



END-OF-PROJECT EVALUATION

# THE SUSTAINABLE ACTION AGAINST HIV & AIDS IN COMMUNITIES (SAHACOM)

Siyan Yi, Pheak Chhoun, Samantha Brant,  
Kelley Kita, & Sovannary Tuot

AUGUST 2014

**Disclaimer:**

This report is made possible by the generous support of the American people through the United States Agency for International Development (USAID). The content are the sole responsibility of KHANA and do not reflect the view of USAID or United States Government.

# TABLE OF CONTENTS

ACRONYMS.....	VII
ACKNOWLEDGMENTS.....	1
EXECUTIVE SUMMARY.....	2
1. INTRODUCTION.....	5
Objectives of the study.....	7
2. METHODS.....	8
2.1. Study sites and target populations.....	8
2.2. Sample sizes and sampling approach.....	8
2.3. Data collection trainings.....	9
2.4. Data collection procedure.....	10
2.5. Questionnaire development.....	10
2.6. Variables and measurements.....	10
2.7. Qualitative data collection.....	11
2.8. Ethical considerations.....	12
2.9. Data entry and analysis.....	13
3. RESULTS.....	14
3.1. Comparisons of general key indicators.....	14
3.2. People living with HIV (PLHIV).....	15
3.3. Orphan and vulnerable children (OVC).....	23
3.4. Entertainment workers (EW).....	26
3.5. Men who have sex with men (MSM).....	34
3.6. People who use drugs (PWUD)/people who inject drugs (PWID).....	38
4. DISCUSSION.....	42
4.1. People living with HIV (PLHIV).....	42
4.2. Orphan and vulnerable children (OVC).....	44
4.3. Entertainment workers (EW).....	45
4.4. Men who have sex with men (MSM).....	47
4.5. People who use drugs and people who inject drugs (PWUD/PWID).....	48

5. LIMITATION OF THE STUDY .....	50
6. CONCLUSION AND RECOMMONDATION .....	51
6.1. People living with HIV (PLHIV) .....	51
6.2. Orphans and vulnerable children (OVC).....	51
6.3. Entertainment workers (EW) .....	52
6.4. Men who have sex with men (MSM).....	52
6.5. People who use drugs/people who inject drugs (PWUD/PWID).....	53
REFERENCES.....	54
Appendix 1: Questionnaire for People Living with HIV (PLHIV).....	56
Appendix 2: Questionnaire for Orphans and Vulnerable Children (OVC).....	63
Appendix 3: Questionnaire for Entertainment Workers (EW).....	69
Appendix 4: Questionnaire for MSM/TG .....	75
Appendix 5: Questionnaire for PWUD/PWID.....	81
Appendix 6: Guided question for Focus Group Discussion with OVC caregivers .....	88
Appendix 7: Guided question for In depth Interview with OVC (age 11 years and over).....	90
Appendix 8: Guided question for Focus Group Discussion with PLHIV.....	92
Appendix 9: Guided question for In Depth Interview with PLHIV.....	94
Appendix 10: Guided question for Key Informant Interview with village chief, community, health center, and operational district/ provincial AIDS office staff.....	95
Appendix 11: Guided question for Focus Group Discussion and In-depth Interview with Entertainment Worker (EW).....	96
Appendix 12: Guided question for Focus Group Discussion and In-depth Interview with Men Have Sex with Men (MSM) .....	97
Appendix 13: Guided question for Focus Group Discussion and In-depth Interview with the People Who Inject Drug (PWID).....	98

# LIST OF TABLES

Table 1: Number samples by sub-population collected from each study site in end-line survey .....	8
Table 2: Summary of SAHACOM implementation in Phnom Penh and the eight provinces.....	9
Table 3: Samples and groups collected in qualitative data .....	12
Table 4: Socio-demographic characteristics of PLHIV at end line .....	15
Table 5: Social support and perceived needs for family daily life among PLHIV at end line .....	16
Table 6: HIV/AIDS status, HIV testing experience, and overall health conditions among PLHIV at end line.....	18
Table 7: Care and treatment services received by PLHIV at end line.....	19
Table 8: Concerns about family daily life and community support among PLHIV at end line .....	21
Table 9: Satisfaction with health care and support services among PLHIV at end line.....	22
Table 10: Socio-demographic characteristics and support among OVC at end line .....	24
Table 11: Food security, perceived needs, and overall health condition and among OVC .....	25
Table 12: Socio-demographic characteristics of EW at end line.....	27
Table 13: Sexual behavior and condom use among EW at end line.....	28
Table 14: STI symptoms and healthcare seeking behavior for the most recent STI symptoms among EW at end line .....	29
Table 15: Sexual reproductive health and healthcare seeking behavior among EW at end line .....	30
Table 16: HIV testing and counselling among EW at end line .....	31
Table 17: Sexual reproductive health and HIV/AIDS education among EW at end line.....	33
Table 18: Socio-demographic characteristics of MSM at end line .....	34
Table 19: Sexual behavior and condom use among MSM at end line .....	35
Table 20: HIV testing and referral services among MSM at end line .....	36
Table 21: Access to health education and STI care-seeking behavior among MSM at end line .....	37
Table 22: Socio demographics and general health status of PWUD/PWID at end line .....	38
Table 23: Illicit drug use behavior and criminal history among PWUD/PWID at end line .....	40

# LIST OF FIGURES

Figure 1: The SAHACOM logical framework.....	6
Figure 2: Comparisons of general key indicators at baseline, midterm, and end line.....	15
Figure 3: Comparisons of types of support received in the past 12 months among PLHIV at midterm and end-line survey.....	17
Figure 4: Comparison of what is most important or valued in family life today among PLHIV at midterm and end line.....	17
Figure 5: Comparisons of referrals for OI/ART services among PLHIV at midterm and end line .....	20
Figure 6: Comparisons of perceived kinds of support that is important for current families among PLHIV at midterm and end line .....	22
Figure 7: Comparisons of health and social service satisfaction among PLHIV at midterm and end line.....	23
Figure 8: Comparisons of types supports received in the past 12 months by OVC at midterm and end line.....	25
Figure 9: Comparison of proportion of children who reported that they attended school regularly in the past 12 months among OVC at midterm and end line.....	26
Figure 10: Comparisons of type supports perceived to be the most important for current family life among OVC at midterm and end line .....	26
Figure 11: STI symptoms and care seeking behavior for the symptoms among EW at midterm and end line.....	30
Figure 12: Comparisons of condom use, HIV testing, and abortion experience among EW at midterm and end line .....	33
Figure 13: Comparisons of STI, HIV testing and counselling, sexual behavior, and drug use among MSM at midterm and end line .....	37

# ACRONYMS

<b>AIDS</b>	Acquired immunodeficiency syndrome
<b>ANC</b>	Antenatal care
<b>ART</b>	Anti-retroviral therapy
<b>BCC</b>	Behavior change communication
<b>CDHS</b>	Cambodia demographic and health survey
<b>CI</b>	Confidence interval
<b>C/PITC</b>	Community/ peer initiated testing and counseling
<b>CPN+</b>	Cambodian people living with HIV network
<b>CoPCT</b>	Continuum of prevention, care, and treatment
<b>CSO</b>	Community support officer
<b>CSV</b>	Community support volunteer
<b>DMS</b>	Database management system
<b>EW</b>	Entertainment workers
<b>FGD</b>	Focus group discussion
<b>FHI</b>	Family health international
<b>FP</b>	Focused prevention
<b>HC</b>	Health center
<b>HCBC</b>	Home and community based care
<b>HIV</b>	Human immunodeficiency virus
<b>ICP</b>	Integrated care and prevention
<b>IDI</b>	In-depth interviews
<b>IGA</b>	Income generation activity
<b>IP</b>	Implementing partners
<b>KII</b>	Key informant interview
<b>MCH</b>	Maternal and child health
<b>MDG</b>	Millennium development goal
<b>MoEYS</b>	Ministry of Education, Youth, and Sport
<b>MoH</b>	Ministry of Health
<b>MSIC</b>	Marie Stopes International Cambodia
<b>MSM</b>	Men who have sex with men
<b>NAA</b>	National AIDS Authority
<b>NCHADS</b>	National Centre for HIV/AIDS, Dermatology, and STI

