you receive help from anyone the last time you overdosed?	YES ..... 1 NO ..... 2 DON'T REMEMBER ..... 7 REFUSE TO ANSWER ..... 8		COVERAGE	S	S	S	S	S
7.	ODTRT	If you were to seek medical help for an overdose of narcotics drugs, do you believe that you would be treated well?	YES ..... 1 NO ..... 2 DON'T REMEMBER ..... 7 REFUSE TO ANSWER ..... 8		KA	S	S	S	S	S
8.	ODLAW	If you were to seek medical help for an overdose of narcotics drugs, do you believe that you would be reported to law enforcement authorities?	YES ..... 1 NO ..... 2 DON'T REMEMBER ..... 7 REFUSE TO ANSWER ..... 8		KA	S	S	S	S	S
9.	ODSPR	Have you ever seen another person overdose on narcotic drugs to the point where they lost consciousness or stopped breathing?	YES ..... 1 NO ..... 2 DON'T REMEMBER ..... 7 REFUSE TO ANSWER ..... 8	'2' OR '7' OR '8' →SKIP TO END OF CURRENT SECTION	RISK	S	S	S	S	S

N/A	Variable ID: OD	Overdose	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
10.	ODTM	How many times has that happened?	ONCE ..... 1 2 TO 5 TIMES ..... 2 TO 10 TIMES ..... 3 MORE THAN 10 TIMES ..... 4 DON'T REMEMBER ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	S	S
11.	ODLST	Please think about the last time that happened. How long ago did that occur?	WITHIN 7 DAYS ..... 1 BETWEEN 7 AND 30 DAYS .. 2 BETWEEN 30 DAYS AND 6 MONTHS ..... 3 BETWEEN 6 MONTHS AND 12 MONTHS ..... 4 OVER 12 MONTHS AGO ..... 5 DON'T REMEMBER ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	S	S

N/A	Variable ID: OD	Overdose	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
12.	ODDO	What did you and the others present do? CHECK ALL THAT APPLY.	DID NOTHING ..... A DIDN'T KNOW WHAT TO DO .. B MOUTH TO MOUTH RESUSCITATION ..... C USED ICE, THREW COLD WATER ON OR SHOUTED AT THE PERSON ..... D INJECTED ANOTHER DRUG (e.g. NARCAN/ NALOX/NALTREXONE/ OTHER) ..... E TOOK THE PERSON TO HOSPITAL/MEDICAL FACILITY ..... F CALLED AMBULANCE/ MEDICAL PERSONNEL ..... G LEFT THE PLACE IMMEDIATELY ..... H HIT/SLAPPED/PINCHED THE PERSON ..... I DRAWING BLOOD FROM THE PERSON TO GET RID OF THE DRUG ..... J OTHER ..... X DON'T KNOW ..... Y REFUSE TO ANSWER ..... Z	IF 'A', 'Y', OR 'Z', NO OTHER CATEGORY CAN BE CHOSEN AS WELL.	PREVENTION & COVERAGE  ADAPT RESPONSES TO LOCAL CONTEXT.	S	S	S	S	S

N/A	Variable ID: OD	Overdose	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
13.	ODDTH	How many people have you known who died of a drug overdose?	NONE ..... 1 1 TO 5 ..... 2 TO 10 ..... 3 MORE THAN 10 ..... 4 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK	S	S	S	S	S
14.	ODEDUC	Have you ever received education or training on how to revive someone after an overdose?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	2' OR '7' OR '8' →SKIP TO END OF CURRENT SECTION	COVERAGE	S	S	C	S	S
15.	ODNLX	Have you ever received education or training on naloxone as an antidote to opioids?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		COVERAGE	S	S	S	S	S
16.	ODNAV	Have you been able to get naloxone when you wanted?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		COVERAGE	S	S	S	S	S

\*: S=Sex Worker, M=MSM, T=Transgender, P=PWID, O=Other Vulnerable Population, C=Core, S=Secondary

## 25. SEXUALLY TRANSMITTED INFECTIONS

This module measures characteristics related to self-reported sexually transmitted infections (STI). The terms sexually transmitted infections and sexually transmitted disease are used interchangeably. However, the term STI has been used more recently because people may be infected but may not show symptoms or the infection may not turn into a disease.

The first questions ask about symptoms associated with STI. If a participant responds “yes” to one of the symptoms, we assume that person had an STI in the last 12 months.

N/A	Variable ID: ST	Sexually Transmitted Infections	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
N/A	STD1MSG	Thank you. Now we will ask a few questions about your sexual health.		ONLY ASK IF KEYPOP= '1', '2', or '3'						
1.	STABNM	In the last 12 months, have you had an abnormal discharge from your penis?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	MALES/TG WOMEN ONLY.	RISK	C	C	C	C	C
2.	STULCM	In the last 12 months, have you had an ulcer or sore on or near your penis?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	MALES/TG WOMEN ONLY.	RISK	C	C	C	C	C

N/A	Variable ID: ST	Sexually Transmitted Infections	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
3.	STPAINUR	In the last 12 months, have you had pain on urination?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	MALES/TG WOMEN ONLY.	RISK	C	C	C	C	C
4.	STULCPM	In the last 12 months, have you found an ulcer or sore on or near your partner's penis or vagina?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	MALES/TG WOMEN ONLY.	RISK	S	S	S	S	S
5.	STABNF	During the last 12 months, have had an abnormal discharge from your vagina or experienced pelvic pain? This may include an unusual smell, color, or texture.	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	FEMALES ONLY.	RISK	S	N/A	N/A	S	S
6.	STULCF	In the last 12 months, have you had an ulcer or sore on or near your vagina?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	FEMALES ONLY.	RISK	C	N/A	N/A	C	C
7.	STULCPF	In the last 12 months, have you found an ulcer or sore on or near your partner's penis?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	FEMALES ONLY.	RISK	S	S	S	S	S

N/A	Variable ID: ST	Sexually Transmitted Infections	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
8.	STPROV	Did you see a healthcare provider because of these problems?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2','7','8' → STDIAG  SKIP IF STABNM='2', '7', OR '8' AND STULCM='2', '7', OR '8' AND STPAINUR='2', '7', OR '8' AND STULCPM='2', '7', OR '8' AND STABNF='2', '7', OR '8' AND STULCF='2', '7', OR '8' AND STULCPF='2', '7', OR '8'	PREVENTION	C	C	C	C	C
9.	STLONG	How long did it take you to go see the healthcare provider since the appearance of these symptoms?	LESS THAN ONE WEEK ..... 1 MORE THAN ONE WEEK LESS THAN ONE MONTH .... 2  MORE THAN ONE MONTH ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		PREVENTION	S	S	S	S	S
10.	STDIAG	In the last 12 months, did a healthcare provider tell you that you had a sexually transmitted disease, other than HIV?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		PREVENTION	C	C	C	S	S

N/A	Variable ID: ST	Sexually Transmitted Infections	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
11.	STPHARM	Did you get treatment for these problems?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2','7','8'→SKIP TO STHPV  SKIP IF STABNM='2', '7', OR '8' AND STULCM='2', '7', OR '8' AND STPAINUR='2', '7', OR '8' AND STULCPM='2', '7', OR '8' AND STABNF='2', '7', OR '8' AND STULCF='2', '7', OR '8' AND STULCPF='2', '7', OR '8'	PREVENTION	C	C	C	S	S
12.	STFACI	Where did you go to get treatment? Did you go to a public facility, a private facility or a pharmacy?	PUBLIC CLINIC/HOSPITAL ... 1 PRIVATE CLINIC/HOSPITAL .. 2 PHARMACY ..... 3 OTHER ..... 6 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	SKIP IF STABNM='2', '7', OR '8' AND STULCM='2', '7', OR '8' AND STPAINUR='2', '7', OR '8' AND STULCPM='2', '7', OR '8' AND STABNF='2', '7', OR '8' AND STULCF='2', '7', OR '8' AND STULCPF='2', '7', OR '8'	PREVENTION	C	C	C	C	C



N/A	Variable ID: ST	Sexually Transmitted Infections	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
13.	STHPV	There is a vaccine to protect people against human papilloma virus. This virus can cause cancer in the cervix, penis or anus. Did you get this vaccination?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		COVERAGE	S	S	S	S	S
14.	STCHE	Do you know where you can go for a STI/sexual health check-up?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	SKIP IF STABNM='2', '7', OR '8' AND STULCM='2', '7', OR '8' AND STPAINUR='2', '7', OR '8' AND STULCPM='2', '7', OR '8' AND STABNF='2', '7', OR '8' AND STULCF='2', '7', OR '8' AND STULCPF='2', '7', OR '8'		C	C	C	C	C
15.	STCOM	Would you be comfortable using this service if you want to have an STI/sexual health checkup?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8			C	C	C	C	C

\*: S=Sex Worker, M=MSM, T=Transgender, P=PWID, O=Other Vulnerable Population, C=Core, S=Secondary

## 26. HEPATITIS B AND C

This module is intended to capture information on participants' awareness of Hepatitis (B and C) and also whether the participants have been tested for Hepatitis and received treatment.

N/A	Variable ID: HP	HBV And HCV	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
N/A	HP1MSG	<i>Next, we'd like to ask you some questions about your health including hepatitis, meaning inflammation of the liver.</i>								
1.	HPVAC	Have you ever received the Hepatitis B vaccine?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2','7' OR '8' → SKIP TO HPBTEST	COVERAGE	C	C	C	C	S
2.	HPSHOT	How many shots for Hepatitis B vaccine did you receive?	ONE ..... 1 TWO ..... 2 THREE ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		COVERAGE	S	S	S	S	S

N/A	Variable ID: HP	HBV And HCV	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
3.	HPBTEST	Have you ever been tested for Hepatitis B?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2';'7' OR '8' →SKIP TO HPCTEST	COVERAGE	C	C	C	C	S
4.	HPBTME	When did you have your most recent Hepatitis B test?	LESS THAN 12 MONTHS AGO .. 1 MORE THAN 12 MONTHS AND LESS THAN FIV YEARS AGO ..... 2 MORE THAN FIVE YEARS AGO ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		COVERAGE	C	C	C	C	S
5.	HPRSL	What was the result of your last Hepatitis B test?	POSITIVE ..... 1 NEGATIVE ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2';'7' OR '8' →SKIP TO HPCTEST	RESULT	S	S	S	S	S
6.	HPTREAT	Have you ever taken medicine to treat your Hepatitis B infection?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		COVERAGE	S	S	S	S	S

N/A	Variable ID: HP	HBV And HCV	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
7.	HPCTEST	Have you ever been tested for Hepatitis C?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2','7' OR '8' → SKIP TO END OF CURRENT SECTION	COVERAGE	C	C	C	C	S
8.	HPCTME	When did you have your most recent Hepatitis C test?	LESS THAN 12 MONTHS AGO .. 1 MORE THAN 12 MONTHS AND LESS THAN FIVE YEARS AGO ..... 2 MORE THAN FIVE YEARS AGO .. 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		COVERAGE	C	C	C	C	S
9.	HPRSL	What was the result of your last Hepatitis C test?	POSITIVE ..... 1 NEGATIVE ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2','7' OR '8' → SKIP TO END OF CURRENT SECTION	RESULT	S	S	S	C	S
10.	HPMED	Have you ever taken medicine to treat your Hepatitis C infection?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		COVERAGE	S	S	S	C	S

\*: S=Sex Worker, M=MSM, T=Transgender, P=PWID, O=Other Vulnerable Population, C=Core, S=Secondary

## 27. SERVICES UPTAKE

A key goal of HIV prevention and care is to identify HIV-infected persons and link them to services for care, treatment and prevention services. This module measures the uptake of HIV-related services from community outreach to linkage to care, ART initiation and retention.

Sex workers, men who have sex with men, transgender persons and people who inject drugs may not always identify themselves as such when utilizing health services. Surveys represent an additional data source to help describe the uptake of services by key affected populations. Surveys have the advantage of measuring service uptake at the population (rather than clinic) level, sampling both respondents who do and do not access services. Surveys can thus characterize people who do not access services and describe barriers to service uptake. The many strengths of this module may be limited by small sample sizes, low HIV prevalence, and/or poor uptake of services that can lead to small numbers in analysis. Further, respondents with poor health literacy may find some questions challenging to answer.

While this module is extensive, the number of questions considered “core” is small, varying by key population group and skip patterns. Depending on the final questionnaire structure, some questions listed here may be better placed within other modules. Some questions or answer options may need to be altered to reflect national guidelines or to program goals. Certain terms (e.g., “STD” or “cotrimoxazole”) may need to be replaced with better known local terms. For medication-related questions (e.g., ARVs) consider showing participants photos to help identify these medications.

	Variable ID: CS	Services Uptake	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
	OR	Outreach		(SUBSECTION)						
N/A	CS1MSG	<i>We will now ask you about services that peer educators or outreach workers may have given you. A peer educator is someone like you who has been trained in HIV. An outreach worker is someone employed by an organization, government or private agency, who might provide these same services to people like you.</i>								

	Variable ID: CS	Services Uptake	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
1.	CSOREV	Has a peer educator or outreach worker ever talked to you about HIV?	YES ..... 1 NO ..... 2 DON'T KNOW..... 7 REFUSE TO ANSWER .... 8	'2','7' OR '8'→SKIP TO NEXT SUBSECTION	COVERAGE	C	C	C	C	C
2.	CSORTI	How long ago did a peer educator or outreach worker talk to you about HIV?	IN THE LAST 30 DAYS ... 1 IN THE LAST 3 MONTHS ..... 2 IN THE LAST YEAR ..... 3 LONGER THAN A YEAR AGO ..... 4 DON'T KNOW ..... 7 REFUSE TO ANSWER .. 8		COVERAGE	C	C	C	C	C
3.	CSORPR	The last time you met a peer educator or outreach worker, what <u>items</u> or things did you receive?  CHECK ALL THAT APPLY.	NOTHING ..... A CONDOMS ..... B LUBRICANTS ..... C PAMPHLET OR BROCHURE ..... D MEDICINES ..... E OTHER ..... X DON'T KNOW ..... Y REFUSE TO ANSWER ... Z	IF 'A', 'Y' OR 'Z', NO OTHER CATEGORY CAN BE CHOSEN AS WELL.	COVERAGE & PREVENTION	S	S	S	N/A	S

	Variable ID: CS	Services Uptake	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
4.	CSORID	The last time you met a peer educator or outreach worker, what <u>items</u> or things did you receive?  CHECK ALL THAT APPLY.	NOTHING ..... A NEEDLES, SYRINGES, SAFE INJECTION KITS... B  PAMPHLET OR BROCHURE ..... C  CONDOMS ..... D  MEDICINES ..... E  OTHER ..... X  DON'T KNOW ..... Y  REFUSE TO ANSWER ... Z	IF 'A, 'Y' OR 'Z', NO OTHER CATEGORY CAN BE CHOSEN AS WELL.	COVERAGE & PREVENTION	N/A	N/A	N/A	S	N/A
5.	CSORSV	The last time you met a peer educator or outreach worker, what <u>services</u> did you receive?  CHECK ALL THAT APPLY.	NOTHING ..... A HIV TESTING ..... B  TRAINING ON CONDOM USE ..... C  COUNSELING ON RISK ..... D  REFERRAL ..... E  OTHER ..... X  DON'T KNOW ..... Y  REFUSE TO ANSWER... Z	IF 'A, 'Y' OR 'Z', NO OTHER CATEGORY CAN BE CHOSEN AS WELL.	COVERAGE & PREVENTION	S	S	S	S	S

	Variable ID: CS	Services Uptake	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
A.	CT	Counseling and Testing		(SUBSECTION)						
N/A	CS2MSG	<i>We will now ask you a few questions about HIV testing. Remember that your responses will be kept confidential and will not be shared with anyone.</i>								
6.	CSCRET	Do you know where you can go If You want to receive an HIV test?	YES ..... 1 NO ..... 2 DON'T KNOW..... 7 REFUSE TO ANSWER .... 8			C	C	C	C	C
7.	CSCTCO	Would you feel comfortable with using this service if you wanted to be tested for HIV?	YES ..... 1 NO ..... 2 DON'T KNOW..... 7 REFUSE TO ANSWER .... 8			C	C	C	C	C
8.	CSCTEV	Have you ever tested for HIV?	YES ..... 1 NO ..... 2 DON'T KNOW..... 7 REFUSE TO ANSWER .... 8	'1'→SKIP TO CSCTPL1	COVERAGE	C	C	C	C	C



	Variable ID: CS	Services Uptake	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
9.	CSCTNV	What is the main reason you have never tested for HIV?	I FEEL I AM NOT AT RISK FOR HIV ..... 1 FEAR OF POSITIVE RESULT ..... 2 NO MONEY TO GET TESTED ..... 3 NO TIME TO GET TESTED ..... 4 STIGMA BY HEALTH CARE WORKERS ..... 5 OTHER ..... 6 DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8	SKIP TO END OF CURRENT SECTION	PREVENTION	C	C	C	C	C
10.	CSCTPL1	Please think about to the last time you tested for HIV. Did you go somewhere, did someone come to you or did you test yourself?	I WENT THERE ..... 1 THEY CAME TO ME ..... 2 I TESTED MYSELF ..... 3 DON'T KNOW..... 7 REFUSE TO ANSWER .... 8	'2'→SKIP TO CSCTPL3; '3'→SKIP TO CSCTRS1	COVERAGE & PREVENTION	C	C	C	C	C

	Variable ID: CS	Services Uptake	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
11.	CSCTPL2	Where did you have your last HIV test?	TESTING AND COUNSELING CENTER ..... 1  HEALTH CLINIC, HOSPITAL, OR SIMILAR ..... 2  OUTREACH/MOBILE TESTING ..... 3  OTHER ..... 6  DON'T KNOW ..... 7  REFUSE TO ANSWER ... 8	'3' → SKIP TO CSCTPL3  '6' → SKIP TO CSCTPL4  '1', '2', '7', '8' → SKIP TO CSCTWHO	COVERAGE	C	C	C	C	C
12.	CSCTPL3	Where did you get tested?	IN MY HOME ..... 1  AT MY WORK ..... 2  WHERE I HANG OUT.. 3  OTHER ..... 6  DON'T KNOW ..... 7  REFUSE TO ANSWER ... 8	'1', '2', '3', '7', '8' →SKIP TO CSCTWHO	COVERAGE	C	C	C	C	C
13.	CSCTPL4	You said "Other". Where was that?	SCHOOL ..... 1  PRISON ..... 2  CHURCH ..... 3  OTHER ..... 6  DON'T KNOW ..... 7  REFUSE TO ANSWER ... 8		COVERAGE	C	C	C	C	C

	Variable ID: CS	Services Uptake	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
14.	CSCTWHO	Who tested you? Choose the best answer.	GOVERNMENT WORKER ..... 1 NGO/CBO NAME A ..... 2 NGO/CBO NAME B ..... 3 NGO/CBO NAME C ..... 4 OTHER PRIVATE OR COMMERCIAL PLACE .. 5 OTHER ..... 6 DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8		COVERAGE  ADAPT RESPONSES BASED ON LOCAL CONTEXT.	S	S	S	S	S
15.	CSCTRS1	Why did you last test for HIV?	HEALTH CARE OR OUTREACH OFFERED TEST ..... 1 I JUST WANTED TO KNOW ..... 2 FELT AT RISK OR SICK .. 3 GOT A NEW PARTNER .. 4 OTHER ..... 6 DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8	'2', '3', '4', '7', '8' → SKIP TO CSCTYY OR CSCTTI	PREVENTION	S	S	S	S	S

	Variable ID: CS	Services Uptake	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
16.	CSCTRS2	You said "Other". Which of the following best fit your reason to test?	EMPLOYER ASKED ME TO TEST ..... 1  PRE-MARITAL TESTING ..... 2  PARTNER ASKED ME TO TEST ..... 3  OTHER ..... 6  DON'T KNOW ..... 7  REFUSE TO ANSWER ... 8		PREVENTION	S	S	S	S	S
17.	CSCTYY	In what year was your last HIV test?	 MIN: 1985  MAX: CURRENT YEAR  DON'T KNOW ..... 7  REFUSE TO ANSWER ... 8	OPTION A	COVERAGE & PREVENTION  CHOOSE EITHER OPTION A (CSCTYY AND CSCTMM) OR OPTION B (CSCTTI)	S	S	S	S	S
18.	CSCTMM	In which month did you take your last HIV test?	 RANGE: 1-12  IF CSCTYY = CURRENT YEAR, THEN  MAX= CURRENT MONTH  DON'T KNOW ..... 7  REFUSE TO ANSWER ... 8	OPTION A  SKIP IF CURRENT YEAR = CSCTYY >1	COVERAGE  CHOOSE EITHER OPTION A (CSCTYY AND CSCTMM) OR OPTION B (CSCTTI)	S	S	S	S	S

	Variable ID: CS	Services Uptake	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
19.	CSCTTI	When did you last test for HIV?	IN THE LAST 6 MONTHS ..... 1 BETWEEN 7-12 MONTHS AGO ..... 2 MORE THAN 12 MONTHS AGO ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8	OPTION B	COVERAGE & PREVENTION  CHOOSE EITHER OPTION A (CSCTYY AND CSCTMM) OR OPTION B (CSCTTI)	C	C	C	C	C
20.	CSCTRS	What was the result of your last test?	POSITIVE ..... 1 NEGATIVE ..... 2 UNCLEAR / NEITHER POSITIVE OR NEGATIVE ..... 3 DID NOT RECEIVE RESULT ..... 4 DON'T KNOW ..... 7 REFUSE TO ANSWER .. 8	'1'→CSCFP	PREVENTION	C	C	C	C	C
21.	CSCTINF	How likely do you think it is that you will get infected with HIV in the next year?	EXTREMELY UNLIKELY.. 1 SOMEWHAT UNLIKELY ..... 2 SOMEWHAT LIKELY ..... 3 EXTREMELY LIKELY ..... 4 DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8	SKIP TO CSDSMM	KA & VULNERABILITY	S	S	S	S	

	Variable ID: CS	Services Uptake	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
22.	CSCFP	Was the last test your first positive test result?  This will be the very first HIV positive test result you have received.	YES ..... 1 NO ..... 2 DON'T KNOW..... 7 REFUSE TO ANSWER .... 8	'1' →SKIP TO CSCFPY  '7' OR '8' →SKIP TO CSCTTL	OTHER	S	S	S	S	S
23.	CSCFPY	What year did you first test positive?	 MIN: 1900 MAX: CURRENT YEAR DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8		OTHER	S	S	S	S	S
24.	CSCFPM	What month did you first test positive?	 RANGE: 1-12 IF CSCTYY = CURRENT YEAR, THEN  MAXIMUM = CURRENT MONTH DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8		OTHER	S	S	S	S	S
25.	CSCFPY	Before your first positive test, did you ever have a negative HIV test?	YES ..... 1 NO ..... 2 DON'T KNOW..... 7 REFUSE TO ANSWER .... 8	'2';'7';'8' → SKIP TO CSDSTL	OTHER	S	S	S	S	S

	Variable ID: CS	Services Uptake	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
26.	CSCFPY	What year did you last test HIV negative?	 MINIMUM: 1985 MAXIMUM: CURRENT YEAR DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8		OTHER  Probing the date of the last HIV neg test provides information for estimating HIV incidence in a case-based HIV incidence surveillance system	S	S	S	S	S
27.	CSCFPM	What month did you last test HIV negative?	 RANGE: 1-12 IF CSCTYY = CURRENT YEAR, THEN MAXIMUM = CURRENT MONTH DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8		OTHER	S	S	S	S	S

	Variable ID: CS	Services Uptake	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
B.	DS	Disclosure		(SUBSECTION)						
28.	CSDSTL	Of the following people, who have you told that you are HIV positive?  CHECK ALL THAT APPLY.	NO ONE ..... A SPOUSE/SEX PARTNER ..... B DOCTOR ..... C FRIEND ..... D FAMILY MEMBER ..... E OTHER ..... X DON'T KNOW ..... Y REFUSE TO ANSWER ... Z	ONLY ASK IF CSCTRS='1'  'A' → CSDSMM	PREVENTION & VULNERABILITY	C	C	C	C	C
29.	CSDSLK	Did the person who tested you do any of the following?  CHECK ALL THAT APPLY.	NOTHING..... A COUNSEL YOU ON HIV CARE ..... B REFER YOU TO A CARE SERVICE ..... C ACCOMPANY YOU TO A CARE SERVICE ..... D DON'T KNOW ..... Y REFUSE TO ANSWER ... Z	ONLY ASK IF CSCTRS='1'	PREVENTION	S	S	S	S	S



	Variable ID: CS	Services Uptake	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
30.	CSDSMM	If you have a main sex partner, did you ever test together with that partner?	I DON'T HAVE A MAIN SEX PARTNER .... 1 YES – WE TESTED TOGETHER ..... 2 NO – WE NEVER TESTED TOGETHER ..... 3 NO – PARTNER WAS TESTED BUT WITHOUT ME ..... 4 DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8		PREVENTION	S	S	S	S	S
31.	CSCTMSM	The last time you tested for HIV, did the you tell the HIV testing counselor that you have sex with men?	YES ..... 1 NO ..... 2 NEVER TESTED FOR HIV ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8		PREVENTION & VULNERABILITY	N/A	S	N/A	N/A	N/A
32.	CSDSSW	The last time you tested for HIV, did you let the HIV testing counselor know that you exchange sex for money?	YES ..... 1 NO ..... 2 NEVER TESTED FOR HIV ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER .. 8		PREVENTION & VULNERABILITY	S	N/A	N/A	N/A	N/A

	Variable ID: CS	Services Uptake	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
33.	CSDSID	The last time you tested for HIV, did you let the HIV testing counselor know that you inject drugs?	YES ..... 1 NO ..... 2 NEVER TESTED FOR HIV ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8		PREVENTION & VULNERABILITY	N/A	N/A	N/A	S	N/A
34.	CSDSQU1	Which of the following best describes the counseling you received?	RESPECTFUL, CARING, UNDERSTANDING ..... 1 DISRESPECTFUL, UNCARING, STIGMATIZING, UNCOMFORTABLE ..... 2 NEITHER RESPECTFUL NOR DISRESPECTFUL ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8		PREVENTION	S	S	S	S	S
35.	CSDSQU2	Did the counselor address most of your concerns, or questions?	YES ..... 1 NO ..... 2 SOMEWHAT ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8		PREVENTION	S	S	S	S	S

	Variable ID: CS	Services Uptake	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
C.		<b>Care and treatment</b>								
NA		<i>Thank you. You told us you tested positive for HIV. Now we will ask you about your participation in a support group.</i>		ONLY ASK IF CSCTRS='1'						
NA	<b>PS</b>	<b>Support Group</b>								
36.	CSPSEV	Have you ever attended a support group for people living with HIV?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8	'2','7','8'→SKIP TO CSCANW	COVERAGE	S	S	S	S	S
37.	CSPSFQ	In the last 12 months, how many times did you attend a support group?  TYPE '0' IF NONE.	 DON'T KNOW 97 REFUSE TO ANSWER 98		PREVENTION	S	S	S	S	S

	Variable ID: CS	Services Uptake	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
38.	CSPSTY	Which of the following do you receive from the support group for your HIV infection?  CHECK ALL THAT APPLY.	NOTHING ..... A  COUNSELING/ HEALTH LIVING MESSAGES ..... B  REMINDED OF IMPORTANCE OF TAKING ARV REGULARLY ..... C  REMINDED TO KEEP HIV APPOINTMENTS ... D  REFILLS OR PICKING UP ARV MEDICATIONS ..... E  PSYCHOSOCIAL SUPPORT ..... F  LIVELIHOOD/ MATERIAL SUPPORT ... G  OTHER ..... X  DON'T KNOW ..... Y  REFUSE TO ANSWER ... Z	'A' → CSLKEV	COVERAGE.  Adapt responses based on local context.	S	S	S	S	S
	LK	Linkage to care								
NA	CS3MSG	<i>You told us you tested positive for HIV. Many people living with HIV register with a health care provider to get care. By “care” we mean someone goes for check-ups to a health care provider or gets ARVs for their HIV infection. The next few questions are about the first time you saw a provider for your HIV.</i>		ONLY ASK IF CSCTRS='1'						

	Variable ID: CS	Services Uptake	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
39.	CSLKEV	After learning you had HIV, have you ever received HIV medical care from a health care provider?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8	'1'→SKIP TO CSLKSTYR	PREVENTION	C	C	C	C	C
40.	CSlknv	What is the main reason you have never received HIV medical care from a healthcare provider?	FEEL HEALTHY ..... 1 STIGMA, DON'T WANT OTHERS TO KNOW ..... 2 COST/DISTANCE TO CLINIC ..... 3 POOR ATTITUDE OF HEALTH CARE WORKERS ..... 4 WAITING TIME OR CLINIC HOURS NOT GOOD ..... 5 OTHER ..... 6 DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8		PREVENTION	C	C	C	C	C

	Variable ID: CS	Services Uptake	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
41.	CSLKSTYR	In which year did you start taking ARVs?	 MIN: CANNOT BE BEFORE YEAR TESTED MAX: CURRENT YEAR DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8		OTHER	S	S	S	S	S
42.	CSLKSTMT	In which month did you start taking ARVs?	 RANGE: 1-12 IF RXARVY = CURRENT YEAR, THEN MAXIMUM = CURRENT MONTH DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8		OTHER	S	S	S	S	S
43.	CSLKTY1	What kind of clinic did you first go to discuss or receive care for your HIV?	PUBLIC OR GOVERNMENT ..... 1 PRIVATE ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8		COVERAGE	S	S	S	S	S

	Variable ID: CS	Services Uptake	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
44.	CSLKTY3	Was this a mobile clinic, or did you go to a fixed building/ office?	MOBILE CLINIC ..... 1 FIXED CLINIC ..... 2 OTHER ..... 6 DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8		COVERAGE	S	S	S	S	S
45.	CSLKFEF	Was the care you received from that first health care provider free of charge?	YES – FREE OF CHARGE ..... 1 NO – I HAVE TO OR HAD TO PAY ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8		COVERAGE	S	S	S	S	S
	CA	Care								
NA	CS4MSG	<i>Thank you. The next few questions are about the HIV care you may receive now.</i>								
46.	CSCANW	Do you currently get health care or check-ups for your HIV?	YES, STILL IN CARE ..... 1 NO, I STOPPED RECEIVING CARE/ GOING TO THE CLINIC ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8	'1'→SKIP TO CSCALST	COVERAGE	C	C	C	C	C

	Variable ID: CS	Services Uptake	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
47.	CSCARS	What is the main reason you no longer receive HIV care from a health care provider?	FEEL HEALTHY ..... 1  STIGMA, DON'T WANT OTHERS TO KNOW ..... 2  COST OR TRANSPORTATION PROBLEMS ..... 3  POOR ATTITUDE OF HEALTH CARE WORKERS ..... 4  WAITING TIME OR CLINIC HOURS NOT GOOD ..... 5  OTHER ..... 6  DON'T KNOW ..... 7  REFUSE TO ANSWER ... 8	SKIP TO END OF CURRENT SECTION.	PREVENTION	S	S	S	S	S
48.	CSCALST	When is the next time you will receive HIV care from a health care provider?	LESS THAN ONE MONTH ..... 1  BETWEEN 1 AND 3 MONTHS ..... 2  BETWEEN 4 AND 6 MONTHS ..... 3  LONGER THAN 6 MONTHS ..... 4  DON'T KNOW ..... 7  REFUSE TO ANSWER ... 8		PREVENTION	C	C	C	C	C



	Variable ID: CS	Services Uptake	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
NA	CX	<b>Cotrimoxazole</b>								
49.	CSCXIN	<i>Now some questions about Cotrimoxazole or Cotrim. Cotrim is a medicine recommended for people with HIV, even if they have not started treatment. It helps prevent certain infections but it does not treat HIV.</i>								
50.	CSCXEV	Have you ever taken cotrimoxazole?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8	'1'→SKIP TO CSCXNW	COVERAGE	C	C	C	C	C
51.	CSCXNV	What is the main reason you have never taken cotrimoxazole?	FEEL HEALTHY ..... 1 FEAR OF STIGMA ..... 2 NOT PRESCRIBED ..... 3 NO TIME/CLINIC TOO FAR ..... 4 COST ..... 5 OTHER ..... 6 DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8	SKIP TO END OF CURRENT SUBSECTION	PREVENTION ADAPT RESPONSES TO LOCAL CONTEXT.	S	S	S	S	S
52.	CSCXNW	Are you currently taking cotrimoxazole?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8		COVERAGE	S	S	S	S	S

	Variable ID: CS	Services Uptake	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
D.	CD	CD4+ T cell count								
N/A	CS5MSG	<i>We will now ask you a few questions about your “CD4” or “T-cell” count. The CD4 count tells how sick you are with HIV and if you need to take ARVs or other HIV medications.</i>			COVERAGE					
53.	CSCDEV	Have you ever had your CD4 tested?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8	'2';'7';'8' → SKIP TO NEXT SUBSECTION	COVERAGE	C	C	C	C	C
54.	CSCDEV	When did your care provider last test your CD4 count?	IN THE LAST 6 MONTHS ..... 1 BETWEEN 7 AND 12 MONTHS AGO ..... 2 MORE THAN 12 MONTHS AGO ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8		PREVENTION  Tailor time periods to national or program guidelines	C	C	C	C	C

	Variable ID: CS	Services Uptake	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
55.	CSCDRS1	What was the result of your last CD4 count?	DID NOT RECEIVE RESULT ..... 1  MORE THAN 500 ..... 2  BETWEEN 350 AND 500 ..... 3  BETWEEN 200 AND 349 ..... 4  BELOW 200 ..... 5  DON'T KNOW ..... 7  REFUSE TO ANSWER ... 8	OPTION A	PREVENTION  CHOOSE EITHER OPTION A (CSCDRS1) OR OPTION B (CSCDRS2)	S	S	S	S	S
56.	CSCDRS2	What was your last CD4 count?	_ _ _ _   DON'T KNOW 997  REFUSE TO ANSWER 998	OPTION B	PREVENTION  CHOOSE EITHER OPTION A (CSCDRS1) OR OPTION B (CSCDRS2)	S	S	S	S	S
<b>E.</b>	<b>TR</b>	<b>Anti-retroviral treatment</b>		ONLY ASK IF CSCTRS='1'						
		<b>ART initiation</b>								
NA	CS6MSG	<i>Thank you. Now some questions on anti-retroviral treatment, also called ARVs, to treat HIV.</i>			Term 'ARV' should be changed based on local context.					

	Variable ID: CS	Services Uptake	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
57.	CSTREV	Have you ever taken ARVs, that is, antiretroviral medication, to treat your HIV infection?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8	'1' → SKIP TO csTRY	COVERAGE, PREVENTION	C	C	C	C	C
58.	CSTRNV1	What is the main reason you never started taking ARVs?	MY CD4 COUNT IS STILL HIGH ..... 1 MY CD4 COUNT IS UNKNOWN ..... 2 I AM ON A WAITING LIST TO START ..... 3 HEALTH CARE PROVIDER TOLD ME ITS TOO EARLY TO START ..... 4 OTHER REASON ..... 6 DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8	'1', '2', '3', '4', '7', OR '8' → SKIP TO CSVLEV	PREVENTION  Adapt responses based on local context.	C	C	C	C	C

	Variable ID: CS	Services Uptake	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
59.	CSTRNV2	You said other. Which of the following is the main reason you never started taking ARVs?	NO CLINIC NEAR ME OFFERS IT ..... 1  HEALTH CARE PROVIDER REFUSED TO GIVE ME ARVs ..... 2  FEAR OF STIGMA OR THAT OTHERS FIND OUT ..... 3  COSTS TOO MUCH ..... 4  OTHER ..... 6  DON'T KNOW ..... 7  REFUSE TO ANSWER ... 8		COVERAGE, PREVENTION	S	S	S	S	S
60.	CSTRYY	In which year did you start taking ARVs?	  MIN: CANNOT BE BEFORE YEAR TESTED  MAX: CURRENT YEAR  DON'T KNOW ..... 7  REFUSE TO ANSWER ... 8		OTHER	S	S	S	S	S

	Variable ID: CS	Services Uptake	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
61.	CSTRMM	In which month did you start taking ARVs?	 RANGE: 1-12 IF RXARVY = CURRENT YEAR, THEN MAXIMUM = CURRENT MONTH DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8		OTHER	S	S	S	S	S
		<b>ART retention</b>								
	CSTRCURR	Are you currently taking ARVs?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8	'1'→CSTRSV	COVERAGE, PREVENTION	C	C	C	C	C

	Variable ID: CS	Services Uptake	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
62.	CSTRSP2	Can you tell me the main reason why you are not currently taking ARVs?	CLINIC TOO FAR, TRANSPORT COSTS TOO HIGH ..... 1  COSTS AT CLINIC TOO HIGH ..... 2  POOR SERVICE AT CLINIC ..... 3  CLINIC RAN OUT OF ARVs ..... 4  OTHER ..... 6  DON'T KNOW ..... 7  REFUSE TO ANSWER ... 8	'1', '2', '3', '4', '7', '8' → CSVLEV	PREVENTION  Adapt responses based on local context.	C	C	C	C	C
63.	CSTRSP3	You said other. Can you tell me the main reason why you are not currently taking ARVs?	FEEL HEALTHY ..... 1  TOO MANY SIDE EFFECTS ..... 2  RELIGIOUS REASONS ... 3  OTHER ..... 6  DON'T KNOW ..... 7  REFUSE TO ANSWER ... 8		PREVENTION  Adapt responses based on local context.	C	C	C	C	C

	Variable ID: CS	Services Uptake	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
64.	CSTRSV	While taking ARVs, do you or did you use any of the following services?  READ RESPONSES ALOUD.  CHECK ALL THAT APPLY.	MOBILE PHONE TEXT REMINDERS ..... A  TREATMENT SUPPORT GROUP ..... B  FOOD OR MONEY SUPPORT ..... C  OUTREACH WORKER OR PEER EDUCATOR ... D  NONE OF THESE ..... E  DON'T KNOW ..... Y  REFUSE TO ANSWER ... Z		COVERAGE	S	S	S	S	S
<b>F.</b>	<b>VL</b>	<b>Viral load</b>		ONLY ASK IF CSTREV='1'						
65.	CSVLEV	Some people with HIV get their viral load measured. this a test that measures how much HIV is in your blood. Did you ever have a viral load test?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8	'2', '7', OR '8' →SKIP TO END OF CURRENT SUBSECTION	COVERAGE	C	C	C	C	C
66.	CSVLT1	When did you last have a viral load test?	IN THE LAST 12 MONTHS ..... 1  MORE THAN A YEAR AGO ..... 2  DON'T KNOW ..... 7  REFUSE TO ANSWER ... 8		PREVENTION	S	S	S	S	S



	Variable ID: CS	Services Uptake	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
67.	CSVLRS1	Did you learn the result of your most recent viral load test?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8	'2', '7', OR '8' →SKIP to NEXT SUBSECTION	COVERAGE	S	S	S	S	S
68.	CSVLRS1	Viral load results can be "Suppressed" or "Not suppressed"? "Suppressed" means there is very low or no virus in your blood. "Not suppressed" means there is still plenty of virus in your blood. Was you last viral load test "Suppressed" or "Not suppressed"?	SUPPRESSED ..... 1 NOT SUPPRESSED ..... 2 THEY DID NOT TELL ME THE RESULT ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER .. 8	'2', '3', '7', OR '8' →SKIP TO END OF CURRENT SUBSECTION	PREVENTION  This language should be adapted to the local context	S	S	S	S	S
69.	CSVLRS2	How much virus was in your blood when you last tested your viral load?	LESS THAN 1,000 ..... 1 BETWEEN 1,0011001 AND 10,000 ..... 2 BETWEEN 10,0011001 AND 100,000 ..... 3 MORE THAN 100,0011001 ..... 4 DON'T KNOW ..... 5 REFUSE TO ANSWER ... 8		OTHER	S	S	S	S	S
	<b>TB</b>	<b>TUBERCULOSIS</b>								
NA	CS8MSG	The next few questions are about tuberculosis or TB. All people with HIV should be asked about TB.								

	Variable ID: CS	Services Uptake	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
70.	CSTBSC1	In the last 12 months, during any of your visits to the HIV clinic, were you asked if you had the following TB symptoms: night sweats, cough, fever, and weight loss?	YES ..... 1 NO, I WAS NOT ASKED ..... 2 NO, I AM CURRENTLY ON TB TREATMENT .... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8	'2','3','7','8' → SKIP TO END OF CURRENT SUBSECTION	COVERAGE	S	S	S	S	S
71.	CSTBSC2	In the last 12 months, how often were you asked these questions?	AT EVERY VISIT ..... 1 ON SOME VISITS ..... 2 ON ONE VISIT ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8		COVERAGE	S	S	S	S	S
72.	CSTBSC3	In the last 12 months, have you experienced any of these symptoms?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8	'2','7','8' → SKIP TO END OF CURRENT SUBSECTION	COVERAGE	S	S	S	S	S
73.	CSTBTT	In the last 12 months, did you receive a chest x-ray or sputum test to look for TB?  A sputum test is when the patient has to cough and collect the sample in a cup.  CHECK ALL THAT APPLY.	NONE OF THESE ..... A CHEST X-RAY ..... B SPUTUM TEST..... C DON'T KNOW ..... Y REFUSE TO ANSWER ... Z	'A' → SKIP TO END OF CURRENT SUBSECTION	COVERAGE	S	S	S	S	S

	Variable ID: CS	Services Uptake	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
74.	CSTBRS	What was the result of your last TB test?	TB-NEGATIVE ..... 1 TB-POSITIVE ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8	'1','7','8' → CS8MSG	OTHER	S	S	S	S	S
75.	CSTBTR1	The last time you had TB, did you get treatment for TB?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8		COVERAGE	S	S	S	S	S
<b>CC</b>		<b>CERVICAL CANCER SCREENING</b>								
NA	CS8MSG	<p>Now I'm going to ask you about tests a health care provider can do to check for cervical cancer. The cervix connects the uterus to the vagina. The tests a health care provider can do to check for cervical cancer are called a Pap smear, HPV test and VIA test.</p> <p>For a Pap smear and HPV test, a health care provider puts a small stick inside the vagina to wipe the cervix and sends the sample to the laboratory. For a VIA test, a healthcare worker puts vinegar on the cervix and looks to see if the cervix changes color.</p>								
76.	CSCCEV	Have you ever been tested for cervical cancer?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ... 8	FOR WOMEN ONLY.	COVERAGE	S	N/A	N/A	S	S

	Variable ID: CS	Services Uptake	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
77.	CSCCAB	At your last cervical cancer test, what was the result?	NORMAL/NEGATIVE .... 1  ABNORMAL/ SUSPECT CANCER/ POSITIVE ..... 2  UNCLEAR/ INCONCLUSIVE ..... 3  DID NOT RECEIVE RESULTS ..... 4  DON'T KNOW ..... 7  REFUSE TO ANSWER ... 8	FOR WOMEN ONLY.  '1','3','4','7','8' → SKIP TO END OF CURRENT SECTION	COVERAGE	S	N/A	N/A	S	S
78.	CSCCREF	Were you referred or treated for cervical abnormality?	REFERRED ..... 1  TREATED ..... 2  BOTH ..... 3  DON'T KNOW ..... 7  REFUSE TO ANSWER ... 8	FOR WOMEN ONLY.	COVERAGE  RESPONSES BASED ON LOCAL CONTEXT.	S	N/A	N/A	S	S

\*: S=Sex Worker, M=MSM, T=Transgender, P=PWID, O=Other Vulnerable Population, C=Core, S=Secondary

## 28. PEP and PrEP

These modules are meant to assess knowledge and use of pre-exposure prophylaxis (PrEP) and post-exposure prophylaxis (PEP). These questions should only be asked in settings where PrEP and PEP are available.