<b>NECHR</b>	National Ethics Committee for Health Research
<b>NGO</b>	Non-government organization
<b>NSP</b>	Needle and Syringe Program
<b>OD</b>	Operational district
<b>OI</b>	Opportunistic Infection
<b>OR</b>	Odds ratio
<b>OVC</b>	Orphans and vulnerable children
<b>PHD</b>	Provincial health department
<b>PLHIV</b>	People living with HIV
<b>PMTCT</b>	Prevention of mother-to-child transmission
<b>PAO</b>	Provincial AIDS Office
<b>PASP</b>	Provincial AIDS and STI Program
<b>Pre-ART/ART</b>	Pre-antiretroviral therapy / antiretroviral therapy
<b>PSI</b>	Population Services International
<b>PWID</b>	People who inject drugs
<b>PWUD</b>	People who use drugs
<b>RACHA</b>	Reproductive and Child Health Alliance
<b>RGC</b>	Royal Government of Cambodia
<b>RHAC</b>	Reproductive Health Association of Cambodia
<b>SAHACOM</b>	Sustainable Action against HIV and AIDS in Communities
<b>SD</b>	Standard deviation
<b>SHG</b>	Self-help group
<b>SPA</b>	Standard Package Activities
<b>SPSS</b>	Statistical Package for the Social Sciences
<b>SRH/FH</b>	Sexual reproductive health / family planning
<b>STI</b>	Sexually transmitted infection
<b>TB</b>	Tuberculosis
<b>TG</b>	Transgender persons
<b>UNAIDS</b>	Joint United Nations Programme on HIV/AIDS
<b>UNDP</b>	United Nation Development Programme
<b>VCCT</b>	Voluntary confidential counseling and testing
<b>VSL</b>	Village saving and loan
<b>WFP</b>	World Food Program
<b>WHO</b>	World Health Organization



# ACKNOWLEDGMENTS

The completion of this SAHACOM end-of-project evaluation has been made possible by the contribution of a number of people both at KHANA and KHANA's implementing partners. We would like to take this opportunity to express our sincere gratitude to KHANA's Senior Management Team and the Programs Division of KHANA for their guidance and support. Great thanks should go to our research fellows, Dr. Kouland Thin and Ms. Samedy Suong, as well as our research assistants, Mr. Sereiboth Noan and Mr. Monirath Vun, for their wonderful heartfelt technical assistance. Last but not least, special thanks are deserved by our implementing partners and their staff members, local authorities, community support volunteers, and outreach workers as well as all participants and their family for their excellent collaboration and support during the data collection. Without such extensive supports, this study would have been impossible.

# EXECUTIVE SUMMARY

## BACKGROUND

Since October 2009, KHANA has implemented the Sustainable Action against HIV and AIDS in Communities (SAHACOM) project using a community-based approach with a focus on key areas of Integrated Care and Prevention (ICP), Focused Prevention (FP), and integration of sexual reproductive health/family planning (SRH/FP), maternal and child health (MCH), tuberculosis (TB), livelihoods, and social protection. The KHANA Standard Package Activities (SPA) has been used to guide the program implementation in communities of people living with HIV (PLHIV), orphans and vulnerable children (OVC), entertainment workers (EW), men who have sex with men (MSM), and people who use drugs and people who inject drugs (PWUD/PWID) in the capital city and eight provinces.

The five-year project is ending in September 2014. As a result, this impact evaluation study was conducted to evaluate the efficiency and effectiveness of the program and the extent to which the project objectives have been achieved by comparing key indicators across the life span of the project using data collected at baseline, midterm, and end line. The specific objective of this study was to assess the changes of key outcome indicators in terms of ICP, FP, SRH/FP, MCH, livelihoods, and social protection among PLHIV, OVC, EW, MSM, and PWUD/PWID by comparing data from the three waves.

## METHODS

The SAHACOM baseline documentation was conducted in 2010, and a midterm and end-line survey was conducted in 2012 and 2014, respectively. Both quantitative and qualitative methods were used in this study. The surveys were conducted in Phnom Penh, Battambang, Pailin, Pursat, Siem Reap, and Takeo. A total of 2,619

participants for midterm and 3,021 participants for end-line survey were randomly selected for face-to-face interviews using a two-stage cluster sampling method. Well-trained interviewers collected the data using five questionnaires developed separately for the study sub-populations under supervision from KHANA's research team. This study was approved by the National Ethics Committee for Health Research, Ministry of Health, Cambodia, and a verbal consent was obtained from each participant or their guardian.

Descriptive statistics were used to compute means and standard deviations for numerical variables as well as frequencies for nominal and ordinal variables. The appropriate bivariate statistical tests, determined according to the nature of variables being analyzed, were conducted to compare outcomes at baseline and mid-term to those at end line to detect changes in the key indicators. Qualitative data were initially transcribed in Khmer. Then, content analyses were performed to identify meaning units, categories, and themes related to the objectives of the review. The final results were translated into English.

## RESULTS

### People living with HIV (PLHIV)

In total, 916 PLHIV were included in the midterm, and 1004 PLHIV were included in the end-line survey. HIV prevalence among pregnant women aged 15–24 attending antenatal care decreased from 0.5% at baseline to 0.3% at midterm and end line. The proportion of PLHIV in need for ART and currently on the treatment increased steadily from 90.0% at baseline to 92.5% at midterm and to 96.0% at end line. Moreover, the proportion of PLHIV who were on ART 12 months after the initiation of the treatment increased from 85.0% at baseline and midterm to 89.5% at end line. Regarding perceived health conditions, the proportion of PLHIV reporting

their overall health as 'good or very good' increased from 52.0% at baseline to 78.3% at midterm and 80.2% at end line. Similarly, the proportion of PLHIV reporting their overall quality of life as 'good or very good' increased sharply from only 35.0% at baseline to 73.3% at midterm and 72.0% at end line. For social support received in the past 12 months, travel support to go to a health facility increased from 93.5% at midterm to 96.2% at end line. The satisfaction with community- and home-based care services also increased from 83.0% at baseline to 96.0% at midterm and 91.5% at end line.

### Orphans and vulnerable children (OVC)

The number of OVC included in the midterm and end-line survey was 756 and 785, respectively. The percentage of OVC receiving external support for child care surged from 30.0% at baseline to 84.0% at midterm and 76.8% at end line. Compared to those at midterm, OVC at end line were significantly less likely to report that food supports (77.1% vs. 48.3%) and other basic needs such as clothes and household materials (74.1% vs. 61.2%) were the most important needs for their family today. However, proportion of OVC who reported that supports for child education as the most important need for their family life at end line was significantly higher than that at midterm (80.9% vs. 45.7%). OVC at end line were significantly more likely to report that they attended school regularly in the past 12 months compared to OVC at midterm (89.6% vs. 85.3%).

### Entertainment workers (EW)

In total, 595 EW were included in the midterm, and 667 EW were included in the end-line survey. The proportion of EW reporting consistent condom use with commercial sex partners decreased steadily from 89.0% at baseline to 85.3% at midterm and 81.1% at end line. However, the proportion of EW who reported having at least one STI symptom in the past three months was significantly lower at end line (22.5%) compared to that at midterm (39.6%), and the percentage of EW who sought treatment for the most recent STI symptom rose from midterm (43.6%) to end line (69.6%). The proportion of EW who reported having been tested for HIV in the

past six months were significantly lower at end line compared to that at midterm (64.9% vs. 68.4%), but EW at end line were more likely to have received counseling for their most recent HIV test (88.2% vs. 86.7%).

### Men who have sex with men (MSM)

In total, 352 MSM were included in midterm survey, and 394 MSM were included in the end-line survey. The mass majority (97.5%) of the respondents at end line reported having sexual intercourse before with either man or women, and the average number of sexual partners reported in the past three months was 4.0. The proportion of MSM having at least one STI symptom in the past three months was significantly lower at end line (6.1%) than that at midterm (28.1%). However, the proportion of MSM getting HIV test in the past six months at end line was significantly lower than that at midterm (77.1% vs. 94.1%). The proportion of MSM who used illicit drugs in the past 12 months was also significantly lower at end line than that at midterm (5.1% vs. 12.0%). Results also showed that only 27.0% of MSM respondents at baseline reported consistent condom use with their regular partners in the past 12 months compared to 62.4% at midterm and 82.5% at end line.