NA	Variable ID: PP	PEP and PREP	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
N/A	PP1MSG	<i>Thank you. Now we will ask some questions about pre-exposure prophylaxis (PrEP). PrEP is a medicine that can prevent HIV. It is taken by HIV-negative people.</i>		IF CSCTRS='1' → SKIP TO END OF CURRENT SECTION						
1.	PPRKNOW	Have you heard of PrEP?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2','7' OR '8' → SKIP TO PPRCONS	KA	C	C	C	C	C
2.	PPRTAKE	Have you ever taken PrEP?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'1' → SKIP TO PPR6TAKE	COVERAGE	C	C	C	C	C

NA	Variable ID: PP	PEP and PREP	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
3.	PPRNEVER	What is the main reason you have never taken PrEP?	EMBARRASSED TO TALK ABOUT IT WITH DOCTOR/ NURSE ..... 1  DON'T FEEL AT RISK FOR HIV ..... 2  NOT AVAILABLE WHERE I LIVE ..... 3  DON'T KNOW WHERE TO GET IT ..... 4  DON'T WANT IT ..... 5  AFRAID OF SIDE EFFECTS ..... 6  DON'T WANT OTHERS TO KNOW ..... 7  OTHER ..... 8  DON'T KNOW ..... 97  REFUSE TO ANSWER ..... 98		COVERAGE & PREVENTION	C	C	C	C	C
4.	PPRCONS	PrEP has similar side effects to other drugs used to treat HIV. Would you take PrEP to help prevent HIV?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2', '7', OR '8' → SKIP TO PP2MSG	KA	S	S	S	S	S
5.	PPR6TAKE	In the last 6 months, have you taken PrEP?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'1' → SKIP TO PPRWHERE	COVERAGE	C	C	C	C	C

NA	Variable ID: PP	PEP and PREP	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
6.	PPRMAIN	What is the main reason you stopped taking PrEP?	I TRUST MY PARTNERS ..... 1 CAN'T GET PrEP ANYMORE ... 2 HAD SIDE EFFECTS ..... 3 DON'T WANT OTHERS TO KNOW ..... 4 TESTED HIV-POSITIVE ..... 5 OTHER ..... 6 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	SKIP TO PP2MSG	COVERAGE & PREVENTION	C	C	C	C	C
7.	PPRWHERE	From where do you usually get PrEP?	GOVERNMENT CLINIC ..... 1 COMMUNITY-BASED NGO .... 2 PHARMACY ..... 3 FRIENDS ..... 4 STRANGERS ..... 5 OTHER ..... 6 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		COVERAGE & PREVENTION	S	S	S	S	S

NA	Variable ID: PP	PEP and PREP	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
8.	PPRDAILY	Do you take PrEP daily as prescribed or non-daily as prescribed?	DAILY AS PRESCRIBED ..... 1 NON-DAILY AS PRESCRIBED ... 2 OTHER ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		COVERAGE	C	C	C	C	C
9.	PPRLAST	When was the last time you took PrEP?	YESTERDAY OR TODAY ..... 1 2-3 DAYS AGO ..... 2 4-7 DAYS AGO ..... 3 1-2 WEEKS AGO ..... 4 MORE THAN 2 WEEKS AGO .. 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		COVERAGE & PREVENTION	C	C	C	C	C
N/A	PP2MSG	<i>Thank you. Now some questions about post-exposure prophylaxis (PEP). PEP is a medicine that HIV-negative people take for one month after they had contact with HIV, so that they do not get HIV.</i>								
10.	PPEKNOW	Have you heard of PEP?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2','7' OR '8' → SKIP TO PPECONS	KA	C	C	C	C	C



NA	Variable ID: PP	PEP and PREP	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
11.	PPETAKE	Have you ever taken PEP?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2','7' OR '8'→ SKIP TO PPECONS	COVERAGE	C	C	C	C	C
10.	PPE6TAKE	In the last 6 months, have you taken PEP?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2','7' OR '8'→ SKIP TO PPECONS	COVERAGE	C	C	C	C	C
11.	PPEREAS	Why did you take PEP?	I HAD UNPROTECTED SEX ..... 1 I WAS RAPED/FORCED TO HAVE SEX ..... 2 I SHARED NEEDLES ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		PREVENTION	C	C	C	C	C
12.	PPECONS	If you think you came into contact with HIV, would you go to a health care worker and ask for this medicine?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		KA	S	S	S	S	S

\*: S=Sex Worker, M=MSM, T=Transgender, P=PWID, O=Other Vulnerable Population, C=Core, S=Secondary

# 29. SHAME, STIGMA, HARASSMENT & DISCRIMINATION

Stigma is a barrier to HIV prevention and treatment. The first part of the module assesses stigma towards being a member of a key population or engaging in high risk behavior\*. The second part assesses stigma towards people living with HIV/AIDS.

N/A	Variable ID: ST	Shame, Stigma, Harassment & Discrimination	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
N/A	ST1MSG	Thank you for your answers. Now we will ask you questions about ways that other people treat you.								
1.	STGSHMP	I am ashamed to be an injection drug user.	STRONGLY AGREE ..... 1 AGREE ..... 2 NEUTRAL ..... 3 DISAGREE ..... 4 STRONGLY DISAGREE ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	N/A	N/A	S	N/A

N/A	Variable ID: ST	Shame, Stigma, Harassment & Discrimination	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
2.	STGMMEETP	I am not ashamed to say I am an injection drug user in a gathering with other people who inject drugs.	STRONGLY AGREE ..... 1 AGREE ..... 2 NEUTRAL ..... 3 DISAGREE ..... 4 STRONGLY DISAGREE ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	N/A	N/A	S	N/A
3.	STGHLCRP	I am not ashamed to say I am an injection drug user when I meet with a social or health worker who works in my community.	STRONGLY AGREE ..... 1 AGREE ..... 2 NEUTRAL ..... 3 DISAGREE ..... 4 STRONGLY DISAGREE ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	N/A	N/A	S	N/A

N/A	Variable ID: ST	Shame, Stigma, Harassment & Discrimination	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
4.	STGTLDP	Who have you told that you inject drugs?  CHECK ALL THAT APPLY.	NO ONE ..... A PARTNER/SPOUSE ..... B FAMILY ..... C FRIENDS/ACQUAINTANCES WHO INJECT DRUGS ..... D FRIENDS/ACQUAINTANCES WHO DO NOT INJECT DRUGS .. E HEALTHCARE PROVIDERS ..... F OTHER ..... X DON'T KNOW ..... Y REFUSE TO ANSWER ..... Z	IF 'NO ONE', 'A', 'Y' OR 'Z', NO OTHER CATEGORY CAN BE CHOSEN AS WELL.	VULNERABILITY  ADAPT RESPONSES TO LOCAL CONTEXT.	N/A	N/A	N/A	C	N/A
5.	STGEXCLP	Have you ever felt excluded from family activities because you inject drugs?	NO ..... 1 YES, IN THE LAST 6 MONTHS ... 2 YES, BUT NOT IN THE LAST 6 MONTHS ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	N/A	N/A	C	N/A
6.	STGFMMP	Have you ever felt that family members have made unfair comments or gossiped about you because you inject drugs?	NO ..... 1 YES, IN THE LAST 6 MONTHS... 2 YES, BUT NOT IN THE LAST 6 MONTHS ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	N/A	N/A	S	N/A

N/A	Variable ID: ST	Shame, Stigma, Harassment & Discrimination	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
7.	STGHEALP	Have you ever felt afraid to seek health services because you worried someone may learn you inject drugs?	NO ..... 1 YES, IN THE LAST 6 MONTHS ... 2 YES, BUT NOT IN THE LAST 6 MONTHS ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	N/A	N/A	C	N/A
8.	STGHIDEP	Have you ever avoided seeking health services because you worried someone may learn you inject drugs?	NO ..... 1 YES, IN THE LAST 6 MONTHS ... 2 YES, BUT NOT IN THE LAST 6 MONTHS ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	N/A	N/A	C	N/A
9.	STGVHRSP	Has someone ever scolded you because you inject drugs?	NO ..... 1 YES, IN THE LAST 6 MONTHS ... 2 YES, BUT NOT IN THE LAST 6 MONTHS ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	N/A	N/A	C	N/A

N/A	Variable ID: ST	Shame, Stigma, Harassment & Discrimination	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
10.	STGBLMP	Has someone ever blackmailed you because you inject drugs?	NO ..... 1 YES, IN THE LAST 6 MONTHS ... 2 YES, BUT NOT IN THE LAST 6 MONTHS ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	N/A	N/A	C	N/A
11.	STGPHRSP**	Has someone ever physically harassed or hurt you because you inject drugs?	NO ..... 1 YES, IN THE LAST 6 MONTHS ... 2 YES, BUT NOT IN THE LAST 6 MONTH ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	N/A	N/A	C	N/A
12.	STGPFSP**	Has someone ever forced you to have any type of sex when you did not want to? By "forced", I mean physically forced or coerced to have any type of sex, including penetration with an object, when you did not want to?	NO ..... 1 YES, IN THE LAST 6 MONTHS ... 2 YES, BUT NOT IN THE LAST 6 MONTH ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'1' → SKIP TO STVGTBLP	VULNERABILITY	N/A	N/A	N/A	C	N/A
13.	STGFSRP**	Do you believe any of your experiences of forced sex were related to the fact that you inject drugs?	NO ..... 1 YES ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	N/A	N/A	C	N/A

N/A	Variable ID: ST	Shame, Stigma, Harassment & Discrimination	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
14.	STGARSTP	Have you ever been arrested because you inject drugs?	NO ..... 1 YES, IN THE LAST 6 MONTHS... 2 YES, BUT NOT IN THE LAST 6 MONTHS ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	N/A	N/A	C	N/A
15.	STGSHMM	I am ashamed to be a man who has sex with men.	STRONGLY AGREE ..... 1 AGREE ..... 2 NEUTRAL ..... 3 DISAGREE ..... 4 STRONGLY DISAGREE ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	S	N/A	N/A	N/A
16.	STGMMEETM	I am not ashamed to say I am a man who has sex with men in a gathering with other people who are men who have sex with men	STRONGLY AGREE ..... 1 AGREE ..... 2 NEUTRAL ..... 3 DISAGREE ..... 4 STRONGLY DISAGREE ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	S	N/A	N/A	N/A

N/A	Variable ID: ST	Shame, Stigma, Harassment & Discrimination	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
17.	STGHLCRM	I am not ashamed to say I am a man who has sex with men when I meet with a social or health worker who works in my community.	STRONGLY AGREE ..... 1 AGREE ..... 2 NEUTRAL ..... 3 DISAGREE ..... 4 STRONGLY DISAGREE ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	S	N/A	N/A	N/A
18.	STGTLDM	Who have you told that you have sex with men? CHECK ALL THAT APPLY.	NO ONE ..... A PARTNER/SPOUSE ..... B FAMILY ..... C MALE FRIENDS/ ACQUAINTANCES WHO HAVE SEX WITH OTHER MEN ..... D FRIENDS/ACQUAINTANCES WHO MEN WHO HAVE SEX WITH MEN ..... E HEALTHCARE PROVIDERS ..... F OTHER ..... X DON'T KNOW ..... Y REFUSE TO ANSWER ..... Z	IF 'A', 'Y' OR 'Z' NO OTHER CATEGORY CAN BE CHOSEN AS WELL.	VULNERABILITY  ADAPT RESPONSES TO LOCAL CONTEXT.	N/A	C	N/A	N/A	N/A



N/A	Variable ID: ST	Shame, Stigma, Harassment & Discrimination	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
19.	STGEXCLM	Have you ever felt excluded from family activities because you have sex with men	NO ..... 1 YES, IN THE LAST 6 MONTHS... 2 YES, BUT NOT IN THE LAST 6 MONTHS ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	C	N/A	N/A	N/A
20.	STGFMMM	Have you ever felt that family members have made unfair comments or gossiped about you because you have sex with men	NO ..... 1 YES, IN THE LAST 6 MONTHS... 2 YES, BUT NOT IN THE LAST 6 MONTHS ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	S	N/A	N/A	N/A
21.	STGHEALM	Have you ever felt afraid to seek health services because you worried someone may learn you have sex with men?	NO ..... 1 YES, IN THE LAST 6 MONTHS... 2 YES, BUT NOT IN THE LAST 6 MONTHS ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	C	N/A	N/A	N/A

N/A	Variable ID: ST	Shame, Stigma, Harassment & Discrimination	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
22.	STGHIDEM	Have you ever avoided seeking health services because you worried someone may learn you have sex with men?	NO ..... 1 YES, IN THE LAST 6 MONTHS... 2 YES, BUT NOT IN THE LAST 6 MONTHS ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	C	N/A	N/A	N/A
23.	STGVHRSM	Has someone ever scolded you because you have sex with men?	NO ..... 1 YES, IN THE LAST 6 MONTHS... 2 YES, BUT NOT IN THE LAST 6 MONTHS ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	C	N/A	N/A	N/A
24.	STGBLMM	Has someone ever blackmailed you because you have sex with men?	NO ..... 1 YES, IN THE LAST 6 MONTHS... 2 YES, BUT NOT IN THE LAST 6 MONTHS ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	C	N/A	N/A	N/A

N/A	Variable ID: ST	Shame, Stigma, Harassment & Discrimination	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
25.	STGPHRSM**	Has someone ever physically harassed or hurt you because you have sex with men?	NO ..... 1 YES, IN THE LAST 6 MONTHS ... 2 YES, BUT NOT IN THE LAST 6 MONTH ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	C	N/A	N/A	N/A
26.	STGPFSXM**	Has someone ever forced you to have any type of sex when you did not want to? By “forced”, I mean physically forced or coerced to have any type of sex, including penetration with an object, when you did not want to?	NO ..... 1 YES, IN THE LAST 6 MONTHS ... 2 YES, BUT NOT IN THE LAST 6 MONTH ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'1' → SKIP TO STGARSTM	VULNERABILITY	N/A	C	N/A	N/A	N/A
27.	STGFSRM**	Do you believe any of your experiences of forced sex were related to the fact that you have sex with men?	NO ..... 1 YES ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	C	N/A	N/A	N/A
28.	STGARSTM	Have you ever been arrested because you have sex with men?	NO ..... 1 YES, IN THE LAST 6 MONTHS ... 2 YES, BUT NOT IN THE LAST 6 MONTHS ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	C	N/A	N/A	N/A

N/A	Variable ID: ST	Shame, Stigma, Harassment & Discrimination	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
29.	STGSHMT	I am ashamed to be transgender.	STRONGLY AGREE ..... 1 AGREE ..... 2 NEUTRAL ..... 3 DISAGREE ..... 4 STRONGLY DISAGREE ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	N/A	S	N/A	N/A
30.	STGMMEETT	I am not ashamed to say I am transgender in a gathering with other people who are transgender.	STRONGLY AGREE ..... 1 AGREE ..... 2 NEUTRAL ..... 3 DISAGREE ..... 4 STRONGLY DISAGREE ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	N/A	S	N/A	N/A
31.	STGHLCRT	I am not ashamed to say I am transgender when I meet with a social or health worker who works in my community.	STRONGLY AGREE ..... 1 AGREE ..... 2 NEUTRAL ..... 3 DISAGREE ..... 4 STRONGLY DISAGREE ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	N/A	S	N/A	N/A

N/A	Variable ID: ST	Shame, Stigma, Harassment & Discrimination	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
32.	STGTLDT	Who have you told that you are transgender?  CHECK ALL THAT APPLY.	NO ONE ..... A PARTNER/SPOUSE ..... B FAMILY ..... C FRIENDS/ACQUAINTANCES WHO ARE TRANSGENDER ..... D FRIENDS/ACQUAINTANCES WHO ARE NOT TRANSGENDER ..... E HEALTHCARE PROVIDERS ..... F OTHER ..... X DON'T KNOW ..... Y REFUSE TO ANSWER ..... Z	'A', 'Y' OR 'Z', NO OTHER CATEGORY CAN BE CHOSEN AS WELL.	VULNERABILITY  ADAPT RESPONSES TO LOCAL CONTEXT.	N/A	N/A	C	N/A	N/A
33.	STGEXCLT	Have you ever felt excluded from family activities because you are transgender?	NO ..... 1 YES, IN THE LAST 6 MONTHS... 2 YES, BUT NOT IN THE LAST 6 MONTHS ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	N/A	C	N/A	N/A
34.	STGFMMT	Have you ever felt that family members have made unfair comments or gossiped about you because you are transgender?	NO ..... 1 YES, IN THE LAST 6 MONTHS... 2 YES, BUT NOT IN THE LAST 6 MONTHS ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	N/A	S	N/A	N/A

N/A	Variable ID: ST	Shame, Stigma, Harassment & Discrimination	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
35.	STGHEALT	Have you ever felt afraid to seek health services because you worried someone may learn you are transgender?	NO ..... 1 YES, IN THE LAST 6 MONTHS ... 2 YES, BUT NOT IN THE LAST 6 MONTHS ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	N/A	C	N/A	N/A
36.	STGHIDET	Have you ever avoided seeking health services because you worried someone may learn you are transgender?	NO ..... 1 YES, IN THE LAST 6 MONTHS ... 2 YES, BUT NOT IN THE LAST 6 MONTHS ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	N/A	C	N/A	N/A
37.	STGVHRST	Has someone ever scolded you because you are transgender?	NO ..... 1 YES, IN THE LAST 6 MONTHS ... 2 YES, BUT NOT IN THE LAST 6 MONTHS ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	N/A	C	N/A	N/A

N/A	Variable ID: ST	Shame, Stigma, Harassment & Discrimination	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
38.	STGBLMT	Has someone ever blackmailed you because you are transgender?	NO ..... 1 YES, IN THE LAST 6 MONTHS ... 2 YES, BUT NOT IN THE LAST 6 MONTHS ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	N/A	C	N/A	N/A
39.	STGPHRST**	Has someone ever physically harassed or hurt you because you are transgender?	NO ..... 1 YES, IN THE LAST 6 MONTHS ... 2 YES, BUT NOT IN THE LAST 6 MONTHS ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	N/A	C	N/A	N/A
40.	STGPFST**	Has someone ever forced you to have any type of sex when you did not want to?  By “forced”, I mean physically forced or coerced to have any type of sex, including penetration with an object, when you did not want to.	NO ..... 1 YES, IN THE LAST 6 MONTHS ... 2 YES, BUT NOT IN THE LAST 6 MONTHS ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'1' → SKIP TO STGARSTT	VULNERABILITY	N/A	N/A	C	N/A	N/A
41.	STGFSRT**	Do you believe any of your experiences of forced sex were related to the fact that you are transgender?	NO ..... 1 YES ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	N/A	C	N/A	N/A

N/A	Variable ID: ST	Shame, Stigma, Harassment & Discrimination	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
42.	STGARSTT	Have you ever been arrested because you are transgender?	NO ..... 1 YES, IN THE LAST 6 MONTHS ... 2 YES, BUT NOT IN THE LAST 6 MONTHS ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	C	N/A	N/A	N/A
43.	STGSHMS	I am ashamed to sell sex?	STRONGLY AGREE ..... 1 AGREE ..... 2 NEUTRAL ..... 3 DISAGREE ..... 4 STRONGLY DISAGREE ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	N/A	N/A	N/A	N/A
44.	STGMMEETS	I am not ashamed to say I sell sex in a gathering with other people who sell sex.	STRONGLY AGREE ..... 1 AGREE ..... 2 NEUTRAL ..... 3 DISAGREE ..... 4 STRONGLY DISAGREE ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	N/A	N/A	N/A	N/A



N/A	Variable ID: ST	Shame, Stigma, Harassment & Discrimination	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
45.	STGHLCRS	I am not ashamed to say I sell sex when I meet with a social or health worker who works in my community.	STRONGLY AGREE ..... 1 AGREE ..... 2 NEUTRAL ..... 3 DISAGREE ..... 4 STRONGLY DISAGREE ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	N/A	N/A	N/A	N/A
46.	STGTLDS	Who have you told that you sell sex?  CHECK ALL THAT APPLY.	NO ONE ..... A PARTNER/SPOUSE ..... B FAMILY ..... C FRIENDS/ACQUAINTANCES WHO SELL SEX ..... D FRIENDS/ACQUAINTANCES WHO ARE NOT DO NOT SELL SEX ..... E HEALTHCARE PROVIDERS ..... F OTHER ..... X DON'T KNOW ..... Y REFUSE TO ANSWER ..... Z	IF 'A', 'Y' OR 'Z' NO OTHER CATEGORY CAN BE CHOSEN AS WELL.	VULNERABILITY  ADAPT RESPONSES TO LOCAL CONTEXT.	C	N/A	N/A	N/A	N/A

N/A	Variable ID: ST	Shame, Stigma, Harassment & Discrimination	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
47.	STGEXCLS	Have you ever felt excluded from family activities because you sell sex?	NO ..... 1 YES, IN THE LAST 6 MONTHS ... 2 YES, BUT NOT IN THE LAST 6 MONTHS ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	C	N/A	N/A	N/A	N/A
48.	STGFMMS	Have you ever felt that family members have made unfair comments or gossiped about you because you sell sex?	NO ..... 1 YES, IN THE LAST 6 MONTHS ... 2 YES, BUT NOT IN THE LAST 6 MONTHS ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	N/A	N/A	N/A	N/A
49.	STGHEALS	Have you ever felt afraid to seek health services because you worried someone may learn you sell sex	NO ..... 1 YES, IN THE LAST 6 MONTHS ... 2 YES, BUT NOT IN THE LAST 6 MONTHS ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	C	N/A	N/A	N/A	N/A

N/A	Variable ID: ST	Shame, Stigma, Harassment & Discrimination	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
50.	STGHIDES	Have you ever avoided seeking health services because you worried someone may learn you sell sex?	NO ..... 1 YES, IN THE LAST 6 MONTHS ... 2 YES, BUT NOT IN THE LAST 6 MONTHS ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	C	N/A	N/A	N/A	N/A
51.	STGVHRSS	Has someone ever scolded you because you are sell sex?	NO ..... 1 YES, IN THE LAST 6 MONTHS ... 2 YES, BUT NOT IN THE LAST 6 MONTHS ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	C	N/A	N/A	N/A	N/A
52.	STGBLMS	Has someone ever blackmailed you because you sell sex?	NO ..... 1 YES, IN THE LAST 6 MONTHS ... 2 YES, BUT NOT IN THE LAST 6 MONTHS ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	C	N/A	N/A	N/A	N/A

N/A	Variable ID: ST	Shame, Stigma, Harassment & Discrimination	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
53.	STGPHRSS**	Has someone ever physically harassed or hurt you because you sell sex?	NO ..... 1 YES, IN THE LAST 6 MONTHS ... 2 YES, BUT NOT IN THE LAST 6 MONTHS ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	C	N/A	N/A	N/A	N/A
54.	STGPFXS**	Has someone ever forced you to have any type of sex when you did not want to?  By “forced”, I mean physically forced or coerced to have any type of sex, including penetration with an object, when you did not want to.	NO ..... 1 YES, IN THE LAST 6 MONTHS ... 2 YES, BUT NOT IN THE LAST 6 MONTHS ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'1' → SKIP TO STGARSTS	VULNERABILITY	C	N/A	N/A	N/A	N/A
55.	STGFSRS**	Do you believe any of your experiences of forced sex were related to the fact that you sell sex?	NO ..... 1 YES ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	C	N/A	N/A	N/A	N/A
56.	STGARSTS	Have you ever been arrested because you sell sex?	NO ..... 1 YES, IN THE LAST 6 MONTHS ... 2 YES, BUT NOT IN THE LAST 6 MONTHS ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	C	N/A	N/A	N/A	N/A

N/A	Variable ID: ST	Shame, Stigma, Harassment & Discrimination	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
57.	SWPOGIVE	In the past 12 months, how many times have you given something (in cash or kind) to the police to avoid trouble with the?	TIMES:         DON'T KNOW 997 REFUSE TO ANSWER 998 MAX: 300	'0', '997', '998' → SKIP TO END OF CURRENT SECTION	VULNERABILITY	C	S	S	S	S
58	SWPOITM	What did you give to the police to avoid trouble with them?  CHECK ALL THAT APPLY	MONEY ..... A SEX ..... B OTHER ..... X REFUSE TO ANSWER ..... Z		VULNERABILITY  ADAPT ANSWERS TO LOCAL CONTEXT	C	S	S	S	S
N/A	ST2MSG	Next we ask some questions about people with HIV.								
59.	STVGTBL	Would you buy fresh vegetables from a shop keeper or vendor if you knew the person had HIV	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		KA	S	S	S	S	S
60.	STSCHL	Do you think children living with HIV should be allowed to attend school?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		KA	S	S	S	S	S
61.	STFRSLV	Do you fear that you could get HIV if you come into contact with the saliva of a person with HIV?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		KA	S	S	S	S	S

N/A	Variable ID: ST	Shame, Stigma, Harassment & Discrimination	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
62.	STFMSHM	Would you be ashamed if someone in your family had HIV?	AGREE ..... 1 DISAGREE ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		KA	S	S	S	S	S
63.	STDSCRIM	Do you agree that most people in [insert survey area] would discriminate against someone with HIV?	STRONGLY AGREE ..... 1 AGREE ..... 2 NEUTRAL ..... 3 DISAGREE ..... 4 STRONGLY DISAGREE ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		KA	S	S	S	S	S
64.	STRGHTS	Do you agree that most people in [insert survey area] would support the rights of a person with HIV to live and work wherever they wanted to?	STRONGLY AGREE ..... 1 AGREE ..... 2 NEUTRAL ..... 3 DISAGREE ..... 4 STRONGLY DISAGREE ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		KA	S	S	S	S	S

N/A	Variable ID: ST	Shame, Stigma, Harassment & Discrimination	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
65.	STDSRV	Do you agree that most people in [insert survey area] think that people who got HIV through sex or drug use have gotten what they deserve?	STRONGLY AGREE ..... 1 AGREE ..... 2 NEUTRAL ..... 3 DISAGREE ..... 4 STRONGLY DISAGREE ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		KA	S	S	S	S	S
66.	STFRTST	In your opinion, are people hesitant to test for HIV out of fear how people will react if they test positive?	YES ..... 1 NO ..... 2 NOT SURE ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		KA	S	S	S	S	S
67.	STTLK	Do people talk badly about people living with or thought to be living with HIV?	YES ..... 1 NO ..... 2 IT DEPENDS ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		KA	S	S	S	S	S

N/A	Variable ID: ST	Shame, Stigma, Harassment & Discrimination	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
68.	STRSPCT	Do people living with or thought to be living with HIV lose respect or standing?	YES ..... 1 NO ..... 2 IT DEPENDS ..... 3 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		KA	S	S	S	S	S

#: S=Sex Worker, M=MSM, T=Transgender, P=PWID, O=Other Vulnerable Population, C=Core, S=Secondary

\* Obtained through personal communication with Stefan Baral, Johns Hopkins University, US

\*\*Similar questions are available in Questionnaire Modules for Physical Violence and Sexual Violence.

#### References:

Stangl, Anne. MERG Approved Indicators: Stigma & Discrimination in the General Population. 19 March 2014. OGAC meeting on stigma measurement.



## 30. PHYSICAL VIOLENCE

Members of key populations experience increased vulnerability to physical violence due to the stigmatized nature of their behaviors, and the perceived lack of adherence to existing social and/or gender norms. Several studies have noted the connection between experience of physical violence and HIV.

The survey data instruments that are the base for this module have been implemented in many countries. A formative assessment with these variables in mind is necessary in order to appropriately contextualize the prompts and answer choices.

The UN Statistical Commission recommends the monitoring of violence using 3 foci within a lifetime and the last 12 months: severity, relationship to perpetrator and frequency<sup>1</sup>. The core questions listed here focus on frequency, while the secondary questions add the severity and relationship to perpetrator foci. These secondary questions can be used when a country portfolio has an expanded focus on violence and GBV; and/or for trend analysis with previously implemented population based surveys (e.g. DHS, WHO Multi-Country Study, VACS, etc.). When using secondary questions in analysis, it is recommended that both the LAST and FIRST incidents be included, however you may choose to ask about one or the other.

With questions of such a sensitive nature, it is important to have a process in place for referral to psychosocial, medical and legal services, should the survey respondent express an interest in accessing services or experience duress as a result of recalling traumatic events.

	Variable ID: PV	Physical Violence	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
N/A	PVMSG	Thank you. Now some questions about how other people have treated you. Please remember that your answers are confidential.								
1.	PVEVERFRS	In your lifetime, how many times has anyone ever physically hurt you such as hit or choked you, or threatened you with a knife or other weapon?	NEVER ..... 1 ONCE ..... 2 2 – 5 TIMES ..... 3 6 – 10 TIMES ..... 4 MORE THAN 10 TIMES ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'1';'7';'8' → SKIP TO PVPERP	VULNERABILITY	C	N/A	N/A	N/A	N/A
5.	PVFAGE	The first time someone physically hurt you such as hit or choked you, or threatened you with a knife or other weapon, how old were you?	YEARS: [   ] MIN: 1 MAX: CURRENT AGE DON'T KNOW 97 REFUSE TO ANSWER 98		VULNERABILITY	S	S	S	S	S

	Variable ID: PV	Physical Violence	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
6.	PVFBY	The <b>first time</b> this happened, what was your relationship to the person who did this to you?  If it was more than one person, what was your relationship with the person who was the first person who did this to you?	PAYING SEX PARTNER ..... A NON-PAYING SEX PARTNER ..... B POLICE/MILITARY/ AUTHORITY FIGURE ..... C RELATIVE ..... D FRIEND/ ACQUAINTANCE ..... E OTHER ..... X DON'T KNOW ..... Y REFUSE TO ANSWER ..... Z		VULNERABILITY	S	S	S	S	S
7.	PVFBYP	The first time this happened, what type of partner was this person?	SPOUSE OR LIVE-IN PARTNER . 1 BOYFRIEND/GIRLFRIEND ..... 2 SOMEONE THAT I HAVE SEX WITH BUT DO NOT CALL A BOYFRIEND/GIRLFRIEND ..... 3 OTHER ..... 6 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	ONLY ASK IF PVFBY='1', '2'	VULNERABILITY	S	S	S	S	S
8.	PVFBES*	Any of these times this happened, do you think it was because you sell sex?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	C	N/A	N/A	N/A	N/A

	Variable ID: PV	Physical Violence	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
9.	PVFBHEM*	Any of these times this happened, do you think it was because you have sex with men?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	C	N/A	N/A	N/A
10.	PVFBHEH*	Any of these times this happened, do you think it was because you are transgender?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	N/A	C	N/A	N/A
11.	PVFBHEP*	Any of these times this happened, do you think it was because you inject drugs?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	N/A	N/A	C	N/A
12.	PVYRFRQS	In the last 12 months, how many times has anyone physically hurt you such as hit or choked you, or threatened you with a knife or other weapon?	THIS HAS NOT HAPPENED IN THE LAST 12 MONTHS ..... 1 ONCE ..... 2 2 – 5 TIMES ..... 3 6 – 10 TIMES ..... 4 MORE THAN 10 TIMES ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'1';7',OR '8'→SKIP TO PVPERP	VULNERABILITY	C	N/A	N/A	N/A	N/A

	Variable ID: PV	Physical Violence	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
13.	PVYRFRQM	In the last 12 months, how many times has anyone physically hurt you such as hit or choked you, or threatened you with a knife or other weapon?	THIS HAS NOT HAPPENED IN THE LAST 12 MONTHS ..... 1 ONCE ..... 2 2 – 5 TIMES ..... 3 6 – 10 TIMES ..... 4 MORE THAN 10 TIMES ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'1';7',OR '8'→SKIP TO PVPERP	VULNERABILITY	N/A	C	N/A	N/A	N/A
14.	PVYRFRQT	In the last 12 months, how many times has anyone physically hurt you such as hit or choked you, or threatened you with a knife or other weapon?	THIS HAS NOT HAPPENED IN THE LAST 12 MONTHS ..... 1 ONCE ..... 2 2 – 5 TIMES ..... 3 6 – 10 TIMES ..... 4 MORE THAN 10 TIMES ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'1';7',OR '8'→SKIP TO PVPERP	VULNERABILITY	N/A	N/A	C	N/A	N/A

	Variable ID: PV	Physical Violence	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
15.	PVYRFRQP	In the last 12 months, how many times has anyone physically hurt you such as hit or choked you, or threatened you with a knife or other weapon?	THIS HAS NOT HAPPENED IN THE LAST 12 MONTHS ..... 1 ONCE ..... 2 2 – 5 TIMES ..... 3 6 – 10 TIMES ..... 4 MORE THAN 10 TIMES ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'1','7',OR '8'→SKIP TO PVPERP	VULNERABILITY	N/A	N/A	N/A	C	N/A
16.	PVYRBEHS*	In any of the times in the last 12 months when these happened, do you think it was because you sell sex?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	C	N/A	N/A	N/A	N/A
17.	PVYRBEHM*	In any of the times in the last 12 months when these happened, do you think it was because you have sex with men?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	C	N/A	N/A	N/A
18.	PVYRBEHT*	In any of the times in the last 12 months when these happened, do you think it was because you are transgender?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	N/A	C	N/A	N/A

	Variable ID: PV	Physical Violence	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
19.	PVYRBEHP*	In any of the times in the last 12 months when these happened, do you think it was because you Inject drugs?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	N/A	N/A	C	N/A
N/A	PVMSG2	The next questions will be asking you about <b>the most recent time</b> someone has physically hurt you such as hit or choked you, or threatened you with a knife or other								
20.	PVRBY	The last time this has happened, what was your relationship to the person who did any of these things to you? If it was more than one person, what was your relationship with the person who started the violence in the most recent time this happened?  CHECK ALL THAT APPLY.	PAYING SEX PARTNER ..... A NON-PAYING SEX PARTNER ..... B POLICE/MILITARY/AUTHORITY FIGURE ..... C RELATIVE ..... D FRIEND/ACQUAINTANCE ..... E OTHER ..... X DON'T KNOW ..... Y REFUSE TO ANSWER ..... Z	'A', 'C', 'D', 'E', 'X', 'Y', 'Z' → SKIP TO PVRSEV	VULNERABILITY	S	S	S	S	S

	Variable ID: PV	Physical Violence	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
21.	PVRBYP	The last time this happened, what type of partner was this person?	SPOUSE OR LIVE-IN PARTNER . 1 BOYFRIEND/GIRLFRIEND ..... 2 SOMEONE THAT I HAVE SEX WITH BUT DO NOT CALL A BOYFRIEND/GIRLFRIEND ..... 3 OTHER ..... 6 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	S
22.	PVRSEV	The last time this has happened, did any of the following happen to you as a result of someone having physically hurt you such as hit or choked you, or threatened you with a knife or other weapon?  CHECK ALL THAT APPLY	CUTS, BRUISES OR ACHES ..... A EYE INJURIES, SPRAINS, DISLOCATIONS, OR BURNS ..... B DEEP WOUNDS, BROKEN BONES, BROKEN TEETH ..... C OTHER SERIOUS INJURY ..... D NONE OF THESE ..... E OTHER ..... X DON'T KNOW ..... Y REFUSE TO ANSWER ..... Z		VULNERABILITY	S	S	S	S	S
23.	PVRBEH	The last time this has happened, do you think it was because you [insert behavior]?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	S



	Variable ID: PV	Physical Violence	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
	PV MSG3	<i>For the next few questions, please think about <b>any experiences</b> you have had when someone physically hurt you such as hit or choked you, or threatened you with a knife or other weapon.</i>				S	S	S	S	S
24.	PVSRVW	As a result of someone doing any of those things to you, did you ever try to seek professional help or services from any of the following?  CHECK ALL THAT APPLY	I DID NOT TRY TO SEEK HELP ... A HEALTHCARE PROFESSIONAL .. B POLICE OR OTHER SECURITY PERSONNEL ..... C SOCIAL WORKER, COUNSELOR OR NGO ..... D RELIGIOUS LEADER ..... E OTHER ..... X DON'T KNOW ..... Y REFUSE TO ANSWER ..... Z	IF 'A', 'Y', OR 'Z', NO OTHER OPTION CAN BE CHOSEN AS WELL.  SKIP TO PVSRVWHY	PREVENTION	S	S	S	S	S

	Variable ID: PV	Physical Violence	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
25.	PVSRVP	When trying to seek help for what someone had done to you, were you ever refused services by any of the following?  CHECK ALL THAT APPLY.	DOCTOR, NURSE, OTHER HEALTHCARE PROFESSIONAL .. A  POLICE OR OTHER SECURITY PERSONNEL ..... B  LAWYER, JUDGE OR OTHER LEGAL PROFESSIONAL ..... C  SOCIAL WORKER OR COUNSELOR ..... D  AN NGO OR OTHER LOCALORGANIZATION ..... E  OTHER ..... X  DON'T KNOW ..... Y  REFUSE TO ANSWER ..... Z		PREVENTION	S	S	S	S	S

	Variable ID: PV	Physical Violence	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
26.	PVSRVWHY	What was the <b>main</b> reason I that you did not try to seek professional help or services?	DID NOT KNOW WHAT SERVICES WERE AVAILABLE/ WHERE TO GO ..... 1  THE SERVICES I WANTED/ NEEDED WERE NOT AVAILABLE ..... 2  I COULD NOT AFFORD SERVICES ..... 3  I WAS UNCOMFORTABLE ACCESSING SERVICES ..... 4  I DID NOT FEEL THAT I NEEDED SERVICES ..... 5  OTHER ..... 6  DON'T KNOW ..... 7  REFUSE TO ANSWER ..... 8	'1', '2', '3', '5', '6', '7', '8' → SKIP TO PVTELL	PREVENTION	S	S	S	S	S

	Variable ID: PV	Physical Violence	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
27.	PVSRVUNC	<p>You said that you were uncomfortable accessing services. Why were you uncomfortable?</p> <p>CHECK ALL THAT APPLY.</p>	<p>I WAS WORRIED THAT THE SERVICE PROVIDER WOULD TREAT ME DIFFERENTLY/ POORLY IF THEY FOUND OUT I AM [insert population] ..... A</p> <p>I WAS AFRAID THAT MY FAMILY/PARTNER/HUSBAND/ WIFE WOULD FIND OUT I AM [insert population] ..... B</p> <p>I WAS AFRAID OF WHAT THE AUTHORITIES/POLICE WOULD DO TO ME IF THEY FOUND OUT I AM MSM/ FSW/TG/PWID/OVP ..... C</p> <p>I WAS WORRIED THAT OTHERS WOULD FIND OUT I AM [insert population] ..... D</p> <p>OTHER ..... X</p> <p>DON'T KNOW ..... Y</p> <p>REFUSE TO ANSWER ..... Z</p>		PREVENTION	S	S	S	S	S
28.	PVTELL	<p>Who else did you tell about any of these experiences?</p> <p>CHECK ALL THAT APPLY.</p>	<p>PAYING SEX PARTNER ..... A</p> <p>NON-PAYING SEX PARTNER ..... B</p> <p>POLICE/MILITARY/ AUTHORITY FIGURE ..... C</p> <p>RELATIVE ..... D</p> <p>FRIEND/ACQUAINTANCE ..... E</p> <p>OTHER ..... X</p> <p>DON'T KNOW ..... Y</p> <p>REFUSE TO ANSWER ..... Z</p>		VULNERABILITY	S	S	S	S	S

	Variable ID: PV	Physical Violence	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
29.	PVPERP	In your <b>lifetime</b> , have you ever physically hurt someone else such as hit or choked, or threatened with a knife or other weapon?	YES ..... 1 NO ..... 2 DON'T KNOW/REMEMBER ..... 7 REFUSE TO ANSWER ..... 8	'2','7','8'→ SKIP TO END OF CURRENT SECTION	OTHER	S	S	S	S	S
30.	PVPRPFR	In your lifetime, how many times have you done this to someone?	ONCE ..... 1 2 – 5 TIMES ..... 2 6 – 10 TIMES ..... 3 MORE THAN 10 TIMES ..... 4 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		OTHER	S	S	S	S	S
31.	PVPRPYR	In the last 12 months, how many times have you done this to someone?	THIS HAS NOT HAPPENED IN THE LAST 12 MONTHS ..... 1 ONCE ..... 2 2 – 5 TIMES ..... 3 6 – 10 TIMES ..... 4 MORE THAN 10 TIMES ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		OTHER	S	S	S	S	S

	Variable ID: PV	Physical Violence	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
32.	PVPRPWH	Please think about any time that you have ever done this to someone. Who did you did this to?  CHECK ALL THAT APPLY.	SPOUSE/PARTNER/ BOYFRIEND/GIRLFRIEND ..... A  FRIEND/ACQUAINTANCE ..... B  FAMILY/RELATIVE ..... C  FRIEND/ACQUAINTANCE ..... D  STRANGER ..... E  OTHER ..... X  DON'T KNOW ..... Y  REFUSE TO ANSWER ..... Z		OTHER	S	S	S	S	S

#: S=Sex Worker, M=MSM, T=Transgender, P=PWID, O=Other Vulnerable Population, C=Core, S=Secondary

\*Similar questions can be found in Questionnaire module for Shame, Stigma, Harassment & Discrimination.

<sup>1</sup>UN Statistical Commission recommendations: <http://unstats.un.org/unsd/demographic/meetings/vaw/docs/ConclusionsAndRecommendations.pdf>

Additional Sources of Violence Indicators:

UN General Assembly Human Rights Council (2008) A/HCR/7/6 <http://www2.ohchr.org/english/bodies/hrcouncil/7session/reports.htm>

MEASURE Evaluation (2008). *Violence against Women and girls. A compendium of Monitoring and Evaluation Indicators.* <http://www.cpc.unc.edu/measure/publications/pdf/ms-08-30.pdf>

## 31. SEXUAL VIOLENCE: COERCION AND RAPE

The survey data instruments that are the base for this module have been implemented in many countries. A formative assessment with these variables in mind is necessary in order to appropriately contextualize answer choices. Survey inclusion of the PEP/PrEP module would add additional information on sexual violence service access to that captured by this module.

The UN Statistical Commission recommends the monitoring of violence using 3 foci within a lifetime and the last 12 months: severity, relationship to perpetrator and frequency<sup>1</sup>. The core questions listed here focus on frequency, while the secondary questions add the severity and relationship to perpetrator foci, as well as information on service access and delivery. These secondary questions are intended to gather information on the different aspects of sexual violence that may be associated with HIV risk and transmission in these populations (e.g. multiple perpetrator incidents, age-disparity and agency).

With questions of such a sensitive nature, it is very important to have a process in place for referral to psychosocial, medical and legal services, should the survey respondent express an interest in accessing services or experience duress as a result of recalling traumatic events.

NO.	Variable ID: SV	Sexual Violence: Coercion and Rape	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
N/A	SVMSG5	<p><i>Thank you. Now some questions about unwanted sex. The next few questions are about when someone <b>tricked you, lied to you or threatened you</b> to have sex with them. These are <b>not</b> questions about when someone may have physically forced you to have sex.</i></p> <p><i>Please remember that your answers are confidential. If you would like to speak to a health care worker or social worker or anyone else about your experiences, please let the Interview Facilitator know.</i></p>								

NO.	Variable ID: SV	Sexual Violence: Coercion and Rape	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
1.	SVCEVFRS	In your <b>lifetime</b> , how many times has anyone ever <b>tricked you, lied to you, or threatened you</b> in order to make you have sex with them when you didn't want to?	NEVER ..... 1 ONCE ..... 2 2 – 5 TIMES ..... 3 6 – 10 TIMES ..... 4 MORE THAN 10 TIMES ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'1','7','8' → SKIP TO SVREVEFR	VULNERABILITY	C	N/A	N/A	N/A	N/A
2.	SVCAGE	The first time someone <b>tricked you, lied to you, or threatened you</b> in order to make you have sex when you didn't want to, how old were you?	YEARS:       MIN: 1 MAX: CURRENT AGE DON'T KNOW 97 REFUSE TO ANSWER 98		VULNERABILITY	S	S	S	S	S
3.	SVCFBY	The first time this has happened, what was your relationship to the person who did this to you?  If it was more than one person, what was your relationship with the person you remember best.  CHECK ALL THAT APPLY	PAYING SEX PARTNER ..... A NON-PAYING SEX PARTNER ..... B POLICE/MILITARY/ AUTHORITY FIGURE ..... C RELATIVE ..... D FRIEND/ACQUAINTANCE ..... E OTHER ..... X DON'T KNOW ..... Y REFUSE TO ANSWER ..... Z	'A', 'C', 'D', 'E', 'X', 'Y', 'Z' → SKIP TO SVCFCDM	VULNERABILITY	S	S	S	S	S



NO.	Variable ID: SV	Sexual Violence: Coercion and Rape	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
4.	SVCFBYP	The first time this happened, what type of partner was this person?	SPOUSE OR LIVE-IN PARTNER ..... 1 BOYFRIEND/GIRLFRIEND .... 2 SOMEONE THAT I HAVE SEX WITH BUT DO NOT CALL A BOYFRIEND/GIRLFRIEND ..... 3 OTHER ..... 6 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	S
5.	SVCFCDM	The first time this has happened, was a condom used? If more than one person did this to you, answer about the person you remember best.	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	S
6.	SVCFBEH*	The first time this happened, do you think it was because you <insert behavior>?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	S

NO.	Variable ID: SV	Sexual Violence: Coercion and Rape	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
7.	SVCYRF	In the last 12 months, how many times has someone tricked you, lied to you, or threatened you in order to make you have sex when you didn't want to?	THIS HAS NOT HAPPENED IN THE LAST 12 MONTHS ... 1 ONCE ..... 2 2 – 5 TIMES ..... 3 6 – 10 TIMES ..... 4 MORE THAN 10 TIMES ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'1','7','8' → SKIP TO SVREVFR	VULNERABILITY	C	C	C	C	S
8.	SVCYRBEHS*	In the last 12 months when these happened, do you think it was because you <insert risk behavior>?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	C	C	C	C	S
	SVMSG2	<i>The next questions will be asking you about <b>the most recent time</b> someone <b>tricked you, lied to you, or threatened you</b> in order to make you have sex when you didn't want to.</i>								

NO.	Variable ID: SV	Sexual Violence: Coercion and Rape	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
9.	SVCLBY	The last time this has happened, what was your relationship to the person who did this to you?  If it was more than one person, what was your relationship with the person you remember best.  CHECK ALL THAT APPLY.	PAYING SEX PARTNER ..... A  NON-PAYING SEX PARTNER ..... B  POLICE/MILITARY/AUTHORITY FIGURE ..... C  RELATIVE ..... D  FRIEND/ACQUAINTANCE .... E  OTHER ..... X  DON'T KNOW ..... Y  REFUSE TO ANSWER ..... Z	'A', 'C', 'D', 'E', 'X', 'Y', 'Z' → SKIP TO SVCLCDM	VULNERABILITY	S	S	S	S	S
10.	SVCFBYP	The last time this happened, what type of partner was this person?	SPOUSE OR LIVE-IN PARTNER 1 ..... 1  BOYFRIEND/GIRLFRIEND .... 2  SOMEONE THAT I HAVE SEX WITH BUT DO NOT CALL A BOYFRIEND/GIRLFRIEND ..... 3  OTHER ..... 6  DON'T KNOW ..... 7  REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	S

NO.	Variable ID: SV	Sexual Violence: Coercion and Rape	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
11.	SVCLCDM	The last time this has happened, was a condom used? If more than one person did this to you, answer about the person you remember best.	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK & VULNERABILITY	S	S	S	S	S
12.	SVCLBEH*	The last time this has happened, do you think it was because you <insert behavior>?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	S
N/A	SVMSG3	<i>Sometimes, people will also use <b>physical force</b> to make a person have sex with them. We would like to ask you some questions about this happening to you.</i>								
13.	SVREVFERS	In your <b>lifetime</b> , how many times has anyone ever <b>physically forced</b> you to have sex when you didn't want to?	NEVER ..... 1 ONCE ..... 2 2 – 5 TIMES ..... 3 6 – 10 TIMES ..... 4 MORE THAN 10 TIMES ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'1','7','8' → SKIP TO SVCPRP	RISK & VULNERABILITY	C	C	C	C	S

NO.	Variable ID: SV	Sexual Violence: Coercion and Rape	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
14.	SVRAGE	The first time someone <b>physically forced</b> you to have sex when you didn't want to, how old were you?	YEARS:       MINIMUM: 1 MAXIMUM: CURRENT AGE DON'T KNOW 97 REFUSE TO ANSWER 98		VULNERABILITY	S	S	S	S	S
15.	SVRFBY	What was your relationship to the person who physically forced you to have sex the <b>first time</b> ?  If it was more than one person, what was your relationship with the person you remember best.  CHECK ALL THAT APPLY	PAYING SEX PARTNER ..... A NON-PAYING SEX PARTNER ..... B POLICE/MILITARY/AUTHORITY FIGURE ..... C RELATIVE ..... D FRIEND/ACQUAINTANCE ..... E OTHER ..... X DON'T KNOW ..... Y REFUSE TO ANSWER ..... Z		VULNERABILITY	S	S	S	S	S

NO.	Variable ID: SV	Sexual Violence: Coercion and Rape	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
16.	SVRFBYP	The first time this happened, what type of partner was this person?	SPOUSE OR LIVE-IN PARTNER ..... 1 BOYFRIEND/GIRLFRIEND .... 2 SOMEONE THAT I HAVE SEX WITH BUT DO NOT CALL A BOYFRIEND/ GIRLFRIEND ..... 3 OTHER ..... 6 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	S
17.	SVRFCDM	The first time this had happened, was a condom used? If more than one person did this to you, answer about the person you remember best.	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK & VULNERABILITY	S	S	S	S	S
18.	SVRFBEH*	The first time someone physically forced you to have sex, do you think it was because you <insert risk behavior>]?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	S
19.	SVRFREP	How many times has this same person (people) physically forced you to have sex?	ONCE ..... 1 2 – 5 TIMES ..... 2 6 – 10 TIMES ..... 3 MORE THAN 10 TIMES ..... 4 REFUSE TO ANSWER ..... 9998		VULNERABILITY	S	S	S	S	S

NO.	Variable ID: SV	Sexual Violence: Coercion and Rape	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
20.	SVCYR12	In the last 12 months, how many times has this happened?	THIS HAS NOT HAPPENED IN THE LAST 12 MONTHS ... 1 ONCE ..... 2 2 – 5 TIMES ..... 3 6 – 10 TIMES ..... 4 MORE THAN 10 TIMES ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'1','7','8' → SKIP TO SVRPRP	RISK & VULNERABILITY	C	C	C	C	S
21.	SVCYRFRQS*	In any of the times in the last 12 months when these happened, do you think it was because you sell sex?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	C	N/A	N/A	N/A	N/A
23.	SVCYRFRQM*	In any of the times in the last 12 months when these happened, do you think it was because you have sex with men?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	C	N/A	N/A	N/A

NO.	Variable ID: SV	Sexual Violence: Coercion and Rape	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
24.	SVCYRFRQT*	In any of the times in the last 12 months when these happened, do you think it was because you are transgender?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	N/A	C	N/A	N/A
24.	SVCYRFRQP*	In any of the times in the last 12 months when these happened, do you think it was because you inject drugs?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	N/A	N/A	C	N/A
	SVMSG4	<i>The next questions will be asking you about <b>the most recent time</b> someone <b>physically forced you</b> to have sex.</i>								
25.	SVRLBY	The last time this had happened, what was your relationship to the person who did this to you? If it was more than one person, what was your relationship with the person you remember best.  CHECK ALL THAT APPLY.	PAYING SEX PARTNER ..... A NON-PAYING SEX PARTNER ..... B POLICE/MILITARY/AUTHORITY FIGURE ..... C RELATIVE ..... D FRIEND/ACQUAINTANCE .... E OTHER ..... X DON'T KNOW ..... Y REFUSE TO ANSWER ..... Z		VULNERABILITY	S	S	S	S	



NO.	Variable ID: SV	Sexual Violence: Coercion and Rape	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
26.	SVRLBYP	The last time this had happened, what type of partner was this person?	SPOUSE OR LIVE-IN PARTNER ..... 1 BOYFRIEND/GIRLFRIEND .... 2 SOMEONE THAT I HAVE SEX WITH BUT DO NOT CALL A BOYFRIEND/GIRLFRIEND ..... 3 OTHER ..... 6 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	S
27.	SVRLCDM	The last time this had happened, was a condom used? If more than one person did this to you, answer about the person you remember best.	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		RISK & VULNERABILITY	S	S	S	S	S

NO.	Variable ID: SV	Sexual Violence: Coercion and Rape	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
28.	SVRLSEV	The last time this had happened, did any of the following happen to you as a result of the time someone <b>physically forced</b> you to have sex when you didn't want to?  CHECK ALL THAT APPLY.	CUTS, BRUISES OR ACHES..... A  EYE INJURIES, SPRAINS, DISLOCATIONS, OR BURNS .. B  DEEP WOUNDS, BROKEN BONES, BROKEN TEETH ..... C  OTHER SERIOUS INJURY ..... D  NONE OF THESE ..... E  REFUSE TO ANSWER ..... Z		VULNERABILITY	S	S	S	S	S
29.	SVRLBEH*	The last time this has happened, do you think it was because you <insert risk behavior>?	YES ..... 1  NO ..... 2  DON'T KNOW ..... 7  REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	S
30.	SVRLREP	How many times has this same person (people) physically forced you to have sex?	ONCE ..... 1  2 – 5 TIMES ..... 2  6 – 10 TIMES ..... 3  MORE THAN 10 TIMES ..... 4  REFUSE TO ANSWER ..... 9		RISK & VULNERABILITY	S	S	S	S	S

NO.	Variable ID: SV	Sexual Violence: Coercion and Rape	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
	SVMSG5	<p>For the next few questions, we will be asking you about <b>any time</b> someone has ever <b>physically forced OR tricked you, lied to you, threatened you</b> in order to make you have sex when you didn't want to.</p>								
31.	SVSERV	<p>As a result of someone doing any of those things to you, did you try to seek professional help or services for any of these incidents from any of the following?</p> <p>CHECK ALL THAT APPLY.</p>	<p>I DID NOT TRY TO SEEK HELP ..... A</p> <p>HEALTHCARE PROFESSIONAL ..... B</p> <p>POLICE OR OTHER SECURITY PERSONNEL ..... C</p> <p>SOCIAL WORKER, COUNSELOR OR NGO ..... D</p> <p>RELIGIOUS LEADER ..... E</p> <p>OTHER ..... X</p> <p>DON'T KNOW ..... Y</p> <p>REFUSE TO ANSWER ..... Z</p>	<p>IF 'A', 'Y', 'Z', NO OTHER OPTION CAN BE CHOSEN AS WELL.</p> <p>SKIP TO SVSRVWHY</p>	PREVENTION	S	S	S	S	S

NO.	Variable ID: SV	Sexual Violence: Coercion and Rape	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
32.	SVSRVREF	<p>When trying to seek help for what someone had done to you, were you ever refused services by any of the following?</p> <p>Please choose all that ever refused to provide you with services.</p>	<p>DOCTOR, NURSE, OTHER HEALTHCARE PROFESSIONAL ..... 1</p> <p>POLICE OR OTHER SECURITY PERSONNEL ..... 2</p> <p>LAWYER, JUDGE OR OTHER LEGAL PROFESSIONAL ..... 3</p> <p>SOCIAL WORKER OR COUNSELOR ..... 4</p> <p>AN NGO OR OTHER LOCAL ORGANIZATION ..... 5</p> <p>OTHER ..... 6</p> <p>DON'T KNOW ..... 7</p> <p>REFUSE TO ANSWER ..... 8</p>		PREVENTION	S	S	S	S	S

NO.	Variable ID: SV	Sexual Violence: Coercion and Rape	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
33.	SVSRVWHY	What was the main reason that you did not try to seek professional help or services?	I DID NOT KNOW WHAT SERVICES WERE AVAILABLE/WHERE TO GO .. 1  THE SERVICES I WANTED/ NEEDED WERE NOT AVAILABLE ..... 2  I COULD NOT AFFORD SERVICES ..... 3  I WAS UNCOMFORTABLE ACCESSING SERVICES BECAUSE I AM FSW/ MSM/TG/PWID/OVP ..... 4  I DID NOT FEEL THAT I NEEDED SERVICES ..... 5  OTHER ..... 6  DON'T KNOW ..... 7  REFUSE TO ANSWER ..... 8	IF '1', '2', '3', '5', '6', '7', '8' → SKIP TO SVTELL	PREVENTION	S	S	S	S	S

NO.	Variable ID: SV	Sexual Violence: Coercion and Rape	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
34.	SVSRVF	<p>You said that you were uncomfortable accessing services. Why were you uncomfortable?</p> <p>If none of the answer choices fit, please choose OTHER.</p>	<p>I WAS WORRIED THAT THE SERVICE PROVIDER WOULD TREAT ME DIFFERENTLY/POORLY IF THEY FOUND OUT I AM MSM/FSW/TG/PWID/OVP ... 1</p> <p>I WAS AFRAID THAT MY FAMILY/PARTNER/HUSBAND/WIFE WOULD FIND OUT I AM MSM/FSW/TG/PWID/OVP ..... 2</p> <p>I WAS AFRAID OF WHAT THE AUTHORITIES/POLICE WOULD DO TO ME IF THEY FOUND OUT I AM MSM/FSW/TG/PWID/OVP.... 3</p> <p>I WAS WORRIED THAT OTHERS WOULD FIND OUT I AM MSM/FSW/TG/PWID/OVP ..... 4</p> <p>OTHER REASON ..... 6</p> <p>DON'T KNOW ..... 7</p> <p>REFUSE TO ANSWER ..... 8</p>		PREVENTION	S	S	S	S	S

NO.	Variable ID: SV	Sexual Violence: Coercion and Rape	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
35.	SVTELL	Who else did you tell about any of these experiences?  CHECK ALL THAT APPLY	PAYING SEX PARTNER ..... A  NON-PAYING SEX PARTNER ..... B  POLICE/MILITARY/AUTHORITY FIGURE ..... C  RELATIVE ..... D  FRIEND/ACQUAINTANCE .... E  OTHER ..... X  DON'T KNOW ..... Y  REFUSE TO ANSWER ..... Z		PREVENTION	S	S	S	S	S
36.	SVCPRP	In your <b>lifetime</b> , have you ever <b>tricked, lied to or threatened</b> someone in order to make them have sex with you when they didn't want to?	YES ..... 1 NO ..... 2  I DON'T KNOW/DON'T REMEMBER ..... 3  DON'T KNOW ..... 7  REFUSE TO ANSWER ..... 8	'2','7','8'  → SKIP TO SVRPRP	OTHER	C	C	C	C	C
37.	SVCPRPFR	In your lifetime, how many times have you done this to someone?	ONCE ..... 1 2 – 5 TIMES ..... 2 6 – 10 TIMES ..... 3 MORE THAN 10 TIMES ..... 4 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		OTHER	S	S	S	S	S

NO.	Variable ID: SV	Sexual Violence: Coercion and Rape	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
38.	SVCPRPYR	In the last 12 months, how many times have you done this to someone?	THIS HAS NOT HAPPENED IN THE LAST 12 MONTHS ..... 1 ONCE ..... 2 2 – 5 TIMES ..... 3 6 – 10 TIMES ..... 4 MORE THAN 10 TIMES ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		OTHER	S	S	S	S	S
39.	SVCPRPWH	Please think about the <b>most recent time</b> that you have tricked, lied to, or threatened in order to make someone have sex with you when they didn't want to. Who was the person you did this to?	SPOUSE/PARTNER/ BOYFRIEND/GIRLFRIEND ..... 1 FRIEND/ACQUAINTANCE ..... 2 FAMILY/RELATIVE ..... 3 FRIEND/ACQUAINTANCE .... 4 STRANGER ..... 5 OTHER ..... 6 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		OTHER	S	S	S	S	S
40.	SVRPRP	In your <b>lifetime</b> , have you ever <b>physically forced</b> someone to have sex with you when they didn't want to?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	'2','7','8' → SKIP TO END OF CURRENT SECTION	OTHER	C	C	C	C	C



NO.	Variable ID: SV	Sexual Violence: Coercion and Rape	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
41.	SVRPRPFR	In your lifetime, how many times have you done this to someone?	ONCE ..... 1 2 – 5 TIMES ..... 2 6 – 10 TIMES ..... 3 MORE THAN 10 TIMES ..... 4 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		OTHER	S	S	S	S	S
42.	SVRPRPYR	In the last 12 months, how many times have you done this to someone?	THIS HAS NOT HAPPENED IN THE LAST 12 MONTHS ... 1 ONCE ..... 2 2 – 5 TIMES ..... 3 6 – 10 TIMES ..... 4 MORE THAN 10 TIMES ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		OTHER	S	S	S	S	S

NO.	Variable ID: SV	Sexual Violence: Coercion and Rape	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
43.	SVRPRPWH	Please think about the <b>most recent time</b> that you have <b>physically forced</b> someone to have sex with you when they didn't want to.  Who was the person you did this to?	SPOUSE/PARTNER/ BOYFRIEND/GIRLFRIEND ..... 1  FRIEND/ACQUAINTANCE ..... 2  FAMILY/RELATIVE ..... 3  FRIEND/ACQUAINTANCE ..... 4  STRANGER ..... 5  OTHER ..... 6  DON'T KNOW ..... 7  REFUSE TO ANSWER ..... 8		OTHER	S	S	S	S	S

#: S=Sex Worker, M=MSM, T=Transgender, P=PWID, O=Other Vulnerable Population, C=Core, S=Secondary

\*Similar questions can be found in the questionnaire module Shame, Stigma, Harassment & Discrimination.

<sup>1</sup><http://unstats.un.org/unsd/demographic/meetings/vaw/docs/ConclusionsAndRecommendations.pdf>

Additional Sources of Violence Indicators:

UN General Assembly Human rights Council (2008) A/HRC/7/6: [http://www.ohchr.org/Documents/Press/OHCHR\\_Report\\_2008.pdf](http://www.ohchr.org/Documents/Press/OHCHR_Report_2008.pdf)

MEASURE Evaluation (2008). Violence against Women and girls. A compendium of Monitoring and Evaluation Indicators. <http://www.cpc.unc.edu/measure/publications/pdf/ms-08-30.pdf>

## 32. INTERNALIZED HOMOPHOBIA

Internalized homophobia is the personal acceptance and endorsement of sexual stigma as part of a person’s value system and self-concept. Researchers should adapt the terminology ‘internalized homophobia’ to the way the person self-identified in demographic or group characteristics modules. The module consists of the 5-item revised internalized homophobia (IHP-R) scale, recommended by the 3rd edition of Diagnosis and Statistics Manual (DSM) by the American Psychiatric Association. This module should be used for surveys among MSM and TG, but it can also be used on lesbian or bisexual respondents.

N/A	Variable ID: IH	Internalize Homophobia	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
N/A	IH1MSG	<i>Next we will ask you some questions on how you feel about your sexual attraction to men.</i>								
1.	IHATTRAC	I have tried to stop being attracted to men in general.	STRONGLY AGREE ..... 1 SOMEWHAT AGREE ..... 2 NEITHER AGREE NOR DISAGREE ..... 3 SOMEWHAT DISAGREE ..... 4 STRONGLY DISAGREE ..... 5 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	S	S	N/A	N/A

N/A	Variable ID: IH	Internalize Homophobia	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
2.	IHHETER	If someone offered me the chance to be completely heterosexual, I would accept the chance.	STRONGLY AGREE ..... 1 SOMEWHAT AGREE ..... 2 NEITHER AGREE NOR DISAGREE ..... 3 SOMEWHAT DISAGREE ..... 4 STRONGLY DISAGREE ..... 5 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	S	S	N/A	N/A
3.	IHNOTGAY	I wish I weren't gay/bisexual.	STRONGLY AGREE ..... 1 SOMEWHAT AGREE ..... 2 NEITHER AGREE NOR DISAGREE ..... 3 SOMEWHAT DISAGREE ..... 4 STRONGLY DISAGREE ..... 5 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	S	S	N/A	N/A
4.	IHSHORT	I feel that being gay/bisexual is a personal shortcoming for me.	STRONGLY AGREE ..... 1 SOMEWHAT AGREE ..... 2 NEITHER AGREE NOR DISAGREE ..... 3 SOMEWHAT DISAGREE ..... 4 STRONGLY DISAGREE ..... 5 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	S	S	N/A	N/A

N/A	Variable ID: IH	Internalize Homophobia	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
5.	IHHELP	I would like to get professional help in order to change my sexual orientation from gay/bisexual to straight.	STRONGLY AGREE ..... 1 SOMEWHAT AGREE ..... 2 NEITHER AGREE NOR DISAGREE ..... 3 SOMEWHAT DISAGREE ..... 4 STRONGLY DISAGREE ..... 5 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	S	S	N/A	N/A

\*: S=Sex Worker, M=MSM, T=Transgender, P=PWID, O=Other Vulnerable Population, C=Core, S=Secondary

**SCORING:**

Sum responses and divide by the total number of items, thereby maintaining the 1-5 metric for ease of interpretation. Higher scores indicate more negative self-attitudes.

**References:**

1. Assessing Internalized Sexual Stigma (“Internalized Homophobia”) in Sexual Minority Adults. Accessed at: <http://psychology.ucdavis.edu/rainbow/html/ihpititems.html>
2. American Psychiatric Association (1980). Diagnostic and Statistical Manual of Mental Disorders (3rd ed.). Washington, DC: Author.
3. Herek, G. M., Cogan, J. C., Gillis, J. R., & Glunt, E. K. (1998). *Correlates of internalized homophobia in a community sample of lesbians and gay men*. *Journal of the Gay and Lesbian Medical Association*, 2, 17-25.
4. Herek, G. M., & Glunt, E. K. (1995). *Identity and community among gay and bisexual men in the AIDS era: Preliminary findings from the Sacramento Men’s Health Study*. In G. M. Herek, & B. Greene (Eds.), *AIDS, identity, and community: The HIV epidemic and lesbians and gay men* (pp. 55-84). Thousand Oaks, CA: Sage.
5. Meyer, I. H. (1995). *Minority stress and mental health in gay men*. *Journal of Health and Social Behavior*, 36, 38-56

# 33. DEPRESSION

This module evaluates depression using the Patient Health Questionnaire (PHQ). The PHQ-2 and PHQ-9 are validated tools used to assess and monitor depression severity. When evaluating depression either the PHQ-2 with two questions or the more extensive PHQ-9, nine questions may be used.

The PHQ-9 includes nine items and is calculated by assigning scores of 0, 1, 2, and 3, to the response categories of: not at all, several days, more than half the day, and nearly every day. The PHQ-9 total score ranges from 0 to 27. PHQ-9 score of 10 or more has a sensitivity of 88% and a specificity of 88% for major depression. The scores of 5, 10, 15, and 20 denote cut-points for mild, moderate, moderately severe and severe depression, respectively.

The PHQ-2, comprised of the first two items of the PHQ-9, inquires about the degree to which an individual has experienced depressed mood and anhedonia for the past two weeks. Its purpose is to screen for depression, not to establish a final diagnosis or monitor depression. PHQ-2 scores range from 0-6, with a score of 3 or more has a sensitivity of 83% and specificity of 92% for major depression.

If a brief measure is desirable for use or as part of a comprehensive health questionnaire, researchers may want to use PHQ-2 instead of PHQ-9. Patients who screen positive using PHQ-2 should then be further evaluated with the PHQ-9 to determine whether or not they meet criteria for a depressive disorder. Studies should have mental health referral protocols to assure access to mental health services for respondents with moderate to severe depression.

N/A	Variable ID: DP	Depression	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
N/A	DP1MSG	<i>Next we will ask you some questions on depression. Over the <u>last 2 weeks</u>, how often have you been bothered by any of the following problems:</i>								
1.	DPINTRST	Little interest or pleasure in doing things	NOT AT ALL ..... 0 SEVERAL DAYS ..... 1 MORE THAN HALF THE DAYS .... 2 NEARLY EVERY DAY ..... 3 REFUSE TO ANSWER ..... 8		PHQ-2  PHQ-9  VULNERABILITY	S	S	S	S	S

N/A	Variable ID: DP	Depression	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
2.	DPDOWN	Feeling down, depressed, or hopeless	NOT AT ALL ..... 0 SEVERAL DAYS ..... 1 MORE THAN HALF THE DAYS .... 2 NEARLY EVERY DAY ..... 3 REFUSE TO ANSWER ..... 8	IF DPINTRST=0 AND DPDOWN=0  → SKIP TO END OF CURRENT SECTION	PHQ-2 PHQ-9  VULNERABILITY  SKIP IS OPTIONAL.	S	S	S	S	S
3.	DPSLEEP	Trouble falling or staying asleep, or sleeping too much	NOT AT ALL ..... 0 SEVERAL DAYS ..... 1 MORE THAN HALF THE DAYS .... 2 NEARLY EVERY DAY ..... 3 REFUSE TO ANSWER ..... 8		PHQ-9  VULNERABILITY	S	S	S	S	S
4.	DPTIRE	Feeling tired or having little energy	NOT AT ALL ..... 0 SEVERAL DAYS ..... 1 MORE THAN HALF THE DAYS .... 2 NEARLY EVERY DAY ..... 3 REFUSE TO ANSWER ..... 8		PHQ-9  VULNERABILITY	S	S	S	S	S
5.	DPEAT	Poor appetite or overeating	NOT AT ALL ..... 0 SEVERAL DAYS ..... 1 MORE THAN HALF THE DAYS .... 2 NEARLY EVERY DAY ..... 3 REFUSE TO ANSWER ..... 8		PHQ-9  VULNERABILITY	S	S	S	S	S

N/A	Variable ID: DP	Depression	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
6.	DPFAIL	Feeling bad about yourself or that you are a failure or have let yourself or your family down	NOT AT ALL ..... 0 SEVERAL DAYS ..... 1 MORE THAN HALF THE DAYS .... 2 NEARLY EVERY DAY ..... 3 REFUSE TO ANSWER ..... 8		PHQ-9 VULNERABILITY	S	S	S	S	S
7.	DPREAD	Trouble concentrating on things, such as reading the newspaper or watching television	NOT AT ALL ..... 0 SEVERAL DAYS ..... 1 MORE THAN HALF THE DAYS .... 2 NEARLY EVERY DAY ..... 3 REFUSE TO ANSWER ..... 8		PHQ-9 VULNERABILITY	S	S	S	S	S
8.	DPMOVE	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	NOT AT ALL ..... 0 SEVERAL DAYS ..... 1 MORE THAN HALF THE DAYS .... 2 NEARLY EVERY DAY ..... 3 REFUSE TO ANSWER ..... 8		PHQ-9 VULNERABILITY	S	S	S	S	S
9.	DPHURT	Thoughts that you would be better off dead or of hurting yourself in some way	NOT AT ALL ..... 0 SEVERAL DAYS ..... 1 MORE THAN HALF THE DAYS .... 2 NEARLY EVERY DAY ..... 3 REFUSE TO ANSWER ..... 8		PHQ-9 VULNERABILITY	S	S	S	S	S



\*: S=Sex Worker, M=MSM, T=Transgender, P=PWID, O=Other Vulnerable Population, C=Core, S=Secondary

### References:

Kroenke K, Spitzer R.L., & Williams J B.W. The PHQ-9: Validity of a Brief Depression Severity Measure. J Gen Intern Med. 2001 September; 16(9): 606- 613. Accessed at: [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1495268/pdf/jgi\\_01114.pdf](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1495268/pdf/jgi_01114.pdf)

Kroenke K, Spitzer R.L., & Williams J B.W. The Patient Health Questionnaire-2: Validity of a Two-Item Depression Screener. 2003. Medical Care. 41(11): 1284-1292. Accessed at: [http://www.ihs.gov/crs/documents/phq\\_2\\_medical\\_care.pdf](http://www.ihs.gov/crs/documents/phq_2_medical_care.pdf)

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## 34. SUICIDE IDEATION AND ATTEMPTS

The suicide ideation and attempts module measures suicide-related thoughts and behaviors. Questions have been adapted from a validated instrument, the Suicide Behaviors Questionnaire-Revised (SBQ-R). SBQ-R is made up of four items each assessing a different dimension of the risk of suicide (or suicidality).

The coding of this scale should not be changed because a score is calculated. If these questions are used, consent needs to state that if participants are deemed suicidal then participants will need to be referred to mental health professionals and services. Due to the sensitive nature of the questions included in this scale, a participant may Refused them. If this is the case, a score cannot be calculated for that participant.

This module can be used in conjunction with other modules such as stigma (shame, stigma, harassment & discrimination), internalized homophobia, depression etc. to gain a thorough understanding of psychosocial measures.

N/A	Variable ID: SU	Suicide Ideation and Attempts	Response Options	SKIPS	COMMENTS	Core or Secondary*				
						S	M	T	P	O
N/A	SU1MSG	<i>Next we will ask you some questions on thoughts of ending your life and actions taken to end your life. Please choose the number beside the statement or phrase that best applies to you.</i>								

N/A	Variable ID: SU	Suicide Ideation and Attempts	Response Options	SKIPS	COMMENTS	Core or Secondary*				
						S	M	T	P	O
1.	SUIDEA	Have you ever thought about or attempted to kill yourself?	NEVER ..... 1  IT WAS JUST A BRIEF PASSING THOUGHT ..... 2  I HAVE HAD A PLAN AT LEAST ONCE TO KILL MYSELF BUT DID NOT TRY TO DO IT ..... 3  I HAVE HAD A PLAN AT LEAST ONCE TO KILL MYSELF AND REALLY WANTED TO DIE ..... 4  I HAVE ATTEMPTED TO KILL MYSELF, BUT DID NOT WANT TO DIE ..... 5  I HAVE ATTEMPTED TO KILL MYSELF, AND REALLY HOPED TO DIE ..... 6  REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	S
2.	SUFREQ	How often have you thought about killing yourself in the past year?	NEVER ..... 1  RARELY (1 TIME) ..... 2  SOMETIMES (2 TIMES) ..... 3  OFTEN (3-4 TIMES) ..... 4  VERY OFTEN (5 OR MORE TIMES) ..... 5  REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	S

N/A	Variable ID: SU	Suicide Ideation and Attempts	Response Options	SKIPS	COMMENTS	Core or Secondary*				
						S	M	T	P	O
3.	SUTOLD	Have you ever told someone you were going to commit suicide, or that you might do it?	NO ..... 1 YES, AT ONE TIME, BUT DID NOT REALLY WANT TO DIE ..... 2 YES, AT ONE TIME, AND REALLY WANTED TO DIE ..... 3 YES, MORE THAN ONCE, BUT DID NOT WANT TO DO IT ..... 4 YES, MORE THAN ONCE, AND REALLY WANTED TO ..... 5 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	S
4.	SUTRY	How likely is it that you will attempt suicide someday?	NEVER ..... 0 NO CHANCE AT ALL ..... 1 RATHER UNLIKELY ..... 2 UNLIKELY ..... 3 LIKELY ..... 4 RATHER LIKELY ..... 5 VERY LIKELY ..... 6 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	S

\*: S=Sex Worker, M=MSM, T=Transgender, P=PWID, O=Other Vulnerable Population, C=Core, S=Secondary

**References:**

The Suicide Behaviors Questionnaire-Revised (SBQ-R)

<http://www.integration.samhsa.gov/images/res/SBQ.pdf>

PSYCHOMETRIC PROPERTIES

	Cutoff score	Sensitivity	Specificity
Adult general population	≥7	97%	95%
Adult Psychiatric Inpatients	≥8	80%	91%

SBQ-R SCORING

Item 1: taps into <i>lifetime</i> suicide ideation and/or suicide attempts		
Selected response 1	Non-Suicidal subgroup	1 point
Selected response 2	Suicide Risk Ideation subgroup	2 points
Selected response 3 or 4	Suicide Plan subgroup	3 points
Selected response 5 or 6	Suicide Attempt subgroup	4 points
		<b>Total pts.:</b>

Item 2: assess the <i>frequency</i> of suicide ideation over the past 12 months		
Selected Response:	Never	1 point
	Rarely (1 time)	2 points
	Sometimes (2 times)	3 points
	Often (3-4 times)	4 points
	Very Often (5 or more times)	5 points
		<b>Total pts.:</b>

Item 3: taps into the <i>threat</i> of suicide attempt		
Selected response 1		1 point
Selected response 2 or 3		2 points
Selected response 4 or 5		3 points
		<b>Total pts.:</b>

Item 4: evaluates <i>self-reported likelihood</i> of suicidal behavior in the future		
Selected Response:	Never	0 points
	No chance at all	1 point
	Rather unlikely	2 points
	Unlikely	3 points
	Likely	4 points
	Rather Likely	5 points
	Very Likely	6 points
Sum all the scores selected by the respondents.	The total score should range from 3-18.	<b>Total pts.:</b>

## 35. SOCIAL SUPPORT

This module measures social support from friends, family and other persons the respondent feels close to. The module contains two validated instruments, the MSP-SS (Multidimensional Scale of Perceived Social Support) and the MOS-SS (Medical Outcomes Study: Social Support Survey).

The MSP-SS, comprised of 12 items, measures perceived availability of social support from family, friends, and significant other. Each item is measured on a likert-scale and scores are summed with possible score range between 12 and 84, the higher the score the higher the perceived social support. MSP-SS scale has a high internal-consistency reliability of 0.91 (Cronbach’s coefficient alpha).

The MOS-SS was developed for participants in the Medical Outcomes Study (MOS), a two-year longitudinal study of the process and outcomes of care for people with prevalent and treatable chronic conditions. It is comprised of 19 items and has an overall functional social support index as well as four separate social support subscales (emotional/informational support, tangible support, affectionate support, positive social interaction). A higher score for an individual score or for overall support index indicates more support. The overall MOS-SS scale has a high internal-consistency reliability of 0.97.

Researchers should use MSP-SS if their goal is to measure social support in terms of who provides respondents that support or if brevity is an issue. If interested in the types of support as well as an overall measure of support, then the MOS-SS should be used.

N/A	Variable ID: SS	Social Support	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
N/A	SS1MSG	<i>Next some statements about help and support from your friends, family or special persons. Special persons may be any other person you feel close to, such as your sex partner or other person you feel close to. Please tell us whether you agree or disagree with the statements.</i>								

N/A	Variable ID: SS	Social Support	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
1.	SSSPHER	There is a special person who is around when I am in need.	VERY STRONGLY DISAGREE ..... 1 STRONGLY DISAGREE ..... 2 MILDLY DISAGREE ..... 3 NEUTRAL ..... 4 MILDLY AGREE ..... 5 STRONGLY AGREE ..... 6 VERY STRONGLY AGREE ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	S
2.	SSSPSHR	There is a special person with whom I can share my joys and sorrows.	VERY STRONGLY DISAGREE ..... 1 STRONGLY DISAGREE ..... 2 MILDLY DISAGREE ..... 3 NEUTRAL ..... 4 MILDLY AGREE ..... 5 STRONGLY AGREE ..... 6 VERY STRONGLY AGREE ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	S



N/A	Variable ID: SS	Social Support	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
3.	SSFMHLP	My family really tries to help me.	VERY STRONGLY DISAGREE ..... 1 STRONGLY DISAGREE ..... 2 MILDLY DISAGREE ..... 3 NEUTRAL ..... 4 MILDLY AGREE ..... 5 STRONGLY AGREE ..... 6 VERY STRONGLY AGREE ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	S
4.	SSFMEM	I get the emotional help and support I need from my family.	VERY STRONGLY DISAGREE ..... 1 STRONGLY DISAGREE ..... 2 MILDLY DISAGREE ..... 3 NEUTRAL ..... 4 MILDLY AGREE ..... 5 STRONGLY AGREE ..... 6 VERY STRONGLY AGREE ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	S

N/A	Variable ID: SS	Social Support	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
5.	SSSPCMF	I have a special person who is a real source of comfort to me.	VERY STRONGLY DISAGREE ..... 1 STRONGLY DISAGREE ..... 2 MILDLY DISAGREE ..... 3 NEUTRAL ..... 4 MILDLY AGREE ..... 5 STRONGLY AGREE ..... 6 VERY STRONGLY AGREE ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	S
6.	SSFRHLP	My friends really try to help me.	VERY STRONGLY DISAGREE .... 1 STRONGLY DISAGREE ..... 2 MILDLY DISAGREE ..... 3 NEUTRAL ..... 4 MILDLY AGREE ..... 5 STRONGLY AGREE ..... 6 VERY STRONGLY AGREE ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	S

N/A	Variable ID: SS	Social Support	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
7.	SSFRCNT	I can count on my friends when things go wrong.	VERY STRONGLY DISAGREE ..... 1 STRONGLY DISAGREE ..... 2 MILDLY DISAGREE ..... 3 NEUTRAL ..... 4 MILDLY AGREE ..... 5 STRONGLY AGREE ..... 6 VERY STRONGLY AGREE ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	S
8.	SSFMTLK	I can talk about my problems with my family.	VERY STRONGLY DISAGREE ..... 1 STRONGLY DISAGREE ..... 2 MILDLY DISAGREE ..... 3 NEUTRAL ..... 4 MILDLY AGREE ..... 5 STRONGLY AGREE ..... 6 VERY STRONGLY AGREE ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	S

N/A	Variable ID: SS	Social Support	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
9.	SSFRSHR	I have friends with whom I can share my joys and sorrows.	VERY STRONGLY DISAGREE ..... 1 STRONGLY DISAGREE ..... 2 MILDLY DISAGREE ..... 3 NEUTRAL ..... 4 MILDLY AGREE ..... 5 STRONGLY AGREE ..... 6 VERY STRONGLY AGREE ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	S
10.	SSSPCAR	There is a special person in my life that cares about my feelings.	VERY STRONGLY DISAGREE ..... 1 STRONGLY DISAGREE ..... 2 MILDLY DISAGREE ..... 3 NEUTRAL ..... 4 MILDLY AGREE ..... 5 STRONGLY AGREE ..... 6 VERY STRONGLY AGREE ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	S

N/A	Variable ID: SS	Social Support	Response Options	Skips	Comments	Core or Secondary*				
						S	M	T	P	O
11.	SSFHMLP	My family is willing to help me make decisions.	VERY STRONGLY DISAGREE ..... 1 STRONGLY DISAGREE ..... 2 MILDLY DISAGREE ..... 3 NEUTRAL ..... 4 MILDLY AGREE ..... 5 STRONGLY AGREE ..... 6 VERY STRONGLY AGREE ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	S
12.	SSFRTLK	I can talk about my problems with my friends.	VERY STRONGLY DISAGREE ..... 1 STRONGLY DISAGREE ..... 2 MILDLY DISAGREE ..... 3 NEUTRAL ..... 4 MILDLY AGREE ..... 5 STRONGLY AGREE ..... 6 VERY STRONGLY AGREE ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	S

\*S=Sex Worker, M=MSM, T=Transgender, P=PWID, O=Other Vulnerable Population, C=Core, S=Secondary References

## References

Donald Sherbourne, D., & Stewart, A.L. (1991). The MOS Social Support Survey. *Soc. Sci. Med*, 32 (6), 705-714.  
 Zimet, G.D., Dahlem, N.W., Zimet, S.G. & Farley, G.K. (1988). The Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment*, 52, 30-41.  
 Survey accessed at: <http://www.yorku.ca/rokada/psyctest/socsupp.pdf>

Multidimensional Scale of Perceived Support Scoring Instructions

Sum the score of all 12 items, with the possible score range for total is 7-84.

Scoring Algorithm

Total= 69-84 High Acuity

Total= 49-68 Moderate Acuity

Total= 12-48 Low Acuity

OR

N/A	SS	Social Support	Response Options	Skips	Comments	Core Or Secondary*				
						S	M	T	P	O
N/A	SS2MSG	<i>People sometime look to others for companionship, assistance, or other types of support. How often is each of the following kinds of support available to you if you need it?</i>		N/A						
N/A	N/A	<b>Emotional/Information Support</b>								
1.	SSLISTE	Someone you can count on to listen to you whenyou need to talk.	NONE OF THE TIME ..... 1 A LITTLE OF THE TIME ..... 2 SOME OF THE TIME ..... 3 MOST OF THE TIME ..... 4 ALL OF THE TIME ..... 5 DON'T REMEMBER ..... 7 REFUSE TO ANSWER ..... 8			S	S	S	S	S

N/A	SS	Social Support	Response Options	Skips	Comments	Core Or Secondary*				
						S	M	T	P	O
2.	SSINFO	Someone to give you information to help you understand a situation.	NONE OF THE TIME ..... 1 A LITTLE OF THE TIME ..... 2 SOME OF THE TIME ..... 3 MOST OF THE TIME ..... 4 ALL OF THE TIME ..... 5 DON'T REMEMBER ..... 7 REFUSE TO ANSWER ..... 8			S	S	S	S	S
3.	SSADVIC	Someone to give you good advice about a crisis.	NONE OF THE TIME ..... 1 A LITTLE OF THE TIME ..... 2 SOME OF THE TIME ..... 3 MOST OF THE TIME ..... 4 ALL OF THE TIME ..... 5 DON'T REMEMBER ..... 7 REFUSE TO ANSWER ..... 8			S	S	S	S	S
4.	SSCONFI	Someone to confide in or talk to about yourself or your problems.	NONE OF THE TIME ..... 1 A LITTLE OF THE TIME ..... 2 SOME OF THE TIME ..... 3 MOST OF THE TIME ..... 4 ALL OF THE TIME ..... 5 DON'T REMEMBER ..... 7 REFUSE TO ANSWER ..... 8			S	S	S	S	

N/A	SS	Social Support	Response Options	Skips	Comments	Core Or Secondary*				
						S	M	T	P	O
5.	SSWANTA	Someone whose advice you really want.	NONE OF THE TIME ..... 1 A LITTLE OF THE TIME ..... 2 SOME OF THE TIME ..... 3 MOST OF THE TIME ..... 4 ALL OF THE TIME ..... 5 DON'T REMEMBER ..... 7 REFUSE TO ANSWER ..... 8			S	S	S	S	
6.	SSSHARE	Someone to share your most private worries and fears with.	NONE OF THE TIME ..... 1 A LITTLE OF THE TIME ..... 2 SOME OF THE TIME ..... 3 MOST OF THE TIME ..... 4 ALL OF THE TIME ..... 5 DON'T REMEMBER ..... 7 REFUSE TO ANSWER ..... 8			S	S	S	S	S
7.	SSSUGGE	Someone to turn to for suggestions about how to deal with a personal problem.	NONE OF THE TIME ..... 1 A LITTLE OF THE TIME ..... 2 SOME OF THE TIME ..... 3 MOST OF THE TIME ..... 4 ALL OF THE TIME ..... 5 DON'T REMEMBER ..... 7 REFUSE TO ANSWER ..... 8			S	S	S	S	S



N/A	SS	Social Support	Response Options	Skips	Comments	Core Or Secondary*				
						S	M	T	P	O
8.	SSPROBL	Someone who understands your problems.	NONE OF THE TIME ..... 1 A LITTLE OF THE TIME ..... 2 SOME OF THE TIME ..... 3 MOST OF THE TIME ..... 4 ALL OF THE TIME ..... 5 DON'T REMEMBER ..... 7 REFUSE TO ANSWER ..... 8			S	S	S	S	S
N/A	N/A	Tangible Support								
9.	SSCONFI	Someone to help you if you were confined to bed.	NONE OF THE TIME ..... 1 A LITTLE OF THE TIME ..... 2 SOME OF THE TIME ..... 3 MOST OF THE TIME ..... 4 ALL OF THE TIME ..... 5 DON'T REMEMBER ..... 7			S	S	S	S	S
10.	SSDOCTO	Someone to take you to the doctor if you needed it.	NONE OF THE TIME ..... 1 A LITTLE OF THE TIME ..... 2 SOME OF THE TIME ..... 3 MOST OF THE TIME ..... 4 ALL OF THE TIME ..... 5 DON'T REMEMBER ..... 7 REFUSE TO ANSWER ..... 8			S	S	S	S	S

N/A	SS	Social Support	Response Options	Skips	Comments	Core Or Secondary*				
						S	M	T	P	O
11.	SSMEALS	Someone to prepare your meals if you were unable to do it yourself.	NONE OF THE TIME ..... 1 A LITTLE OF THE TIME ..... 2 SOME OF THE TIME ..... 3 MOST OF THE TIME ..... 4 ALL OF THE TIME ..... 5 DON'T REMEMBER ..... 7 REFUSE TO ANSWER ..... 8			S	S	S	S	S
12.	SSCHORE	Someone to help with daily chores if you were sick.	NONE OF THE TIME ..... 1 A LITTLE OF THE TIME ..... 2 SOME OF THE TIME ..... 3 MOST OF THE TIME ..... 4 ALL OF THE TIME ..... 5 DON'T REMEMBER ..... 7 REFUSE TO ANSWER ..... 8			S	S	S	S	S

N/A	SS	Social Support	Response Options	Skips	Comments	Core Or Secondary*				
						S	M	T	P	O
N/A	N/A	Affectionate Support								
13.	SSLOVEA	Someone who shows you love and affection.	NONE OF THE TIME ..... 1 A LITTLE OF THE TIME ..... 2 SOME OF THE TIME ..... 3 MOST OF THE TIME ..... 4 ALL OF THE TIME ..... 5 DON'T REMEMBER ..... 7 REFUSE TO ANSWER ..... 8			S	S	S	S	S
14.	SSWANTE	Someone to love and make you feel wanted.	NONE OF THE TIME ..... 1 A LITTLE OF THE TIME ..... 2 SOME OF THE TIME ..... 3 MOST OF THE TIME ..... 4 ALL OF THE TIME ..... 5 DON'T REMEMBER ..... 7 REFUSE TO ANSWER ..... 8			S	S	S	S	S

N/A	SS	Social Support	Response Options	Skips	Comments	Core Or Secondary*				
						S	M	T	P	O
15.	SSHUGS	Someone who hugs you.	NONE OF THE TIME ..... 1 A LITTLE OF THE TIME ..... 2 SOME OF THE TIME ..... 3 MOST OF THE TIME ..... 4 ALL OF THE TIME ..... 5 DON'T REMEMBER ..... 7 REFUSE TO ANSWER ..... 8			S	S	S	S	S
N/A	N/A	Positive Social Interaction								
16.	SSGOODT	Someone to have a good time with.	NONE OF THE TIME ..... 1 A LITTLE OF THE TIME ..... 2 SOME OF THE TIME ..... 3 MOST OF THE TIME ..... 4 ALL OF THE TIME ..... 5 DON'T REMEMBER ..... 7 REFUSE TO ANSWER ..... 8			S	S	S	S	S

N/A	SS	Social Support	Response Options	Skips	Comments	Core Or Secondary*				
						S	M	T	P	O
17.	SSRELAX	Someone to get together for relaxation.	NONE OF THE TIME ..... 1 A LITTLE OF THE TIME ..... 2 SOME OF THE TIME ..... 3 MOST OF THE TIME ..... 4 ALL OF THE TIME ..... 5 DON'T REMEMBER ..... 7 REFUSE TO ANSWER ..... 8			S	S	S	S	S
18.	SSENJOY	Someone to do something enjoyable with.	NONE OF THE TIME ..... 1 A LITTLE OF THE TIME ..... 2 SOME OF THE TIME ..... 3 MOST OF THE TIME ..... 4 ALL OF THE TIME ..... 5 DON'T REMEMBER ..... 7 REFUSE TO ANSWER ..... 8			S	S	S	S	S

N/A	SS	Social Support	Response Options	Skips	Comments	Core Or Secondary*				
						S	M	T	P	O
N/A	N/A	Additional Item								
19.	SSMIND	Someone to do things with to help you get your mind off things.	NONE OF THE TIME ..... 1 A LITTLE OF THE TIME ..... 2 SOME OF THE TIME ..... 3 MOST OF THE TIME ..... 4 ALL OF THE TIME ..... 5 DON'T REMEMBER ..... 7 REFUSE TO ANSWER ..... 8			S	S	S	S	S

\*: S=Sex Worker, M=MSM, T=Transgender, P=PWID, O=Other Vulnerable Population, C=Core, S=Secondary

#### Medical Outcomes Study: Social Support Survey Scoring (MOS-SS) Instructions

- To obtain a score for each subscale, calculate the average of the scores for each item in the subscale.
- To obtain an overall support index, calculate the average of the scores for all 18 items in the four subscales, and the score for the one additional item. A higher score indicates more support.