### People who use drugs/people who inject drugs (PWUD/PWID)

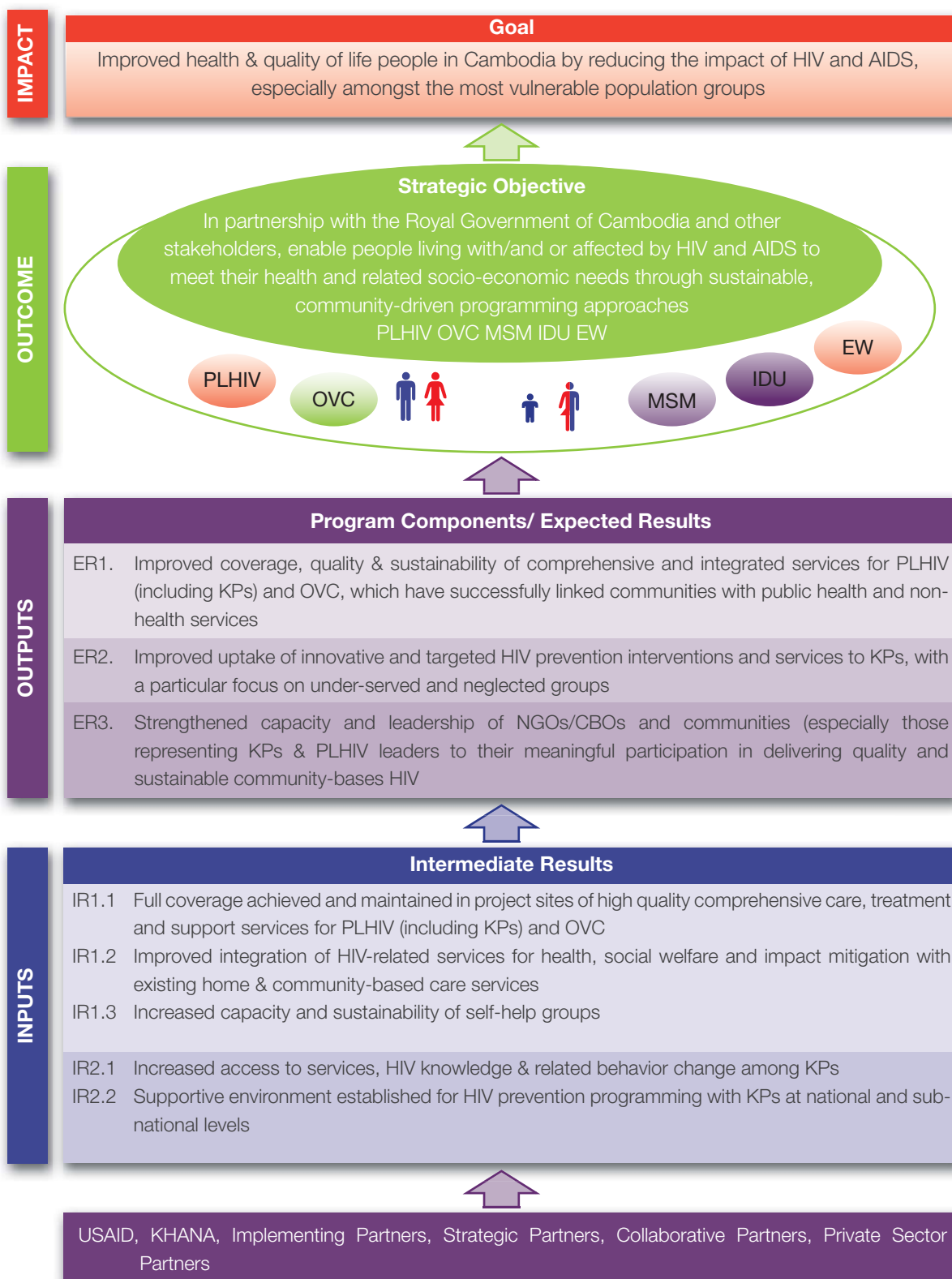
Primary data were only collected from PWUD/PWID at end line (n= 170). The proportion of PWID reporting consistent condom use with their regular partners significantly increased from 30.0% at baseline to 32.4% at midterm and 50.0% at end line. There were 34.3% of respondents at end line who reported using injectable drugs in the past three months. We found that only 24.5% of the participants at end line shared a needle within the past three months compared to 63.0% at the midterm. The proportion of PWUD/PWID who had at least one STI symptom in the past six months decreased from 14.5% at midterm to 12.7% at end line. The proportion of PWUD/PWID getting HIV test in the past six months was 83.3%, and 96.3% of them received counseling when getting the most recent HIV test.

## CONCLUSIONS

Overall findings indicate several positive changes in key outcome indicators including the reduction of HIV prevalence among pregnant women attending antenatal care, increased rate of retention to ART, increased proportion of PLHIV on ART, improved overall health conditions and quality of life of PLHIV, increased levels of satisfaction with community and home-based care services, and child care

support. Furthermore, several other key indicators had been improved from baseline to end line such as consistent condom use with regular partner among MSM and PWID. However, some negative findings should also be noted; for example, the proportion of EW reporting consistent condom use with commercial sex partners decreased steadily from baseline to midterm and to end line. Possible explanations and recommendations on these issues have been extensively discussed in the main report.





**Figure 1: The SAHACOM logical framework**



The SAHACOM has provided financial and technical supports to IPs and communities for providing outreach education using BCC, promoting condom and lube use, accelerating case detection through new HIV testing and counseling approaches, increasing accessibility of the beneficiaries to receive early Pre-ART/ART services, and maximizing retention in care and treatment. The IPs have also been provided technical supports on capacity building as well as policy and strategy work.

By 2013, KHANA had been working with 20 IPs, two strategic partners, and several collaborating partners including relevant government agencies, PSI, FHI360, RHAC, RACHA, and MSIC. Activities have been carried out in Phnom Penh, the capital city, and eight provinces including Banteay Meanchey, Battambang, Kampong Cham, Kandal, Pailin, Pursat, Siem Reap, and Takeo. Of the IPs, 15 have been working on component 1, which is responsible for home and community-based care for PLHIV and OVC; five have been working on component 2, which is responsible for FP with MSM, PWID/PWUD, and EW; while all of the IPs have been involved in component 3, which is responsible for strengthening the capacity and leadership of NGOs and communities (KHANA, 2013).

From October 2012 to September 2013, 39,127 people were reached with individual or small group preventive interventions. The number of PLHIV reached with a minimum package of positive prevention was 6,818. The number of key populations reached with individual or small group preventive interventions was 11,545, including 214 PWID, 6,311 EW, and 5,020 MSM. A total of 24,543 people were reached through KHANA's community-based care activities, including 8,862 PLHIV and 15,681 OVC. In addition 1,791 HIV-positive children were supported to access clinical services. A broader range of referrals were supported for PLHIV, OVC, and the key populations. These referrals included referrals for care and treatment for OI, CD4 count, ART, VCCT, PMTCT, STI, TB screening and treatment, and SRH/FP. The project has referred a total number of cases of 3,220 for FP services, 9,566 for STI/SRH services, 335 for PMTCT

services, 3,043 PLHIV for TB screening, and 318 PLHIV for TB treatment (KHANA, 2013).

In 2010, the SAHACOM baseline documentation was conducted using desk reviews, field visits, and consultative meetings with various program staff, and in 2012, the SAHACOM mid-term evaluation survey was conducted among 2,619 participants. A number of core indicators and practical recommendations were documented. However, data on outcomes in the mid-term review were not compared with those of the baseline survey. The outcome evaluation is being conducted in the fifth and final year of the project to review the intervention activities and measure changes in terms of efficiency and effectiveness of the programs and the extent to which objectives of the project have been achieved by comparing outcome indicators across the life span of the project using data at three waves: baseline, midterm, and end line.

## OBJECTIVES OF THE STUDY

The overall purpose of this end-of-project assessment was to evaluate the effectiveness of the SAHACOM in improving health and quality of life of key and most vulnerable populations by examining the extent to which the intended objectives of the project set at the baseline have been achieved. The specific objectives of the study were:

1. To assess the changes of key outcome indicators in terms of ICP, FP, SRH/FP, MCH, livelihoods, and social protection among PLHIV, OVC, EW, MSM, and PWUD/PWID by comparing data collected at end line to those collected at baseline and midterm.
2. To identify problems and constraints that have been encountered by both KHANA and its IPs related to HIV prevention and care over the course of the project implementation.
3. To document lessons learned and challenges and to make further recommendations for the improvement of the implementation of the project.

# 2 | METHODS

The end-line survey was conducted in April and May 2014. We employed both quantitative and qualitative method. The quantitative approach was used to identify and determine the magnitude of changes of main project outcome indicators, while the qualitative approach was used to get greater insights into core issues and challenges experienced over the course of the project from the baseline to the end line.

## 2.1. STUDY SITES AND TARGET POPULATIONS

The midterm and end-line survey were conducted in Phnom Penh, the Capital city, and five provinces including Battambang, Kampong Cham, Pailin, Pursat, Siem Reap, and Takeo. Participants included PLHIV, OVC, EW, MSM, and PWUD/PWID. In qualitative component, we also collected information from local authorities and organizations working on these vulnerable populations at the community level.