#### Reference:

Sherbourne, C.D., & Stewart, A.L. (1991). The MOS Social Support Survey. *Social Science Medicine*, 52, 6, 705-714.

Survey accessed at: [http://www.rand.org/content/dam/rand/www/external/health/surveys\\_tools/mos/mos\\_socialsupport\\_survey.pdf](http://www.rand.org/content/dam/rand/www/external/health/surveys_tools/mos/mos_socialsupport_survey.pdf)

# 36. SOCIAL COHESION, SOCIAL PARTICIPATION AND COLLECTIVE AGENCY

Recent research among FSW and MSM has shown associations between higher levels of social cohesion, social participation and collective agency and better HIV prevention and care outcomes. This questionnaire module contains items to assess respondents’ social cohesion, social participation, and degree of collective agency. Social cohesion is defined here as the mutual assistance or support that respondents may garner from their connection and interaction with others in their KP group. Social participation items assess respondents’ involvement in specific activities with their KP community to build support networks and a sense of belonging. Collective agency is defined as the choice, control, and power that poor or marginalized groups have to act for themselves to claim their rights (whether civil, political, economic, social or cultural) and to hold others accountable for these rights.

N/A	Variable ID: ST	Social Cohesion	Response Options	Skips	Comments	Core Or Secondary*				
						S	M	T	P	O
N/A	N/A	<i>The next several questions are about your social life and your relationships with other (sex workers/gay men or other men who have sex with men/transgender women/people who inject drugs). Please mark if you strongly disagree, disagree, are neutral, agree, or strongly agree with the statements.</i>			Previously used in SW, MSM					
1.	SCMONEY	You can count on other [insert key population group] if you need to borrow money.	STRONGLY DISAGREE ..... 1 DISAGREE ..... 2 NEUTRAL ..... 3 AGREE ..... 4 STRONGLY AGREE ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	N/A

N/A	Variable ID: ST	Social Cohesion	Response Options	Skips	Comments	Core Or Secondary*				
						S	M	T	P	O
2.	SCDOC	You can count on other [insert key population group] to accompany you to the doctor or hospital.	STRONGLY DISAGREE ..... 1 DISAGREE ..... 2 NEUTRAL ..... 3 AGREE ..... 4 STRONGLY AGREE ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	N/A
3.	SCTALK	You can count on other [insert key population group] if you need to talk about your problems.	STRONGLY DISAGREE ..... 1 DISAGREE ..... 2 NEUTRAL ..... 3 AGREE ..... 4 STRONGLY AGREE ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	N/A
4.	SCSTAY	You can count on other [insert key population group] if you need somewhere to stay.	STRONGLY DISAGREE ..... 1 DISAGREE ..... 2 NEUTRAL ..... 3 AGREE ..... 4 STRONGLY AGREE ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	N/A



N/A	Variable ID: ST	Social Cohesion	Response Options	Skips	Comments	Core Or Secondary*				
						S	M	T	P	O
5.	SCDEAL	You can count on other [insert key population group] to help you deal with a violent or difficult [client/partner/person in your life].	STRONGLY DISAGREE ..... 1 DISAGREE ..... 2 NEUTRAL ..... 3 AGREE ..... 4 STRONGLY AGREE ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	N/A
6.	SCINJ	You can count on other [insert key population group] to support your use of [condoms/sterile injecting equipment].	STRONGLY DISAGREE ..... 1 DISAGREE ..... 2 NEUTRAL ..... 3 AGREE ..... 4 STRONGLY AGREE ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	N/A
N/A	N/A	<b>SOCIAL PARTICIPATION</b>  <i>The next several questions ask about social activities you may have taken part in over the past 12 months. Please mark how often you have done any of these social activities.</i>			Ayala citation. This is an adapted subset of scale used in 2012 Global MSM Survey					

N/A	Variable ID: ST	Social Cohesion	Response Options	Skips	Comments	Core Or Secondary*				
						S	M	T	P	O
7.	SCORG	During the past 12 months, how often have you participated in a community organization for [insert key population]?	NEVER ..... 1 DAILY ..... 2 WEEKLY ..... 3 MONTHLY ..... 4 LESS THAN MONTHLY ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	N/A
8.	SCGROUP	During the past 12 months, how often have you gone to a [insert key population group] support group?	NEVER ..... 1 DAILY ..... 2 WEEKLY ..... 3 MONTHLY ..... 4 LESS THAN MONTHLY ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	N/A
9.	SCSOCIAL	During the past 12 months, how often have you participated in social groups or activities for [insert key population]?	NEVER ..... 1 DAILY ..... 2 WEEKLY ..... 3 MONTHLY ..... 4 LESS THAN MONTHLY ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	N/A

N/A	Variable ID: ST	Social Cohesion	Response Options	Skips	Comments	Core Or Secondary*				
						S	M	T	P	O
10.	SCREAD	During the past 12 months, how often have you read [insert key population] materials online or in magazines?	NEVER ..... 1 DAILY ..... 2 WEEKLY ..... 3 MONTHLY ..... 4 LESS THAN MONTHLY ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	N/A	S	S	N/A	N/A
	N/A	<b>COLLECTIVE AGENCY</b>  <i>The next several questions ask about things you may have done to help others. Please indicate if you have done any of the following in the past 12 months.</i>			Used in Avahan					
11.	SCPOLI	In the past 12 months, have you negotiated with or stood up against police in order to help a fellow [insert key population group]?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	N/A

N/A	Variable ID: ST	Social Cohesion	Response Options	Skips	Comments	Core Or Secondary*				
						S	M	T	P	O
12.	SCMAD	In the past 12 months, have you negotiated with or stood up against a madam/broker/pimp in order to help a fellow sex worker?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY  Define madam/broker/pimp based on local context.	S	N/A	N/A	N/A	N/A
13.	SCGANG	In the past 12 months, have you negotiated with or stood up against a local gang member (thug, hooligan or gangster) in order to help a fellow [insert key population group]?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY  Define local gang member based on local context.	S	S	S	S	N/A
14.	SCPART	In the past 12 months, have you negotiated with or stood up against clients/any other sexual partner in order to help a fellow [insert key population group]?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		VULNERABILITY	S	S	S	S	N/A

\*: S =Sex Worker, M=MSM, T=Transgender, P=PWID, O=Other Vulnerable Population, C=Core, S=Secondary

#### References:

- Lippman SA, Donini A, Diaz J, Chinaglia M, Reingold A, et al. Social-environmental factors and protective sexual behavior among sex workers: the Encontros intervention in Brazil. *AJPH*. 2010; 100 Suppl 1: S216-223.
- Fonner VA, Kerrigan D, Mnisi Z, Ketende S, Kennedy CE, Baral S. Social cohesion, social participation, and HIV related risk among female sex workers in Swaziland. *PLoS One*. 2014 Jan 31;9(1):e87527
- Ayala G, Makofane K, Santos G, et al. Access to Basic HIV-Related Services and PrEP Acceptability among Men Who Have sex with Men Worldwide: Barriers, Facilitators, and Implications for Combination Prevention. *Journal of Sexually Transmitted Diseases*, vol. 2013, doi:10.1155/2013/953123
- Saggurti N, Mishra RM, Proddutoor L, Tucker S, Kovvali D, Parimi P, Wheeler T. Community collectivization and its association with consistent condom use and STI treatment seeking behaviors among female sex workers and high-risk men who have sex with men/transgenders in Andhra Pradesh, India. *AIDS Care*. 2013; 25 Suppl 1:S55-66. doi: 10.1080/09540121.2012.749334.

## 37. GAME OF CONTACTS

The Game of Contacts (GoC) is a technique to estimate (quantify) the social visibility of hard-to-count populations such as sex workers, people who inject drugs, or men who have sex with men. The primary purpose of the GoC is to provide an important adjustment factor for network scale-up surveys<sup>1</sup> that estimate the population size of socially hidden populations. In the absence of a planned network scale-up survey there may be little or no utility to collect GoC data.

The GoC interview may mimic a game by using a board as a data collection form. The GoC yields a social visibility estimate between 0 (zero social visibility) and 1 (complete social visibility). As part of this interview, the respondent randomly selects one first name after the other from a set of 24 pre-arranged names. These names should represent the entire universe of people in the survey locale and include both frequent and infrequent names, selected from representative data bases such as DHS survey data, professional associations or other large unbiased data bases.

For each name selected the respondent may have 0, 1, or more contacts he/she knows personally. The respondent is then probed whether the contact knows about the respondent's defining behavior and whether the contact practices the same behavior. This will yield four different answer combinations. The interview continues until all 24 names are exhausted. The question about sharing a meal may serve as a proxy indicator for social closeness. More information is available through the referenced literature at the end of this chapter.

N/A	Variable ID: GC	Game of Contacts	Response Options	Skips	Comments	Core or Secondary*
1.	GC1	How many people called " <i>CONTACT NAME</i> " do you know?  <i>Remember by "People you know" we mean people you know by name or sight. These should only be people who know you too. Type '0' if you don't know anyone called "CONTACT NAME"</i>	[   ] MIN: 0 MAX: 10 DON'T KNOW 97 REFUSE TO ANSWER 98		KA	S

Adapted from:

<sup>1</sup> Network scale-up surveys are conducted among the general population with the purpose to estimate the size of hard-to-count populations. Because network scale-up surveys are not conducted in key populations themselves, they are not described in this guideline.

N/A	Variable ID: GC	Game of Contacts	Response Options	Skips	Comments	Core or Secondary*
	GS1MSG	<i>Now let's talk about each of these "CONTACT NAME's" you know. Let's start with the one you know best.</i>				S
2.	GC1AML	In the past 6 months, did you share a meal with "CONTACT NAME"??	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		KA	S
3.	GC1AKN	Does "CONTACT NAME" know that you [insert defining risk behavior] ?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		KA	S
4.	GC1ADO	Does "CONTACT NAME" [insert defining risk behavior] himself/herself?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		KA	S

Continue with the remaining names/cards, using the same question phrasing and correspondingly altered variable names.

\*: C=Core, S=Secondary question for all KP groups.

#### References:

The **Game of Contacts**: Estimating the Social Visibility of Groups. Salganik MJ, Mello MB, Abdo AH, Bertoni N, Fazito D, Bastos FI. Soc Networks. 2011 Jan 1;33(1):70-78

Assessing network scale-up estimates for groups most at risk of HIV/AIDS: evidence from a multiple-method study of heavy drug users in Curitiba, Brazil. Salganik, MJ, Fazito D, Bertoni N, Abdo AH, Mello MB, Bastos FI. Am J Epidemiol. 2011 Nov 15;174(10): 1190-6.

Estimating the Sizes of Populations at High Risk for HIV: A Comparison Study. Jing L, Qu C, Yu H, Wang T, Cui Y. PLoS One. 2014 Apr 22;9(4).

## 38. HIV KNOWLEDGE AND PERCEPTIONS

Correct knowledge of HIV and AIDS is critical for adoption of behaviors which lower HIV transmission risk. Also important is the rejection of misconceptions about modes of HIV transmission that can weaken one’s adoption of safer sexual behavior or reinforce the stigma faced by people living with HIV/AIDS.

N/A	Variable ID: HK	HIV Knowledge and Perceptions	Response Options	Skips	Comments	Core / Secondary*				
						S	M	T	P	O
N/A	HK1MSG	<i>Thank you. Next we will ask you some questions about what you know about HIV.</i>								
1.	HKONEPAR	Can the risk of HIV transmission be reduced by having sex with only one uninfected partner who has no other partners?	YES ..... 1 NO ..... 2 DON'T REMEMBER ..... 7 REFUSE TO ANSWER ..... 8		KA	C	C	C	C	C
2.	HKCONUSE	Can a person reduce the risk of getting HIV by using a condom every time they have sex?	YES ..... 1 NO ..... 2 DON'T REMEMBER ..... 7 REFUSE TO ANSWER ..... 8		KA	C	C	C	C	C

N/A	Variable ID: HK	HIV Knowledge and Perceptions	Response Options	Skips	Comments	Core / Secondary*				
						S	M	T	P	O
3.	HKHEALTH	Can a healthy-looking person have HIV?	YES ..... 1 NO ..... 2 DON'T REMEMBER ..... 7 REFUSE TO ANSWER ..... 8		KA	C	C	C	C	C
4.	HKMOSBIT	Can a person get HIV from mosquito bites?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 3 REFUSE TO ANSWER ..... 8		KA  Can be replaced by most common misconceptions in local context.	C	C	C	C	C
5.	HKSRFOOD	Can a person get HIV by sharing food with someone who is infected?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 3 REFUSE TO ANSWER ..... 8		KA  Can be replaced by most common misconceptions in local context	C	C	C	C	C
6.	HKNEEDLE	Can a person get HIV by getting injections with a needle that was already used by someone else?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 3 REFUSE TO ANSWER ..... 8		KA	S	S	S	C	S
7.	HKINJ	Can people who inject drugs protect themselves from HIV by switching to that you swallow, sniff, or inhale?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 3 REFUSE TO ANSWER ..... 8		KA	S	S	S	C	S



N/A	Variable ID: HK	HIV Knowledge and Perceptions	Response Options	Skips	Comments	Core / Secondary*				
						S	M	T	P	O
8.	HKMORSK	If a condom is not used, what kind of sex puts you at the most risk for HIV?	ORAL SEX ..... 1 VAGINAL SEX ..... 2 ANAL SEX ..... 3 MUTUAL MASTURBATION .... 4 DON'T KNOW ..... 5 REFUSE TO ANSWER ..... 8		KA	C	C	C	C	C
9.	HKANTYP	If a condom is not used, what kind of anal sex puts you at most risk for HIV?	ACTIVE (TOP) ANAL SEX ..... 1 PASSIVE (BOTTOM) ANAL SEX ..... 2 BOTH HAVE SAME RISK ..... 3 BOTH HAVE NO RISK ..... 4 DON'T KNOW ..... 5 REFUSE TO ANSWER ..... 8	SKIP IF FE-MALE.  SKIP IF LIMMANAL='2', '7', OR '8'	KA	S	C	C	S	S
10.	HKBEHA	Do you agree with this statement: "I am not as careful about HIV and sex now because there is better treatment for HIV"	AGREE ..... 1 DON'T AGREE ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		KA	S	S	S	S	S

\*S =Sex Worker, M=MSM, T=Transgender, P=PWID, O=Other Vulnerable Population, C=Core, S=Secondary

#### References:

UNAIDS. Global AIDS Response progress reporting 2014: Construction of Core Indicators for monitoring the 2011 United Nations Political Declaration on HIV and AIDS. [http://www.unaids.org/en/media/unaids/contentassets/documents/document/2014/GARPR\\_2014\\_guidelines\\_en.pdf](http://www.unaids.org/en/media/unaids/contentassets/documents/document/2014/GARPR_2014_guidelines_en.pdf)

## 39. QUESTIONNAIRE FEEDBACK/INTERVIEW STATUS

Unlike the other modules, most of these questions in this module are not asked of participants: they are administrative variables that are required to understand the context for the participant's information. It can be useful to have this information on every data collection instrument, such as an eligibility screener or follow-up interviews.

The amount of time a respondent takes to finish the questionnaire can be important. For example, if it takes a very small amount of time to complete the survey, it can indicate that they are 'clicking through' all the questions in A-CASI.

By the end of a face-to-face interview, it can be clear to an interviewer that the respondent is not part of the target population or that there is some other problem encountered. If a respondent fakes his way into the study in the eligibility screen, but does not admit to the behavior in the survey, an analyst would consider excluding this record from analysis.

N/A	Variable ID: IN	Questionnaire Feedback, Interview Status	Response Options	CORE (C) or SECONDARY (S)	DATA GENERATOR
N/A	IN1MSG				
1.	INFEED	<i>Respondent feedback:</i> Do you have any feedback or comments about the interview?)	<TEXT 256 CHAR>	S	Interviewer: paraphrase feedback
2.	INEDATE	End Date	<DATE>	C	A/CASI
3.	INETIME	End Time	<TIME>	C	A/CASI
4.	INTIME	Number of minutes in survey (QPetime-QPStime		C	A/CASI

N/A	Variable ID: IN	Questionnaire Feedback, Interview Status	Response Options	CORE (C) or SECONDARY (S)	DATA GENERATOR
5.	INVALID	Interviewer confidence in validity of answers	CONFIDENT ..... 1 SOME DOUBTS ..... 2 NOT CONFIDENT AT ALL ..... 3	S	Interviewer
6.	INICOMM	Interviewer comments	<TEXT>	S	Interviewer
7.	INCOMP	Did respondent complete survey?	YES ..... 1 NO ..... 2	S	A/CASI or interviewer
8.	INELV	Eligibility verification (still admits to behavior in eligibility criteria during survey)	YES ..... 1 NO ..... 2	S	A/CASI

## 40. RDS, PEER RECRUITMENT

In most surveys the non-response rate can easily be determined because the investigator directly recruits the participants. However, in respondent-driven sampling (RDS), measuring non-response is difficult because investigators depend on participants to refer prospective survey respondents. The investigators will have little knowledge of those who had been offered a coupon but rejected participation and whether these people differ from those who accepted a coupon but did not present at the survey office and those who accepted a coupon and did present at the survey office. In most surveys using RDS, participants are asked to return for a second visit to collect secondary incentives for successful peer recruitment and/or to receive results from biological testing.

Investigators can take advantage of this second visit to administer a brief questionnaire to determine patterns in coupon distribution, acceptance, and refusal.

Although this module is not essential, it is highly recommended for evaluating recruitment and to estimate non-response for an RDS survey. The questions from this module should be selected according to the needs of the survey. This module should be administered face-to-face.

N/A	Variable ID: PE	RDS, Peer Recruitment	Response Options	Skips	Comments	Core or Secondary*
N/A	PE1MSG	<i>We will ask you now about your efforts to recruit people you know for this survey. We will start with how many people you thought about giving a coupon to, how many you actually offered one to, and how many accepted a coupon.</i>				
1.	PECONS	To how many people did you consider giving a coupon?	# PEOPLE [     ] DON'T KNOW 997 REFUSE TO ANSWER 998 MIN: 1 MAX:998	'0' →SKIP TO PEREAS; '997', '998' → SKIP TO END OF CURRENT SECTION		S

N/A	Variable ID: PE	RDS, Peer Recruitment	Response Options	Skips	Comments	Core or Secondary*
2.	PEOFFER	Of these [insert number from PECONS] people, how many did you offer a coupon?	# PEOPLE [     ] DON'T KNOW 997 REFUSE TO ANSWER 998 MIN: 1 MAX:998	IF > 0 →SKIP TO PEREFUSE;  '97', '98' SKIP TO END OF CURRENT SECTION		S
3.	PEREAS	If you did not give or offer any coupons to people you know, what was the primary reason?	HAD NO TIME ..... 1 LOST INTEREST ..... 2 LOST COUPONS ..... 3 FELT EMBARRASSED ..... 4 NOBODY WANTED THE COUPON ..... 5 OTHER ..... 6 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8	SKIP TO END OF CURRENT SECTION		S
4.	PEREFUS	Of these [insert number from PEOFFER] people, how many Refused the coupons you offered?	NUMBER [    ] MAX: NUMBER FROM[PEOFFER] DON'T KNOW 997 REFUSE TO ANSWER 998			S

N/A	Variable ID: PE	RDS, Peer Recruitment	Response Options	Skips	Comments	Core or Secondary*
5.	PEACCEP	Of these [insert number from PEOFFER] people, how many accepted the coupons you offered?	NUMBER [     ] MIN: 1 MAX: NUMBER FROM PEOFFER DON'T KNOW 997 REFUSE TO ANSWER 998			S
At N/A	PE2MSG	<i>Interviewer add the responses from PEREFUS and PEACCEP.</i>		IF PEREFUS + PEACCEP = PEOFFER → SKIP TO PED1  IF PEREFUS OR PEACCEP = '97' OR '98' → SKIP TO END OF CURRENT SECTION	IF PEREFUS AND PEACCEP DO NOT ADD UP TO PEOFFER, ASK PEREFUSN AND PEACCEPN UNTIL THESE VALUES ADD UP TO PEOFFER.	S
6.	PEREFUSN	The numbers you entered do not add up to the total refused. Among those you offered coupons, how many refused the coupons you offered?	NUMBER [     ] MAX: NUMBER FROM PEOFFER	ONLY ASK IF PEREFUS AND PEACCEP DO NOT ADD UP TO PEOFFER.		S
7.	PEACCEPN	The numbers you entered do not add up to the total accepted. Among those you offered coupons, how many people accepted?	NUMBER [     ] MAX: NUMBER FROM PEOFFER	ONLY ASK IF PEREFUS AND PEACCEP DO NOT ADD UP TO PEOFFER.		S

N/A	Variable ID: PE	RDS, Peer Recruitment	Response Options	Skips	Comments	Core or Secondary*
8.	PED1	How many days did it take to give out the first coupon? <i>If you gave it out on the same day you received it, put '0' (zero).</i>	NUMBER [   ]  MIN: 0  MAX: 30  DON'T KNOW 97  REFUSE TO ANSWER 98	ONLY ASK IF PEREFUS + PEACCEP = PEOFFER.		S
N/A	PE3MSG	<i>We will now ask you questions about people you offered a coupon but who refused to accept one. Please think of the first person who <b>refused</b> a coupon.</i>		IF PEREFUS = '0','9997' OR '9998' → SKIP TO END OF CURRENT SECTION	Ask the set of questions, PERELA1 until PEREAS1, for each person who has refused to accept a coupon from PEREFUS. Change the variable names to identify each person. For example, the variables for the second person who refused would be PERELA2, PEKNOW2, etc.	S

N/A	Variable ID: PE	RDS, Peer Recruitment	Response Options	Skips	Comments	Core or Secondary*
9.	PERELA1	What is your relationship to this person?	STRANGER, SOMEONE YOU DON'T KNOW ..... 1  SOMEONE YOU KNOW, BUT NOT CLOSELY ..... 2  CLOSE FRIEND, SOMEONE YOU KNOW WELL ..... 3  A SEXUAL PARTNER (CURRENT OR FORMER) .... 4  FAMILY MEMBER OF OTHER RELATIVE ..... 5  OTHER ..... 6  DON'T KNOW ..... 7  REFUSE TO ANSWER ..... 8	'1' → SKIP TO PEAGE1		S
10.	PEKNOW1	Have you known this person for some weeks, months, or for years?	WEEKS ..... 1  MONTHS ..... 2  YEARS ..... 3  DON'T KNOW ..... 7  REFUSE TO ANSWER ..... 8			S
11.	PESEEN1	In the last 30 days, how many times have you seen this person?	NUMBER [   ]  MIN: 0  MAX: 30  DON'T KNOW 97  REFUSE TO ANSWER 98			S

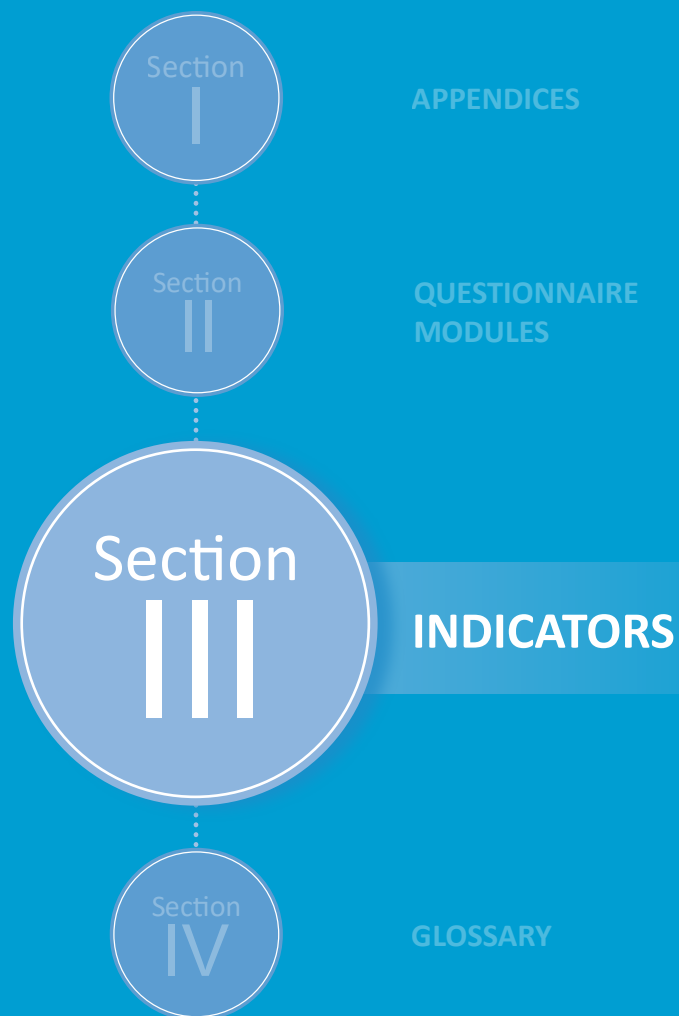


N/A	Variable ID: PE	RDS, Peer Recruitment	Response Options	Skips	Comments	Core or Secondary*
12.	PESEX1	What is the sex of this person?	FEMALE ..... 1 MALE ..... 2 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8		Only for populations that have more than one sex.	S
13.	PEAGE1	Approximately what age is this person?	18-24 ..... 1 25-34 ..... 2 35-44 ..... 3 45 OR OLDER ..... 4 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8			S
14.	PEEDUC1	Can you estimate this person's highest level of education?	NO EDUCATION ..... 1 PRIMARY ..... 2 SECONDARY ..... 3 COLLEGE/TECHNICAL ..... 4 UNIVERSITY/ POSTGRADUATE ..... 5 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8			S

N/A	Variable ID: PE	RDS, Peer Recruitment	Response Options	Skips	Comments	Core or Secondary*
15.	PEREAS1	What was the main reason given for refusing to accept a coupon?	HAD NO TIME/TOO BUSY .... 1 INCENTIVE TOO SMALL/ NOT INTERESTED ..... 2 ALREADY HAS A COUPON/ PARTICIPATED ..... 3 FEAR OF BEING IDENTIFIED ..... 4 FEAR HIV RESULTS ..... 5 OTHER ..... 6 DON'T KNOW ..... 7 REFUSE TO ANSWER ..... 8			S

# Supplemental Materials

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# Section III- Indicators

<b>Introduction</b>	<b>454</b>
What are indicators?	454
How are data collected for indicators?	455
How are indicators used?	456
Indicator selection for these guidelines	457
<b>Indicators</b>	<b>460</b>
Sexual debut	460
Condom use at last sex	461
Consistent condom use	463
Buying sex	464
Selling sex	465
Unprotected receptive anal intercourse	466
Alcohol use	467
Injecting drug use	470
Received clean needles or syringes	471
Sharing injecting equipment	472
Sharing drug-preparation equipment	473
Use of sterile injecting equipment	474
Received medication for drug dependency	475
Drug overdose	476
Drug overdose prevention training	477
Targeted information, education and communications	478
Received condoms	479
Never tested for HIV	480
HIV test in last 12 months	481
Received tuberculosis treatment	483
Currently in care	484
CD4 count	485
Currently on antiretroviral therapy	486
Prevention of mother-to-child transmission	487
Hepatitis B virus testing	488
Hepatitis C virus testing	489
Discussed pre-exposure prophylaxis	490
Taken pre-exposure prophylaxis	491
Current use of modern family planning methods	492
Antenatal clinic access and HIV testing	493
Seeking care for sexually transmitted infection symptoms	494
Sexually transmitted infection screening	495
Received sexually transmitted infection treatment	496
Received lubricants	497
HIV knowledge and perceptions	498
Incarceration	499
Health-care stigma	500
Discrimination and social exclusion	501
Violence	502
Condom use at last sex (sex workers only)	504

## **INTRODUCTION OF BIOMARKER INDICATORS**

Awareness of HIV-positive status	505
Eligible but not on HIV treatment	506
HIV treatment coverage	507
Viral load suppression	508
Unsuppressed viral load	509
Population viral load	510
HIV/sexually transmitted infection coinfection	511
HIV/hepatitis coinfection	512
HIV prevalence	513
Sexually transmitted infection prevalence	514

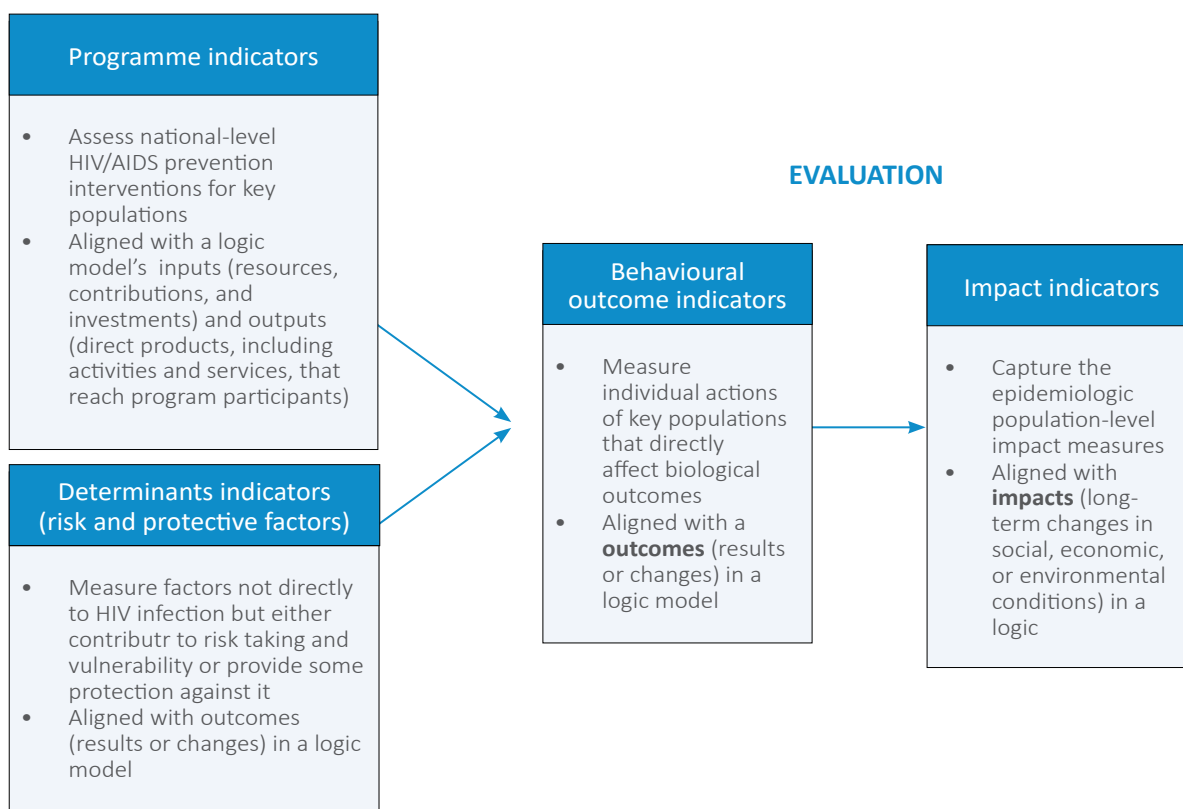
### What are indicators?

Indicators are standardized measures that can be used to report on the burden of disease, health status or behavioural traits in a given population and describe or measure programme activities. Indicators can be used by ministries of health, donors, policy-makers, programme managers and service delivery organizations to quantify progress made towards a specific end-point. Many indicators are defined by normative bodies, such as governments, or international organizations, such as WHO, the Joint United Nations Programme on HIV/AIDS (UNAIDS), the United States President's Emergency Plan for AIDS Relief (PEPFAR) or the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund). The aim is to inform strategic planning efforts and assess whether agreed-upon public health goals are being met. United Nations (UN) organizations (e.g. WHO and UNAIDS) have established an Indicator Working Group jointly with countries and partners to validate indicators in a country's context. Standardized indicators facilitate comparison across populations and programmes, and can help donors, policy-makers and programme planners to determine whether activities are on course and to evaluate programme effectiveness.

Figure. III.1 provides an overview of the different categories of indicators and their role in monitoring and evaluating HIV prevention services for key populations.<sup>1</sup>

Figure. III.1. Framework for monitoring and evaluating interventions for key populations

#### MONITORING



<sup>1</sup> Adapted from WHO. Guide to monitoring and evaluating national HIV/AIDS prevention programmes for young people: addendum to the UNAIDS "National AIDS programmes: a guide to monitoring and evaluation". Geneva: World Health Organization (WHO); 2004 ([http://www.who.int/hiv/pub/me/en/me\\_prev\\_intro.pdf](http://www.who.int/hiv/pub/me/en/me_prev_intro.pdf), accessed 8 September 2016).

## How are data collected for indicators?

To report indicators, it is necessary to collect the required data elements (referred to below as “indicator components”) and compute the measurement according to the indicator’s definition. Multiple methods can be used to collect data to inform indicators, including biobehavioural surveys (BBS); health facility surveys; sentinel surveillance; and extraction of information from programme or facility records, and from logistics management information systems.

Survey data are used to calculate the percentage of participants to which a certain characteristic applies. Table III.1 describes how to generate an indicator that assesses the percentage of men who have sex with men (MSM) reporting unprotected receptive anal intercourse (URAI) in the last 6 months. First, we would need to know the number of MSM who had anal sex in the last 6 months (denominator) and, of those, the number who had receptive anal sex and did not use a condom (numerator). The indicator is calculated by dividing the numerator by the denominator, which in this case yields 40% ( $400/1000 \times 100$ ). By default, every person in the numerator is also included in the denominator. Where sampling weights are available, weighted indicators are preferable because they facilitate population estimates, whereas indicators using unweighted data provide sample estimates (see Chapter C-1 for more information on creating sampling weights).

**Table III.1: Sample indicator calculation**

Indicator: Percentage of MSM who engaged in URAI in the last 6 months = 40%	
Indicator components	Related questions from questionnaire module 3
<p><b>Numerator:</b> Number of MSM who engaged in URAI in the last 6 months = <b>400</b></p>	<p>Ask the 1000 who had anal sex with males in the last 6 months: In the last 6 months, did you have receptive or insertive anal sex?</p> <p><b>INTERVIEW RESULTS:</b></p> <p><b>Receptive: 260</b> Insertive: 225</p> <p><b>Both: 390</b> Don’t know: 100 Refuse to answer: 25</p>
	<p>Ask the 650 who had receptive sex in the last 6 months: Did you use a condom at any time you had anal receptive sex in the last 6 months?</p> <p><b>Interview results:</b> Yes: 200 <b>No: 400</b> Don’t know: 20 Refuse to answer: 30</p>
<p><b>Denominator:</b> Number of MSM who had anal sex in the last 6 months = <b>1000</b></p>	<p>In the last 6 months, did you have anal sex with any males?</p> <p><b>Interview results:</b> <b>Yes: 1000</b> No: 1500 Don’t know: 500 Refuse to answer: 100</p>

Table III.2 describes how to generate an indicator that assesses the percentage of MSM reporting condom use at last sex within the last 6 months. First, we would need to know the number of MSM who had sex within the last 6 months (denominator) and, of those, the number who used a condom at last sex (numerator). The indicator is calculated by dividing the numerator by the denominator, which in this case yields 60% (600/1000 x 100). By default, every person in the numerator is also included in the denominator. As noted above, where sampling weights are available, weighted indicators are preferable.

**Table III.2: Sample indicator calculation**

Indicator: Percentage of MSM respondents who used a condom at last anal sex = 60%	
Indicator components	Related questions from questionnaire module 3
<p><b>Numerator:</b> Number of MSM who used a condom at last sex = <b>600</b></p>	<p>Ask of the 1000 who had anal sex with males in the last 6 months: Did you use a condom the last time you had sex?</p> <p><b>Interview results:</b>  <b>Yes: 600</b>            No: 300</p> <p>Don't know: 55            Refuse to answer: 45</p>
<p><b>Denominator:</b> Number of MSM who had anal sex in the last 6 months = <b>1000</b></p>	<p>In the last 6 months, did you have anal sex with any males?</p> <p><b>Interview results:</b>  <b>Yes: 1000</b>            No: 1500</p> <p>Don't know: 500            Refuse to answer: 100</p>

## How are indicators used?

Indicators serve several purposes, including reporting, monitoring, advocacy and programme evaluation, as discussed below.

### Reporting

International donors and initiatives, such as UNAIDS, the Global Fund and PEPFAR, require reporting on a core set of indicators. The aim is to promote accountability; provide standardized data for comparison across sites, districts, province, states and countries; and allow for aggregation at the global level.

### Monitoring

Stakeholders use indicators to monitor a programme's or country's progress towards agreed-upon goals. When indicators suggest that a situation is not improving, is improving but not at the rate expected, or is worsening, this information can influence decision-making to modify programmes or responses, or develop new ones. Data from indicators can also help to guide resource allocation. Once several data points have been collected, this information can determine whether trends are moving in a desirable direction.

Collecting and reviewing indicator data can increase a country's understanding of the behaviours and circumstances associated with HIV transmission among key populations, and thus can improve the design of appropriate prevention responses. Indicators can be used to estimate the prevalence of risk factors in the population or subpopulation of interest, and to determine where to focus efforts to address the population's needs. For example, a large percentage of people who inject drugs (PWID) who report sharing injecting equipment the last time they injected drugs may signal



a broad lack of knowledge about transmission of bloodborne infections or lack of access to reliable sources of sterile syringes. This information can be used to justify expanding access to community-based outreach programmes and high-coverage needle and syringe programmes to reduce the reuse of contaminated injecting equipment.

### **Advocacy**

Indicator data can also be used to raise public awareness about an issue. Likewise, changes to the legal or policy environment may be inspired by survey results that indicate a high level of stigma and discrimination experienced by key populations. Such findings can push issues to the forefront of a country's agenda and inform advocacy efforts, resource allocation and policy development.

### **Programme evaluation**

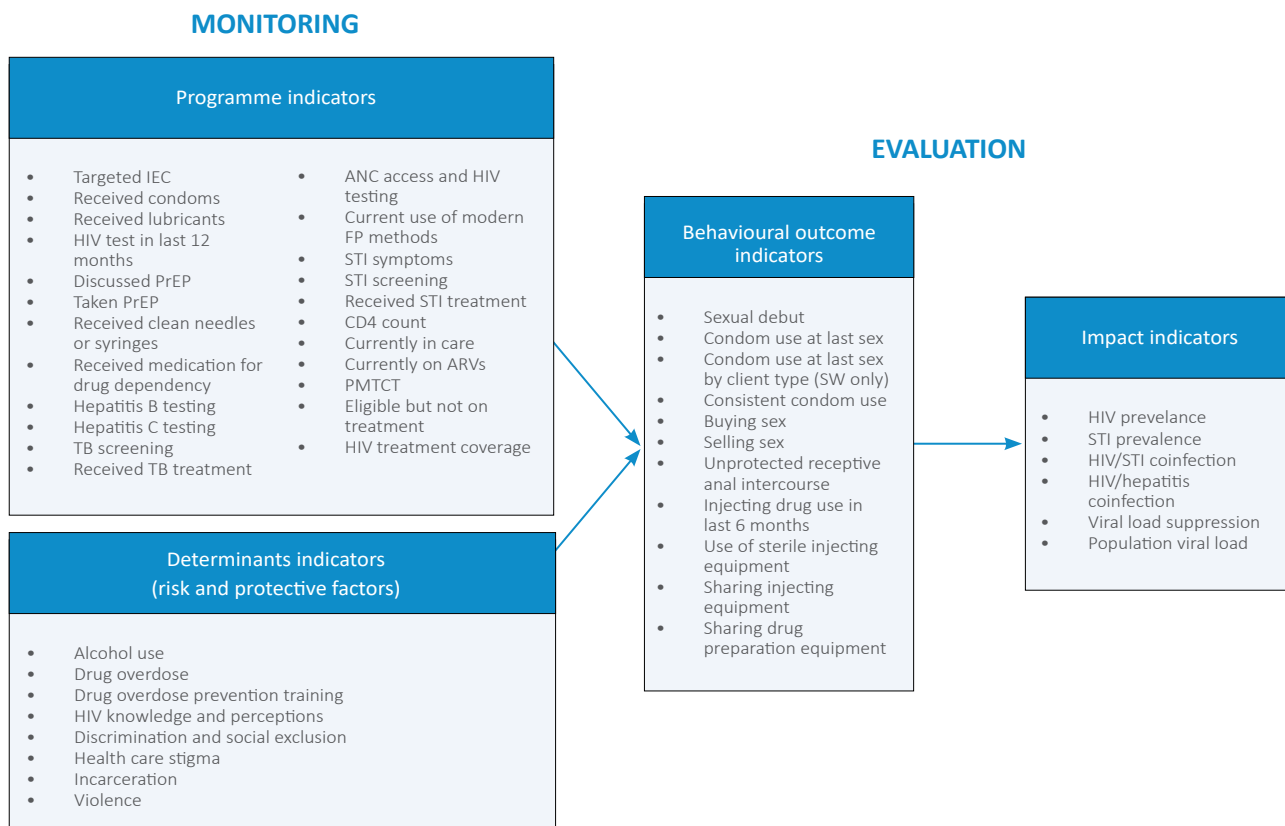
Finally, the results of behavioural risk analyses can be used to evaluate the effects of control efforts, identifying successes or areas of weakness. A BBS among street-based sex workers (SW) that reveals an increase in unprotected sexual activity with regular clients after several years of condom promotion, for example, would alert HIV service providers to an increase in risk behaviour and possible weaknesses in the current condom promotion programme that might need to be addressed for the programme to be as effective as it was previously. Similarly, if a BBS indicates that less than half of HIV-infected MSM were aware of their seropositive status, service providers and policy-makers might try to increase access to HIV testing for MSM.

## **Indicator selection for these guidelines**

Most of the indicators defined in these guidelines are generated from self-reported data from the questionnaire modules; a subset of the indicators use biomarkers as the unit of measurement. All have the potential to influence service delivery or policy. The process for selecting indicators for these guidelines involved reviewing indicators specific to key populations that are required for reporting by global entities, and ensuring that the modules' core questions would provide the necessary data.

These guidelines propose additional indicators that are useful for monitoring the HIV epidemic and response among key populations. The indicators described here focus on several areas of measurement that can be monitored over time or compared across locations and populations, including access to a comprehensive package of HIV prevention services, access to care and treatment services for HIV and other relevant infections, experiences of stigma and abuse, behavioural risk characteristics and disease prevalence. Figure. III.2 depicts the relationships between these indicators and their utility in assessing progress towards reducing vulnerability, risk for HIV transmission and disease burden among key populations. If countries identify additional indicators they need, they may elect to add to the set of indicators included in these guidelines.

Figure. III.2. Indicators for monitoring and evaluating interventions for key populations



ANC, antenatal clinic; ARV, antiretroviral; FP, family planning; IEC, information, education and communication; PMTCT, prevention of mother-to-child transmission; PrEP, pre-exposure prophylaxis; STI, sexually transmitted infection

The reference sheets in this section provide information for each indicator, including the numerator, denominator, rationale, data use and any similar PEPFAR, UNAIDS or Global Fund indicators. Each reference sheet includes the corresponding survey questions from which the indicator originates, to ensure that the information is collected in a standardized manner.

Table III.3 provides a summary template of the indicator reference sheets. Note that the reference sheets for biomarker indicators are structured in a slightly different manner, with a briefer description and a focus on inclusion or exclusion criteria for the numerator and denominator.

**Table III.3: Indicator reference sheet template**

Indicator title: States the percentage of the characteristic (e.g. access, experience, knowledge, behaviour or health status) being measured	
Numerator	Describes the subset of individuals included in the calculation (represents the number of individuals possessing the characteristic of interest).
Denominator	Describes the sample of the target population being measured (represents the number of individuals for whom a characteristic could potentially apply).
Applicable KP	States the key populations for which the indicator applies (e.g. SW, MSM, TG, PWID, OVP).
Recommended disaggregation	States the relevant subgroups that collected data can be separated into in order to more precisely understand and analyse the findings. Common subgroups include sex and age.
Purpose/ rationale	Provides an indicator justification using the following outline: <ul style="list-style-type: none"> <li>• A statement about what is being measured</li> <li>• Contextual statements about the characteristic being measured and its importance</li> <li>• Potential reasons for an undesirably high or low percentage or problematic trend</li> <li>• Potential programmatic responses to address any “negative” findings.</li> </ul>
Corresponding questionnaire item(s)	<ul style="list-style-type: none"> <li>• States the questionnaire module(s) from which the indicator calculation is derived, and the related question(s) and response categories that feed into the numerator, denominator and disaggregations.</li> </ul>
Related existing indicators	Lists any indicators used by UNAIDS, the Global Fund and PEPFAR that measure similar characteristics.

*Global Fund, Global Fund to Fight AIDS, Tuberculosis and Malaria; OVP, other vulnerable populations; PEPFAR, United States President’s Emergency Plan for AIDS Relief*

Not all indicators will be relevant or useful to every country. Indicator selection will depend on various factors, including characteristics of the local epidemic and the resources available for data collection. Furthermore, appropriate adjustments and modifications may be needed to adapt some indicators to different contexts (e.g. aligning recall periods to fit reporting needs). Additionally, indicators applicable to SW are focused on female SW; there may be additional considerations for countries conducting BBS among sex workers who are male or transgender persons (TG). When collected at regular intervals (WHO recommends conducting BBS with key populations every 3–4 years), these recommended indicators will generate valuable trend information that can be used with other data, such as programme data, for prevention resource allocation, strategic planning, policy development and evaluation (see Chapter C-1 for more information on trend analysis).

## Sexual debut

Percentage aged 15–24 years who had sexual intercourse before the age of 15 years	
Numerator	Number of participants who had anal or vaginal intercourse before the age of 15 years
Denominator	Number of participants aged 15–24 years who have had anal or vaginal intercourse
Applicable KP	SW, MSM, TG, PWID, OVP
Recommended disaggregation	<ul style="list-style-type: none"> <li>Sex for SW, PWID, OVP (male, female)</li> <li>Age (15–19 years, 20–24 years)</li> </ul>
Purpose/ rationale	This indicator measures the percentage of participants aged 15–24 years who initiated sexual activity before the age of 15 years. The longer someone waits to have sex, the longer that person avoids the risk of sexual acquisition of HIV. According to the GARPR, “there is also evidence to suggest that first having sex at a later age reduces susceptibility to infection per act of sex, at least for women”. <sup>a</sup> An increasing trend of early age at sexual debut may point to an increase in risky behaviour among young people. In such cases, countries may consider HIV prevention services that target younger audiences.
Corresponding questionnaire item(s)	<p>This indicator is constructed from responses to the following questions from <b>Module 14: Sexual history</b>.</p> <p><b>For males aged 15–24 years, including MSM</b></p> <p><b>Numerator:</b></p> <ul style="list-style-type: none"> <li>LIMF1AGE ≤15 [How old were you when you first had vaginal or anal sex with a female partner?]</li> </ul> <p><b>OR</b></p> <ul style="list-style-type: none"> <li>LIMM1AGE ≤15 [How old were you when you first had anal sex with a male partner?]</li> </ul> <p><b>Denominator:</b></p> <ul style="list-style-type: none"> <li>LIMFVAG = 1 (yes) [Have you ever had vaginal sex?]</li> </ul> <p><b>OR</b></p> <ul style="list-style-type: none"> <li>LIMFANAL = 1 (yes) [Have you ever had anal sex with a woman?]</li> </ul> <p><b>OR</b></p> <ul style="list-style-type: none"> <li>LIMMANAL = 1 (yes) [Have you ever had anal sex with a man?]</li> </ul> <p>For females aged 15–24 years</p> <p><b>Numerator:</b></p> <ul style="list-style-type: none"> <li>LIFM1AGE ≤15 [How old were you when you first had vaginal or anal sex with a male partner?]</li> </ul> <p><b>Denominator:</b></p> <p>LIFMVAG = 1 (yes) [Have you ever had vaginal sex?]</p> <p><b>OR</b></p> <p>LIFMANAL = 1 (yes) [Have you ever had anal sex?]</p>
Related existing indicators	<ul style="list-style-type: none"> <li><b>GARPR 1.2:</b> Percentage of young women and men aged 15–24 who have had sexual intercourse before the age of 15</li> </ul>

GARPR, Global AIDS Response Progress Reporting

<sup>a</sup> UNAIDS/UNICEF/WHO. Global AIDS response progress reporting 2014: construction of core indicators for monitoring the 2011 United Nations political declaration on HIV and AIDS. Geneva: Joint United Nations Programme on HIV/AIDS (UNAIDS)/United Nations Children’s Fund (UNICEF)/World Health Organization (WHO); 2014 ([http://files.unaids.org/en/media/unaids/contentassets/documents/document/2014/GARPR\\_2014\\_guidelines\\_en.pdf](http://files.unaids.org/en/media/unaids/contentassets/documents/document/2014/GARPR_2014_guidelines_en.pdf), accessed 2 September 2016).

## Condom use at last sex

Percentage reporting the use of a condom at last sex	
Numerator	Number of participants who used a condom at last sex
Denominator	Number of participants who had anal or vaginal sex in the last 6 months
Applicable KP	SW, MSM, TG, PWID, OVP
Recommended disaggregation	<ul style="list-style-type: none"> <li>• Sex for SW, PWID, OVP (male, female)</li> <li>• Sex of partner (male, female)</li> <li>• Partner type (main, exchange, casual)</li> <li>• Age (&lt;25 years, 25+ years)</li> </ul>
Purpose/ rationale	<p>This indicator measures the extent to which condoms are being used by the target population. Condoms can substantially reduce the risk of sexually transmitting HIV. They are most effective when their use is correct and consistent. The prevalence of condom use during the most recent sexual act will generally reflect the prevalence of consistent condom use.<sup>a</sup> A low percentage or decreasing trend in condom use at last sex may indicate a lack of knowledge about the modes of HIV transmission, low perceptions of personal risk, lack of access to condoms, low self-efficacy for condom use and negotiation, low perceptions of condom efficacy, or perceived diminished sexual sensation.<sup>b</sup> Peer-led and community-led outreach approaches may help to increase knowledge, develop skills, and empower KP to use condoms and lubricants consistently.<sup>c</sup></p>
Corresponding questionnaire item(s) (if applicable)	<p>This indicator is constructed from responses to the following questions from <b>Module 15: Recall sexual behaviour</b>.</p> <p><b>Numerator (with disaggregation):</b></p> <p><b>Sex of partner = Male</b></p> <p><i>Partner type = Main</i></p> <ul style="list-style-type: none"> <li>• RCMAMNRC = 1 (yes) [The last time you had sex with your main male partner, did you use a condom?]</li> </ul> <p><i>Partner type = Exchange (Sex work: gave money for sex)</i></p> <ul style="list-style-type: none"> <li>• RCMASWAC = 1 (yes) [The last time you had sex with a man you gave money for sex, did you use a condom?]</li> </ul> <p><i>Partner type = Exchange (Sex work: received money for sex)</i></p> <ul style="list-style-type: none"> <li>• RCMACLAC = 1 (yes) [The last time you had sex with a man who gave you money, did you use a condom?]</li> </ul> <p><i>Partner type = Exchange (Transactional sex: gave nonmonetary items for sex)</i></p> <ul style="list-style-type: none"> <li>• RCMATSAC = 1 (yes) [The last time you had sex with a man you gave gifts, goods or services for sex, did you use a condom?]</li> </ul> <p><i>Partner type = Exchange (Transactional sex: received nonmonetary items for sex)</i></p> <ul style="list-style-type: none"> <li>• RCMACTAC = 1 (yes) [The last time you had sex with a man who gave you gifts, goods or services, did you use a condom?]</li> </ul> <p><i>Partner type = Casual</i></p> <ul style="list-style-type: none"> <li>• RCMACSAC = 1 (yes) [The last time you had sex with a casual male partner, did you use a condom?]</li> </ul>

	<p><b>Sex of partner = Female</b></p> <p><i>Partner type = Main</i></p> <ul style="list-style-type: none"> <li>• RCFEMNAC = 1 (yes) [The last time you had sex with a female main partner, did you use a condom?]</li> </ul> <p><i>Partner type = Exchange (Sex work: gave money for sex)</i></p> <ul style="list-style-type: none"> <li>• RCFESWAC = 1 (yes) [The last time you had sex with a female you gave money for sex, did you use a condom?]</li> </ul> <p><i>Partner type = Exchange (Sex work: received money for sex)</i></p> <ul style="list-style-type: none"> <li>• RCFECLAC = 1 (yes) [The last time you had sex with a female who gave you money for sex, did you use a condom?]</li> </ul> <p><i>Partner type = Exchange (Transactional sex: gave nonmonetary items for sex)</i></p> <ul style="list-style-type: none"> <li>• RCFETSAC = 1 (yes) [The last time you had sex with a female you gave gifts, goods and services for sex, did you use a condom?]</li> </ul> <p><i>Partner type = Exchange (Transactional sex: received nonmonetary items for sex)</i></p> <ul style="list-style-type: none"> <li>• RCFETSAC = 1 (yes) [The last time you had sex with a female who gave you gifts, goods or services for sex, did you use a condom?]</li> </ul> <p><i>Partner type = Casual</i></p> <ul style="list-style-type: none"> <li>• RCFECSAC = 1 (yes) [The last time you had sex with a casual female partner, did you use a condom?]</li> </ul> <p><b>Denominator:</b></p> <ul style="list-style-type: none"> <li>• RCMAPA = 1 (yes) [In the last 6 months, did you have sex with any males?] <b>OR</b></li> <li>• RCFEPA = 1 (yes) [In the last 6 months, did you have sex with any females?]</li> </ul>
<p>Related existing indicators</p>	<ul style="list-style-type: none"> <li>• <b>GARPR 1.8:</b> Percentage of sex workers reporting the use of a condom with their most recent client</li> <li>• <b>GARPR 1.12:</b> Percentage of men reporting the use of a condom the last time they had anal sex with a male partner</li> <li>• <b>GARPR 2.2:</b> Percentage of people who inject drugs reporting the use of a condom the last time they had sexual intercourse</li> <li>• <b>GF HIV O-5:</b> Percentage of sex workers reporting the use of a condom with their most recent client</li> <li>• <b>GF HIV O-4a:</b> Percentage of men reporting the use of a condom the last time they had anal sex with a male partner</li> <li>• <b>GF HIV O-4b:</b> Percentage of transgender people who sell sex reporting the use of a condom with their most recent client</li> <li>• <b>GF HIV O-7:</b> Percentage of other vulnerable populations who report the use of a condom at last sexual intercourse</li> </ul>

*OVP, other vulnerable populations*

<sup>a</sup> UNAIDS/UNICEF/WHO. Global AIDS response progress reporting 2014: construction of core indicators for monitoring the 2011 United Nations political declaration on HIV and AIDS. Geneva: Joint United Nations Programme on HIV/AIDS (UNAIDS)/United Nations Children's Fund (UNICEF)/World Health Organization (WHO); 2014 ([http://files.unaids.org/en/media/unaids/contentassets/documents/document/2014/GARPR\\_2014\\_guidelines\\_en.pdf](http://files.unaids.org/en/media/unaids/contentassets/documents/document/2014/GARPR_2014_guidelines_en.pdf), accessed 2 September 2016).

<sup>b</sup> Sarkar NN. Barriers to condom use. *Eur J Contracep Repr.* 2008;13(2):114–122.

<sup>c</sup> WHO. Consolidated guidelines on HIV prevention, diagnosis, treatment, and care for key populations. Geneva: World Health Organization (WHO); 2014 (<http://www.who.int/hiv/pub/guidelines/keypopulations/en/>, accessed 8 September 2016).

## Consistent condom use

Percentage reporting consistent condom use in the last 6 months	
Numerator	Number of participants who always used condoms with any partner or a particular partner type in the last 6 months
Denominator	Total number of participants who had sex in the last 6 months
Applicable KP	SW, MSM, TG, PWID, OVP
Recommended disaggregation	<ul style="list-style-type: none"> <li>Sex for PWID (male, female)</li> <li>Sex of partner for PWID and OVP (male, female)</li> <li>Partner type (main, casual, client, SW)</li> </ul>
Purpose/ rationale	This indicator measures the percentage of participants who always used condoms with any partner over the last 6 months. Condom use is an important measure of protection against HIV and other STIs, especially among individuals with multiple sexual partners. The maximum protective effect of condoms is attained when they are used consistently instead of intermittently. Consistent and correct condom use reduces sexual transmission of HIV and other STIs in both vaginal and anal sex by up to 94% <sup>1</sup> . A low percentage or decreasing trend in consistent condom use may indicate lack of resources to purchase condoms, lack of knowledge of the protective benefits of condom use, fear of stigma or discrimination for carrying or purchasing condoms, or clients' unwillingness or coercion. WHO guidelines recommend that condoms should be available to KP through multiple outlets free of charge. <sup>a</sup> Programmes should offer information and skills-building in negotiating condom use and behavioural interventions that encourage consistent condom use. <sup>a</sup>
Corresponding questionnaire item(s)	<p>This indicator is constructed from responses to the following questions from <b>Module 15: Recall sexual behaviour</b>. Note: By including additional secondary questions, it may be possible to disaggregate further for some target populations (e.g. female partners for MSM).</p> <p><b>Sample numerator (and disaggregation):</b></p> <ul style="list-style-type: none"> <li>RCMAMNFQ = 1 (In the last 6 months, how often did you use condoms with your main male partners?) (Partner type = main male sex partners)</li> <li>RCMACLFQ = 1 (In the last 6 months, how often did you use condoms with men who gave you money for sex?) (Partner type = male clients)</li> <li>RCMACSFQ = 1 (In the last 6 months, how often did you use condoms with casual male partners?) (Partner type = casual male sex partners)</li> </ul> <p>Note: To construct this indicator for any partner (i.e. across all partner types), the numerator consists of the number of respondents who report always using condoms for all partner types they have sex with.</p> <p><b>Sample denominator:</b></p> <ul style="list-style-type: none"> <li>RCMAMNFQ = 1, 2, 3, 4 or 5 (always, most, sometimes, rarely, never)</li> <li>RCMACLFQ = 1, 2, 3, 4 or 5 (always, most, sometimes, rarely, never)</li> <li>RCMACSFQ = 1, 2, 3, 4 or 5 (always, most, sometimes, rarely, never)</li> </ul>
Related existing indicators	Not applicable

OVP, other vulnerable populations

<sup>a</sup> WHO. Consolidated guidelines on HIV prevention, diagnosis, treatment, and care for key populations. Geneva: World Health Organization (WHO); 2014 (<http://www.who.int/hiv/pub/guidelines/keypopulations/en/>, accessed 8 September 2016)

## Buying sex

Percentage who paid money in exchange for sex in the last 6 months	
Numerator	Number of participants who paid money in exchange for sex in the last 6 months
Denominator	Total number of participants
Applicable KP	MSM, TG, PWID, OVP
Recommended disaggregation	<ul style="list-style-type: none"> <li>Sex for PWID, OVP (male, female)</li> <li>Age (&lt;25 years, 25+ years)</li> </ul>
Purpose/ rationale	This indicator measures the percentage of participants who paid money for sex in the last 6 months. High frequency of client turnover and unprotected sexual practices put SW and their clients at higher risk for getting and passing on HIV and STI. <sup>a</sup> A high percentage or increasing trend of buying sex may indicate greater demand for sex work and the potential for passing on HIV if sexual practices do not include condom use. In such cases, countries may target SW clients for health care and prevention interventions that promote safer sex practices.
Corresponding questionnaire item(s)	<p>This indicator is constructed from responses to the following questions from <b>Module 15: Recall sexual behaviour</b>.</p> <p><b>Numerator:</b></p> <ul style="list-style-type: none"> <li>RCMASWPA &gt;0 [In the last 6 months, how many different men did you pay money in exchange for sex?]</li> </ul> <p><b>OR</b></p> <ul style="list-style-type: none"> <li>RCFESWPA &gt;0 [In the last 6 months, how many different women did you pay money for sex?]</li> </ul> <p><b>Denominator:</b></p> <ul style="list-style-type: none"> <li>Total number of participants</li> </ul>
Related existing indicators	Not applicable

*OVP, other vulnerable populations*

<sup>a</sup> WHO. Preventing HIV among sex workers in sub-Saharan Africa: a literature review. Geneva: World Health Organization (WHO); 2014 ([http://apps.who.int/iris/bitstream/10665/44549/1/9789241501279\\_eng.pdf?ua=1](http://apps.who.int/iris/bitstream/10665/44549/1/9789241501279_eng.pdf?ua=1), accessed 8 September 2016).



## Selling sex

Percentage who received money in exchange for sex in the last 6 months	
Numerator	Number of participants who received money in exchange for sex in the last 6 months
Denominator	Total number of participants
Applicable KP	MSM, TG, PWID
Recommended disaggregation	<ul style="list-style-type: none"> <li>Sex for PWID (male, female)</li> <li>Age (&lt;25 years, 25+ years)</li> </ul>
Purpose/ rationale	This indicator measures the percentage of MSM, TG and PWID who provided sex in exchange for money in the last 6 months. Because of the stigmatized and often criminalized setting in which sex work is practiced, MSM, TG and PWID who engage in sex work are at increased risk of HIV and STI transmission, violence and imprisonment, and are less likely to access needed services. <sup>a</sup> The potential for getting and passing on HIV and STI is higher when drug-using and sex work networks overlap. <sup>b,c,d,e</sup> Assessing the prevalence of sex work among these KP can inform specialized prevention, care and treatment services that address their individual risks. If there is a high percentage or increasing trend of sex work, countries may consider combination prevention interventions (evidence-based, mutually reinforcing biomedical, behavioural and structural interventions) that are tailored to local contexts and designed and implemented by SW communities. <sup>f</sup>
Corresponding questionnaire item(s)	<p>This indicator is constructed from responses to the following questions from <b>Module 15: Recall sexual behaviour</b>.</p> <p><b>Numerator:</b></p> <ul style="list-style-type: none"> <li>RCMACLPA &gt;0 [In the last 6 months, how many different men paid you money in exchange for sex?]</li> </ul> <p><b>OR</b></p> <ul style="list-style-type: none"> <li>RCFECLPA &gt;0 [In the last 6 months, how many different women gave you money for sex?]</li> </ul> <p><b>Denominator:</b></p> <ul style="list-style-type: none"> <li>Total number of participants</li> </ul>
Related existing indicators	Not applicable

<sup>a</sup> WHO. Prevention and treatment of HIV and other sexually transmitted infections for sex workers in low- and middle-income countries: recommendations for a public health approach. 2012 ([http://apps.who.int/iris/bitstream/10665/77745/1/9789241504744\\_eng.pdf?ua=1](http://apps.who.int/iris/bitstream/10665/77745/1/9789241504744_eng.pdf?ua=1), accessed 8 September 2016).

<sup>b</sup> Needle R, Kroeger K, Belani H, Achrekar A, Parry CD, Dewing S. Sex, drugs, and HIV: rapid assessment of HIV risk behaviors among street-based drug using sex workers in Durban, South Africa. *Con Sci Med*. 2008;67(9):1447–1455.

<sup>c</sup> Medhi GK, Mahanta J, Paranjape RS, Adhikary R, Laskar N, Ngully P. Factors associated with HIV among female sex workers in a high HIV prevalent state of India. *AIDS Care*. 2012;24(3):369–376.

<sup>d</sup> Strathdee SA, Philbin MM, Semple SJ, Pu M, Orozovich P, Martinez G et al. Correlates of injection drug use among female sex workers in two Mexico-U.S. border cities. *Drug Alcohol Depen*. 2008;92(1-3):132–140.

<sup>e</sup> Tuan NA, Fylkesnes K, Thang BD, Hien NT, Long NT, Kinh NV et al. Human immunodeficiency virus (HIV) infection patterns and risk behaviours in different population groups and provinces in Viet Nam. *B World Health Organ*. 2007;85(1):35–41.

<sup>f</sup> Bekker LG, Johnson L, Cowan F, Overs C, Besada D, Hillier S et al. Combination HIV prevention for female sex workers: what is the evidence? *Lancet*. 2015;385(9962):72–87 (<https://www.ncbi.nlm.nih.gov/pubmed/25059942>, accessed 9 September 2016).

## Unprotected receptive anal intercourse

Percentage of MSM and TG who engaged in URAI in the last 6 months	
Numerator	Number of MSM and TG who engaged in URAI in the last 6 months
Denominator	Total number of MSM and TG who had anal sex in the last 6 months
Applicable KP	MSM, TG
Recommended disaggregation	<ul style="list-style-type: none"> <li>Partner type (main, casual)</li> <li>Age (&lt;25 years, 25+ years)</li> </ul>
Purpose/ Rationale	This indicator measures the percentage of MSM and TG who engaged in URAI in the last 6 months. URAI with ejaculation inside the anus carries more than 10 times the risk of HIV transmission compared to unprotected insertive anal intercourse. <sup>a</sup> A high percentage or increasing trend of URAI may indicate lack of knowledge around HIV risk reduction. In such cases, countries may consider support for consistent condom use.
Corresponding questionnaire item(s)	<p>This indicator is constructed from responses to the following questions from the <b>Module 15: Recall sexual behaviour</b>.</p> <p><b>Numerator and disaggregation:</b></p> <ul style="list-style-type: none"> <li>VARIABLE = 1 (receptive) OR 3 (both) [In the last 6 months, did you have receptive or insertive anal sex?]</li> </ul> <p><b>AND</b></p> <ul style="list-style-type: none"> <li>VARIABLE = 2 (no) [Did you use a condom at any time you had anal receptive sex in the last 6 months?]</li> </ul> <p><b>Denominator:</b></p> <ul style="list-style-type: none"> <li>Total number of MSM who had anal sex in the last 6 months</li> </ul> <p><b>AND</b></p> <ul style="list-style-type: none"> <li>Total number of TG who had anal sex in the last 6 months</li> </ul>
Related existing indicators	Not applicable

URAI, unprotected receptive anal intercourse

<sup>a</sup> Patel P, Borkowf CB, Brooks JT, Lasry A, Lansky A, Mermin J. Estimating per-act HIV transmission risk: a systematic review. AIDS. 2014;28(10):1509–1519.

## Alcohol use

The following reference sheets describe three options for measuring alcohol use. They vary based on the instrument used: AUDIT, AUDIT-C or CAGE. Countries should select the indicator that corresponds with the validated tool that was used to assess alcohol use.

Percentage who are hazardous drinkers (AUDIT)	
Numerator	Number of participants with a score of $\geq 8$ on AUDIT scale based on alcoholic beverage intake in the past year
Denominator	Total number of participants
Applicable KP	SW, MSM, TG, PWID, OVP
Recommended disaggregation	<ul style="list-style-type: none"> <li>Sex for SW, PWID, OVP (male, female)</li> <li>Age (&lt;25 years, 25+ years)</li> <li>Degree of alcohol abuse: Harmful or hazardous drinking (score of <math>\geq 8</math>); Alcohol dependence (score of <math>\geq 13</math> for women or <math>\geq 15</math> for men)</li> </ul>
Purpose/ rationale	This indicator measures the percentage of participants with hazardous drinking behaviours. Alcohol use can contribute to risky sexual behaviour. It can reduce sexual inhibitions, which may result in more sexual partners, forgetting to use a condom, or incorrect use of a condom. Alcohol use is associated with a greater risk of incident HIV infection. <sup>a</sup> A high percentage or increasing trend of hazardous drinking among target populations may indicate a social environment in which sex under the influence of alcohol occurs more frequently or is acceptable. In such cases, countries may consider HIV interventions that screen KP for alcohol use and refer those with alcohol dependence to treatment and counselling services.
Corresponding questionnaire item(s) (if applicable)	This indicator is constructed from responses to questions from <b>Module 21: Alcohol use</b> . See AUDIT section in Module 6 for questions and scoring information.
Related existing indicators	Not applicable

*AUDIT, alcohol use disorders identification test; OVP, other vulnerable populations*

<sup>a</sup> Baliunas D, Rehm J, Irving H, Shuper P. Alcohol consumption and risk of incident human immunodeficiency virus infection: a meta-analysis. *Int J Public Health*. 2010;55(3):159–166.

Percentage who are hazardous drinkers or have active alcohol use disorders (AUDIT-C)	
Numerator	Number of participants with a positive score ( $\geq 4$ for men, $\geq 3$ for women) on AUDIT-C based on alcoholic beverage intake in the past year
Denominator	Total number of participants
Applicable KP	SW, MSM, TG, PWID, OVP
Recommended disaggregation	<ul style="list-style-type: none"> <li>• Sex for SW, PWID, OVP (male, female)</li> <li>• Age (&lt;25 years, 25+ years)</li> </ul>
Purpose/ rationale	This indicator measures the percentage of participants with hazardous drinking behaviours. Alcohol use can contribute to risky sexual behaviour. It can reduce sexual inhibitions, which may result in more sexual partners, forgetting to use a condom, or incorrect use of a condom. Alcohol use is associated with a greater risk of incident HIV infection. <sup>a</sup> A high percentage or increasing trend of hazardous drinking among target populations may indicate a social environment in which sex under the influence of alcohol occurs more frequently or is acceptable. In such cases, countries may consider HIV interventions that screen KP for alcohol use and refer those with alcohol dependence to treatment and counselling services.
Corresponding questionnaire item(s) (if applicable)	This indicator is constructed from responses to questions from <b>Module 21: Alcohol use</b> . See AUDIT-C section in Module 6 for questions and scoring information.
Related existing indicators	Not applicable

AUDIT-C, alcohol use disorders identification test-consumption; OVP, other vulnerable populations

<sup>a</sup> Baliunas D, Rehm J, Irving H, Shuper P. Alcohol consumption and risk of incident human immunodeficiency virus infection: a meta-analysis. *Int J Public Health*. 2010;55(3):159–166.

Percentage with potential alcohol problems (CAGE)	
Numerator	Number of participants with a total score of 2 or more on CAGE scale based on (the effect of) alcoholic beverage intake
Denominator	Total number of participants
Applicable KP	SW, MSM, TG, PWID, OVP
Recommended disaggregation	<ul style="list-style-type: none"> <li>• Sex for SW, PWID, OVP (male, female)</li> <li>• Age (&lt;25 years, 25+ years)</li> </ul>
Purpose/ rationale	This indicator measures the percentage of participants with hazardous drinking behaviours. Alcohol use can contribute to risky sexual behaviour. It can reduce sexual inhibitions, which may result in more sexual partners, forgetting to use a condom, or incorrect use of a condom. Alcohol use is associated with a greater risk of incident HIV infection. <sup>a</sup> A high percentage or increasing trend of hazardous drinking among target populations may indicate a social environment in which sex under the influence of alcohol occurs more frequently or is acceptable. In such cases, countries may consider HIV interventions that screen KP for alcohol use and refer those with alcohol dependence to treatment and counselling services.
Corresponding questionnaire item(s) (if applicable)	This indicator is constructed from responses to questions from <b>Module 21: Alcohol use</b> . See CAGE section in Module 21 for questions and scoring information.
Related existing indicators	Not applicable

*CAGE, an acronym of four questions in a questionnaire to screen for problem drinking and potential alcohol problem; OVP, other vulnerable populations*

<sup>a</sup> Baliunas D, Rehm J, Irving H, Shuper P. Alcohol consumption and risk of incident human immunodeficiency virus infection: a meta-analysis. *Int J Public Health*. 2010;55(3):159–166.

## Injecting drug use in last 6 months

Percentage who injected illicit or illegal drugs in the last 6 months	
Numerator	Number of participants who injected illicit or illegal drugs in the last 6 months
Denominator	Total number of participants
Applicable KP	SW, MSM, TG, PWID, OVP
Recommended disaggregation	<ul style="list-style-type: none"> <li>• Sex for SW, PWID, OVP (male, female)</li> <li>• Age (&lt;25 years, 25+ years)</li> </ul>
Purpose/ rationale	This indicator measures the percentage of participants who injected illicit or illegal drugs in the last 6 months. KP, who are already at a higher risk for getting HIV, are at greater risk of getting HIV, HBV and HCV when they also inject drugs. Being high on drugs affects one's ability to make safe choices and lowers inhibitions, which may result in people engaging in risky sexual and drug behaviour. Injecting drug use is the main route of transmission for approximately 10% of HIV infections globally and 30% of infections outside of sub-Saharan Africa. <sup>a</sup> In cases where the percentage who inject drugs is high or increasing, countries may consider interventions tailored to KP that screen for injecting drug use and provide referrals for treatment, high-coverage needle and syringe services, and information, education and counselling. <sup>b</sup>
Corresponding questionnaire item(s) (if applicable)	<p>This indicator is constructed from responses to the following question from <b>Module 23: Injecting drug use</b>.</p> <p><b>Numerator:</b></p> <ul style="list-style-type: none"> <li>• ID6MOS = 1 (yes) [In the last 6 months, have you injected any illicit or illegal drugs?]</li> </ul> <p><b>Denominator:</b></p> <ul style="list-style-type: none"> <li>• Total number of participants</li> </ul>
Related existing indicators	Not applicable

HBV, hepatitis B virus; HCV, hepatitis C virus; OVP, other vulnerable populations

<sup>a</sup>UNAIDS, UNAIDS/UNICEF/WHO. Global AIDS response progress reporting 2014: construction of core indicators for monitoring the 2011 United Nations political declaration on HIV and AIDS. Geneva: Joint United Nations Programme on HIV/AIDS (UNAIDS)/United Nations Children's Fund (UNICEF)/World Health Organization (WHO); 2014 ([http://files.unaids.org/en/media/unaids/contentassets/documents/document/2014/GARPR\\_2014\\_guidelines\\_en.pdf](http://files.unaids.org/en/media/unaids/contentassets/documents/document/2014/GARPR_2014_guidelines_en.pdf), accessed 2 September 2016).

<sup>b</sup> MacArthur GJ, van Velzen E, Palmateer N, Kimber J, Pharris A, Hope V et al. Interventions to prevent HIV and Hepatitis C in people who inject drugs: a review of reviews to assess evidence of effectiveness. *Int J Drug Policy*. 2014;25(1):34–52.

## Received clean needles or syringes

Percentage of PWID who received clean (sterile) needles or syringes from an outreach worker or a needle and syringe programme in the last 6 months	
Numerator	Number of PWID who received clean (sterile) needles or syringes from an outreach worker or a needle and syringe programme in the last 6 months
Denominator	Total number of PWID
Applicable KP	PWID
Recommended disaggregation	<ul style="list-style-type: none"> <li>Sex (male, female)</li> <li>Age (&lt;25 years, 25+ years)</li> </ul>
Purpose/ rationale	This indicator measures the percentage of PWID who received any clean (sterile) needles or syringes from an outreach worker or needle and syringe programme in the last 6 months. Injecting drug use is the main route of transmission for approximately 10% of HIV infections globally and 30% of infections outside of sub-Saharan Africa. Needle and syringe programmes are one of nine interventions in the WHO, UNODC and UNAIDS comprehensive package for the prevention, treatment and care of HIV among people who inject drugs. <sup>a</sup> There is a wealth of scientific evidence supporting the efficacy of providing clean (sterile) needles and syringes in preventing the transmission of HIV and other blood-borne infections among PWID. <sup>b</sup> A low percentage or decreasing trend in the percentage who received clean needles or syringes may indicate lack of knowledge of HIV transmission or lack of access to needle and syringe programmes. In such cases, countries may consider interventions to improve access to safe injection equipment. <sup>c</sup>
Corresponding questionnaire items) (if applicable)	<p>This indicator is constructed from responses to the following questions from <b>Module 23: Injecting drug use</b>.</p> <p><b>Numerator:</b></p> <ul style="list-style-type: none"> <li>IDNLOC = 1 (yes for at least one of the following response options: doctor's office, clinic or hospital, other health agency or HIV prevention programme; drug worker or agency/outreach worker or street unit; or needle/syringe exchange programme) [In the last 6 months when you injected, where did you get your needles/syringes from?]</li> </ul> <p><b>Denominator:</b></p> <ul style="list-style-type: none"> <li>ID6MOS = 1 (yes) [(In the last 6 months, have you injected any illicit or illegal drugs?)]</li> </ul>
Related existing indicators	<ul style="list-style-type: none"> <li><b>GF KP-4:</b> Percentage of all PWID who were reached by an NSP over the specified reporting period</li> </ul>

NSP, needle and syringe programme; UNODC, United Nations Office on Drugs and Crime

<sup>a</sup> UNAIDS, UNAIDS/UNICEF/WHO. Global AIDS response progress reporting 2014: construction of core indicators for monitoring the 2011 United Nations political declaration on HIV and AIDS. Geneva: Joint United Nations Programme on HIV/AIDS (UNAIDS)/United Nations Children's Fund (UNICEF)/World Health Organization (WHO); 2014 ([http://files.unaids.org/en/media/unaids/contentassets/documents/document/2014/GARPR\\_2014\\_guidelines\\_en.pdf](http://files.unaids.org/en/media/unaids/contentassets/documents/document/2014/GARPR_2014_guidelines_en.pdf), accessed 2 September 2016).

<sup>b</sup> Des Jarlais DC, Feelemyer JP, Modi SN, Abdul-Quader A, Hagan H. High coverage needle/syringe programs for people who inject drugs in low and middle income countries: a systematic review. BMC Public Health. 2013;13:53 (<https://www.ncbi.nlm.nih.gov/pubmed/23332005>, accessed 8 September 2016).

<sup>c</sup> MacArthur GJ, van Velzen E, Palmateer N, Kimber J, Pharris A, Hope V et al. Interventions to prevent HIV and Hepatitis C in people who inject drugs: a review of reviews to assess evidence of effectiveness. Int J Drug Policy. 2014;25(1):34–52.

## Sharing injecting equipment

Percentage of PWID active in the last 6 months who shared injecting equipment the last time they injected drugs	
Numerator	Number of PWID who shared injecting equipment the last time they injected drugs
Denominator	Number of PWID injected drugs in the last 6 months
Applicable KP	PWID
Recommended disaggregation	<ul style="list-style-type: none"> <li>Sex (male, female)</li> <li>Age (&lt;25 years, 25+ years)</li> </ul>
Purpose/ rationale	This indicator measures the percentage of PWID active in the last 6 months who shared injecting equipment the last time they injected drugs. Sharing contaminated injecting equipment increases the risk of HIV, HBV and HCV transmission. Safer injecting and sexual practices among people who inject drugs are essential because risk of HIV transmission from contaminated injecting equipment is extremely high. <sup>a</sup> A high percentage or increasing trend of sharing injecting equipment may indicate lack of knowledge about transmission of blood-borne infections or lack of access to reliable sources of new sterile syringes. In such cases, countries may consider interventions to improve injection safety through education and access to safe injection equipment. <sup>b</sup>
Corresponding questionnaire item(s) (if applicable)	<p>This indicator is constructed from responses to the following questions from <b>Module 23: Injecting drug use</b>.</p> <p><b>Numerator:</b></p> <ul style="list-style-type: none"> <li>IDLSTND = 1 (yes) [The last time you injected with another person, did you share a needle with that person (i.e. use it after they had used it)?]</li> </ul> <p><b>Denominator:</b></p> <ul style="list-style-type: none"> <li>ID6MOS = 1 (yes) [In the last 6 months, have you injected any illicit or illegal drugs?]</li> </ul>
Related existing indicators	<ul style="list-style-type: none"> <li><b>GARPR 2.3:</b> Percentage of people who inject drugs reporting the use of sterile injecting equipment the last time they injected</li> </ul>

HBV, hepatitis B virus; HCV, hepatitis C virus

<sup>a</sup> UNAIDS/UNICEF/WHO. Global AIDS response progress reporting 2014: construction of core indicators for monitoring the 2011 United Nations political declaration on HIV and AIDS. Geneva: Joint United Nations Programme on HIV/AIDS (UNAIDS)/United Nations Children's Fund (UNICEF)/World Health Organization (WHO); 2014 ([http://files.unaids.org/en/media/unaids/contentassets/documents/document/2014/GARPR\\_2014\\_guidelines\\_en.pdf](http://files.unaids.org/en/media/unaids/contentassets/documents/document/2014/GARPR_2014_guidelines_en.pdf), accessed 2 September 2016).

<sup>b</sup> MacArthur GJ, van Velzen E, Palmateer N, Kimber J, Pharris A, Hope V et al. Interventions to prevent HIV and Hepatitis C in people who inject drugs: a review of reviews to assess evidence of effectiveness. *Int J Drug Policy*. 2014;25(1):34–52.



## Sharing drug-preparation equipment

Percentage of PWID active in the last 6 months who shared drug-preparation equipment the last time they injected drugs	
Numerator	Number of PWID who shared drug-preparation equipment the last time they injected drugs
Denominator	Number of PWID who injected drugs in the last 6 months
Applicable KP	PWID
Recommended disaggregation	<ul style="list-style-type: none"> <li>Sex (male, female)</li> <li>Age (&lt;25 years, 25+ years)</li> </ul>
Purpose/ rationale	This indicator measures the percentage of PWID active in the last six month who shared drug-preparation equipment the last time they injected drugs. HIV, HBV and HCV transmission can occur among PWID who share preparation equipment, including drug-preparation containers, filters, rinse water, cookers or cotton. <sup>a,b</sup> A high percentage or increasing trend of sharing drug-preparation equipment may indicate lack of knowledge around the risk of sharing drug-preparation equipment. It may also indicate lack of access to new preparation equipment. In such cases, countries may consider ways to improve injection safety through education and access to preparation equipment.
Corresponding questionnaire item(s) (if applicable)	<p>This indicator is constructed from responses to the following questions from <b>Module 23: Injecting drug use</b>.</p> <p><b>Numerator:</b></p> <ul style="list-style-type: none"> <li>IDWATR = 1 (yes) [The last time you injected with someone, did you use a cooker, cotton or water that that person had already used?]</li> </ul> <p><b>OR</b></p> <ul style="list-style-type: none"> <li>IDDRSR = 1 (yes) [The last time you injected with someone, did you use drugs that had been divided with a syringe that a person had already injected with?]</li> </ul> <p><b>Denominator:</b></p> <ul style="list-style-type: none"> <li>ID6MOS = 1 (yes) [In the last 6 months, have you injected any illicit or illegal drugs?]</li> </ul>
Related existing indicators	Not applicable

HBV, hepatitis B virus; HCV, hepatitis C virus

<sup>a</sup> Doerrbecker J, Behrendt P, Mateu-Gelabert P, Ciesek S, Riebesehl N, Wilhelm C et al. Transmission of hepatitis C virus among people who inject drugs: viral stability and association with drug preparation equipment. *J Infect Dis.* 2013;207(2):281–28.

<sup>b</sup> Pouget ER, Hagan H, Des Jarlais DC. Meta-analysis of hepatitis C seroconversion in relation to shared syringes and drug preparation equipment. *Addiction.* 2012;107(6):1057–1065.

## Use of sterile injecting equipment

Percentage of PWID active in the last 6 months who used sterile injecting equipment the last time they injected drugs	
Numerator	Number of PWID who used sterile injecting equipment the last time they injected drugs
Denominator	Number of PWID who injected drugs in the last 6 months
Applicable KP	PWID
Recommended disaggregation	<ul style="list-style-type: none"> <li>Sex (male, female)</li> <li>Age (&lt;25 years, 25+ years)</li> </ul>
Purpose/ rationale	This indicator measures the percentage of PWID active in the last 6 months who used sterile injecting equipment the last time they injected drugs. Safer injecting practices among people who inject drugs are essential because risk of HIV transmission from contaminated injecting equipment is extremely high. <sup>a</sup> A low percentage or decreasing trend of use of sterile injecting equipment may point to lack of knowledge of safer injecting practices or lack of access to sterile injecting equipment. Interventions such as high-coverage needle and syringe programmes may encourage the use of sterile injecting equipment and reduce HIV and HCV transmission. <sup>b</sup>
Corresponding questionnaire item(s) (if applicable)	<p>This indicator is constructed from responses to the following questions from <b>Module 23: Injecting drug use</b>.</p> <p><b>Numerator:</b></p> <ul style="list-style-type: none"> <li>IDNDSTR = 1 (yes) [The last time you injected with another person did you use a new sterile needle to inject?]</li> </ul> <p><b>OR</b></p> <ul style="list-style-type: none"> <li>IDLSTND = 2 (no) [The last time you injected with another person, did you share a needle with that person (i.e. use it after they had used it)?]</li> </ul> <p><b>Denominator:</b></p> <ul style="list-style-type: none"> <li>ID6MOS = 1 (yes) [In the last 6 months, have you injected any illicit or illegal drugs?]</li> </ul>
Related existing indicators	<ul style="list-style-type: none"> <li><b>GARPR 2.3:</b> Percentage of people who inject drugs reporting the use of sterile injecting equipment the last time they injected</li> <li><b>GF HIV O-6:</b> Percentage of PWID reporting the use of sterile injecting equipment the last time they injected</li> </ul>

HCV, hepatitis C virus

<sup>a</sup> UNAIDS/UNICEF/WHO. Global AIDS response progress reporting 2014: construction of core indicators for monitoring the 2011 United Nations political declaration on HIV and AIDS. Geneva: Joint United Nations Programme on HIV/AIDS (UNAIDS)/United Nations Children's Fund (UNICEF)/World Health Organization (WHO); 2014 ([http://files.unaids.org/en/media/unaids/contentassets/documents/document/2014/GARPR\\_2014\\_guidelines\\_en.pdf](http://files.unaids.org/en/media/unaids/contentassets/documents/document/2014/GARPR_2014_guidelines_en.pdf), accessed 2 September 2016).

<sup>b</sup> MacArthur GJ, van Velzen E, Palmateer N, Kimber J, Pharris A, Hope V et al. Interventions to prevent HIV and Hepatitis C in people who inject drugs: a review of reviews to assess evidence of effectiveness. *Int J Drug Policy*. 2014;25(1):34–52.

## Received medication for drug dependency

Percentage of PWID who received medication for drug dependency in the last 6 months	
Numerator	Number of PWID who received medication for drug dependency in the last 6 months
Denominator	Number of PWID who injected drugs in the last 6 months
Applicable KP	PWID
Recommended disaggregation	<ul style="list-style-type: none"> <li>Sex (male, female)</li> <li>Age (&lt;25 years, 25+ years)</li> </ul>
Purpose/ rationale	This indicator measures the percentage of PWID who received medication for drug dependency in the last 6 months. Treatment for drug dependency is called opiate or opioid substitution therapy (OST), sometimes referred to as medication-assisted treatment. OST is the most effective public health tool for reducing injecting drug use among opioid injectors. OST also helps with the treatment of other health conditions, including HIV, TB, HBV and HCV. <sup>a</sup> One of the most consistent findings in both high-income and resource-poor settings is that the more time injecting drug users spend on OST, the better the outcomes and the less likely they are to engage in high-risk behaviours. <sup>b</sup> A low percentage or decreasing trend of OST use may indicate a need for further studies to assess how a country can scale up OST availability or to determine the factors that are preventing PWID from receiving OST. <sup>c</sup>
Corresponding questionnaire item(s) (if applicable)	<p>This indicator is constructed from responses to the following questions from <b>Module 23: Injecting drug use</b>.</p> <p><b>Numerator:</b> ID6TRT = 1 (yes) [Do you receive medication such as methadone or buprenorphine for your drug dependency?]</p> <p><b>Denominator:</b> ID6MOS = 1 (yes) [In the last 6 months, have you injected any illicit or illegal drugs?]</p>
Related existing indicators	<p><b>PEPFAR MER KP_MAT:</b> Percentage of PWID on medication-assisted therapy for at least 6 months</p> <p><b>GARPR 2.6:</b> Number of people on opioid substitution therapy</p> <p><b>GF KP-6:</b> Percentage of individuals receiving OST who received treatment for at least 6 months</p>

HBV, hepatitis B virus; HCV, hepatitis C virus; OST, opiate or opioid substitution therapy

<sup>a</sup> UNAIDS/UNICEF/WHO. Global AIDS response progress reporting 2014: construction of core indicators for monitoring the 2011 United Nations political declaration on HIV and AIDS. Geneva: Joint United Nations Programme on HIV/AIDS (UNAIDS)/United Nations Children's Fund (UNICEF)/World Health Organization (WHO); 2014 ([http://files.unaids.org/en/media/unaids/contentassets/documents/document/2014/GARPR\\_2014\\_guidelines\\_en.pdf](http://files.unaids.org/en/media/unaids/contentassets/documents/document/2014/GARPR_2014_guidelines_en.pdf), accessed 2 September 2016)

<sup>b</sup> Kermode M, Crofts N, Kumar MS, Dorabjee J, World Health O. Opioid substitution therapy in resource-poor settings. *B World Health Organ.* 2011;89(4):243–243.