## 2.2. SAMPLE SIZES AND SAMPLING APPROACH

The z test for a two sample comparison of proportions was employed to detect a change of 10-15% of key indicators such as general health status and self-rated quality of life for PLHIV and regular school attendance and having sufficient food to eat in the past six months for OVC. For key populations, consistent condom use with regular partners and access to HIV testing and counseling were used for the sample size estimation. The power of 80% with 95% confidence interval was set for the calculation. Design effect of 2 was used to compensate the cluster effect. The selection of these indicators was based on the SAHACOM baseline documentation report in August 2011 (Heng et al., 2010a; Heng et al., 2010b; Heng et al., 2011) and findings from the SAHACOM midterm evaluation (Heng and Tuot, 2013). As a result, the total minimum sample size required for the study was approximately 2,600 samples. From this minimum required number, adjusted for incomplete response or missing data of 10%, the adjusted final sample size was approximately 2,900. The breakdown of the sample size collected from each specific study population in different city and provinces is shown in Table 1.

**Table 1: Number samples by sub-population collected from each study site in end-line survey**

Study sites	EW	MSM	PWUD/PWID	PLHIV	OVC	Total
Phnom Penh	523	-	170	-	-	693
Pursat	-	-	-	149	99	248
Battambang	-	329	-	283	213	825
Pailin	-	-	-	75	48	123
Siem Reap	144	65	-	131	175	515
Takeo	-	-	-	366	251	617
Total	667	394	170	1,004	786	3,021

**Abbreviations:** EW, entertainment workers; MSM, men who have sex with men; OVC, orphans and vulnerable children; PLHIV, people living with HIV; PWID, people who inject drugs; PWUD, people who use drugs.



Coordination and administration of the survey were facilitated by the KHANA's partners at provincial level to ensure the effectiveness and quality of the data collection. A two-stage cluster sampling method was utilized to select the study samples. The sampling frame for the specific populations were modified based upon the consultation with KHANA's programs teams. The sample size in each sub-population were proportionally allocated to the size of the sub-populations in each province, and only six out of nine city and provinces where the ICP has been implemented were selected to represent

the overall SAHACOM project. We excluded Banteay Meanchey, Kampong Cham, and Kandal due to the fact that the target population size for the interventions was too small at the time when the baseline documentation and mid-term review was conducted. Furthermore, the total number of the population in the selected provinces represented more than 70% of the total coverage of the ICP and 100% of the total coverage of the FP. The coverage of ICP and FP activities in Phnom Penh and the eight provinces are summarized in Table 2.

**Table 2: Summary of SAHACOM implementation in Phnom Penh and the eight provinces**

No.	Study sites	PLHIV	OVC	MSM	EW	PWUD/PWID
1	Phnom Penh	X	x		x	x
2	Siem Reap	X	x	x	x	
3	Battambang	X	x	x		
4	Kandal		x			
5	Banteay Meanchey	X	x			
6	Pailin	X	x			
7	Pursat	X	x			
8	Kampong Cham	X	x			
9	Takeo	X	x			

**Abbreviations:** EW, female entertainment worker; MSM, men who have sex with men; OVC, orphans and vulnerable children; PLHIV, people living with HIV; PWID, people who inject drugs; PWUD, people who use drugs.

For PLHIV and OVC, the number of health centers in each selected city/province to be included in the study was decided based upon the number of PLHIV and OVC registered in each health center. In order to be included in the study, the health center must cover at least 20 PLHIV. In addition, other factors were assessed when deciding whether to include a health center in the study such as convenience for data collection and duration of the project implementation in the health center coverage. We then used the probability proportional-to-size sampling to select the required number of PLHIV and OVC from each province.

To select the samples for EW, MSM, and PWUD/PWID, we used communes in each selected city/province as the smallest unit for the sampling. Only communes with at least 20 people in each sub-

population were included in the study. Similarly, for the venue-based convenience sampling, justification on whether to include or exclude a venue was based on the accessibility and the duration of the project implementation in the communes. The probability proportional-to-size sampling was used to select the required number of EW, MSM, and PWUD/PWID from each province.

## 2.3. DATA COLLECTION TRAININGS

Before data collection, all interviewers and field supervisors were trained for two days on data collection methods and one day for tool pretesting and reflection. The main objective of the training was to make sure that all interviewers and field

supervisors understood the procedures and follow the standardized guidelines in the same manner to ensure the quality of the data. The training covered necessary skills including interview techniques, confidentiality, and privacy as well as practices of the questionnaire administration. We also reviewed the study protocol during the training sessions in order for the team members to be thoroughly familiarized with it. Because supervisors and interviewers are the key for the quality of the data in the survey, quality control skills such as rechecking and reviewing the questionnaires after administration as well as resolving issues that might arise during the fieldwork were included in the training. Regular review sessions with interviewers were conducted during the survey period to review progress and communicate any problems or issues occurring during the data collection.

## **2.4. DATA COLLECTION PROCEDURE**

Quantitative data were collected by trained interviewers who have experience in data collection under supervision from KHANA research team. Refusal rates were counted and recorded every day by the interviewers and field supervisors. Coordination and administration were arranged and collaborated by the KHANA's implementing partners. KHANA's research team leaders were the principal investigators of the study. Subjects were interviewed face-to-face after an informed consent has been obtained. The estimated time for each interview, including time for obtaining informed consent, was approximately 30 minutes.

## **2.5. QUESTIONNAIRE DEVELOPMENT**

For the quantitative component, five questionnaires were developed separately for each study sub-population – PLHIV, OVC, EW, MSM, and PWUD/PWID. The questionnaires were developed both in English and Khmer using standardized and validated tools adapted from previous studies to measure key outcome indicators related to the project objectives. The questionnaires were initially developed in

English and then translated into Khmer, the national language of Cambodia. Another translator back-translated it into English to ensure that the “content and spirit” of every original item were maintained. Clear instructions and explanations were addressed to avoid any confusion during the interviews.

Prior to the main data collection, we conducted a pilot study before constructing the final questionnaires to ensure that the wording and contents were culturally suitable, acceptable, and clearly understandable for the study participants. In the pilot study, we conducted face-to-face interviews with 10 samples randomly selected from each study sub-population to assess the contents, format, length, language, and appropriateness of the questionnaires. Necessary modifications were made based upon feedbacks from the pilot study and comments from researchers and practitioners working on HIV/AIDS in Cambodia. The final version of the questionnaires was used for the main data collection.

## **2.6. VARIABLES AND MEASUREMENTS**

### **2.6.1. Questionnaire for PLHIV**

The questionnaire collected information on socio-economic characteristics, physical and mental health status, ART, community support, HIV/AIDS stigma and discrimination, and perceived satisfaction with health care and support services. Socio-economic characteristics of the participants and some other variables such as community support and satisfaction with health care and support services were measured using existing items adapted from our previous studies in the same populations (Heng et al., 2010a; Heng et al., 2010b; Heng et al., 2011) and the most recent Cambodia Demographic and Health Survey (National Institute of Public Health et al., 2010).

We assessed self-rated health status using the following question, “In general, how would you rate your overall health?” with five response options including very good, good, neither good nor poor, poor, and very poor. Similarly, we assessed self-

rated quality of life using the following question, “In general, how would you rate your overall quality of life?” with five response options including very good, good, neither good nor poor, poor, and very poor.

### **2.6.2. Questionnaire for OVC**

Data from OVC were collected through an interview with the OVC themselves if he/she was 11 years of age or older and with his/her caregiver if he/she was younger than 11 years. Socio-economic characteristics, community support, and health and nutrition status were measured using existing items adapted from our previous studies in the same populations (Heng et al., 2010a; Heng et al., 2010b) and the most recent Cambodia Demographic and Health Survey (CDHS, 2010).

### **2.6.3. Questionnaire for EW**

Variables in the questionnaire for EW included socioeconomic characteristics, sexual behavior, SRH, healthcare seeking behavior, HIV testing and counseling, HIV/AIDS-related education, and physical and mental health status.

The information on risky sexual behavior as well as on HIV/AIDS and STI were measured using items adapted from previous studies in Cambodia (Heng et al., 2011; MoEYS, 2010; MoEYS, 2012). We collected information regarding their sexual experience, involvement in commercial sex, and condom use behavior with both regular and commercial partners. Regarding SRH, we asked about their experiences and healthcare seeking behavior in regards to STI, pregnancy, abortion, contraceptive methods, and HIV testing.