<sup>c</sup> PEPFAR. Monitoring, evaluation, and reporting indicator reference guide: version 2.1. President's Emergency Plan For AIDS Relief (PEPFAR); 2015 (<http://www.pepfar.gov/documents/organization/240108.pdf>, accessed 8 September 2016).

## Drug overdose

Percentage of PWID active in the last 6 months who ever overdosed on narcotics to the point of losing consciousness	
Numerator	Number of PWID who ever overdosed on narcotics to the point of losing consciousness
Denominator	Number of PWID who injected drugs in the last 6 months
Applicable KP	PWID
Recommended disaggregation	<ul style="list-style-type: none"> <li>• Sex (male, female)</li> <li>• Age (&lt;25 years, 25+ years)</li> <li>• Time of overdose (over 12 months; within the last 12 months)</li> </ul>
Purpose/ rationale	<p>This indicator measures the percentage of PWID active in the last 6 months who ever overdosed on narcotics to the point of losing consciousness. Drug overdose is often the cause of non-AIDS-related death among people with HIV and the leading cause of death for PWID.<sup>a</sup> People living with HIV who also inject drugs have higher rates of drug overdose compared to PWID who are HIV negative.<sup>b</sup> This indicator can help understand the extent of nonfatal overdose experiences. If there is a high percentage or increasing trend in recent drug overdose, countries may consider training health-care providers to counsel HIV-infected patients who also inject drugs on how to reduce their risk of overdose and to prescribe naloxone to patients as well as to their peers, injecting partners and family.<sup>c</sup></p>
Corresponding questionnaire item(s) (if applicable)	<p>This indicator is constructed from responses to the following questions from <b>Module 24: Drug overdose</b>.</p> <p><b>Numerator:</b></p> <ul style="list-style-type: none"> <li>• ODEVR = 1 (yes) [Have you ever overdosed on narcotics to the point where you lost consciousness (passed out)?]</li> </ul> <p><b>Denominator:</b></p> <ul style="list-style-type: none"> <li>• ID6MOS = 1 (yes) [In the last 6 months, have you injected any illicit or illegal drugs?]</li> </ul> <p><b>Disaggregation (time of overdose):</b></p> <ul style="list-style-type: none"> <li>• ODLSM = 5 (over 12 months) [Please think about the last time you overdosed on narcotics. How long ago did that occur?]</li> <li>• ODLSM = 1, 2, 3 or 4 (within the last 12 months) [Please think about the last time you overdosed on narcotics. How long ago did that occur?]</li> </ul>
Related existing indicators	Not applicable

<sup>a</sup> Green TC, McGowan SK, Yokell MA, Pouget ER, Rich JD. HIV infection and risk of overdose: a systematic review and meta-analysis. *AIDS*. 2012;26(4):403–417.

<sup>b</sup> Vlahov D, Tang AM, Lyles C, Rezza G, Thomas D, Cohn S et al. Increased frequency of overdose deaths among HIV-infected injection drug users. *Addict Res*. 2000;8(4):311–326.

<sup>c</sup> Seal KH, Thawley R, Gee L, Bamberger J, Kral AH, Ciccarone D et al. Naloxone distribution and cardiopulmonary resuscitation training for injection drug users to prevent heroin overdose death: a pilot intervention study. 2005;82(2):303–311.

## Drug overdose prevention training

Percentage of PWID active in the last 6 months who ever received education or training on how to revive someone after an overdose	
Numerator	Number of PWID active in the last 6 months who ever received education or training on how to revive someone after an overdose
Denominator	Number of PWID who injected drugs in the last 6 months
Applicable KP	PWID
Recommended disaggregation	<ul style="list-style-type: none"> <li>Sex (male, female)</li> <li>Age (&lt;25 years, 25+ years)</li> </ul>
Purpose/ rationale	This indicator measures the percentage of PWID active in the last 6 months who ever received education or training on how to revive someone after an overdose. Many PWID may witness an overdose but may not know how to identify when someone is overdosing and how to respond. <sup>a</sup> However, they can often act as first responders if properly trained. <sup>b</sup> Overdose prevention programmes teach overdose response techniques and distribute naloxone – a safe and highly effective opioid overdose antidote, which can help prevent death if PWID know how to quickly respond to an overdose among their peers. <sup>c</sup> In cases where overdose is high, countries may consider increasing training on overdose prevention.
Corresponding questionnaire item(s) (if applicable)	<p>This indicator is constructed from responses to the following questions from <b>Module 24: Drug overdose</b>.</p> <p><b>Numerator:</b></p> <ul style="list-style-type: none"> <li>ODEDUC = 1 (yes) [Have you ever received education or training on how to revive someone after an overdose?]</li> </ul> <p><b>Denominator:</b></p> <ul style="list-style-type: none"> <li>ID6MOS = 1 (yes) [In the last 6 months, have you injected any illicit or illegal drugs?]</li> </ul>
Related existing indicators	Not applicable

<sup>a</sup> Green TC, McGowan SK, Yokell MA, Pouget ER, Rich JD. HIV infection and risk of overdose: a systematic review and meta-analysis. *AIDS*. 2012;26(4):403–417.

<sup>b</sup> Vlahov D, Tang AM, Lyles C, Rezza G, Thomas D, Cohn S et al. Increased frequency of overdose deaths among HIV-infected injection drug users. *Addict Res*. 2000;8(4):311–326.

<sup>c</sup> Seal KH, Thawley R, Gee L, Bamberger J, Kral AH, Ciccarone D et al. Naloxone distribution and cardiopulmonary resuscitation training for injection drug users to prevent heroin overdose death: a pilot intervention study. 2005;82(2):303–311.

## Targeted information, education and communications

Percentage who received targeted IEC from a peer educator or outreach worker in the last 12 months	
Numerator	Number of participants who received targeted IEC from a peer educator or outreach worker in the last 12 months
Denominator	Total number of participants
Applicable KP	SW, MSM, TG, PWID
Recommended disaggregation	<ul style="list-style-type: none"> <li>Sex for SW, PWID (male, female)</li> <li>Age (&lt;25 years, 25+ years)</li> </ul>
Purpose/ rationale	This indicator measures the percentage of participants who received targeted IEC from a peer educator or outreach worker in the last 12 months. PEPFAR recommends targeted IEC as a prevention intervention that can be included in a comprehensive programme for KP. <sup>a</sup> A low percentage or decreasing trend in this indicator may suggest challenges with reaching the target population, developing IEC material or recruiting, or training and supervising peer educators and outreach workers. In such cases, countries may consider involving KP in the development of IEC strategies for KP.
Corresponding questionnaire item(s)	<p>This indicator is constructed from responses to the following question from <b>Module 27: Services uptake</b>.</p> <p><b>Numerator:</b></p> <ul style="list-style-type: none"> <li>CSORTI = 3 (in the last year) [How long ago did a peer educator or outreach worker talk to you about HIV?]</li> </ul> <p><b>Denominator:</b></p> <ul style="list-style-type: none"> <li>Total number of participants</li> </ul>
Related existing indicators	<b>PEPFAR MER: KP_PREV:</b> Percentage of KP reached with individual and/or small group level HIV preventive interventions that are based on evidence and/or meet the minimum standards required

*IEC, information, education and communication*

<sup>a</sup> PEPFAR. MER level 1 indicator package. President's Emergency Plan For AIDS Relief (PEPFAR); 2013.

## Received condoms

Percentage who received condoms through an outreach service, drop-in centre or sexual health clinic in the last 12 months	
Numerator	Number of participants who received condoms through an outreach service, drop-in centre or sexual health clinic in the last 12 months
Denominator	Total number of participants
Applicable KP	SW, MSM, TG, PWID, OVP
Recommended disaggregation	<ul style="list-style-type: none"> <li>Sex for SW, PWID, OVP (male, female)</li> <li>Age (&lt;25 years, 25+ years)</li> </ul>
Purpose/ rationale	This indicator measures the percentage of participants who received condoms through an outreach service, drop-in centre or sexual health clinic in the last 12 months. Correct and consistent use of condoms can significantly reduce the risk of HIV transmission and acquisition as well as transmission of some other STIs. <sup>a,b,c</sup> Condom programming is one of several interventions in the WHO, UNODC and UNAIDS comprehensive package for the prevention, treatment and care of HIV among KP. A low percentage or decreasing trend may suggest challenges with condom procurement, lack of access to services that distribute free condoms, or lack of awareness of these services. In such cases, countries may consider additional venues for distributing condoms.
Corresponding questionnaire item(s)	<p>This indicator is constructed from responses to the following questions from <b>Module 27: Services uptake and Module 18: Condom use/accessibility</b>.</p> <p><b>Numerator:</b> From Module 10: IF NOT PWID:</p> <ul style="list-style-type: none"> <li>CSORPR = 1 (condoms – yes) [What items did you receive the last time you met a peer educator or outreach worker?]</li> </ul> <p><b>IF PWID:</b></p> <ul style="list-style-type: none"> <li>CSORID = 1 (condoms – yes) [What items did you receive the last time you met a peer educator or outreach worker?]</li> </ul> <p><b>OR</b></p> <p><b>From Module 15:</b> <b>FOR ALL:</b></p> <ul style="list-style-type: none"> <li>COFREE = 1 (yes) [In the last 12 months, have you been given condoms for free? For example, through an outreach service, drop-in centre or health clinic]</li> </ul> <p><b>Denominator:</b></p> <ul style="list-style-type: none"> <li>Total number of participants</li> </ul>
Related existing indicators	Not applicable

OVP, other vulnerable populations; UNODC, United Nations Office on Drugs and Crime

<sup>a</sup> Charania MR, Crepaz N, Guenther-Gray C, Henny K, Liau A, Willis LA et al. Efficacy of structural-level condom distribution interventions: a meta-analysis of U.S. and international studies, 1998–2007. *AIDS Behav.* 2011;15(7):1283–1297.

<sup>b</sup> UNAIDS/UNICEF/WHO. Global AIDS response progress reporting 2014: construction of core indicators for monitoring the 2011 United Nations political declaration on HIV and AIDS. Geneva: Joint United Nations Programme on HIV/AIDS (UNAIDS)/United Nations Children's Fund (UNICEF)/World Health Organization (WHO); 2014 ([http://files.unaids.org/en/media/unaids/contentassets/documents/document/2014/GARPR\\_2014\\_guidelines\\_en.pdf](http://files.unaids.org/en/media/unaids/contentassets/documents/document/2014/GARPR_2014_guidelines_en.pdf), accessed 2 September 2016).

<sup>c</sup> PEPFAR. Technical guidance on combination HIV prevention. President's Emergency Plan For AIDS Relief (PEPFAR); 2011.

## Never tested for HIV

Percentage who have never received an HIV test	
Numerator	Number of participants who have never received an HIV test
Denominator	Total number of participants
Applicable KP	SW, MSM, TG, PWID, OVP
Recommended disaggregation	<ul style="list-style-type: none"> <li>• Sex for SW, PWID, OVP (male, female)</li> <li>• Age (&lt;25 years, 25+ years)</li> </ul>
Purpose/ rationale	This indicator measures the percentage of participants who have never been tested for HIV. Routine, voluntary HIV testing enables individual awareness of one's HIV status, linking those identified as HIV positive to care and treatment services. KP face unique barriers to accessing HIV services, including perceived or real discrimination by service providers. WHO recommends that voluntary HIV testing and counselling (HTC) be routinely offered to all KP in both community and clinical settings. <sup>a</sup> A high percentage or increasing trend in the percentage who have never been tested for HIV may indicate structural, operational, logistical and social barriers, such as stigma, discrimination and punitive legislation, that limit access to existing testing services. <sup>b</sup> Such findings may indicate the need for national governments and programmes to identify and address gaps in HTC services to increase uptake of HTC among KP.
Corresponding questionnaire item(s)	<p>This indicator is constructed from responses to the following question from <b>Module 27: Services uptake</b>.</p> <p><b>Numerator:</b></p> <ul style="list-style-type: none"> <li>• CSCTEV = 2 (no) [Have you ever been tested for HIV?]</li> </ul> <p><b>Denominator:</b></p> <ul style="list-style-type: none"> <li>• Total number of participants</li> </ul>
Related existing indicators	Not applicable

HTC, HIV testing and counselling; OVP, other vulnerable populations

<sup>a</sup> WHO. Consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV infection – Section 7.3: Monitoring response to ART and the diagnosis of treatment failure. Geneva: World Health Organization (WHO); 2013 (<http://www.who.int/hiv/pub/guidelines/arv2013/art/artmonitoring/en/index3.html>, accessed 8 September 2016).

<sup>b</sup> WHO. Service delivery approaches to HIV testing and counselling (HTC): a strategic HTC programme framework. 2012 ([http://apps.who.int/iris/bitstream/10665/75206/1/9789241593877\\_eng.pdf](http://apps.who.int/iris/bitstream/10665/75206/1/9789241593877_eng.pdf), accessed 8 September 2016).



## HIV test in last 12 months

Percentage who received an HIV test in the last 12 months and know their results	
Numerator	Number of participants who received an HIV test in the last 12 months and know their results
Denominator	Total number of participants (excluding known positives who were tested more than 12 months ago)
Applicable KP	SW, MSM, TG, PWID, OVP
Recommended disaggregation	<ul style="list-style-type: none"> <li>Sex for SW, PWID, OVP (male, female)</li> <li>Age (&lt;25 years, 25+ years)</li> <li>Time of test (in last 12 months, in last 6 months)</li> </ul>
Purpose/ rationale	This indicator measures the percentage of participants who received an HIV test in the last 12 months and know their results. Knowledge of one's status is a key factor in the decision to seek treatment and prevent transmission. <sup>a</sup> HIV testing with high-quality counselling can reduce HIV risk and STIs among HIV-negative men and women. <sup>b,c</sup> A low percentage or decreasing trend of participants who have been tested for HIV in the last 12 months may indicate low access to HTC services or fear of HIV-related stigma. Such findings may help countries to identify and address gaps in HTC services to increase uptake of HTC among KP.
Corresponding questionnaire item(s)	<p>This indicator is constructed from responses to the following questions from <b>Module 27: Services uptake</b>.</p> <p><b>Numerator:</b></p> <ul style="list-style-type: none"> <li>CSCTTI = 1 (in the last 6 months) or 2 (6–12 months) [When did you last test for HIV?]</li> </ul> <p><b>AND</b></p> <ul style="list-style-type: none"> <li>CSCTRS = 1 (positive), 2 (negative) or 3 (undetermined) [What was the result of your last test?]</li> </ul> <p><b>Denominator</b> (total number of respondents excluding known positives who were tested more than 12 months ago):</p> <ul style="list-style-type: none"> <li>Total number of participants</li> </ul> <p><b>MINUS those who meet the following 2 conditions:</b></p> <ul style="list-style-type: none"> <li>CSCTRS = 1 (positive) [What was the result of your last test?]</li> </ul> <p><b>AND</b></p> <ul style="list-style-type: none"> <li>CSCTTI = 3 (more than 12 months ago) [When did you last test for HIV?]</li> </ul> <p><b>Disaggregation</b> (time of test):</p> <ul style="list-style-type: none"> <li>CSCTTI = 1 (in the last 6 months) [When did you last test for HIV?]</li> <li>CSCTTI = 2 (6–12 months) [When did you last test for HIV?]</li> </ul>
Related existing indicators	<ul style="list-style-type: none"> <li><b>PEPFAR MER HTC_TST:</b> Number of individuals who received HIV Testing and Counseling (HTC) services for HIV and received their test results</li> <li><b>GARPR 1.9:</b> Percentage of sex workers who have received an HIV test in the past 12 months and know their results (BSS)</li> </ul>

HTC, HIV testing and counselling; OVP, other vulnerable populations

<sup>a</sup> UNAIDS/UNICEF/WHO. Global AIDS response progress reporting 2014: construction of core indicators for monitoring the 2011 United Nations political declaration on HIV and AIDS. Geneva: Joint United Nations Programme on HIV/AIDS (UNAIDS)/United Nations Children's Fund (UNICEF)/World Health Organization (WHO); 2014 ([http://files.unaids.org/en/media/unaids/contentassets/documents/document/2014/GARPR\\_2014\\_guidelines\\_en.pdf](http://files.unaids.org/en/media/unaids/contentassets/documents/document/2014/GARPR_2014_guidelines_en.pdf), accessed 2 September 2016).

<sup>b</sup> PEPFAR. Technical guidance on combination HIV prevention. President's Emergency Plan For AIDS Relief (PEPFAR); 2011.

<sup>c</sup> PEPFAR. Comprehensive HIV prevention for people who inject drugs: revised guidance. President's Emergency Plan For AIDS Relief (PEPFAR); 2010.

## Tuberculosis screening

Percentage of HIV-positive participants who received TB screening after their HIV diagnosis	
Numerator	Number of HIV-positive participants who received TB screening after their HIV diagnosis
Denominator	Number of participants who had a positive HIV test result at their last HIV test
Applicable KP	SW, MSM, TG, PWID, OVP
Recommended disaggregation	<ul style="list-style-type: none"> <li>Sex for SW, PWID, OVP (male, female)</li> <li>Age (&lt;25 years, 25+ years)</li> </ul>
Purpose/ rationale	<p>This indicator measures the percentage of HIV-positive participants who received TB screening after their HIV diagnosis. TB is the leading cause of mortality among PLHIV. Screening for TB among PLHIV at initial and subsequent HIV care visits is recommended to identify TB suspects and link them to diagnosis and treatment.<sup>a</sup></p> <p>WHO recommends that all HIV-positive patients be screened for TB.<sup>b</sup> A low percentage or decreasing trend in this indicator may suggest that not all PLHIV are being screened for TB due to changes in policy or services, such as a turnover in trained staff or decreased supervision visits. In such cases, countries may consider ways to improve the integrated delivery of TB and HIV services or the TB screening capacity at health facilities. This indicator should be interpreted along with the indicator "Received TB treatment".</p>
Corresponding questionnaire item(s)	<p>This indicator is constructed from responses to the following questions from <b>Module 27: Services uptake</b>.</p> <p><b>Numerator:</b></p> <ul style="list-style-type: none"> <li>CSTBSC2 = 2 (After I tested HIV-positive) or 3 (Both before and after I tested HIV-positive) [When did they screen you for TB?]</li> </ul> <p><b>Denominator:</b></p> <ul style="list-style-type: none"> <li>CSCTRS = 1 (Positive) [What was the result of your last (HIV) test?]</li> </ul>
Related existing indicators	<ul style="list-style-type: none"> <li><b>PEPFAR MER TB_SCREENDX:</b> Number of PLHIV in HIV clinical care who were screened for TB symptoms at the last clinical visit</li> <li><b>GF TB/HIV-3:</b> Percentage of HIV-positive patients who were screened for TB in HIV care and treatment settings</li> </ul>

OVP, other vulnerable populations; PLHIV, people living with HIV

<sup>a</sup> PEPFAR. MER level 1 indicator package. President's Emergency Plan For AIDS Relief (PEPFAR); 2013.

<sup>b</sup> WHO. Systematic screening for active tuberculosis: principles and recommendations. Geneva: World Health Organization (WHO); 2013 (<http://www.who.int/tb/tbscreening/en/>, accessed 8 September 2016).

## Received tuberculosis treatment

Percentage of HIV-positive participants who screened positive for TB and received TB treatment	
Numerator	Number of HIV-positive participants who screened positive for TB and received TB treatment
Denominator	Number of participants who had a positive HIV test result at their last HIV test and screened positive for TB
Applicable KP	SW, MSM, TG, PWID, OVP
Recommended disaggregation	<ul style="list-style-type: none"> <li>Sex for SW, PWID, OVP (male, female)</li> <li>Age (&lt;25 years, 25+ years)</li> </ul>
Purpose/ rationale	This indicator measures the percentage of HIV-positive participants who screened positive for TB and who received TB treatment. TB is a leading cause of morbidity and mortality in people living with HIV, including those on ART. <sup>a</sup> All HIV-positive patients should be screened for TB. Patients who screen positive are suspected TB cases who should receive additional evaluation, diagnosis and treatment. A low percentage or decreasing trend in this indicator may suggest weak referral systems, staff who are untrained in coordinated care or unmotivated to take on additional activities, or lack of access to TB diagnosis and treatment services among HIV patients. In such cases, countries may consider ways to improve integrated delivery of TB and HIV services for KP at health facilities. This indicator should be interpreted along with the indicator “TB screening”.
Corresponding questionnaire item(s)	<p>This indicator is constructed from responses to the following questions from <b>Module 27: Services uptake</b>.</p> <p><b>Numerator:</b></p> <ul style="list-style-type: none"> <li>CSTBTR1 = 1 (yes) [The last time you had TB, did you get treatment for TB?]</li> </ul> <p><b>Denominator:</b></p> <ul style="list-style-type: none"> <li>CSTBRS = 2 (TB-positive) [What was the result of your last TB test?]</li> </ul> <p><b>AND</b></p> <ul style="list-style-type: none"> <li>CSCTRS = 1 (positive) [What was the result of your last (HIV) test?]</li> </ul>
Related existing indicators	<ul style="list-style-type: none"> <li><b>GARPR 5.1:</b> Percentage of estimated HIV-positive incident TB cases that received treatment for both TB and HIV</li> <li><b>GF TB/HIV-4:</b> Percentage of new HIV-positive patients starting IPT during the reporting period</li> </ul>

*IPT, isoniazid preventive therapy; OVP, other vulnerable populations*

<sup>a</sup> UNAIDS/UNICEF/WHO. Global AIDS response progress reporting 2014: construction of core indicators for monitoring the 2011 United Nations political declaration on HIV and AIDS. Geneva: Joint United Nations Programme on HIV/AIDS (UNAIDS)/United Nations Children's Fund (UNICEF)/World Health Organization (WHO); 2014 ([http://files.unaids.org/en/media/unaids/contentassets/documents/document/2014/GARPR\\_2014\\_guidelines\\_en.pdf](http://files.unaids.org/en/media/unaids/contentassets/documents/document/2014/GARPR_2014_guidelines_en.pdf), accessed 2 September 2016).

## Currently in care

Percentage of HIV-positive participants who received at least one of the following in the last 12 months: CD4 count or viral load	
Numerator	Number of HIV-positive participants who received at least one of the following in the last 12 months: CD4 count or viral load
Denominator	Number of HIV-positive participants
Applicable KP	SW, MSM, TG, PWID, OVP
Recommended disaggregation	<ul style="list-style-type: none"> <li>Sex for SW, PWID, OVP (male, female)</li> <li>Age (&lt;25 years, 25+ years)</li> </ul>
Purpose/ rationale	<p>This indicator measures the percentage of self-reported HIV-positive participants who are currently in care, based on receipt of CD4 count or viral load in the last 12 months. For those not eligible for ART, care visits provide opportunities for screening, prevention and treatment of other conditions and comorbidities. For those on treatment, uninterrupted ART and routine monitoring are required for optimal treatment outcomes.<sup>a</sup> A low percentage or decreasing trend in the percentage who are currently in care may result from a lack of access to equipped facilities, stigma and discrimination from health-care providers, or insufficient resources to pay for testing.<sup>b</sup> Interventions addressing multiple levels of the health-care system and harnessing social support can improve retention in care.<sup>c</sup></p> <p>Note that this indicator does not capture those who received a clinical assessment (WHO staging).</p>
Corresponding questionnaire item(s)	<p>This indicator is constructed from responses to the following questions from <b>Module 27: Services uptake</b>.</p> <p><b>Numerator:</b></p> <ul style="list-style-type: none"> <li>CSCDEV = 1 (in the last 6 months) or 2 (between 7 and 12 months ago) [When did your care provider last test your CD4 count?]</li> </ul> <p><b>OR</b></p> <ul style="list-style-type: none"> <li>CSVLT1 = 1 (in the last 12 months) [When did you last have a viral load test?]</li> </ul> <p><b>Denominator:</b></p> <ul style="list-style-type: none"> <li>CSCTRS = 1 (positive) [What was the result of your last test?]</li> </ul>
Related existing indicators	Not applicable

OVP, other vulnerable populations

<sup>a</sup> WHO. Consolidated guidelines on HIV prevention, diagnosis, treatment, and care for key populations. Geneva: World Health Organization (WHO); 2014 (<http://www.who.int/hiv/pub/guidelines/keypopulations/en/>, accessed 8 September 2016); Section 9.3 Retention across the continuum of care.

<sup>b</sup> Mtetwa S, Busza J, Chidiya S, Mungofa S, Cowan F. "You are wasting our drugs": health service barriers to HIV treatment for sex workers in Zimbabwe. BMC Public Health. 2013;13:698 (<https://www.ncbi.nlm.nih.gov/pubmed/23898942>, accessed 8 September 2016).

<sup>c</sup> WHO. Consolidated guidelines on HIV prevention, diagnosis, treatment, and care for key populations. Geneva: World Health Organization (WHO); 2014 (<http://www.who.int/hiv/pub/guidelines/keypopulations/en/>, accessed 8 September 2016); Table 9.1 Factors related to the health system and people receiving ART affecting retention and adherence with possible interventions.

## CD4 count

Percentage of HIV-positive participants who received a CD4 count measurement in the last 12 months	
Numerator	Number of self-reported HIV-positive participants who received a CD4 count in the last 12 months
Denominator	Number of self-reported HIV-positive participants
Applicable KP	SW, MSM, TG, PWID, OVP
Recommended disaggregation	<ul style="list-style-type: none"> <li>• Sex for SW, PWID, OVP (male, female)</li> <li>• Age (&lt;25 years, 25+ years)</li> <li>• Treatment status (currently taking ART, never taken ART)</li> <li>• Timing of CD4 count (in the last 6 months, 7–12 months ago)</li> </ul>
Purpose/ rationale	<p>This indicator measures the percentage of self-reported HIV-positive participants who received a CD4 count in the last 12 months. CD4 count measurements are used to monitor the progress of HIV and to determine the need to start ART. WHO recommends CD4 counts every 6–12 months for those not on ART and every 6 months for those on ART.<sup>a</sup> Because all HIV-positive individuals should receive a periodic clinical assessment, this indicator can serve as a proxy for tracking progress in providing clinical care to HIV-positive KP.<sup>b</sup> For individuals newly diagnosed with HIV, CD4 count may indicate how early or delayed the HIV diagnosis was made.<sup>c</sup> A low percentage or decreasing trend in the percentage who received a CD4 count may result from a lack of access to equipped facilities, stigma and discrimination from health-care providers, or insufficient resources to pay for testing.<sup>d</sup> In such cases, countries may consider interventions addressing multiple levels of the health-care system and harnessing social support to improve retention in care.<sup>e</sup></p> <p>Note that this indicator does not capture those who were previously on treatment but are currently not taking ART.</p>
Corresponding questionnaire item(s)	<p>This indicator is constructed from responses to the following questions from <b>Module 27: Services uptake</b>.</p> <p><b>Numerator:</b></p> <ul style="list-style-type: none"> <li>• CSCDEV2 = 1 (in the last 6 months) or 2 (between 7 and 12 months ago) [When did your care provider last test your CD4 count?]</li> </ul> <p><b>Denominator:</b></p> <ul style="list-style-type: none"> <li>• CSCDEV2 = 1, 2, 3, 7, 8 (in the last 6 months, between 7 and 12 months ago, more than 12 months ago, don't know, refuse to answer)</li> </ul> <p><b>Disaggregation (treatment status):</b></p> <ul style="list-style-type: none"> <li>• CSTRCURR = 1 (yes) [Are you currently taking ARVs?]</li> <li>• CSTREV = 2 (no) [Have you ever taken ARVs – that is, antiretroviral medication – to treat your HIV infection?]</li> </ul> <p><b>Disaggregation (timing of CD4 count):</b></p> <ul style="list-style-type: none"> <li>• CSCDEV2 = 1 (in the last 6 months) [When did your care provider last test your CD4 count?]</li> <li>• CSCDEV2 = 2 (between 7 and 12 months ago) [When did your care provider last test your CD4 count?]</li> </ul>
Related existing indicators	Not applicable

OVP, other vulnerable populations

<sup>a</sup> WHO. Consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV infection – Table 7.3.1 Laboratory monitoring before and after initiating ART. Geneva: World Health Organization (WHO); 2013 ([http://www.who.int/hiv/pub/guidelines/arv2013/art/WHO\\_CG\\_7.3.1.pdf?ua=1](http://www.who.int/hiv/pub/guidelines/arv2013/art/WHO_CG_7.3.1.pdf?ua=1), accessed 8 September 2016).

<sup>b</sup> PEPFAR. MER level 1 indicator package. President's Emergency Plan For AIDS Relief (PEPFAR); 2013 (p. 12).

<sup>c</sup> MacCarthy S, Bangsberg DR, Fink G, Reich M, Gruskin S. Late presentation to HIV/AIDS testing, treatment or continued care: clarifying the use of CD4 evaluation in the consensus definition. *HIV Med.* 2014;15(3):130–134.

<sup>d</sup> Mtetwa S, Busza J, Chidiya S, Mungofa S, Cowan F. "You are wasting our drugs": health service barriers to HIV treatment for sex workers in Zimbabwe. *BMC Public Health.* 2013;13:698 (<https://www.ncbi.nlm.nih.gov/pubmed/23898942>, accessed 8 September 2016).

<sup>e</sup> WHO. Consolidated guidelines on HIV prevention, diagnosis, treatment, and care for key populations. Geneva: World Health Organization (WHO); 2014 (<http://www.who.int/hiv/pub/guidelines/keypopulations/en/>, accessed 8 September 2016); Table 9.1 Factors related to the health system and people receiving ART affecting retention and adherence with possible interventions.

## Currently on antiretroviral therapy

Percentage of HIV-positive participants eligible for treatment who are currently taking ART	
Numerator	Number of HIV-positive treatment-eligible participants who are currently taking ART
Denominator	Total number of HIV-positive respondents who are eligible for treatment
Applicable KP	SW, MSM, TG, PWID, OVP
Recommended disaggregation	<ul style="list-style-type: none"> <li>Sex for SW, PWID, OVP (male, female)</li> <li>Age (&lt;25 years, 25+ years)</li> </ul>
Purpose/ rationale	<p>This indicator measures the percentage of HIV-positive participants eligible for treatment who are currently taking ART. This indicator can be used to assess progress in treatment coverage and helps monitor the HIV service cascade.<sup>a,b</sup> A low percentage or decreasing trend in treatment coverage may indicate challenges in linking KP to care and treatment or in procurement and distribution of ART, or stigma and discrimination by service providers. In such cases, countries may consider making treatment accessible to KP, training service providers and improving linkages.</p> <p>Note: Some surveys may test for ARV metabolites (numerator) and CD4 count (denominator), which allows for comparison of self-reported data with biological data. Please see the biomarker HIV treatment coverage indicator reference sheet for more information.</p>
Corresponding questionnaire item(s)	<p>This indicator is constructed from responses to the following questions from <b>Module 27: Services uptake</b>.</p> <p><b>Numerator:</b></p> <ul style="list-style-type: none"> <li>CSTRCURRE = 1 (yes) [Are you currently taking ARVs?]</li> </ul> <p><b>Denominator:</b></p> <ul style="list-style-type: none"> <li>CSCTRS = 1 (positive) [What was the result of your last test?]</li> </ul> <p><b>AND</b></p> <ul style="list-style-type: none"> <li>CSCDRS1 = (dependent on country eligibility for treatment) (2 = more than 500); (3 = between 350 and 500); (4 = between 200 and 349); or (5 = below 200). [What was the result of your last CD4 count?]</li> <li>If CSCDRS1 = 1 (did not receive result) exclude</li> </ul> <p><b>OR</b></p> <ul style="list-style-type: none"> <li>CSCDRS2 =  __   __    (dependent on country eligibility for treatment) [What was your last CD4 count?]</li> </ul>
Related existing indicators	<ul style="list-style-type: none"> <li><b>GARPR 4.1:</b> Percentage of eligible adults and children currently receiving antiretroviral therapy</li> <li><b>GF TCS-1:</b> Percentage of eligible adults and children currently receiving antiretroviral therapy among all adults and children living with HIV</li> </ul>

OVP, other vulnerable populations

<sup>a</sup> PEPFAR. MER level 1 indicator package. President's Emergency Plan For AIDS Relief (PEPFAR); 2013.

<sup>b</sup> Mountain E, Mishra S, Vickerman P, Pickles M, Gilks C, Boily M-C. Antiretroviral therapy uptake, attrition, adherence and outcomes among HIV-infected female sex workers: a systematic review and meta-analysis. PLoS One. 2014;9(9):e105645.

## Prevention of mother-to-child transmission

Percentage of HIV-positive female participants who received ARVs to reduce the risk of mother-to-child transmission during their last pregnancy that resulted in a birth	
Numerator	Number of HIV-positive female participants who received ARVs to reduce the risk of mother-to-child transmission during their last pregnancy that resulted in a birth
Denominator	Total number of women who were HIV-positive at their last pregnancy that resulted in a birth (in the last 5 years)
Applicable KP	Female PWID, FSW, female OVP
Recommended disaggregation	<ul style="list-style-type: none"> <li>Age (&lt;25 years, 25+ years)</li> </ul>
Purpose/ rationale	This indicator measures the percentage of HIV-positive female participants who received ARVs to reduce the risk of mother-to-child transmission during their last pregnancy that resulted in a birth. <sup>a</sup> A low percentage or decreasing trend for coverage of HIV-positive pregnant women who receive ARV prophylaxis or treatment may indicate poor access by the target population to ANC services; a weak PMTCT system; and inadequate procurement and distribution of sufficient ARVs for pregnant women. In such cases, countries may explore ways to scale up PMTCT programmes for KP and address any barriers to accessing PMTCT services, including combating stigma and discrimination and increasing the availability of community-based services to the KP.
Corresponding questionnaire item(s)	<p>This indicator is constructed from responses to the following questions from <b>Module 13: Reproductive health</b>.</p> <p><b>Numerator:</b></p> <ul style="list-style-type: none"> <li>RHHIVARV = 1 (yes) [Some HIV-positive women who are pregnant take ARV medicine to reduce the risk of passing HIV on to their baby. Did you take ARVs before giving birth?]</li> </ul> <p><b>Denominator:</b></p> <ul style="list-style-type: none"> <li>RHEVBRTH = 1 (yes) [Have you ever given birth?] AND</li> <li>RHHIVRES = 1 (positive) [During the last time you were pregnant, what was the result of the last HIV test?]</li> </ul>
Related existing indicators	<p><b>GARPR 3.1:</b> Percentage of HIV-positive pregnant women who receive antiretrovirals to reduce the risk of mother-to-child transmission</p> <p><b>GF PMTCT-2:</b> Percentage of HIV-positive pregnant women who received antiretrovirals to reduce the risk of mother-to-child transmission</p>

ANC, antenatal clinic; ARV, antiretroviral; OVP, other vulnerable populations; PMTCT, prevention of mother-to-child transmission

<sup>a</sup> UNAIDS/UNICEF/WHO. Global AIDS response progress reporting 2014: construction of core indicators for monitoring the 2011 United Nations political declaration on HIV and AIDS. Geneva: Joint United Nations Programme on HIV/AIDS (UNAIDS)/United Nations Children's Fund (UNICEF)/World Health Organization (WHO); 2014 ([http://files.unaids.org/en/media/unaids/contentassets/documents/document/2014/GARPR\\_2014\\_guidelines\\_en.pdf](http://files.unaids.org/en/media/unaids/contentassets/documents/document/2014/GARPR_2014_guidelines_en.pdf), accessed 2 September 2016).

## Hepatitis B virus testing

Percentage who were tested for HBV in the last 12 months	
Numerator	Number of participants who were tested for HBV in the last 12 months
Denominator	Total number of participants, except those who tested positive for HBV more than 12 months ago
Applicable KP	SW, MSM, TG, PWID
Recommended disaggregation	<ul style="list-style-type: none"> <li>Sex for SW, PWID (male, female)</li> <li>Age (&lt;25 years, 25+ years)</li> <li>Vaccination history (received HBV vaccine; did not receive HBV vaccine)</li> </ul>
Purpose/ rationale	<p>This indicator measures the percentage of participants who were tested for HBV in the last 12 months. HBV can be transmitted through several pathways, including sexual contact and injecting drug use. Vaccination programmes have dramatically reduced HBV prevalence, but it continues to be spread, particularly where vaccine programmes are not routinely or universally implemented.<sup>a</sup> Early diagnosis of HBV infection through blood tests is important because it can lead to care and treatment and decrease transmission. HBV diagnosis, treatment and vaccination are part of WHO's comprehensive package of services for KP.<sup>b</sup> A low percentage or decreasing trend of those tested (among those who are at risk) may indicate a lack of coverage of or access to HBV testing. In such cases, countries may consider targeted outreach, provider education or a routine vaccination programme.</p>
Corresponding questionnaire item(s) (if applicable)	<p>This indicator is constructed from responses to the following questions from <b>Module 26: Hepatitis B and C</b>.</p> <p><b>Numerator:</b></p> <ul style="list-style-type: none"> <li>HBTME = 1 (less than 12 months ago) [When did you have your most recent hepatitis B test?]</li> </ul> <p><b>Denominator:</b></p> <ul style="list-style-type: none"> <li>Total number of participants</li> </ul> <p><b>MINUS THE FOLLOWING:</b></p> <ul style="list-style-type: none"> <li>HBTME = 2 (more than 12 months ago) or 3 (more than 5 years ago) [When did you have your most recent hepatitis B test?]</li> </ul> <p><b>AND</b></p> <ul style="list-style-type: none"> <li>HBRSL = 1 (positive) [What was the result of your last hepatitis B test?]</li> </ul> <p><b>Disaggregation (vaccination history):</b></p> <ul style="list-style-type: none"> <li>HBVAC = 1 (yes) [Have you ever received the hepatitis B vaccine?]</li> <li>HBVAC = 2 (no) [Have you ever received the hepatitis B vaccine?]</li> </ul>
Related existing indicators	Not applicable

HBV, hepatitis B virus

<sup>a</sup> Ott JJ, Stevens GA, Groeger J, Wiersma ST, Visscherd BR, Vanablee PA et al. Global epidemiology of hepatitis B virus infection: new estimates of age-specific HBsAg seroprevalence and endemicity. *Vaccine*. 2012;30(12):2212–2219.

<sup>b</sup> PEPFAR. Comprehensive HIV prevention for people who inject drugs: revised guidance. President's Emergency Plan For AIDS Relief (PEPFAR); 2010.



## Hepatitis C virus testing

Percentage of PWID who were ever tested for HCV	
Numerator	Number of PWID who were ever tested for HCV
Denominator	Total number of PWID
Applicable KP	PWID
Recommended disaggregation	<ul style="list-style-type: none"> <li>• Sex (male, female)</li> <li>• Age (&lt;25 years, 25+ years)</li> <li>• Treatment history (took medicine to treat HCV infection, did not take medicine to treat HCV infection)</li> <li>• Time tested (less than 12 months ago, more than 12 months ago)</li> <li>• HIV status (positive, negative, unknown)</li> </ul>
Purpose/ rationale	This indicator measures the percentage of PWID who were ever tested for HCV. HCV infection is high among PWID. <sup>a</sup> WHO guidelines recommend that one-time testing should be performed for those with increased risk of HCV infection, including PWID and PLHIV. <sup>b</sup> Once identified, HCV-infected people can be offered treatment. In addition, knowing one's status may promote safer injecting drug use practices to reduce transmission to others. <sup>c</sup> A low percentage or decreasing trend in the number of PWID who were tested for HCV may indicate a lack of knowledge of HCV or low coverage of or access to testing. In such cases, countries may consider increasing awareness of HCV risks and access to HCV prevention tools and diagnostic testing among PWID to help reach undiagnosed HCV-infected individuals.
Corresponding questionnaire item(s) (if applicable)	<p>This indicator is constructed from responses to the following questions from <b>Module 26: Hepatitis B and C</b> and <b>Module 27: Services uptake</b>.</p> <p><b>Numerator:</b></p> <ul style="list-style-type: none"> <li>• HCTEST = 1 (yes) [Have you ever been tested for hepatitis C?]</li> </ul> <p><b>Denominator:</b></p> <ul style="list-style-type: none"> <li>• Total number of PWID</li> </ul> <p><b>Disaggregation (treatment history) [Module 11]:</b></p> <ul style="list-style-type: none"> <li>• HCMED = 1 (yes) [Have you ever taken medicine to treat your hepatitis C infection?]</li> <li>• HCMED = 2 (no) [Have you ever taken medicine to treat your hepatitis C infection?]</li> </ul> <p><b>Disaggregation (time tested) [Module 11]:</b></p> <ul style="list-style-type: none"> <li>• HCTTME = 1 (less than 12 months ago) [When did you have your most recent hepatitis B test?]</li> <li>• HCTIME = 2 (more than 12 months ago) or 3 (more than 5 years ago) [When did you have your most recent hepatitis B test?]</li> </ul> <p><b>Disaggregation (HIV status) [Module 10]:</b></p> <ul style="list-style-type: none"> <li>• CSCTRS = 1 (positive) [What was the result of your last (HIV) test?]</li> <li>• CSCTRS = 2 (negative) [What was the result of your last (HIV) test?]</li> <li>• CSCTRS = 3 (unclear/neither positive or negative) or 4 (did not receive result) [What was the result of your last (HIV) test?]</li> </ul>
Related existing indicators	Not applicable

ART, antiretroviral therapy; HCV, hepatitis C virus; OVP, other vulnerable populations

<sup>a</sup> Nelson PK, Mathers BM, Cowie B, Hagan H, Des Jarlais D, Horyniak D et al. Global epidemiology of hepatitis B and hepatitis C in people who inject drugs: results of systematic reviews. *Lancet*. 2011;378(9791):571–583.

<sup>b</sup> WHO. Consolidated guidelines on HIV prevention, diagnosis, treatment, and care for key populations. Geneva: World Health Organization (WHO); 2014 (<http://www.who.int/hiv/pub/guidelines/keypopulations/en/>, accessed 8 September 2016).

<sup>c</sup> HIV: science and stigma. *Lancet*. 2014;384(9939):207.

## Discussed pre-exposure prophylaxis

Percentage who discussed PrEP with a health-care provider in the last 12 months	
Numerator	Number of participants who discussed PrEP with a health-care provider in the last 12 months
Denominator	Number of participants eligible for PrEP (i.e. those who are HIV negative as of their last HIV test) who visited a health-care provider in the last 12 months
Applicable KP	SW, MSM, TG, PWID
Recommended disaggregation	Sex for SW, PWID (male, female)
Purpose/ rationale	This indicator measures the percentage of participants who discussed PrEP with a health-care provider in the last 12 months. PrEP involves daily use of ART by uninfected individuals to prevent them from getting HIV. Clinical trials of daily oral PrEP have provided evidence of effectiveness among MSM, TG and PWID. <sup>a</sup> Global consensus supports the use of PrEP to reduce the risk of getting or transmitting HIV, regardless of population or setting. <sup>b</sup> A low percentage or decreasing trend in this indicator may suggest limited use of health services by KP; health-care providers' lack of knowledge of PrEP guidelines; or health-care providers' concerns and preconceived notions about adherence, drug resistance, or behavioural disinhibition/risk compensation. In such cases, countries may consider training providers in the use of PrEP.
Corresponding questionnaire item(s)	This indicator is constructed from responses to the following questions from <b>Module 28: PEP and PrEP, Module 27: Services uptake</b> , and respondent background.  <b>Numerator</b> [Module 12]: <ul style="list-style-type: none"> <li>PPRDISC: When has a health-care provider last offered or discussed PrEP with you? (1 = yes)</li> </ul> <b>Denominator</b> [Module 10 and respondent background]: <ul style="list-style-type: none"> <li>CSCTRS = 2 (negative) [What was the result of your last test?] AND</li> <li>PPRDISC: When has a health-care provider last offered or discussed PrEP with you? (1, 2 or 3)</li> </ul>
Related existing indicators	Not applicable

ART, antiretroviral therapy; PEP, post-exposure prophylaxis; PrEP, pre-exposure prophylaxis

<sup>a</sup> WHO. Guidance on oral pre-exposure prophylaxis (PrEP) for serodiscordant couples, men and transgender women who have sex with men at high risk of HIV: recommendations for use in the context of demonstration projects. Geneva: World Health Organization (WHO); 2012 ([http://apps.who.int/iris/bitstream/10665/75188/1/9789241503884\\_eng.pdf](http://apps.who.int/iris/bitstream/10665/75188/1/9789241503884_eng.pdf), accessed 8 September 2016).

<sup>b</sup> WHO. Consolidated guidelines on HIV prevention, diagnosis, treatment, and care for key populations. Geneva: World Health Organization (WHO); 2014 (<http://www.who.int/hiv/pub/guidelines/keypopulations/en/>, accessed 8 September 2016).

## Taken pre-exposure prophylaxis

Percentage who took PrEP in the last 12 months	
Numerator	Number of participants who took PrEP in the last 12 months
Denominator	Number of participants who are eligible for PrEP (i.e. those who are HIV negative as of their last HIV test)
Applicable KP	SW, MSM, TG, PWID
Recommended disaggregation	<ul style="list-style-type: none"> <li>Sex for SW, PWID (male, female)</li> </ul>
Purpose/ rationale	This indicator measures the percentage of participants who took PrEP in the last 12 months. PrEP involves daily use of ART by uninfected individuals to prevent them from getting HIV. Clinical trials of daily oral PrEP have provided evidence of effectiveness among MSM, TG and PWID <sup>a</sup> . Global consensus supports the use of PrEP to reduce the risk of getting or transmitting HIV, regardless of population or setting <sup>b</sup> . A low percentage or decreasing trend in this indicator may suggest logistical and financial challenges to successful rollout of PrEP, including inefficient drug delivery and lack of human resources and community education. It may also be due to lack of knowledge among providers and KP. In such cases, countries should integrate PrEP into existing comprehensive HIV prevention services <sup>c</sup> . As additional rounds of BBS occur, it will be possible to examine trends in adoption of PrEP within countries and the target population. This indicator may inform modifications to PrEP guidelines, outreach strategies, patient education and behavioural interventions.
Corresponding questionnaire item(s)	<p>This indicator is constructed from responses to the following questions from <b>Module 28: PEP and PrEP</b> and <b>Module 27: Services uptake</b>.</p> <p><b>Numerator</b> [Module 12]:</p> <ul style="list-style-type: none"> <li>PPRTAKE2 = 1, 2 or 3 (last sex, last month, last 12 months) [Which answer describes best when you last have taken PrEP?]</li> </ul> <p><b>Denominator</b> [Module 10]:</p> <ul style="list-style-type: none"> <li>CSCTRS = 2 (negative) [What was the result of your last test?]</li> </ul>
Related existing indicators	<b>PEPFAR MER PrEP_NEW</b> : Number of adults and adolescents who have received antiretroviral pre-exposure prophylaxis (PrEP) in the reporting period to prevent HIV infection

ART, antiretroviral therapy; PEP, post-exposure prophylaxis; PrEP, pre-exposure prophylaxis

<sup>a</sup> WHO. Guidance on oral pre-exposure prophylaxis (PrEP) for serodiscordant couples, men and transgender women who have sex with men at high risk of HIV: recommendations for use in the context of demonstration projects. Geneva: World Health Organization (WHO); 2012 ([http://apps.who.int/iris/bitstream/10665/75188/1/9789241503884\\_eng.pdf](http://apps.who.int/iris/bitstream/10665/75188/1/9789241503884_eng.pdf), accessed 8 September 2016).

<sup>b</sup> WHO. Consolidated guidelines on HIV prevention, diagnosis, treatment, and care for key populations. Geneva: World Health Organization (WHO); 2014 (<http://www.who.int/hiv/pub/guidelines/keypopulations/en/>, accessed 8 September 2016).

<sup>c</sup> Underhill K, Operario D, Mimiaga MJ, Skeer MR, Mayer KH. Implementation science of pre-exposure prophylaxis: preparing for public use. *Curr HIV/AIDS Rep.* 2010;7(4):210–219.

## Current use of modern family planning methods

Percentage of female participants currently using a modern family planning method	
Numerator	Number of female participants who are currently using a modern family planning method
Denominator	Number of female participants not seeking to get pregnant
Applicable KP	FSW, female PWID
Recommended disaggregation	<ul style="list-style-type: none"> <li>• Age (&lt;25 years, 25+ years)</li> <li>• Type of contraceptive method (pill, injection, norplant, IUD or other)</li> <li>• HIV status (positive, negative, unknown)</li> </ul>
Purpose/ rationale	<p>This indicator measures the percentage of female participants who are currently using a modern method of family planning among those who are not seeking to get pregnant. Contraceptives prevent unintended pregnancies, reduce the number of abortions, and lower the incidence of death and disability related to complications of pregnancy and childbirth.<sup>a</sup> Access to modern family planning methods allows women to choose more effective methods and prevent unintended pregnancies. A low percentage or decreasing trend in this indicator may suggest that participants do not have access to modern methods or do not feel like they have access to family planning facilities because of experienced discrimination and stigma.<sup>b</sup> It may also indicate procurement challenges or insufficiently trained health-care providers. In such cases, countries may need to address operational policies and practices as well as stigma and discrimination to help FSW and female PWID access modern methods.</p>
Corresponding questionnaire item(s) (if applicable)	<p>This indicator is constructed from responses to the following questions from <b>Module 13: Reproductive health</b> and <b>Module 27: Services uptake</b>.</p> <p><b>Numerator</b> [Module 13]:</p> <ul style="list-style-type: none"> <li>• RHTYPNOW = 1 (pill), 2 (injection), 3 (norplant), 4 (IUD) [Which method do you mainly use?]</li> </ul> <p>OR</p> <ul style="list-style-type: none"> <li>• RHTYPOTH = 1 (sterilization), 2 (patch), 3 (vaginal ring), 4 (condom) [You said “other”. Which of the following family planning methods do you mainly use?]</li> </ul> <p><b>Denominator</b> [Module 13]:</p> <ul style="list-style-type: none"> <li>• RHTRYPRG = 2 (no) [Are you currently trying to get pregnant?]</li> </ul> <p><b>Disaggregation</b> (type of contraceptive method) [Module 13]:</p> <ul style="list-style-type: none"> <li>• RHTYPNOW = 1 (pill), 2 (injection), 3 (norplant) or 4 (IUD) [Which method do you mainly use?]</li> <li>• RHTYPOTH = 1 (sterilization), 2 (patch), 3 (vaginal ring) and 4 (condoms) [You said “other”. Which of the following family planning methods do you mainly use?]</li> </ul> <p><b>Disaggregation</b> (HIV status) [Module 10]:</p> <ul style="list-style-type: none"> <li>• CSCTRS = 1 (positive) [What was the result of your last (HIV) test?]</li> <li>• CSCTRS = 2 (negative) [What was the result of your last (HIV) test?]</li> <li>• CSCTRS = 3 (unclear/neither positive or negative) or 4 (did not receive result) [What was the result of your last (HIV) test?]</li> </ul>
Related existing indicators	Not applicable

*IUD, intrauterine device*

<sup>a</sup> Singh S, Darroch JE. Adding it up: costs and benefits of contraceptive services estimates for 2012. Guttmacher Institute: UNFPA. 2012.

<sup>b</sup> FHI360/PTA/USAID. Integrating family planning into HIV programs: evidence-based practices. fhi360; 2013 (<https://www.fhi360.org/sites/default/files/media/documents/fp-hiv-evidence%20based%20practices%202013.pdf>, accessed 8 September 2013).

## Antenatal clinic access and HIV testing

Percentage who gave birth in the last 5 years who were tested for HIV in an ANC during their most recent pregnancy	
Numerator	Number of female participants who gave birth in the last 5 years who were tested for HIV in an ANC during their most recent pregnancy
Denominator	Number of female participants who gave birth in the last 5 years
Applicable KP	FSW, female PWID
Recommended disaggregation	<ul style="list-style-type: none"> <li>Age (&lt;25 years, 25+ years)</li> </ul>
Purpose/ rationale	This indicator measures the percentage of female participants who gave birth in the last 5 years who were tested for HIV in an ANC during their most recent pregnancy. This indicator reflects one component of PMTCT, which is to increase the number of pregnant women who know their HIV status. <sup>a</sup> Women living with HIV are at greater risk of adverse birth outcomes and have higher maternal mortality rates overall. <sup>b</sup> Identification of HIV-positive women when they are pregnant is a key entry point into care and treatment services. A low percentage or decreasing trend in this indicator may suggest that women in the target population are not accessing antenatal services or are not being tested for HIV at ANC. In such cases, countries may consider training for health providers, media and community campaigns promoting ANC, and outreach to FSW and female PWID who may be pregnant.
Corresponding questionnaire item(s) (if applicable)	<p>This indicator is constructed from responses to the following questions from <b>Module 13: Reproductive health</b>.</p> <p><b>Numerator:</b></p> <ul style="list-style-type: none"> <li>RHANCUSE = 1 (yes) [Think about the last time you were pregnant. Did you go to a health facility for antenatal care?]</li> </ul> <p><b>AND</b></p> <ul style="list-style-type: none"> <li>RHHIVTST = 1 (yes) (one time) or (two or more times) [During any of your last visits to the antenatal clinic the last time you were pregnant, were you tested for HIV?]</li> </ul> <p><b>Denominator:</b></p> <ul style="list-style-type: none"> <li>RHEVBRTH = 1 (yes) [Have you given birth in the last 5 years?]</li> </ul>
Related existing indicators	<ul style="list-style-type: none"> <li><b>PEPFAR MER PMTCT_STAT:</b> Percentage of pregnant women with known HIV status (includes those who already knew their HIV status prior to ANC)</li> <li><b>GF PMTCT-1:</b> Percentage of pregnant women who know their HIV status</li> <li><b>GF HSS O-1:</b> Percentage of women attending antenatal care</li> </ul>

ANC, antenatal clinic; PMTCT, prevention of mother-to-child transmission

<sup>a</sup> Next generation indicators reference guide addendum: recommended indicators reference sheets. President's Emergency Plan For AIDS Relief (PEPFAR); 2009.

<sup>b</sup> Horton R. Maternal mortality: surprise, hope, and urgent action. *Lancet*. 2010;375(9726):1581–1582.

## Seeking care for sexually transmitted infection symptoms

Percentage who visited a health-care provider in the last 12 months to seek care for STI symptoms	
Numerator	Number of participants who visited a health-care provider in the last 12 months to seek care for STI symptoms
Denominator	Number of participants who experienced STI symptoms
Applicable KP	SW, MSM, TG, PWID, OVP
Recommended disaggregation	<ul style="list-style-type: none"> <li>Sex for SW, PWID, OVP (male, female)</li> <li>Age (&lt;25 years, 25+ years)</li> </ul>
Purpose/ rationale	This indicator measures the percentage of participants who experienced any STI symptoms in the last 12 months and sought care from a health-care provider. STIs increase the risk of getting and passing on HIV. <sup>a,b</sup> A person who seeks care for STI symptoms should receive risk-reduction counselling, and those who are not already HIV-infected should be tested for HIV. <sup>c</sup> However, KP may not seek the health care they need due to perceived shame and feeling disrespected by doctors or other health-care workers. <sup>d</sup> This has implications for timely STI treatment and is a missed opportunity to test for HIV. A low percentage or decreasing trend in this indicator may suggest a lack of access to services, lack of sensitivity to KP among health-care providers, or decreased STI prevalence among the target population. In such cases, countries may work with STI service providers to help KP gain access to treatment services.
Corresponding questionnaire item(s)	<p>This indicator is constructed from responses to the following questions from <b>Module 25: Sexually transmitted infections</b>.</p> <p><b>Numerator:</b></p> <ul style="list-style-type: none"> <li>STSTD<sub>X</sub> = 1 (yes) [Did you see a health-care provider because of these problems?]</li> </ul> <p><b>Denominator:</b></p> <p><b>For males</b></p> <ul style="list-style-type: none"> <li>STABNM<sub>X</sub> = 1 (yes) [In the last 12 months, have you had an abnormal discharge from your penis?]</li> </ul> <p>OR</p> <ul style="list-style-type: none"> <li>STULCM = 1 (yes) [In the last 12 months, have you had an ulcer or sore on or near your penis?]</li> </ul> <p><b>For females</b></p> <ul style="list-style-type: none"> <li>STABNF = 1 (yes) [During the last 12 months, have had an abnormal discharge from your vagina? This may include an unusual smell, colour or texture.]</li> </ul> <p>OR</p> <ul style="list-style-type: none"> <li>STULCF = 1 (yes) [In the last 12 months, have you had an ulcer or sore on or near your vagina?]</li> </ul>
Related existing indicators	Not applicable

OVP, other vulnerable populations

<sup>a</sup> McClelland RS, Sangare L, Hassan WM, Lavreys L, Mandalaya K, Kiarie J et al. Infection with *Trichomonas vaginalis* increases the risk of HIV-1 acquisition. *J Infect Dis.* 2007;195(5):698–702.

<sup>b</sup> Solomon MM, Mayer KH, Glidden DV, Liu AY, McMahan VM, Guanira JV et al. Syphilis predicts HIV incidence among men and transgender women who have sex with men in a preexposure prophylaxis trial. *Clin Infect Dis.* 2014;59(7):1020–1026.

<sup>c</sup> Miranda AE, Nasser SO, Simon M, Guerra PB, Sant' Anna PM. Risk factors and prevalence of HIV infection in people seeking health care in an STI clinic in Brazil. *AIDS Care.* 2007;19(1):75–78.

<sup>d</sup> Veldhuijzen NJ, van Steijn M, Nyinawabega J, Kestelyn E, Uwizeza M, Vyankandondera J et al. Prevalence of sexually transmitted infections, genital symptoms and health-care seeking behaviour among HIV-negative female sex workers in Kigali, Rwanda. *Int J of STD AIDS.* 2013;24(2):139–143

## Sexually transmitted infection screening

Percentage who were screened for STIs in the last 12 months	
Numerator	Number of participants who were screened for STIs in the last 12 months
Denominator	Total number of participants
Applicable KP	SW, MSM, TG, PWID, OVP
Recommended disaggregation	<ul style="list-style-type: none"> <li>Sex for SW, PWID, OVP (male, female)</li> <li>Age (&lt;25 years, 25+ years)</li> </ul>
Purpose/ rationale	This indicator measures the percentage of participants who were screened for STIs in the last 12 months. Globally, STIs are a major cause of acute illness, infertility, long-term disability and death. <sup>a</sup> Several STIs increase the risk of both getting and passing on HIV. <sup>b,c</sup> Because of their sexual risk behaviours, STI screening is recommended for all KP. <sup>a</sup> A low percentage or decreasing trend in this indicator may suggest lack of knowledge of STI screening guidelines for KP. In such cases, countries may consider improving the quality of STI services through partnerships with KP advocacy groups in order to make services friendlier to these populations and screening more frequent.
Corresponding questionnaire item(s)	<p>This indicator is constructed from responses to the following questions from <b>Module 25: Sexually transmitted infections</b>.</p> <p><b>Numerator:</b></p> <ul style="list-style-type: none"> <li>STISCREEN: In the last 12 months did a health-care provider check or test you for STI? Yes = 1</li> </ul> <p><b>Denominator:</b></p> <ul style="list-style-type: none"> <li>STISCREEN: In the last 12 months did a health-care provider check or test you for STI? Yes = 1 or No = 2</li> </ul>
Related existing indicators	Not applicable

*OVP, other vulnerable populations; STI, sexually transmitted infection*

<sup>a</sup> Consolidated guidelines on HIV prevention, diagnosis, treatment, and care for key populations. Geneva: World Health Organization (WHO); 2014 (<http://www.who.int/hiv/pub/guidelines/keypopulations/en/>, accessed 8 September 2016).

<sup>b</sup> Solomon MM, Mayer KH, Glidden DV, Liu AY, McMahan VM, Guanira JV et al. Syphilis predicts HIV incidence among men and transgender women who have sex with men in a preexposure prophylaxis trial. *Clin Infect Dis*. 2014;59(7):1020–1026.

<sup>c</sup> McClelland RS, Sangare L, Hassan WM, Lavreys L, Mandaliya K, Kiarie J et al. Infection with *Trichomonas vaginalis* increases the risk of HIV-1 acquisition. *J Infect Dis*. 2007;195(5):698–702.

## Received sexually transmitted infection treatment

Percentage who screened positive for an STI and received treatment in the last 12 months	
Numerator	Number of participants who screened positive for an STI and received treatment in the last 12 months
Denominator	Number of participants who screened positive for an STI in the last 12 months
Applicable KP	SW, MSM, TG, PWID, OVP
Recommended disaggregation	<ul style="list-style-type: none"> <li>• Sex for SW, PWID, OVP (male, female)</li> <li>• Age (&lt;25 years, 25+ years)</li> </ul>
Purpose/ rationale	This indicator measures the percentage of participants who screened positive for an STI and received treatment for the STI in the last 12 months. Globally, STIs are a major cause of acute illness, infertility, long-term disability and death. <sup>a</sup> Several STIs increase the risk of getting and passing on HIV. <sup>b,c</sup> STI screening and treatment is recommended for all KP. <sup>a,d</sup> A low percentage or decreasing trend in this indicator may suggest lack of knowledge of STI screening and treatment guidelines for KP. In such cases, countries may consider improving the quality of STI services through partnerships with KP advocacy groups in order to make services friendlier to these populations and screening more frequent.
Corresponding questionnaire item(s)	<p>This indicator is constructed from responses to the following questions from <b>Module 25: Sexually transmitted infections</b>.</p> <p><b>Numerator:</b></p> <ul style="list-style-type: none"> <li>• STPHARM = 1 (yes) [Did you get treatment for these problems?]</li> </ul> <p><b>Denominator:</b></p> <ul style="list-style-type: none"> <li>• STSTDY = 1 (yes) [Did the health-care provider tell you that you had a sexually transmitted infection?]</li> </ul>
Related existing indicators	Not applicable

OVP, other vulnerable populations; STI, sexually transmitted infection

<sup>a</sup> Consolidated guidelines on HIV prevention, diagnosis, treatment, and care for key populations. Geneva: World Health Organization (WHO); 2014 (<http://www.who.int/hiv/pub/guidelines/keypopulations/en/>, accessed 8 September 2016).

<sup>b</sup> McClelland RS, Sangare L, Hassan WM, Lavreys L, Mandaliya K, Kiarie J et al. Infection with *Trichomonas vaginalis* increases the risk of HIV-1 acquisition. *J Infect Dis.* 2007;195(5):698–702.

<sup>c</sup> PEPFAR. Next generation indicators reference guide addendum: recommended indicators reference sheets. President's Emergency Plan For AIDS Relief (PEPFAR); 2009.

<sup>d</sup> PEPFAR. Technical guidance on combination HIV prevention. President's Emergency Plan For AIDS Relief (PEPFAR); 2011.



## Received lubricants

Percentage who received packets of lubricant through an outreach service, drop-in centre or sexual health clinic in the last 12 months	
Numerator	Number of participants who received packets of lubricant through an outreach service, drop-in centre or sexual health clinic in the last 12 months
Denominator	Total number of participants
Applicable KP	SW, MSM, TG, PWID, OVP
Recommended disaggregation	<ul style="list-style-type: none"> <li>Sex for SW, PWID, OVP (male, female)</li> <li>Age (&lt;25 years, 25+ years)</li> </ul>
Purpose/ rationale	This indicator measures the percentage of participants who received packets of lubricant through an outreach service, drop-in centre or sexual health clinic in the last 12 months. Using condom-compatible lubricants with condoms helps to prevent condoms from breaking and slipping during vaginal and anal sex. <sup>a</sup> Condoms breaking or slipping can put users at higher risk of getting HIV and STIs. <sup>b</sup> A low percentage or decreasing trend in this indicator may suggest low access to services and lack of knowledge or acceptance of lubricant use. In such cases, countries may consider expanding access to and distribution of condom-compatible lubricants through outreach or other services.
Corresponding questionnaire item(s) (if applicable)	<p>This indicator is constructed from responses to the following questions from <b>Module 19: Lubricant use</b>.</p> <p><b>Numerator:</b></p> <ul style="list-style-type: none"> <li>LUFREE = 1 (yes) [In the last 12 months, have you been given “packets” of lubricant for free? For example, through an outreach service, drop-in centre or health clinic.]</li> </ul> <p><b>Denominator:</b></p> <ul style="list-style-type: none"> <li>Total number of respondents, except OVP</li> </ul>
Related existing indicators	Not applicable

OVP, other vulnerable populations; STI, sexually transmitted infection

<sup>a</sup> Gabbay M, Gibbs A. Does additional lubrication reduce condom failure? *Contraception*. 1996;53(3):155–158.

<sup>b</sup> WHO. Consolidated guidelines on HIV prevention, diagnosis, treatment, and care for key populations. Geneva: World Health Organization (WHO); 2014 (<http://www.who.int/hiv/pub/guidelines/keypopulations/en/>, accessed 8 September 2016).

## HIV knowledge and perceptions

Percentage who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission	
Numerator	Number of participants who correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission
Denominator	Total number of participants
Applicable KP	SW, MSM, TG, PWID, OVP
Recommended disaggregation	<ul style="list-style-type: none"> <li>Sex for SW, PWID, OVP (male, female)</li> <li>Age (&lt;25 years, 25+ years)</li> </ul>
Purpose/ rationale	This indicator measures the percentage of participants who correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission. Knowledge of HIV prevention may show the extent to which outreach or other informational campaigns and educational materials have reached KP. However, misconceptions may still persist, such as the belief that a healthy-looking person cannot be infected with HIV, which can result in unprotected sexual intercourse with infected partners. <sup>a</sup> Rejecting major misconceptions about HIV transmission is as important as correct knowledge. <sup>a</sup> A low percentage or decreasing trend in this indicator may suggest lack of exposure to comprehensive HIV education. In such cases, countries may consider educational campaigns and promotion of materials about prevention of the sexual transmission of HIV and common misconceptions.
Corresponding questionnaire item(s)	<p>This indicator is constructed from responses to the following questions from <b>Module 38: HIV knowledge and perceptions</b>.</p> <p><b>Numerator:</b></p> <ul style="list-style-type: none"> <li>HKONEPAR = 1 (yes) [Can the risk of HIV transmission be reduced by having sex with only one uninfected partner who has no other partners?]</li> </ul> <p><b>AND</b></p> <ul style="list-style-type: none"> <li>HKCONUSE = 1 (yes) [Can a person reduce the risk of getting HIV by using a condom every time they have sex?]</li> </ul> <p><b>AND</b></p> <ul style="list-style-type: none"> <li>HKHEALTH = 1 (yes) [Can a healthy-looking person have HIV?]</li> </ul> <p><b>AND</b></p> <ul style="list-style-type: none"> <li>HKMOSBIT = 2 (no) [Can a person get HIV from mosquito bites?]</li> </ul> <p><b>AND</b></p> <ul style="list-style-type: none"> <li>HKSRFOOD = 2 (no) [Can a person get HIV by sharing food with someone who is infected?]</li> </ul> <p><b>Denominator:</b></p> <ul style="list-style-type: none"> <li>Total number of participants</li> </ul>

OVP, other vulnerable populations

<sup>a</sup> UNAIDS/UNICEF/WHO. Global AIDS response progress reporting 2014: construction of core indicators for monitoring the 2011 United Nations political declaration on HIV and AIDS. Geneva: Joint United Nations Programme on HIV/AIDS (UNAIDS)/United Nations Children's Fund (UNICEF)/World Health Organization (WHO); 2014 ([http://files.unaids.org/en/media/unaids/contentassets/documents/document/2014/GARPR\\_2014\\_guidelines\\_en.pdf](http://files.unaids.org/en/media/unaids/contentassets/documents/document/2014/GARPR_2014_guidelines_en.pdf), accessed 2 September 2016).

## Incarceration

Percentage who were ever arrested because they are a member of a KP	
Numerator	Number of participants who were ever arrested because they are a member of a KP
Denominator	Total number of participants
Applicable KP	SW, MSM, TG, PWID
Recommended disaggregation	<ul style="list-style-type: none"> <li>Sex for SW, PWID (male, female)</li> <li>Age (&lt;25 years, 25+ years)</li> </ul>
Purpose/ rationale	This indicator measures the percentage of participants who were ever arrested because they are a member of a KP. Social exclusion and legal marginalization are important factors that influence health outcomes for KP. <sup>a</sup> Imprisonment is related to increased risk of HIV infection and delayed stopping of injecting drug use. <sup>b</sup> A high percentage or increasing trend in incarceration may indicate increased discrimination among KP and low sensitization of police towards KP. In such cases, countries may consider expanding sensitization training for police or legalizing behaviours that define KP groups.
Corresponding questionnaire item(s) (if applicable)	This indicator is constructed from responses to the following question from <b>Module 29: Shame, stigma, harassment and discrimination</b> .
	<b>Numerator:</b> <ul style="list-style-type: none"> <li>STGARST = 1 (yes) [Have you ever been arrested because you [insert behaviour]?]</li> </ul>
	<b>Denominator:</b> <ul style="list-style-type: none"> <li>Total number of participants</li> </ul>
Related existing indicators	Not applicable

<sup>a</sup> Csete J, Cohen J. Health benefits of legal services for criminalized populations: the case of people who use drugs, sex workers and sexual and gender minorities. *J Law, Med Ethics*. 2010;38(4):816–831.

<sup>b</sup> Nosyk B, Li L, Evans E, Huang D, Min J, Kerr T et al. Characterizing longitudinal health state transitions among heroin, cocaine, and methamphetamine users. *Drug Alcohol Depen*. 2014;140:69–77.

## Health-care stigma

Percentage who were ever treated unfairly or denied services by health-care providers because they are a member of a KP	
Numerator	Number of participants who were ever treated unfairly or denied services by health-care providers because they are a member of a KP
Denominator	Total number of participants
Applicable KP	SW, MSM, TG, PWID
Recommended disaggregation	<ul style="list-style-type: none"> <li>• Sex for SW, PWID (male, female)</li> <li>• Age (&lt;25 years, 25+ years)</li> <li>• HIV status (positive, negative, unknown)</li> </ul>
Purpose/ rationale	This indicator measures the percentage of participants who were ever treated unfairly or denied services by health-care providers because they are a member of a KP. Discrimination and stigma in health-care settings contributes to the exclusion of KP from needed services. <sup>a</sup> KP are consistently underserved, and low-service coverage remains an important factor for ongoing HIV transmission. <sup>a,b</sup> A low percentage or decreasing trend in this indicator may suggest more accepting environments where the target population feels comfortable seeking needed services without harassment, discrimination or abuse. <sup>a</sup> In situations where this is not the case, countries may consider active outreach outside clinical settings to reach KP, who are often stigmatized or hidden. <sup>c</sup>
Corresponding questionnaire item(s) (if applicable)	<p>This indicator is constructed from responses to the following questions from <b>Module 29: Shame, stigma, harassment and discrimination</b>.</p> <p><b>Numerator:</b></p> <ul style="list-style-type: none"> <li>• STGHEAL = 1 (yes) [Have you ever been treated unfairly or denied health-care providers because you [insert behaviour]?)</li> </ul> <p><b>Denominator:</b></p> <ul style="list-style-type: none"> <li>• Total number of participants</li> </ul> <p><b>Disaggregation (HIV status):</b></p> <ul style="list-style-type: none"> <li>• CSCTRS = 1 (positive) [What was the result of your last (HIV) test?]</li> <li>• CSCTRS = 2 (negative) [What was the result of your last (HIV) test?]</li> <li>• CSCTRS = 3 (unclear/neither positive or negative) or 4 (did not receive result) [What was the result of your last (HIV) test?]</li> </ul>
Related existing indicators	Not applicable

<sup>a</sup> Beyrer C, Grady C, Bekker L-G, McIntyre J, Over M, des Jarlais D. A framework for ethical engagement with key populations in PEPFAR programs. President's Emergency Plan For AIDS Relief (PEPFAR); 2013 (<http://www.pepfar.gov/sab/210110.htm>, accessed 14 September 2016).

<sup>b</sup> Wolfe D, Carrieri MP, Shepard D. Treatment and care for injecting drug users with HIV infection: a review of barriers and ways forward. *Lancet*. 2010;376(9738):355–366.

<sup>c</sup> Underhill K, Operario D, Mimiaga MJ, Skeer MR, Mayer KH. Implementation science of pre-exposure prophylaxis: preparing for public use. *Curr HIV/AIDS Rep*. 2010;7(4):210–219.

## Discrimination and social exclusion

Percentage who experienced discrimination or social exclusion in the last 12 months because they are a member of a KP	
Numerator	Number of participants who experienced discrimination or social exclusion in the last 12 months because they are a member of a KP
Denominator	Total number of participants
Applicable KP	SW, MSM, TG, PWID
Recommended disaggregation	<ul style="list-style-type: none"> <li>• Sex for SW, PWID (male, female)</li> <li>• Age (&lt;25 years, 25+ years)</li> <li>• HIV status (positive, negative, unknown)</li> </ul>
Purpose/ rationale	This indicator measures the percentage of participants who experienced discrimination or social exclusion in the last 12 months because they are a member of a KP. KP are often subjected to stigma, discrimination and negative attitudes related to their behaviour, especially if also living with HIV. <sup>a,b</sup> Stigma and discrimination reduce uptake of HIV services and disclosure of HIV status. <sup>c</sup> A low percentage or decreasing trend in this indicator may suggest more accepting environments for KP. In cases where discrimination and social exclusion remains high, countries may consider promoting antidiscrimination and protective policies for all KP. <sup>b</sup>
Corresponding questionnaire item(s) (if applicable)	<p>This indicator is constructed from responses to the following questions from <b>Module 29: Shame, stigma, harassment and discrimination.</b></p> <p><b>Numerator:</b></p> <ul style="list-style-type: none"> <li>• STGFRND = 1 (yes for at least one of the following response options: partner/spouse, family, friends/acquaintances, health-care providers, other) [In the last 12 months, which of the following have treated you badly or excluded you because you [insert behaviour]?</li> </ul> <p><b>Denominator:</b></p> <ul style="list-style-type: none"> <li>• Total number of participants</li> </ul> <p><b>Disaggregation (HIV status):</b></p> <ul style="list-style-type: none"> <li>• CSCTRS = 1 (positive) [What was the result of your last (HIV) test?]</li> <li>• CSCTRS = 2 (negative) [What was the result of your last (HIV) test?]</li> <li>• CSCTRS = 3 (unclear/neither positive or negative) or 4 (did not receive result) [What was the result of your last (HIV) test?]</li> </ul>
Related existing indicators	Not applicable

<sup>a</sup> Buller AM, Devries KM, Howard LM, Bacchus LJ. Associations between intimate partner violence and health among men who have sex with men: a systematic review and meta-analysis. *PLoS Med.* 2014;11(3):e1001609.

<sup>b</sup> Consolidated guidelines on HIV prevention, diagnosis, treatment, and care for key populations. (2014). Geneva: World Health Organization

<sup>c</sup> Karim QA, Meyer-Weitz A, Mboyi L, Carrara H, Mahlase G, Frohlich JA et al. The influence of AIDS stigma and discrimination and social cohesion on HIV testing and willingness to disclose HIV in rural KwaZulu-Natal, South Africa. *Global Public Health.* 2008;3(4):351–365.

## Violence

Percentage who experienced violence in the last 12 months	
Numerator	Number of participants who experienced violence in the last 12 months
Denominator	Total number of participants
Applicable KP	SW, MSM, TG, PWID
Recommended disaggregation	<ul style="list-style-type: none"> <li>• Sex for SW, PWID (male, female)</li> <li>• Age (&lt;25 years, 25+ years)</li> <li>• Type of violence (physical violence, sexual violence, sexual coercion)</li> <li>• Perceived reason (because of KP behaviour, not because of KP behaviour)</li> </ul>
Purpose/ rationale	<p>This indicator measures the percentage of participants who experienced violence in the last 12 months. KP are often targets of violence; criminalization of their behaviours helps create an environment in which violence against KP is tolerated.<sup>a</sup> KP may not report violence because their claims are usually dismissed or they may distrust or fear police.<sup>b</sup> Fear of physical violence is a barrier to providing services for KP and limits their use of existing services.<sup>a</sup> Sexual violence and sexual coercion compromise their ability to negotiate safer sexual behaviours and thus put them at greater risk of getting HIV and STI.<sup>bc</sup> Because violence is often an expression of stigma and discrimination, a high percentage or increasing trend may indicate a greater intolerance towards KP. In such cases, countries may consider implementing and enforcing antidiscrimination and protective laws to eliminate stigma, discrimination and violence against KP. Other measures may include providing timely access to post-rape care, including emergency contraception, PEP, HBV immunization and psychosocial support.<sup>a</sup></p>
Corresponding questionnaire item(s)	<p>This indicator is constructed from responses to the following questions from <b>Module 30: Physical violence and Module 31: Sexual violence</b>.</p> <p><b>Numerator:</b></p> <p>Physical violence [Module 25]:</p> <ul style="list-style-type: none"> <li>• PVYRFRQ = 2 (once), 3 (2–5 times), 4 (6–10 times) or 5 (more than 10 times) [In the last 12 months, how many times has anyone physically hurt you such as hit or choked you, or threatened you with a knife or other weapon?]</li> </ul> <p><b>OR</b></p> <p>Sexual violence [Module 26]:</p> <ul style="list-style-type: none"> <li>• SVCYRFRQ = 2 (once), 3 (2–5 times), 4 (6–10 times) or 5 (more than 10 times) [How many times has this (i.e. being physically forced to have sex) happened in the last 12 months?]</li> </ul> <p><b>OR</b></p> <ul style="list-style-type: none"> <li>• SVCYRFRQ = 2 (once), 3 (2–5 times), 4 (6–10 times) or 5 (more than 10 times) [In the last 12 months, how many times has someone tricked you, lied to you, or threatened you in order to make you have sex when you didn't want to?]</li> </ul> <p><b>Denominator:</b></p> <ul style="list-style-type: none"> <li>• Total number of participants</li> </ul>

	<p><b>Disaggregation</b> (type of violence):</p> <ul style="list-style-type: none"> <li>• Physical violence [Module 25]: PVYRFRQ = 2, 3, 4 or 5 [see numerator above for detail]</li> <li>• Sexual violence [Module 26]: SVCYRFRQ = 2, 3, 4 or 5 [see numerator above for detail]</li> <li>• Sexual coercion [Module 26]: SVCYRFRQ = 2, 3, 4 or 5 [see numerator above for detail]</li> </ul> <p><b>Disaggregation</b> (perceived reason):</p> <ul style="list-style-type: none"> <li>• Because of KP behaviour <ul style="list-style-type: none"> <li>• Physical violence [Module 25]: PVYRBEH = 1 (yes) [In the last 12 months when these happened, do you think it was because you [insert behaviour]??]</li> <li>• Sexual violence [Module 26]: SVCYRBEH = 1 (yes) [In the last 12 months when these happened, do you think it was because you [insert behaviour]??]</li> <li>• Sexual coercion [Module 26]: SVCYRFRQ = 1 (yes) [In the last 12 months when these happened, do you think it was because you [insert behaviour]??]</li> </ul> </li> <li>• Not because of KP behaviour <ul style="list-style-type: none"> <li>• Physical violence [Module 25]: PVYRBEH = 2 (no) [In the last 12 months when these happened, do you think it was because you [insert behaviour]??]</li> <li>• Sexual violence [Module 26]: SVCYRBEH = 2 (no) [In the last 12 months when these happened, do you think it was because you [insert behaviour]??]</li> <li>• Sexual coercion [Module 26]: SVCYRFRQ = 2 (no) [In the last 12 months when these happened, do you think it was because you [insert behaviour]??]</li> </ul> </li> </ul>
Related existing indicators	<ul style="list-style-type: none"> <li>• <b>GARPR 7.1:</b> Proportion of ever-married or partnered women aged 15–49 who experienced physical or sexual violence from a male intimate partner in the past 12 months</li> </ul>

HBV, hepatitis B virus; OVP, other vulnerable populations; PEP, post-exposure prophylaxis; PWID, people who inject drugs; STI, sexually transmitted infection

<sup>a</sup> WHO. Consolidated guidelines on HIV prevention, diagnosis, treatment, and care for key populations. Geneva: World Health Organization (WHO); 2014 (<http://www.who.int/hiv/pub/guidelines/keypopulations/en/>, accessed 8 September 2016).

<sup>b</sup> Betron M, Gonzalez-Figueroa E. Gender identity, violence and HIV among MSM and TG: a literature review and a call for screening. Washington, DC: Futures Group International, US Agency for International Development Health Policy Initiative; 2009.

<sup>c</sup> Decker MR, Pearson E, Illangasekare SL, Clark E, Sherman SG. Violence against women in sex work and HIV risk implications differ qualitatively by perpetrator. BMC Public Health. 2013;13(1):876.

## Condom use at last sex (sex workers only)

Percentage of SW who used a condom at last sex	
Numerator	Number of SW who used a condom at last sex
Denominator	Total number of SW
Applicable KP	SW
Recommended disaggregation	<ul style="list-style-type: none"> <li>• Age (&lt;25 years, 25+ years)</li> <li>• Client type (regular, one-time)</li> </ul>
Purpose/ rationale	This indicator measures the percentage of SW who used a condom at last sex, and captures any differences in condom use between regular and one-time clients. Correct and consistent use of condoms can reduce sexual transmission of HIV and other STI in both vaginal and anal sex by up to 94%. <sup>a</sup> However, the inability of SW to refuse sex without a condom or to successfully negotiate condom use with unwilling clients can be a barrier to condom use. <sup>b</sup> A low or decreasing trend in this indicator may indicate a lack of knowledge about the modes of HIV transmission, low perceptions of personal risk, lack of access to condoms, low capacity for condom use and negotiation, low perceptions of condom effectiveness or perceived reduced sexual sensation. <sup>c</sup> In such cases, countries may consider increasing the availability, accessibility, affordability and use of male and female condoms and condom-compatible lubricants among SW through targeted distribution services.
Corresponding questionnaire item(s)	<p>This indicator is constructed from responses to the following questions from <b>Module 9: Sex work characteristics</b>.</p> <p><b>Numerator with disaggregation:</b></p> <ul style="list-style-type: none"> <li>• SWCLNRC = 1 (yes) [The last time you had sex with a regular client, did you use a condom?]</li> <li>• SWCLNOC = 1 (yes) [The last time you had sex with a one-time client, did you use a condom?]</li> </ul> <p><b>Denominator:</b></p> <ul style="list-style-type: none"> <li>• Total number of SW</li> </ul>
Related existing indicators	<ul style="list-style-type: none"> <li>• <b>GARPR 1.8:</b> Percentage of sex workers reporting the use of a condom with their most recent client</li> <li>• <b>GF HIV O-5:</b> Percentage of sex workers reporting the use of a condom with their most recent client</li> </ul>

*STI, sexually transmitted infection*

<sup>a</sup> WHO. Consolidated guidelines on HIV prevention, diagnosis, treatment, and care for key populations. Geneva: World Health Organization (WHO); 2014 (<http://www.who.int/hiv/pub/guidelines/keypopulations/en/>, accessed 8 September 2016).

<sup>b</sup> Bharat S, Mahapatra B, Roy S, Saggurti N. Are female sex workers able to negotiate condom use with male clients? The case of mobile FSWs in four high HIV prevalence states of India. PLoS One. 2013;8(6):e68043.

<sup>c</sup> Sarkar NN. Barriers to condom use. Eur J Contracep Repr. 2008;13(2):114–122.



The following set of indicators is based on biomarkers. A subset of these indicators are constructed from both biomarker and self-reported data. Indicators derived from biomarkers complement data obtained from interviews, and provide a current objective description of disease status of the target population. They also contribute to an improved understanding of behavioural risk factors, determinants of disease, and the impact of prevention and service delivery interventions. Chapter A-6 provides additional information and considerations about biomarkers.

## Awareness of HIV-positive status

Percentage of HIV-positive participants who are aware of their HIV-positive status	
Numerator	Number of HIV-positive participants who are aware of their HIV-positive status
Denominator	Number of participants who tested positive for HIV
Applicable KP	SW, MSM, TG, PWID, OVP
Recommended disaggregation	<ul style="list-style-type: none"> <li>Sex for SW, PWID, OVP (male, female)</li> <li>Age (&lt;25 years, 25+ years)</li> </ul>
Description	This indicator measures the percentage of participants who are aware of their HIV-positive status. This means that they reported being HIV-positive during the interview and their HIV test was also positive. It can be used to assess the reach of HIV counselling and testing strategies and to estimate the percentage of KP with undiagnosed HIV infection. For PLHIV, knowledge of one's HIV status is the entry point to HIV services, which prevents passing the infection to others and lowers HIV-related illness and death.
Definitions/ considerations	<ul style="list-style-type: none"> <li>The numerator is based on self-reported data from <b>Module 27: Services uptake</b> and includes only those who tested positive for HIV and reported an HIV-positive status. <ul style="list-style-type: none"> <li>CSTRS = 1 (positive) [What was the result of your last test?]</li> </ul> </li> <li>The denominator is based on a biomarker to detect the presence of HIV infection. The denominator includes only those who test positive for HIV.</li> <li>The indicator excludes participants who test negative for HIV, who were not tested for HIV, or who had an indeterminate test result.</li> </ul>
Related existing indicators	Not applicable

*OVP, other vulnerable populations; STI, sexually transmitted infection*

## Eligible but not on HIV treatment

Percentage of treatment-eligible participants who are not on HIV treatment	
Numerator	Number of HIV-positive participants who are eligible for treatment but report not being on HIV treatment or test negative for ARV metabolites
Denominator	Number of HIV-positive participants who are eligible for treatment (based on national or international guidelines)
Applicable KP	SW, MSM, TG, PWID, OVP
Recommended disaggregation	<ul style="list-style-type: none"> <li>Sex for SW, PWID, OVP (male, female)</li> <li>Age (&lt;25 years, 25+ years)</li> </ul>
Description	This indicator measures the percentage of participants who meet treatment eligibility criteria per national guidelines based on CD4 count but who report not being on treatment currently. It can be used to estimate the unmet need for treatment.
Definitions/ considerations	<ul style="list-style-type: none"> <li>Treatment eligibility should be based on national or international guidelines.</li> <li>The numerator is based on self-reported treatment data from <b>Module 27: Services uptake</b>. <ul style="list-style-type: none"> <li>CSTRCURR = 2 (no) [Are you currently taking ARVs?]</li> </ul> </li> </ul> <p>When feasible, the numerator should be based on biomarker results from ARV metabolite testing (see the HIV treatment coverage biomarker indicator).</p> <ul style="list-style-type: none"> <li>The denominator is based on biomarkers to 1) detect the presence of HIV infection and 2) detect CD4 count to indicate ART eligibility. The denominator includes participants who test positive for HIV and meet national guidelines for treatment eligibility based on CD4 count.</li> <li>The indicator excludes participants who were not tested for HIV or CD4 count or who had indeterminate results.</li> </ul>
Related existing indicators	Not applicable

*ART, antiretroviral therapy; ARV, antiretroviral; OVP, other vulnerable populations*

## HIV treatment coverage

Percentage of HIV-positive participants who are on HIV treatment	
Numerator	Number of HIV-positive participants who have detectable ARV metabolites
Denominator	Number of HIV-positive participants who were tested for ARV metabolites
Applicable KP	SW, MSM, TG, PWID, OVP
Recommended disaggregation	<ul style="list-style-type: none"> <li>• Sex for SW, PWID, OVP (male, female)</li> <li>• Age (&lt;25 years, 25+ years)</li> </ul>
Description	This indicator measures the percentage of HIV-positive participants currently on treatment. Results can be used to estimate treatment coverage among KP. They can also confirm treatment status through metabolite testing and be compared to responses obtained from the survey to calibrate self-reporting results.
Definitions/ considerations	<ul style="list-style-type: none"> <li>• The indicator is based on ARV metabolite testing results.</li> <li>• The numerator includes HIV-positive participants who have detectable ARV metabolites.</li> <li>• The denominator includes all HIV-positive participants who were tested for ARV metabolites.</li> <li>• The indicator excludes participants who were not tested for HIV or ARV metabolites or who had indeterminate results.</li> <li>• Note that in settings with PrEP programmes, it may be difficult to distinguish between individuals taking PrEP who are unaware of their seropositive status from those on treatment.</li> </ul>
Related existing indicators	Not applicable

ARV, antiretroviral; OVP, other vulnerable populations; PrEP, pre-exposure prophylaxis

## Viral load suppression

Percentage of HIV-positive participants with a suppressed VL	
Numerator	Number of HIV-positive participants with a suppressed VL
Denominator	Number of HIV-positive participants who received a VL test
Applicable KP	SW, MSM, TG, PWID, OVP
Recommended disaggregation	<ul style="list-style-type: none"> <li>• Sex for SW, PWID, OVP (male, female)</li> <li>• Age (&lt;25 years, 25+ years)</li> <li>• Treatment status (currently on HIV treatment, not currently on HIV treatment)</li> </ul>
Description	This indicator measures the percentage of HIV-positive participants with a suppressed VL. It can be used to assess the success of treatment.
Definitions/ considerations	<ul style="list-style-type: none"> <li>• Suppressed VL is based on WHO's guidelines for monitoring the response to ART, which recommend a VL below 1000 copies of viral RNA per ml as the threshold for very low risk of HIV transmission.<sup>a</sup></li> <li>• The numerator is based on a biomarker to detect the level of viremia (amount of virus in the blood). The numerator includes participants who have a VL of &lt;1000 copies/ml.</li> <li>• The denominator is based on biomarkers to detect the presence of HIV infection. The denominator should include participants who test positive for HIV.</li> <li>• Disaggregation by treatment status is based on self-reported data from <b>Module 27: Services uptake</b>. <ul style="list-style-type: none"> <li>• CSTRCURR = 1 (yes) [Are you currently taking ARVs?]</li> <li>• CSTRCURR = 2 (no) [Are you currently taking ARVs?]</li> </ul> </li> <li>• When feasible, however, the disaggregation should be based on results from ARV metabolite testing (see HIV treatment coverage biomarker indicator).</li> <li>• The indicator excludes participants who were not tested for HIV or VL or who had indeterminate results.</li> </ul>
Related existing indicators	Not applicable

ART, antiretroviral therapy; ARV, antiretroviral; OVP, other vulnerable populations; RNA, ribonucleic acid; VL, viral load

<sup>a</sup> WHO. Consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV infection – Section 7.3: Monitoring response to ART and the diagnosis of treatment failure. Geneva: World Health Organization (WHO); 2013 (<http://www.who.int/hiv/pub/guidelines/arv2013/art/artmonitoring/en/index3.html>, accessed 8 September 2016).