### **2.6.4. Questionnaire for MSM**

The questionnaire for MSM collected data on socioeconomic characteristics, HIV/AIDS and STI experiences, risky sexual behavior, HIV/AIDS knowledge and education, and healthcare seeking behavior. Measurements for these variables were similar to those used for EW. However, several items were added to capture further characteristics of their sexual behavior. We collected additional information

on their practices when they had sex with different partners such as boyfriends, girlfriends, female sex workers, male sex workers, and people with whom they had sex in exchange for money or gifts.

### **2.6.5. Questionnaire for PWUD/PWID**

Similar data were collected from PWUD/PWID on socioeconomic characteristics, risky sexual behavior, HIV testing attitudes, HIV/AIDS-related knowledge, and healthcare seeking behavior. The items used to measure these variables were similar to those used to collect data from other sub-populations. However, additional information were collected regarding the characteristics of substance abuse such as history of being arrested by police in relation to drug abuse, drug trafficking, and/or other drug-related crimes. We also asked the respondents about whether they had been sent to a rehabilitation center. For the measurements of the variables, please see the earlier details of questionnaire development for other sub-populations.

## **2.7. QUALITATIVE DATA COLLECTION**

In addition to the questionnaire surveys, qualitative data were collected to gain optimal insights into the project from different angles through a thorough assessment of the quality of life of PLHIV, OVC, and their families, as well as the quality of care and support provided to the groups, and behavior change of key populations, stakeholders, and healthcare providers involved in the project. Qualitative data were collected by a well-trained research team through IDI, FGD, and KII. FGD helped explore a variety of issues related to behavior changes, quality of life, and care and perceived satisfaction with health care services and social support they had received in the past 12 months. IDI and KII provided a good opportunity to investigate rigorously each issue of interest. At the same time, they allowed the investigators to make sense of the complex behavior, problems, and challenges these groups faced. Field guides were used to ensure the flow and completeness of information from all IDI, FGD, and KII.

To have a comprehensive picture of the project implementation, participants in this qualitative component included people who had been in the project for at least two years. FGD were conducted among PLHIV, caregivers of OVC, EW, MSM, and PWUD/PWID to assess behavior changes, quality of life, healthcare services, social support, and community involvement related to the project activities. In each FGD, 6 to 8 target people were invited to participate. IDI were conducted among PLHIV, self-help groups, OVC, caregivers of OVC, EW, MSM, and PWUD/PWID to gather information regarding the quality of care and support which OVC and PLHIV had received as well as the behavior change of key populations. In addition, KII were also conducted with community people, health staff, project staff, outreach workers, and staff at PAO and OD with the main purpose of examining the characteristics of the project and collecting lessons learned from the process of implementation. In total,

10 IDI, 10 FGD, and four KII were conducted in the selected provinces.

Different field guides were developed for PLHIV, OVC, EW, MSM, PWUD/PWID, and stakeholders involved in the project. Each open-ended questionnaire for each sub-population included components such as demographic information of participants, HIV/AIDS-related knowledge and information, experience of stigma and discrimination, types of services received, perception of quality of healthcare and social support service, process of receiving services, impact of services on the quality of life of PLHIV and OVC, and their opinions on how to improve the existing services. All IDI, FGD, and KII were note-taken and tape-recorded after obtaining an informed consent from each respondent. Table 3 presents the number of IDI, FGD, and KII conducted among each specific sub-population and key informants.

**Table 3: Samples and groups collected in qualitative data**

Target group	IDI	KII	FGD
PLHIV	2	-	2
Foster family (for OVC)	2	-	2
EW	2	-	2
MSM/TG	2	-	2
PWID	2	-	2
Health service providers	-	1	-
Project staff / OW	-	1	-
Community people*	-	1	-
PASP or OD staff	-	1	-
Total	10	4	10

**Abbreviations:** FGD, focus group discussion; IDI, In-depth interview; KII, key informant interview; OD, operational district; OVC, orphans and vulnerable children; PASP, provincial AIDS and STI program; PLHIV, people living with HIV/AIDS.

## 2.8. ETHICAL CONSIDERATIONS

The study protocol was approved by NECHR, MoH, Cambodia. Participation in this study was completely voluntary. Participants could refuse or discontinue their participation at any time for any reason without consequences. This was made clear to the participants both before and during the consenting process. After a detailed description of

all study objectives and procedures was provided, a verbal consent was obtained from each participant or their guardian (caregivers and NGO staff who took care of OVC). Names of the researchers were included on all forms with contact information for the participants to use if they had any questions. All research data obtained from participants were computer coded with a number. Privacy was strictly protected throughout the research processes, and

confidentiality of the information obtained was ensured by removing all personal identifiers from the survey questionnaires and notes. Only the code numbers appeared on the records and files. The questionnaires and data collected from the respondents were kept under the responsibility of the research team leaders of KHANA.

## 2.9. DATA ENTRY AND ANALYSIS

Quantitative data were coded and entered into a computerized database using Epi Data version 3 (Odense, Denmark). Double data entry was performed to minimize entry errors. Descriptive statistical tests were used to compute means and standard deviations (SD) for numerical variables as well as frequencies for nominal and ordinal variables.

Chi-square test, Fisher's Exact test, t-test, or one-way analysis of variance (ANOVA), determined according to the nature of variables being analyzed, were utilized to compare outcomes at baseline and midterm to those at end line to detect changes in key outcome indicators. Two-sided p-values of less than 0.05 were regarded as statistically significant. All quantitative data were analyzed using STATA version 11.0 (Lakeway Drive College Station, TX, USA) and SPSS version 20.0 (IBM Corporation, New York, USA).

NVIVO version 10 (QSR International Pty Ltd., 2012) was used to analyze qualitative data. Data was first transcribed in Khmer. Then, content analysis was performed to identify meaning units, categories, and themes related to the objectives of the review. The final results were translated into English.





# 3 | RESULTS

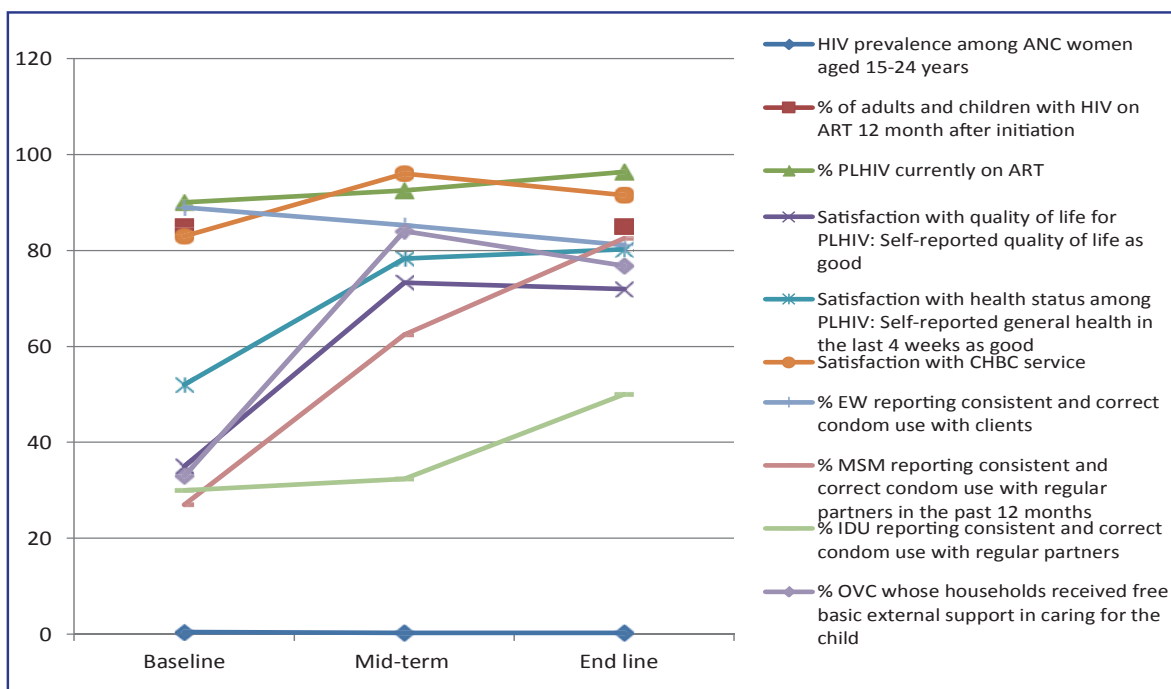
## 3.1. COMPARISONS OF GENERAL KEY INDICATORS

The comparisons of general key indicators at baseline, midterm, and end line are shown in Figure 2. One of the most important overall goals of the project was to reduce HIV prevalence in general population. HIV prevalence among pregnant women aged 15–24 attending antenatal care decreased from 0.5% at baseline to 0.3% at midterm and end line. Regarding retention to ART, the percentage of adults and children living with HIV on ART 12 months after initiation of the treatment remained unchanged at 85.0%. However, additional analyses using KHANA routine report data by May 2014 found that this percentage was 89.5%.