## Unsuppressed viral load

Percentage of HIV-positive participants with an unsuppressed VL	
Numerator	Number of participants with an unsuppressed VL
Denominator	Number of HIV-positive participants who received a VL test
Applicable KP	SW, MSM, TG, PWID, OVP
Recommended disaggregation	<ul style="list-style-type: none"> <li>Sex for SW, PWID, OVP (male, female)</li> <li>Age (&lt;25 years, 25+ years)</li> <li>Sexual risk behaviour (protected sex, unprotected sex)</li> <li>Drug use behaviour (shared injecting equipment, did not share injecting equipment)</li> </ul>
Description	This indicator measures the percentage of HIV-positive participants with unsuppressed VL. It can be used to assess the potential for onward transmission and spread of the epidemic in the target population.
Definitions/ considerations	<ul style="list-style-type: none"> <li>Unsuppressed VL is based on WHO's guidelines for monitoring the response to ART, which indicate a VL above 1000 copies of viral RNA per ml as a sign of treatment failure.<sup>a</sup></li> <li>The numerator is based on a biomarker to detect the level of viremia (amount of virus in the blood). The numerator includes participants who have a VL of &gt;1000 copies/ml.</li> <li>The denominator is based on a biomarker to detect the presence of HIV infection. The denominator includes participants who test positive for HIV.</li> <li>The disaggregation by sexual risk behaviour is based on self-reported data from <b>Module 17: Last sex act</b>: <ul style="list-style-type: none"> <li>LSACON = 1 (yes, for protected sex) [Did you use a condom the last time you had sex?]</li> <li>LSACON = 2 (no, for unprotected sex) [Did you use a condom the last time you had sex?]</li> </ul> </li> <li>The disaggregation by drug use behaviour is based on self-reported data from <b>Module 23: Injecting drug use</b>: <ul style="list-style-type: none"> <li>IDLSTND = 1 (yes, for shared injecting equipment) [The last time you injected with another person, did you share a needle with that person (i.e. use it after they had used it)?]</li> <li>IDLSTND = 2 (no, for did not share injecting equipment) [The last time you injected with another person, did you share a needle with that person (i.e. use it after they had used it)?]</li> </ul> </li> <li>This indicator excludes participants who were not tested for HIV or VL or who had indeterminate results.</li> </ul>
Related existing indicators	Not applicable

ART, antiretroviral therapy; OVP, other vulnerable populations; RNA, ribonucleic acid; STI, sexually transmitted infection; VL, viral load

<sup>a</sup> WHO. Consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV infection – Section 7.3: Monitoring response to ART and the diagnosis of treatment failure. Geneva: World Health Organization (WHO); 2013 (<http://www.who.int/hiv/pub/guidelines/arv2013/art/artmonitoring/en/index3.html>, accessed 8 September 2016).

## Population viral load

Median VL of HIV-positive participants	
Numerator	Median VL of HIV-positive participants
Denominator	Not applicable
Applicable KP	SW, MSM, TG, PWID, OVP
Recommended disaggregation	<ul style="list-style-type: none"> <li>• Sex for SW, PWID, OVP (male, female)</li> <li>• Age (&lt;25 years, 25+ years)</li> </ul>
Description	Population VL is an aggregate biological measure of VL for a particular geographical location or population. This indicator can be used to monitor the uptake and effectiveness of ART and to assess the potential for ongoing HIV transmission within KP. As HIV treatment coverage increases, the number of HIV-positive individuals who are virologically suppressed increases, leading to reduced population VL and, eventually, a reduction in HIV incidence.
Definitions/considerations	<ul style="list-style-type: none"> <li>• This indicator captures the median VL of HIV-positive participants. It is based on biomarkers to detect the presence of HIV infection and measure VL. It is expressed as the median VL of all participants who test positive for HIV.</li> <li>• Median VL is more useful than mean VL, because VL distribution is often skewed and just a few very high values will skew the mean upward.</li> <li>• This indicator excludes participants who did not get tested for HIV or VL or who had an indeterminate result for either of these tests.</li> <li>• Note that if treatment coverage is high, and more than 50% of the target population has undetectable VL, then the median will be “undetectable” and survey investigators will need to use different methods to report VL, such as log transformation.<sup>a</sup></li> </ul>
Related existing indicators	Not applicable

ART, antiretroviral therapy; OVP, other vulnerable populations; VL, viral load

<sup>a</sup> CDC. Guidance on community viral load: a family of measures, definitions, and method for calculation. Atlanta (GA), Atlanta, GA: Centers for Disease Control and Prevention (CDC); 2011 (<https://stacks.cdc.gov/view/cdc/28147>, accessed 9 September 2016).

## HIV/sexually transmitted infection coinfection

Percentage coinfectd with HIV and at least one STI	
Numerator	Number of participants coinfectd with HIV and at least one STI
Denominator	Number of participants who were tested for HIV and at least one STI
Applicable KP	SW, MSM, TG, PWID, OVP
Recommended disaggregation	<ul style="list-style-type: none"> <li>• Sex for SW, PWID, OVP (male, female)</li> <li>• Age (&lt;25 years, 25+ years)</li> <li>• STI (e.g. syphilis, gonorrhoea, chlamydia)</li> </ul>
Description	This indicator measures the percentage of participants who are coinfectd with HIV and at least one STI. HIV/STI coinfection increases the chance that HIV will be transmitted to a sexual partner. <sup>a</sup> It can be used to plan services and allocate resources for treating HIV-positive KP who are coinfectd with STI.
Definitions/ considerations	<ul style="list-style-type: none"> <li>• This indicator captures the prevalence of coinfection (i.e. the percentage of the target population living with HIV and at least one STI at a given time, regardless of the time of infection), whether the person has received a diagnosis (i.e. is aware of infection), or the stage of disease.</li> <li>• The indicator is based on biomarkers to detect the presence of HIV infection and selected STIs. STIs should be selected based on each country's epidemiology.</li> <li>• The numerator includes participants who tested positive for HIV and at least one STI.</li> <li>• The denominator includes participants who were tested for HIV and at least one STI.</li> <li>• The indicator excludes participants who did not get tested for HIV and at least one STI, had an indeterminate HIV test result, or had indeterminate test results for all STI tests received.</li> </ul>
Related existing indicators	Not applicable

OVP, other vulnerable populations; STI, sexually transmitted infection

<sup>a</sup> Kalichman SC, Pellowski J, Turner C. Prevalence of sexually transmitted co-infections in people living with HIV/AIDS: systematic review with implications for using HIV treatments for prevention. Sex Transm Infect. 2011;87(3):183–190.

## HIV/hepatitis coinfection

Percentage coinfecting with HIV and HBV or HCV	
Numerator	Number of participants coinfecting with HIV and HBV or HCV
Denominator	Number who were tested for HIV and HBV or HCV
Applicable KP	SW, MSM, TG, PWID, OVP
Recommended disaggregation	<ul style="list-style-type: none"> <li>• Sex for SW, PWID, OVP (male, female)</li> <li>• Age (&lt;25 years, 25+ years)</li> <li>• Viral hepatitis type (HBV, HCV)</li> </ul>
Description	This indicator measures the percentage of participants who are coinfecting with HIV and HBV or HCV. HIV-positive individuals who become infected with HBV are at increased risk for developing chronic HBV infection and can have serious medical problems, including an increased risk for liver-related illness and death. <sup>a</sup> HCV infection progresses more rapidly to liver damage in HIV-positive persons and may affect the course and management of HIV infection. <sup>a</sup> This indicator can be used to plan services and allocate resources for treating HIV-positive KP who are coinfecting with HBV or HCV.
Definitions/ considerations	<ul style="list-style-type: none"> <li>• This indicator captures the prevalence of coinfection (i.e. the percentage of the target population living with HIV and HBV or HCV at a given time, regardless of the time of infection), whether the person has received a diagnosis (i.e. is aware of infection), or the stage of disease.</li> <li>• The indicator is based on biomarkers to detect the presence of HIV, HBV and HCV infection.</li> <li>• The numerator includes respondents who tested positive for HIV and HBV or HCV.</li> <li>• The denominator includes all participants who were tested for HIV and HBV or HCV.</li> <li>• The indicator excludes participants with missing or indeterminate test results for HIV, HBV or HCV.</li> </ul>
Related existing indicators	Not applicable

*HBV, hepatitis B virus; HCV, hepatitis C virus; OVP, other vulnerable populations*

<sup>a</sup>CDC. HIV and viral hepatitis. Atlanta, GA: Centers for Disease Control and Prevention (CDC); 2016 (<http://www.cdc.gov/hiv/pdf/library/factsheets/hiv-viral-hepatitis.pdf>, accessed 8 December 2016).



## HIV prevalence

Percentage with HIV	
Numerator	Number of participants who tested positive for HIV
Denominator	Number of participants who were tested for HIV
Applicable KP	SW, MSM, TG, PWID, OVP
Recommended disaggregation	<ul style="list-style-type: none"> <li>Sex for SW, PWID, OVP (male, female)</li> <li>Age (&lt;25 years, 25+ years)</li> </ul>
Description	This indicator measures the percentage of participants who tested positive for HIV. This indicator helps countries to assess progress in controlling HIV and is useful for planning and resource allocation as it reflects the number of people currently needing care for HIV infection.
Definitions/ considerations	<ul style="list-style-type: none"> <li>This indicator captures HIV prevalence, the percentage of the target population living with HIV at a given time regardless of the time of infection, whether the person has received a diagnosis (i.e. is aware of infection), or the stage of HIV.</li> <li>This indicator is based on a biomarker for HIV antibodies to detect the presence of HIV infection.</li> <li>The numerator includes participants who tested positive for HIV.</li> <li>The denominator includes participants who were tested for HIV.</li> <li>The indicator excludes participants who did not get tested for HIV or who had an indeterminate test result.</li> </ul>
Related existing indicators	<ul style="list-style-type: none"> <li><b>GARPR 1.10:</b> HIV prevalence in sex workers</li> <li><b>GARPR 1.14:</b> HIV prevalence in men who have sex with men</li> <li><b>GARPR 2.5:</b> HIV prevalence in people who inject drugs</li> <li><b>GF HIV I-9a:</b> Percentage of men who have sex with men who are living with HIV</li> <li><b>GF HIV I-9b:</b> Percentage of transgender people who are living with HIV</li> <li><b>GF HIV I-10:</b> Percentage of sex workers who are living with HIV</li> <li><b>GF HIV I-11:</b> Percentage of people who inject drugs who are living with HIV</li> <li><b>GF HIV I-12:</b> Percentage of other vulnerable populations who are living with HIV</li> </ul>

*OVP, other vulnerable populations*

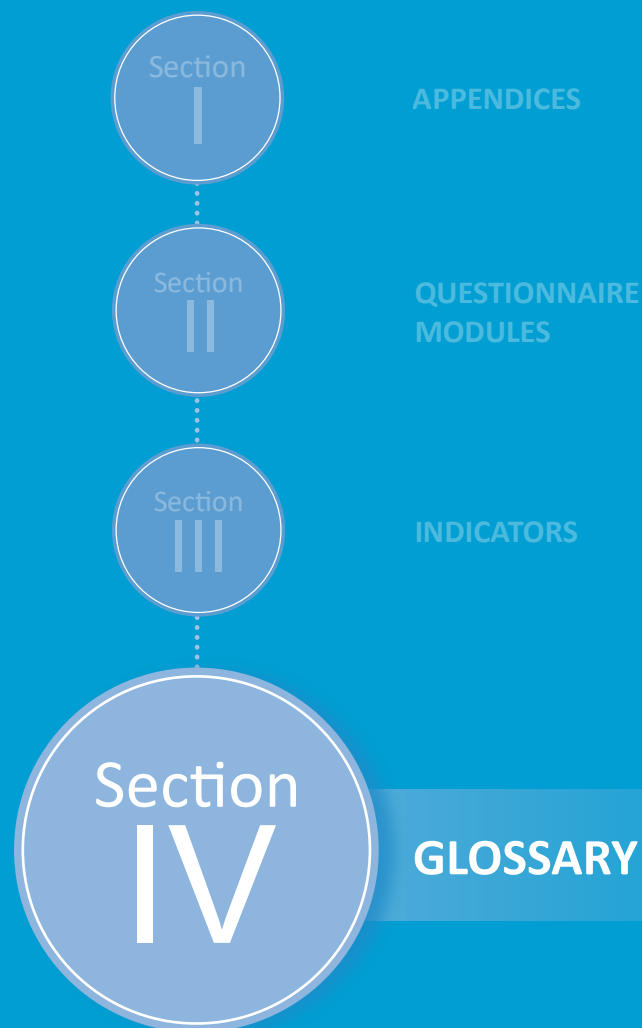
## Sexually transmitted infection prevalence

Percentage with any STI	
Numerator	Number of participants who tested positive for any STI
Denominator	Number of participants who were tested for at least one STI
Applicable KP	SW, MSM, TG, PWID, OVP
Recommended disaggregation	<ul style="list-style-type: none"> <li>• Sex for SW, PWID, OVP (male, female)</li> <li>• Age (&lt;25 years, 25+ years)</li> <li>• STI (e.g. syphilis, gonorrhoea, chlamydia)</li> </ul>
Description	This indicator measures the percentage of participants tested for at least one STI who had a positive STI test. Risk behaviours associated with STIs are similar to those for HIV, and some STIs may lead to increased risk of getting or passing on HIV. This indicator can help detect the potential emergence of HIV infection and highlights specific STIs that require public health attention.
Definitions/ considerations	<ul style="list-style-type: none"> <li>• This indicator captures STI prevalence, the percentage of the target population living with an STI at a given time regardless of the time of infection, or whether the person has received a diagnosis (i.e. is aware of infection).</li> <li>• This indicator is based on biomarkers to detect selected STIs of interest. STIs should be selected based on each country's epidemiology.</li> <li>• The numerator includes all respondents who tested positive for an STI.</li> <li>• The denominator includes all participants who were tested for an STI.</li> <li>• The indicator excludes participants who were not tested for an STI or who had an indeterminate test result.</li> </ul>
Related existing indicators	<ul style="list-style-type: none"> <li>• <b>GARPR 1.17.4:</b> Percentage of sex workers with active syphilis</li> <li>• <b>GARPR 1.17.5:</b> Percentage of men who have sex with men with active syphilis</li> <li>• <b>GF HIV I-3b:</b> Percentage of men who have sex with men with active syphilis</li> <li>• <b>GF HIV I-3c:</b> Percentage of sex workers with active syphilis</li> </ul>

*OVP, other vulnerable populations; STI, sexually transmitted infection*

# Supplemental Materials

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Term	Definition
<b>Accuracy</b>	Describes how close an estimate is to the true value. Applicable to survey estimates or laboratory tests.
<b>Algorithm</b>	A well-defined step-by-step procedure (e.g. describing the order of laboratory tests to be used).
<b>Anonymous</b>	Describes something having no known name or identity. Achieved by removing all personal identifying information from an interview record or biological specimen.
<b>Anticoagulant</b>	A substance to prevent blood from clotting (i.e. to prevent it from coagulating). Used as an additive in blood collection tubes.
<b>Antiretroviral drugs</b>	Drugs used to fight infections caused by retroviruses such as HIV.
<b>Antiretroviral therapy</b>	Treatment with antiretroviral drugs to inhibit the ability of HIV to multiply in the body; suppresses (reduces) the amount of virus (viral load) in the blood.
<b>Approach criteria</b>	In time-location sampling, the criteria that staff use to approach particular venue attendees for survey participation.
<b>Assent</b>	An agreement by persons who cannot legally agree (consent) to survey participation; for example, minors (usually, consent by parents or caregivers is necessary in addition to assent by a minor potential survey participant).
<b>Autonomy, autonomous</b>	Freedom from external control or influence; independence. Autonomous individuals act intentionally, with understanding, and without external controlling influences.
<b>Beneficence</b>	The effort to secure the well-being of survey participants, both by avoiding or minimizing harm, and by maximizing possible benefits.
<b>Bias</b>	Systematic error in a survey's design, data collection, or analysis resulting in measurement errors. Causes of bias include over or under-sampling of subpopulations (e.g., proportionately more younger people in the survey than in the larger population), inaccurate tests (e.g., poor specificity), programming errors in electronic questionnaires (e.g., skip pattern incorrectly coded resulting in missing information), or untruthful or inaccurate answers provided by participants (e.g., denying ever having anal sex).
<b>Biological data or "biodata"</b>	The data derived from testing biological specimens.
<b>Biological specimen</b>	Biological material (e.g. blood, urine or oral fluids) collected from a survey participant.

Term	Definition
<b>Biomarker</b>	A biological characteristic measured through laboratory or other tests, generally using a biological specimen (e.g. blood) for testing. Examples of biomarkers are HIV antibody or viral load.
<b>Biosafety</b>	The containment principles, technologies and practices to prevent unintentional exposure to pathogens and toxins, or their accidental release.
<b>Biosecurity</b>	Protection, control and accountability for valuable biological materials in laboratories to prevent their unauthorized access, loss, theft, misuse, diversion or intentional release.
<b>Bivariate analysis</b>	Quantifies the relationship between two variables. Typically, one of these is considered a “dependent” (outcome) variable and the other an “independent” (explanatory) variable (e.g. a characteristic, behaviour or exposure).
<b>Calibrate</b>	Setting a device or instrument to a base level by matching it with a set value. Generally, laboratory testing equipment should be calibrated before use.
<b>Capillary blood</b>	Blood collected from the capillaries by finger prick; typically used for rapid tests or to collect dried blood spots.
<b>CD4+ T-cell count</b>	A blood test that measures the number of a subset of T-lymphocytes, the CD4+ cells. CD4+ T-cell counts can be used to indicate the strength of the immune system, with normal levels ranging from 500 to 1200 (values <500 indicate a weakened immune system).
<b>Chain-referral sampling</b>	See also <i>Snowball sampling</i> . A sampling technique in which enrolled survey participants refer or recruit potential participants from among their acquaintances (peers).
<b>Chancroid</b>	See <i>Haemophilus ducreyi</i> .
<b>Checklist</b>	A list of steps to follow when conducting a biobehavioural survey.
<b><i>Chlamydia trachomatis</i>, chlamydia infection</b>	A bacterial species that can be transmitted sexually and causes a wide range of diseases including urethritis, proctitis (rectal disease and bleeding), trachoma (conjunctivitis) and infertility. In men, it causes prostatitis and epididymitis; in women, it can cause cervicitis, pelvic inflammatory disease, ectopic pregnancy, and acute or chronic pelvic pain.
<b>Cluster location</b>	Defined venue where, in cluster sampling, an individual can be found for sampling purposes.
<b>Cognitive, cognitive testing</b>	The process of knowing, perceiving or understanding through the use of reasoning, intuition or perception. “Cognitive testing” relates to the testing of survey questions to investigate how well potential participants correctly understand survey questions and response categories.

Term	Definition
<b>Cohort study</b>	An epidemiological study that follows a group of people over time to observe which and how many individuals experience certain outcomes (e.g. HIV seroconversion). Also known as a longitudinal study.
<b>Community liaison</b>	A person acting as a representative of a population (e.g. sex workers) or acting as a link to a target population to facilitate survey planning, implementation, interpretation and dissemination of results.
<b>Community-based organization</b>	An organization largely composed of members from a given population (e.g. men who have sex with men), often working in advocacy or providing services.
<b>Compensation</b>	Also known as <i>reimbursement</i> . The payment of money or item given for a participant's effort to participate in the survey. Compensation may be made for travel costs, time spent, lost wages or other expenses incurred for participating in the survey. In respondent-driven sampling surveys, two types of compensation are known: primary (given at initial visit) and secondary (given at the follow-up visit, which includes compensation for the participant's peer recruitment efforts).
<b>Confidence interval</b>	A range of values that is likely to include the true value. A 95% confidence interval includes a range (interval) wide enough to include the true point estimate in 19 of 20 surveys.
<b>Confidentiality, confidential</b>	The expectation or promise that information will be protected from disclosure to others.
<b>Confounder</b>	A factor associated with both the outcome of interest (disease) and exposure of interest (cause of disease), but not in the causal pathway of exposure to outcome.
<b>Consent</b>	Permission given by an individual to proceed with a specific test or procedure, with an understanding of the risks, benefits, limitations and potential implications of the procedure itself and its results.
<b>Convenience sampling</b>	The selection of individuals from a population based on accessibility and availability. Convenience samples are nonprobability samples and their findings are only applicable to those surveyed.
<b>Counter</b>	A survey staff person who counts venue attendees, often with a tally counter.
<b>Coupon manager</b>	A study staff member who checks coupons for validity, enters coupon information into coupon manager software, trains participants on the recruitment process, and gives participants recruitment coupons and compensation.

Term	Definition
<b>Cross-recruitment</b>	In respondent-driven sampling surveys, a situation in which a participant who enrolls at one site recruits a peer who enrolls at another site. Observation of cross-recruitment may be used as a proxy for linked networks (i.e. networks of peers in different parts of a city that maintain social ties between them).
<b>Data confidentiality</b>	The protection of data against unintended or unauthorized access.
<b>Data instrument, data collection instrument</b>	Also known as a survey instrument or survey tool, the questionnaire used to collect data in a standardized manner, whether on paper or through computers.
<b>Data quality</b>	The completeness, validity, consistency and accuracy of data.
<b>Data redundancy</b>	Situation in which a data value can be determined from the values of other data items (variables).
<b>Data review</b>	An activity through which the collected data are evaluated for correctness, documenting the type of error (e.g. missing values, logical errors or out-of-range values).
<b>Data saturation</b>	In qualitative research, the point at which no new useful information emerges.
<b>Data security</b>	The requirements (technical and physical) that keep data secure and confidential.
<b>Desiccant</b>	A chemical agent that absorbs moisture; a drying agent. Used to maintain integrity or quality of biological specimens during transport to a laboratory for testing or storage.
<b>Design effect</b>	A factor expressing how much larger a sample size for a complex survey design must be compared to simple random sampling.
<b>Dried blood spot</b>	Blood collected on special filter paper; sample may be capillary blood (finger prick) or whole (venous) blood. Blood collected via dried blood spot is more stable at ambient temperatures than blood stored in tubes.
<b>Drop-in centre</b>	A safe physical venue that provides health, educational or counselling services to a particular population (e.g. people who inject drugs).

Term	Definition
<b>Eligibility criteria</b>	The description of all the requirements a survey candidate must meet in order to participate.
<b>Eligibility screening</b>	Most often conducted by asking potential participants a series of questions, or sometimes undertaking (laboratory) tests, to determine eligibility.
<b>Enzyme immunoassay</b>	A laboratory test that uses an enzyme-bound antibody to detect antigen or antibody. The enzyme catalyzes a colour reaction when exposed to substrate. For example, enzyme immunoassays are used as tests for the presence of HIV (antibody) in a blood specimen.
<b>Equal probability (of selection into a sample)</b>	Also <i>equal probability sampling</i> . A method of sample selection in which all potential participants in the sampling frame have the same chance of selection.
<b>Equilibrium</b>	In respondent driven sampling, the point at which the composition of the sample is stable and independent of the nonrandomly selected seeds.
<b>Exposure</b>	The condition of (potentially) being in contact with something, such as an infectious agent or an intervention.
<b>External quality assessment</b>	An evaluation of the testing process by an outside organization (e.g. a national reference laboratory).
<b>External validity</b>	Also <i>generalizability</i> . External validity involves the extent to which the results of a study can be generalized (applied) beyond the sample.
<b>Focus groups</b>	Semistructured group conversations conducted with usually 6–8 members of the target population under the guidance of a facilitator, using an interview guide. Focus group participants are convened to confirm or refute observations made in key informant interviews and to gather additional information to facilitate survey preparation and implementation.
<b>Formative assessment</b>	The collection of initial information about a population to inform how best to prepare and conduct a survey of that population.
<b>Free listing</b>	Asking respondents to list as many items that fit in a particular domain (e.g. all the different drugs that are taken by local drug users).
<b>Genital herpes</b>	See <i>Herpes simplex virus-2</i> .
<b>Genomic sequencing</b>	A laboratory process that determines the DNA sequences of an organism's genome (i.e. the entire genetic information of an organism).



Term	Definition
<b>Genotyping</b>	The process of determining differences in the genetic make-up (genotype) of an individual or infectious agent by examining its DNA sequence with biological assays and comparing it to a reference sequence. Genotyping is used for molecular epidemiology or to detect drug resistance.
<b>Gonorrhoea</b>	See <i>Neisseria gonorrhoea</i> .
<b>Gram stain</b>	A laboratory method used to classify bacteria into two large groups (negative or positive); frequently used to aid in identifying the cause of infection.
<b><i>Haemophilus ducreyi</i>, chancroid</b>	The bacterial causative agent of the sexually transmitted disease known as chancroid.
<b>Herpes simplex virus-2, genital herpes</b>	The primary cause of genital and neonatal herpes and genital ulcer disease (genital herpes).
<b>High-performance liquid chromatography combined with mass spectrophotometry</b>	A laboratory technique used to detect drugs or their metabolites (e.g. antiretroviral drugs).
<b>High-risk behaviours</b>	Behaviours that increase the risk of a person contracting a disease.
<b>HIV drug resistance</b>	A mutated form of HIV that reduces the effectiveness of one or more antiretroviral drugs.
<b>Homogeneity</b>	Often used in respondent driven sampling surveys; the degree to which people in a population have similar or identical characteristics.
<b>Homophily</b>	The tendency of individuals to associate (mix) with others who are similar or dissimilar to themselves; calculated by respondent driven sampling software packages.
<b>Immunochromatographic</b>	A one-step test characteristic that enables rapid identification of various analytes (e.g. HIV antibodies) at the point of care.
<b>Immunosuppression</b>	Reduces an individual's ability to fight infection or cancer. HIV is one of the causes of immunosuppression.

Term	Definition
<b>Indicator reporting</b>	The use of aggregate data for standardized reporting to national governments, United Nations agencies or donors.
<b>Inference</b>	See <i>Statistical inference</i> .
<b>Informed consent</b>	The provision of adequate information to potential survey participants to allow them to actively decide to consent (agree) to a survey or procedure (e.g. biological specimen). It protects potential participants' freedom of choice and respects their autonomy with regard to decisions affecting their body and health.
<b>Internal consistency</b>	A condition that occurs when answers to different questions do not contradict each other.
<b>Internal validity</b>	The extent to which a study has minimized systematic error or bias.
<b>Justice</b>	The fair selection of research participants and the fair distribution of risks and benefits for the study participants.
<b>Key informants</b>	People who have first-hand knowledge of the target population or subject matter.
<b>Key populations</b>	In the context of HIV, populations distinguished by behaviours associated with higher levels of acquiring or transmitting HIV compared to the general population. Key populations commonly include female sex workers, men who have sex with men, transgender persons, and persons who inject drugs.
<b>Margin of error</b>	A boundary placed on the difference between an estimate of something and the true value, reflecting the amount of sampling error in a survey's result.
<b>Molecular testing</b>	Testing for nucleic acid sequences (e.g. DNA or RNA), as opposed to serologic or immunologic testing for antigens or antibodies.
<b><i>Mycobacterium tuberculosis</i></b>	Causative bacterial agent for tuberculosis. The bacteria usually attack the lungs (referred to as pulmonary tuberculosis), but may attack any part of the body.
<b><i>Neisseria gonorrhoea, gonorrhoea</i></b>	Gram-negative bacteria causing gonorrhoea, a sexually transmitted disease that affects the genital area and urinary tract, causing dysuria and penile discharge in men, and vaginal discharge or pelvic pain in women. Women often may be asymptomatic.
<b>Nonprobability sample</b>	A method of sampling in which the probability of sampling is unknown. Nonprobability samples generate estimates of unknown precision and reliability. Examples include convenience sampling, snowball sampling and quota sampling.

Term	Definition
<b>Nonresponse</b>	A participation category referring to individuals who are approached for interview in a study but choose not to participate.
<b>Nontreponemal tests</b>	Tests that use nonspecific antigens to screen blood for syphilis. Examples include the rapid plasma reagin test or the venereal disease reference laboratory test.
<b>Nucleic acid amplification test</b>	A laboratory test based on the amplification of specific genetic sequences through polymerase chain reaction or other methods. The amplification step allows these tests to be more sensitive than conventional methods; also, they may be used to detect sexually transmitted infections such as <i>Neisseria gonorrhoea</i> or <i>Chlamydia trachomatis</i> .
<b>Odds ratio</b>	A measure of association between an exposure and an outcome.
<b>Optical density</b>	Represents the intensity of colour (or absorbance) as measured by a spectrophotometer. In enzyme immunoassays, more intense colour (i.e. higher optical density) generally indicates more antibody (or antigen).
<b>Outcome</b>	The measure of interest or end-point in clinical trials or in data analysis, or the result or consequence of a public health intervention. Examples of outcomes include frequency of condom use or HIV status.
<b>Outliers</b>	Values that are extremely high or low compared to the mean or median values of a variable.
<b>Partner survey</b>	Use of one population to recruit another related population (e.g. sex workers in a survey being asked to refer their clients for survey participation).
<b>Personally identifiable information</b>	Information that can be used to identify an individual (e.g. names, addresses, email addresses, phone numbers, identification numbers, photographs or date of birth).
<b>Pile sorting</b>	Asking the respondent to group items from the same domain, often using cards (e.g. sorting the locally used drugs [names] that are either stimulants or depressants).
<b>Plasma</b>	The fluid (liquid) portion of blood. Plasma can be obtained from the blood by removing all cellular components through centrifugation or gravity, and inhibiting its clotting capacity with anticoagulants.
<b>Point-of-care technology</b>	A technology that allows tests to be used at or near the point of specimen collection (i.e. without using a laboratory). Examples include HIV rapid tests and portable CD4 machines.

Term	Definition
<b>Post-exposure prophylaxis</b>	The use of antiretroviral medications to prevent HIV infection after an exposure has occurred (e.g. after a needle stick injury or a rape).
<b>Power</b>	The probability of not making a type II error (i.e. accepting a null hypothesis that is false).
<b>Precision</b>	In surveys and estimates, refers to how close an estimate is to other estimates made using the same methodology (i.e. when a method [survey] is repeated, the degree to which a result is consistent). A <i>precise</i> estimate may not necessarily be an <i>accurate</i> estimate.
<b>Prevalence</b>	A proportion (not a rate) describing the fraction in a population with a certain characteristic (e.g. HIV infection).
<b>Primary compensation</b>	See <i>Compensation</i> .
<b>Principal investigator</b>	The individual responsible and accountable for conducting a survey or study. The principal investigator assumes full responsibility for the ethical treatment and evaluation of human subjects, and for the integrity of the survey's or study's conduct and data.
<b>Probability proportional to size (PPS)</b>	A sampling method used with surveys in which the probability of selecting a sampling unit (e.g. village, school, prison, brothel) is proportional to the size of the sampling unit. With PPS, larger sampling units have a higher probability of being sampled than smaller ones. PPS facilitates a probability (i.e. representative) sample.
<b>Probability sample</b>	In sampling, methods in which the probability of a respondent being selected for the sample is known. The known sampling probability makes it possible to determine sampling weights and hence facilitates determination of adjusted (population) estimates.
<b>Probe</b>	Request by the interviewer for more information or a method used during an interview to help a participant recall information.
<b>Proficiency testing</b>	The testing of unknown samples sent to a laboratory by a reference laboratory. The test results are then reviewed to judge the laboratory's testing quality.
<b>Prostate-specific antigen</b>	A protein produced by prostate cells. In surveys, prostate-specific antigen is sometimes measured in vaginal or rectal swabs, where its presence may indicate recent unprotected sex.
<b>Proximal determinant</b>	A biological or behavioural variable that directly facilitates HIV acquisition or transmission (e.g. condom use).
<b>Purposive sampling</b>	Also known as <i>judgmental sampling</i> . A method of sampling used to select individuals with specific characteristics (e.g. sex workers who take antiretroviral treatment).

Term	Definition
<b>P-value</b>	The probability that an observed result occurred by chance.
<b>Quality assurance</b>	A system of procedures in place to prevent mistakes. The concept of quality assurance in biomarker measurements covers all steps from specimen collection to test result interpretation.
<b>Quota sampling</b>	A type of purposive sampling that specifies how many people with each characteristic will be sampled; usually done to ensure that diverse segments of the population are sampled.
<b>Rapid tests</b>	Biological assays that can be performed easily, even by lay people with minimal training, outside a laboratory, producing results in a short time.
<b>Recall bias</b>	Systematic error due to differences in accuracy or completeness of remembered past events. May lead to underestimates or overestimates of reported past events.
<b>Recruitment area</b>	In the context of time-location sampling, a well-defined space inside or outside a venue where potential participants who enter or cross the space are approached for recruitment.
<b>Redundancy</b>	See <i>Data redundancy</i> .
<b>Reliability</b>	The degree to which a technique or approach provides consistent results if repeated multiple times.
<b>Repository</b>	A place where things are stored (e.g. a specimen repository or a data repository).
<b>Respondent</b>	Also called <i>participant</i> . Someone who responds to a question, survey or offer.
<b>Respondent-driven sampling</b>	Combines “snowball sampling” (in which individuals refer those they know, who then in turn refer those they know, and so on) with a mathematical model that weights the sample to compensate for the fact that the sample was collected in a nonrandom way.
<b>Risk</b>	In ethical terms, the exposure to injury, loss or harm, expressed in terms of the probability and magnitude of that harm. Risks to subjects must be minimized and must be reasonable in relation to anticipated benefits to subjects and the importance of the expected knowledge.

Term	Definition
<b>Risk factor</b>	A behavioural, biological or environmental factor associated with a higher likelihood of acquiring or transmitting a disease.
<b>Role play</b>	An exercise in which individuals (often other survey team members) pretend to be survey participants and interact with staff members who administer survey procedures.
<b>Saliency, salient</b>	The degree with which a (participant's) characteristic stands out or is relevant compared with other characteristics. Salient characteristics may include age and sex.
<b>Sample size</b>	The number of individuals (to be) enrolled in a survey.
<b>Sampling bias</b>	Some population members being systematically more or less likely to be sampled than others, leading to biased estimates.
<b>Sampling error</b>	The error associated with nonobservation (i.e. with the variation in samples drawn from the same source population). The sampling error equals the square root of the variance.
<b>Sampling event</b>	In cluster sampling, the time period where field staff are at a given venue recruiting and interviewing respondents.
<b>Sampling fraction</b>	The target sample size divided by the number of people in the target population. If the sampling fraction is small enough, sampling with replacement is approximated. If the sampling fraction is too large, it becomes harder for recruits in respondent driven sampling surveys to find peers who have not yet participated.
<b>Sampling frame</b>	The source material or list from which a sample is drawn in order to represent the population.
<b>Sampling strategy</b>	Describes how individuals will be selected and determines whether and how statistical inferences can be made from the sample to the source population.
<b>Sampling stratification</b>	See <i>Stratified sampling</i> .
<b>Secondary compensation</b>	See <i>Compensation</i> .
<b>Seed</b>	In respondent driven sampling surveys, the individuals who are chosen by the investigators and represent the start of the recruitment chains.
<b>Selection bias</b>	A systematic error in the process of selecting participants for a study or survey.

Term	Definition
<b>Semistructured interview</b>	Used in qualitative research. An interview where the interviewer uses an interview guide with themes or open-ended questions (grouped by topic areas) to conduct an in-depth, open-ended conversation with the respondent(s).
<b>Serum</b>	Fluid that rises to the top when coagulated (clotted) blood has been centrifuged or allowed to separate. The main difference between serum and plasma is that serum contains fewer proteins such as clotting factors.
<b>Simple random sampling</b>	A sampling method whereby (eligible) individuals are chosen at random from the sampling frame, so that each individual has equal probability of being selected. Requires the use of a random number table or other method (e.g. computer-based) to generate random numbers that identify the persons to be included in the sample.
<b>Snowball sampling</b>	See also <i>Chain-referral sampling</i> . A sample that is built by asking participants to provide the contact details of someone they know that the researcher can contact, or where survey participants refer others to the survey to enrol.
<b>Social network</b>	A social structure made up of a network of friends, colleagues and other personal contacts who know one another and who share certain defining characteristics that identify them as members of the target population.
<b>Social structure</b>	The pattern of social relationships in a society. Such structure regulates the interactions among members of the society or community.
<b>Stakeholder</b>	A party or group of people with an interest in, or who can contribute to or are affected by a given activity.
<b>Standard error</b>	A measure of the variability of a statistic; the standard deviation of the sampling distribution of a statistic. Although the standard error is used to estimate sampling error, it includes some nonsampling error.
<b>Standard operating procedures</b>	A set of written instructions for distinct survey activities.
<b>Statistical inference</b>	The process of using information from a sample to make inferences, or conclusions, about the population from which the sample was taken.
<b>Statistical significance</b>	Indicates that a certain observation (e.g. older sex workers are more likely to be HIV infected than younger sex workers) is unlikely to be the result of chance. Statistical significance is attained when a statistical test yields a p-value below a set (arbitrary) threshold. A p-value of 0.05 is a commonly used threshold to indicate statistical significance; other thresholds used include 0.1 or 0.01. Statistical significance does not necessarily equate to medical importance because p-values are dependent on the size of the sample being studied.

Term	Definition
<b>Stratification</b>	See also <i>Sampling stratification</i> . In data analysis, stratification refers to the examination of a certain outcome (e.g. condom use) after the dataset (sample) has been grouped by certain characteristics (e.g. by gender).
<b>Stratified sampling</b>	The process of dividing members of the population into homogeneous subgroups before sampling, to reduce variability or random sampling error and thereby improve the precision of the estimates produced by the sample.
<b>Strata</b>	Partitions of the sampling frame; generally defined to create relatively homogeneous units within each strata.
<b>Surveillance</b>	The systematic, ongoing collection, analysis, interpretation and dissemination of (health) data to monitor the pattern of disease occurrence and potential in a community, in order to control and prevent disease in the community.
<b>Survey</b>	A method for collecting data, drawing a sample from a target population; conducted over a defined period of time (sampling duration).
<b>Survey population</b>	Also called <i>target population</i> . Refers to all units (e.g. individuals or households) to which one desires to generalize survey results.
<b>Survey weights</b>	Numbers associated with respondents that specify the weight (i.e. influence) their values should have in analysis, in order to ensure that the sample is representative of the population of interest.
<b>Syndemic</b>	Two or more epidemics or endemics occurring simultaneously and acting synergistically.
<b>Syphilis</b>	See <i>Treponema pallidum</i> .
<b>Systematic sampling error</b>	See Sampling error.
<b>Target population</b>	In the context of surveys, the population from which the survey sample is drawn and to which the investigators will want to infer.
<b>Targeted interventions</b>	In the case of HIV, disease-prevention interventions that are focused on specific populations often at higher risk for HIV exposure (e.g. a peer education strategy to deliver behaviour change communication and commodities such as condoms, lubricants and needles or syringes).
<b>Technical report</b>	A report based on survey data, which usually presents relatively simple descriptive statistics, including numerators, denominators, and the prevalence and distribution of specific characteristics.



Term	Definition
<b>Time-location cluster (time-location sampling)</b>	A sampling method that recruits individuals (target population members) from specific locations (venues) during specific time periods. Time-location sampling surveys represent only those who frequent venues.
<b>Transcription errors</b>	Mistakes made when a person enters data from one type of documentation to another.
<b><i>Treponema pallidum</i></b>	A spirochete bacterium with subspecies that cause treponemal diseases such as syphilis, bejel, pinta and yaws. Syphilis, a sexually transmitted bacterial illness, can cause heart and brain damage, paralysis, blindness and possibly death.
<b>Treponemal tests</b>	Tests using antigens from <i>Treponema pallidum</i> to screen for syphilis.
<b><i>Trichomonas vaginalis</i></b>	A protozoan parasite that can lead to infection (trichomoniasis) and can be sexually transmitted. Trichomoniasis is a common cause of vaginitis and increases a woman's susceptibility to HIV infection.
<b>Trichomoniasis ("trich")</b>	See <i>Trichomonas vaginalis</i> .
<b>Tuberculosis</b>	See <i>Mycobacterium tuberculosis</i> .
<b>Two-sided test (two-tailed test)</b>	A test used when a deviation (change) of the outcome of interest in either direction (up or down) is considered possible. For example, in a survey conducted before (baseline) and after an intervention in the target population to increase HIV testing uptake, a two-tailed test considers the possibility that the intervention may have led either to an increase or decrease in HIV testing uptake. Investigators should always use a two-sided test unless certain that change is only possible in one direction.
<b>Unique participant code</b>	A code given to each participant that does not contain personally identifying information, but is used to verify participant identity.
<b>Validity</b>	The degree to which an estimate is likely to be true and free of bias (i.e. systematic errors).
<b>Variance</b>	The dispersion of a variable's values around its average (mean). The formula for calculating variance is the sum of the difference between the observed values and the mean value divided by the sample size.
<b>Venipuncture</b>	The puncture of a vein with a needle to collect blood (also referred to as phlebotomy) or to administer intravenous therapy.

Term	Definition
<b>Venous blood</b>	The blood that flows towards the heart. Venous blood is the most common specimen type for blood-based laboratory tests.
<b>Venue</b>	In terms of biobehavioural surveys, a place where the target population congregates (e.g. bars or brothels).
<b>Viral load</b>	The amount of virus in the blood.
<b>Vulnerability, vulnerable populations</b>	The (relative) powerlessness to resist or survive the effects of an adverse environment. Compared to the general population, vulnerable populations may be at higher risk for contracting HIV or face greater challenges to access services or cope with the consequences of HIV/AIDS because of biological, cultural, social, gender, legal or religious practices and beliefs, including war and poverty. In contrast, key populations are defined by their HIV-related risk behaviours. Examples of vulnerable populations include people with disabilities, homeless people, refugees and displaced people, and youth.
<b>Wave</b>	The set of RDS recruits who are at the same recruitment distance from a given seed. For example, seeds represent wave 0 of a respondent driven sampling survey, and their immediate recruits make up Wave 1. Recruits from Wave 1 make up Wave 2, and so on, until the sample size has been achieved.
<b>Western blot test</b>	Also known as <i>immunoblot</i> . A laboratory test that detects specific antibodies to components of a virus. Often used to confirm HIV antibodies in specimens found to be reactive using a screening test.
<b>Z-score</b>	Also known as <i>standard score</i> . Indicates the distance between a data point from the mean of a dataset, within a normal distribution. A z-score greater than 0 indicates that the observation is above the mean, a z-score below 0 indicates that the observation is below the mean, and a z-score of 0 indicates that the score is the same as the mean.



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