The proportion of PLHIV who were in need for ART and currently on the treatment increased steadily from 90.0% at baseline to 92.5% at midterm and to 96.0% at end line. The proportion of PLHIV reporting their overall health as good or very good increased from only 52.0% at baseline to 78.3% and 80.2% at midterm and end line, respectively. Regarding quality of life, proportion of PLHIV reporting their overall quality of life as good or very good increased

sharply from only 35.0% at baseline to 73.3% and 72.0% at midterm and end line, respectively. Proportion of PLHIV who reported being satisfied with community- and home-based care services also increased from 83.0% at baseline to 96.0% at midterm, but it dropped slightly to 91.5% at end line. For community support, only 30.0% of OVC received external support for child care at baseline compared to 84.0% and 76.8% at midterm and end line, respectively.

In key populations, the proportion of EW reporting consistent condom use with commercial sex partners decreased steadily from 89.0% at baseline to 85.3% at midterm, and 81.1% at end line. Among MSM, only 27.0% of respondents at baseline reported consistent condom use with their regular partners in the past 12 months compared to 62.4% and 82.5% at midterm and end line, respectively. Similarly, proportion of PWID reporting consistent condom use with their regular partners increased steadily from 30.0% at baseline to 32.4% at midterm and 50.0% at end line.



**Abbreviations:** ANC, antenatal care; ART, antiretroviral therapy; CHBC, community- and home-based care; EW, entertainment workers; MSM, men who have sex with men; IDU, injecting drug users; OVC, orphans and vulnerable children; PLHIV, people living with HIV.

**Figure 2: Comparisons of general key indicators at baseline, mid-term, and end line**

## 3.2. PEOPLE LIVING WITH HIV (PLHIV)

### 3.2.1 Socio-demographic Characteristics

Socio-demographic characteristics of PLHIV are shown in Table 4. In total, 1,004 PLHIV were included in this end-line study with the age range of 16 to 79 years. Mean age of the participants was 42.8 years (SD= 8.9), and 67.3% of them were female. Mean

years of formal education completed was 4.3 years (SD= 3.3), and 70.6% of PLHIV lived in rural area. Of total, 62.8% of the respondents were married with a mean number of household members of 3 (SD= 2.2). The top three jobs held for this population during the past 12 months were farmer (39.0%), business owner (21.6%), or labourer (17.7%) with an average monthly household income of \$116 (SD= 227). The majority of the participants (82.2%) lived with their spouse. Families did not have enough food for an average of 4.5 days in the past month.

**Table 4: Socio-demographic characteristics of PLHIV at end line**

Variables	Number (%)
Living urban area	293 (29.4)
Mean age ( in years, ± SD)	42.8 ± 8.9
Female gender	675 (67.2)
Mean years of education level completed ( ± SD)	4.3 ± 3.3
Marital status	

Never married	16 (1.6)
Married and currently living together	619 (61.7)
Married but not currently living together	11 (1.1)
Not married but currently living with a partner	4 (0.4)
Divorced/separated	353 (35.2)
Mean number of household members ( ± SD)	3.0 ± 2.2
Major job last year	
Unemployed	122 (12.2)
Farmer	392 (39.0)
Self-employed business	217 (21.6)
Laborer	178 (17.7)
Office worker	39 (3.9)
Moto/taxi driver	21 (2.1)
Uniformed officer	14 (1.4)
Other	21 (2.1)
Currently living with	
Spouse	823 (82.2)
Parents	78 (7.8)
Alone	47 (4.7)
Relative	39 (3.9)
Other	14 (1.4)
Monthly average household income in the past 12 months (in USD, SD)	116 ± 227
Number of days in past month on which family had no enough food (± SD)	4.5 ± 6.0

**Abbreviations:** PLHIV, people living with HIV; SD, standard deviation.

As shown in Table 5, 95.2% of PLHIV in this survey received support from KHANA or its IPs in the past 12 months. The biggest type of support received was support to travel to health facilities (96.2%), a significant increase from 93.5% at midterm (OR=

1.7, 95% CI= 1.2-2.2). The perceived most currently important needs for their family were financial support to start up family business (75.5%), followed by food (70.3%) and health care and treatment (50.7%).

**Table 5: Social support and perceived needs for family daily life among PLHIV at end line**

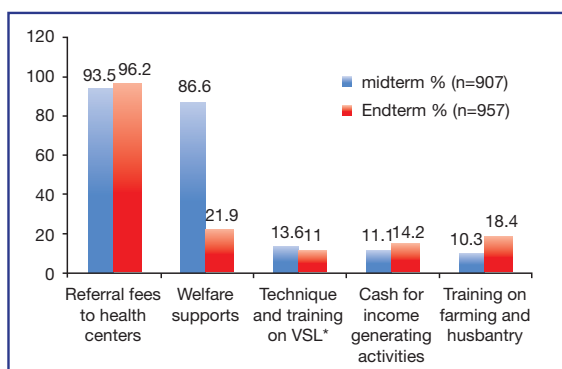
Variables	Number (%)
Received support from KHANA/IPs in the past 12 months	956 (95.2)
Types of support received from KHANA/IPs in the past 12 months	
Financial support for starting up family business	136 (14.2)
Support for travelling to health facility	921 (96.2)
Technique/training for loan group and VSL	105 (11.0)



Technique/training for raising animals / vegetables	176 (18.4)
Other	210 (21.9)
Perceived most important thing for the family today	
Food	706 (70.3)
Money	758 (75.5)
Housing	108 (10.8)
Healthcare and treatment	509 (50.7)
Clothes, housing materials (mosquito net, blanket, mat, etc.)	218 (21.7)
Education for children	301 (30.0)
Other	75 (7.5)

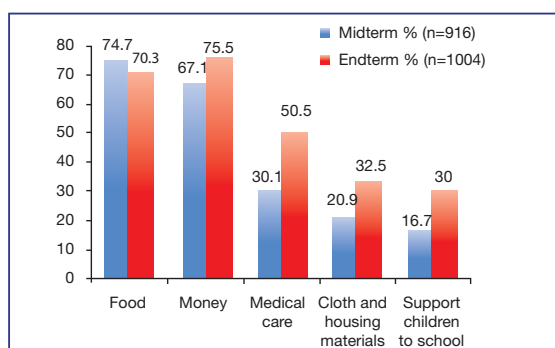
**Abbreviations:** *IPs, implementing partner; PLHIV, people living with HIV; VSL, village savings and loans.*

The comparisons of types of support received in the past 12 months among PLHIV in midterm and end-line survey are shown in Figure 3. Welfare support received, such as food and other basic needs, decreased significantly from 86.6% at midterm to 21.9% at end line (OR= 17.3, 95% CI= 13.8-21.6). The percentage of PLHIV who received skill trainings and VSL establishment also decreased slightly from 13.6% at midterm to 11.0% at end line (OR= 1.3, 95% CI= 0.9-1.7). However, financial support for income generating activities increased from 11.1% at midterm to 14.2% at end line (OR= 1.3, 95% CI= 1.0-1.7). Similarly, support for trainings on farming and husbandry increased from 10.3% at midterm to 18.4% at end line (OR= 2.0, 95% CI= 1.5-2.6).



**Figure 3: Comparisons of types of support received in the past 12 months among PLHIV at midterm and end-line survey**

Figure 4 shows comparisons of what is most important or valued in family life today among PLHIV at midterm and end line. Although a large proportion of PLHIV still perceived that food is important for their family life, the percentage decreased significantly from 74.7% at midterm to 70.3% at end line (OR= 1.2, 95% CI= 1.1-1.5). Proportion of PLHIV who responded that their family needed money for starting up family business increased significantly from 67.1% at midterm to 75.5% at end line (OR= 1.3, 95% CI= 1.2-1.9). Importantly, perceived needs for medical care increased significantly from 30.1% at midterm to 50.6% at end line (OR= 2.4, 95% CI=1.9-2.9). Perceived needs also increased significantly from midterm to end line for vocational trainings (from 8.6% to 18.6%; OR=2.4, 95% CI= 1.3-2.5) as well as for support for child education (from 16.7% to 30.0%, OR= 2.1, 95% CI= 1.7-2.7).



**Figure 4: Comparison of what is most important or valued in family life today among PLHIV at midterm and end line.**

### 3.2.2. Health condition, HIV/AIDS status, and ART

As shown in Table 6, mean duration of living with HIV was 8.5 years with a standard deviation of 4.5 years. The majority (87.4%) of the participants who were living with a spouse or partner reported that their partner or spouse knew their HIV status, and 73.1% reported that their spouse or partner was also HIV positive. It is worth-noting that 5.2% of the respondents did not know HIV status of their spouse or partner. Almost all of the respondents (98.3%) also reported that their family knew their HIV status. The main reason for having not disclosed HIV status

to spouse/partner or family included fear of stigma (25.0%), fear of rejection (25.0%), or did not think it was important (16.7%). The most common place the participants received their most recent HIV test was a public health center (83.2%), and 98.8% of them received counselling when they were tested for HIV. Regarding their overall health conditions, 80.2% of PLHIV at end line rated their overall health as good or fair compared to 78.3% at midterm and 52.0% at baseline. Similarly, 72.0% of PLHIV at the end line rated their overall quality of life as good or fair compared to 73.3% at midterm and 35.0% at baseline.

**Table 6: HIV/AIDS status, HIV testing experience, and overall health conditions among PLHIV at end line**

Variables	Number (%)
Duration of living with HIV (in months, ± SD)	101.7 ± 53.8
Spouse or partner was also HIV positive	663 (73.1)
Didn't know if spouse/partner were HIV positive	47 (5.2)
Spouse or partner knew your HIV status	794 (87.4)
Family knew your HIV status	880 (98.3)
Main reason having not disclosed HIV status to spouse/partner or family	
Fear of stigma	3 (25.0)
Fear of rejection	3 (25.0)
Feeling shameful	1 (8.3)
Don't think it's important	2 (16.7)
Other	3 (25.0)
Facility where the most recent HIV testing was performed	
VCCT	20 (2.0)
Public health center	836 (83.2)
Private clinic	37 (3.7)
NGO center	93 (9.3)
Other	19 (1.9)
Receive counseling when tested for HIV	992 (98.8)
Self-rated overall health as good or fair	803 (80.2)
Self-rate overall quality of life good or very good	722 (72.1)

**Abbreviations:** ART, antiretroviral treatment; NGO, non-governmental organization; OI, opportunistic infections; PLHIV, people living with HIV; SD, standard deviation; VCCT, voluntary counseling and testing.

Table 7 shows care and treatment services received by PLHIV at end line. Of total, 96.4% of the participants were currently on ART with a mean length of 6.9 years (SD= 3.9). This proportion increased from 90.0% at baseline and 92.5% at midterm. In the past three months, 6.5% of the participants either missed an appointment with a doctor to receive ART or stopped using ART for a short period. The mean number of times participants reported missing ART in the past three months was 0.2 (SD= 1.2). The mean distance from home to a place where the participants could get ART was 15.4 km (SD= 16.2 km). Mean CD4 count before starting ART was 149 cells/ mm3 (SD= 160). Of the 84.0% of participants who received a blood test for CD4 count in the past six months, mean CD4 count was 513 cells/ mm3 (SD= 302). At midterm, with a sample size of 916, CD4 count before ART was 181 cells/ mm3, and after ART it was 475 cells/ mm3. For other treatments, 27.8% of the participants were on medication to prevent or treat OI, and 11.4% were on tuberculosis treatment. The majority of the participants reported that ART (72.5%) and OI medications (71.3%) were available to them for free. Furthermore, 86.8% of participants reported

that they would be able to afford ART if they did not have any external support.

Table 7 also shows levels of understanding about ART among PLHIV. When asked if ART protects them from additional infections, 23.9% reported that it did. The majority of the participants (87.1%) agreed that ART makes them as healthy as they were before they were infected by HIV. Only 8.5% of the participants agreed that they did not need to use condoms when having sex if they were on ART. When asked if ART prevents them transmitting an STI to their partner, 19.2% of them agreed.

Regarding referrals for ART or OI services, 25.6% of the participants were referred by NGO staff, 24.9% by homecare network members, 16.4% by self-help group members, and 13.8% by staff working at a public health facility. Many participants were also referred by NGO for additional services such as reproductive health (66.0%), family planning (63.8%), tuberculosis treatment (50.7%), and condom provision (79.5%).

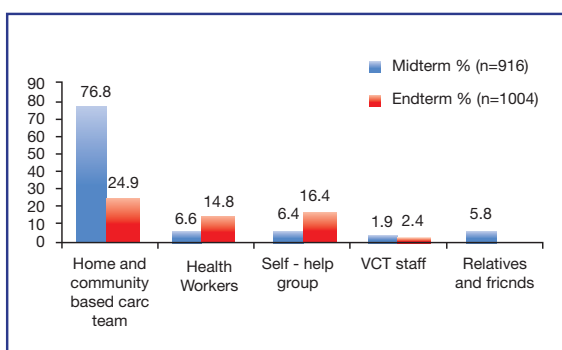
**Table 7: Care and treatment services received by PLHIV at end line**

Variables	Number (%)
Currently on antiretroviral treatment	958 (96.4)
Mean length being on ART treatment (in months, ± SD)	82.3 ± 47.3
Having missed an appointment with doctor to receive ART or stopped using ART for a short time in past 3 months	63 (6.5)
Mean times missing ART in the past 3 months (± SD)	0.2 ± 1.2
Mean CD4 count before starting ART (± SD)	149 ± 160
Mean CD4 count at last blood test (± SD)	513.4 ± 301.8
Mean distance from home to ART center (in km, ± SD)	15.4 ± 16.2
ART available for free	727 (72.5)
Currently on any medication to prevent or treat OI	279 (27.8)
OI is available for free	714 (71.3)
Person who referred you to OI and ART services	
Self-help group member	165 (16.4)
Homecare network member	250 (24.9)

NGO staff / VCCT staff	281 (28.0)
Public health center	135 (13.4)
Peer educator network	49 (4.9)
Other	124 (12.4)
Received a blood test for CD4 count in the past 6 months	832 (84.0)
Being able to afford ART if no support	869 (86.8)
Currently on tuberculosis treatment n	114 (11.4)
Referred by an NGO to get reproductive health	663 (66.0)
Referred by an NGO to get family planning	641 (63.8)
Referred by an NGO to get tuberculosis treatment	510 (50.7)
Referred by an NGO to get condom	789 (79.5)
<b>Understanding about antiretroviral treatment (ART)</b>	
ART protects you from additional infection	240 (23.9)
ART makes you as healthy as before you were infected	875 (87.1)
Using ART, you don't need to use condoms when having sex	85 (8.5)
ART prevents your sex partner from STI transmission from you	193 (19.2)

**Abbreviations:** ART, antiretroviral treatment; NGO, non-governmental organization; OI, opportunistic infections; PLHIV, people living with HIV; SD, standard deviation; STI, sexually transmitted infections; VCCT, voluntary counseling and testing.

Figure 5 shows comparisons of referrals for OI/ART services among PLHIV at midterm and end line. PLHIV at end line were significantly less likely to be referred by community and home-based care team members (24.9% vs. 76.8%; OR= 9.7, 95% CI= 7.8-12.0) but more likely to be referred by public health workers (13.8% vs. 6.6%; OR= 2.4, 95% CI= 1.7-3.3) and self-help group (16.4% vs. 6.4%; OR= 3.0, 95% CI= 2.2-4.2) compared to those at midterm.



**Figure 5: Comparisons of referrals for OI/ART services among PLHIV at midterm and end line**

### 3.2.3. Concerns about daily life and community support

Table 8 shows concerns about family daily life and community support received by PLHIV at end line. The main concerns for PLHIV today included health care (67.0%), food insecurity (62.5%), and support for child education (49.3%). The main sources of support for this group in the past 12 months were mainly from NGO (89.4%) and relatives/extended family (22.2%). Within this group, 95.5% received support from KHANA and IPs with an average times receiving support from KHANA/IPs being 5.8 years (SD= 4.7). The main supports they received from KHANA/IPs in the past 12 months included support to cover referral costs for health care (97.6%), psychological support such as home visits and counselling (26.8%), food support (24.3%), and child education support (23.9%). The most important support currently needed for PLHIV and their families included support for health care (79.5%), support for income generating activities (68.4%), and help with child education (39.4%).

**Table 8: Concerns about family daily life and community support among PLHIV at end line**

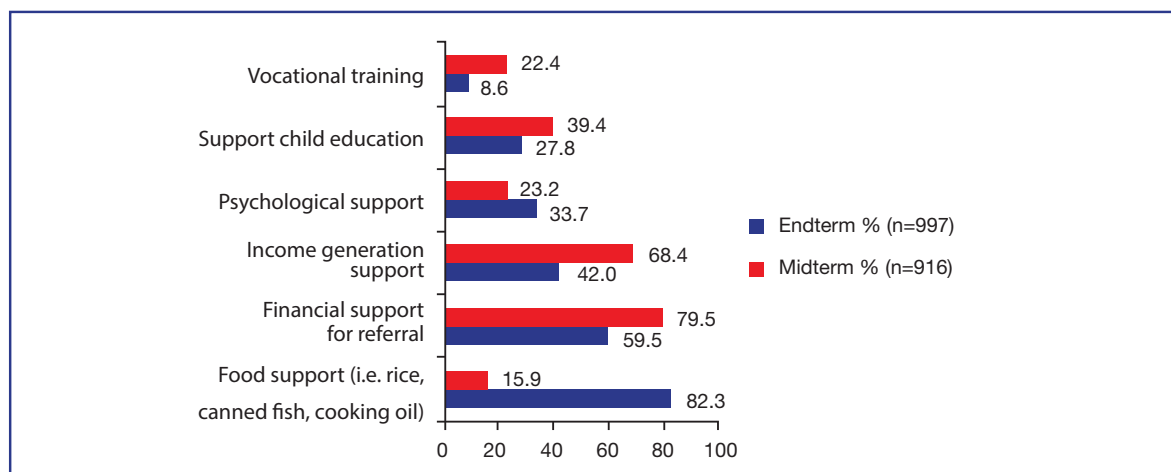
Variables	Number (%)
<b>Main concern in daily living with HIV</b>	
Support for child education	495 (49.3)
Food security	628 (62.5)
Health care	673 (67.0)
Housing	110 (11.0)
Child healthcare support	387 (38.5)
Other	210 (20.0)
<b>Sources of support received in the past 12 months</b>	
Relatives/extended family	221 (22.2)
Neighbors	80 (8.0)
Village chief	44 (4.4)
Social workers	14 (1.4)
Other NGOs	891 (89.4)
Other	29 (2.9)
Received any support from KHANA/IPs in the past 12 months	959 (95.5)
<b>Types of supports received from KHANA/IPs in the past 12 months</b>	
Referral cost for health care	938 (97.6)
Psychological support	258 (26.8)
Food support	234 (24.3)
Support income generation activities	101 (10.5)
Vocational training	179 (18.6)
Child education support	230 (23.9)
Creating self-help group	156 (16.2)
Other	76 (7.9)
<b>Most important support for you and family at the moment</b>	
Referral cost for health care	793 (79.5)
Psychological support	231 (23.2)
Support for income generation activities	682 (68.4)
Food support	159 (15.9)
Child education support	393 (39.4)
Vocational training	223 (22.4)
Creating self-help group	86 (8.6)
Other	166 (16.6)

*Abbreviations: IP, implementing partner; PLHIV, people living with HIV; SD, standard deviation.*

As shown in Figure 6, there has been a significant change from midterm (33.7%) to end line (23.2%) for psychological support needed (OR= 1.7, 95% CI= 1.4-2.1). PLHIV at end line were also more likely to report that their family needed support for income generation activities compared to those at midterm (68.4% vs. 42.0%;(OR= 3.0, 95% CI= 2.5-3.6). Needs for support for child education also increased from 27.8% at midterm to 39.4% at end line (OR= 1.7, 95% CI= 1.4-2.0). Vocational trainings also grew in demand from 8.6% at midterm to 22.4% at end line (OR= 3.1, 95% CI= 2.3-4.0).

### 3.2.4. Self-rated quality of life and service satisfaction among PLHIV

The participants were asked to answer some questions based off of the past 12 months. As shown in Table 9, 94.4% of the respondents reported that they were satisfied or very satisfied with the overall healthcare services they had received. Similarly, a large majority of the respondents reported that they had been satisfied or very satisfied with the performance of self-help groups (91.4%) and with the support received from KHANA and IPs (97.4%).



**Figure 6: Comparisons of perceived kinds of support that is important for current families among PLHIV at midterm and end line**

**Table 9: Satisfaction with health care and support services among PLHIV at end line**

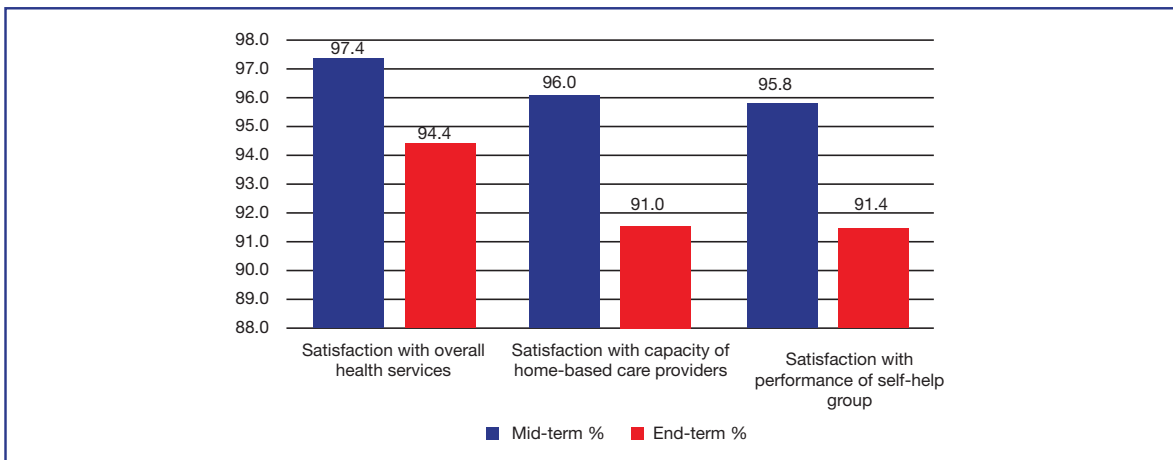
Variables	Number (%)
Satisfaction with the overall health services received in the past 12 months	
Very dissatisfied / dissatisfied	8 (0.8)
Neither satisfied or dissatisfied	48 (4.8)
Satisfied / very satisfied	949 (94.4)
Satisfaction with the capacity of home-based care providers in the past 12 months	
Very dissatisfied/dissatisfied	4 (0.4)
Neither satisfied or dissatisfied	81 (8.1)
Satisfied/very satisfied	920 (91.5)
Satisfaction with the performance of self-help groups in the past 12 months	
Very dissatisfied/dissatisfied	9 (0.9)
Neither satisfied or dissatisfied	77 (7.7)

Satisfied	362 (36.0)
Very satisfied	557 (55.4)
Satisfaction with support from KHANA/IP in the past 12 months	
Dissatisfied	4 (0.4)
Neither satisfied or dissatisfied	22 (2.2)
Satisfied / very satisfied	979 (97.4)

**Abbreviations:** IP, implementing partner; PLHIV, people living with HIV.

As shown in Figure 7, although statistically non-significant, PLHIV at end line were less likely to respond that they were satisfied or very satisfied with overall healthcare services (94.4% vs. 97.4%),

the capacity of home-based care providers (91.5% vs. 96.0%), and the performance of self-help group (91.4% vs. 95.8%) compared to PLHIV at midterm.



**Figure 7: Comparisons of health and social service satisfaction among PLHIV at midterm and end line**

### 3.3. ORPHAN AND VULNERABLE CHILDREN (OVC)

#### 3.3.1. Socio-demographic characteristics and social support

In total, information was collected from 785 OVC in this end-line survey. As shown in Table 10, 48.6% of the total participants were boys with the mean age of 12.6 years (SD= 2.7). Regarding their living conditions, the majority of the OVC (77.0%) lived in their own house, while the remaining lived in their relative’s house (19.8%), other people’s house or rented house (2.4%), and other places such as an orphanage, pagoda, or public shelter (0.8%). The

average number of siblings of the OVC was 3.1 (SD= 1.7), and their caregiver included parents (65.5%), grandparents (23.5), relatives (6.5%), siblings (2.4%), or other (2.1%).

Regarding their education, the majority of the OVC participants were currently in school (93.2%). Among the students, only 48.8% reported having enough materials for study, and 10.4% reported having to suspend school in order to work to help feed the family in the past 12 months. Regarding support for education, 68.1% reported that they had received some form of educational support in the past six months; and of them, 87.2% had received such supports from KHANA/IPs.

**Table 10: Socio-demographic characteristics and support among OVC at end line**

Variables	Number (%)
Mean age of participants (median)	12.6 (2.7)
Male gender	382 (48.6)
Type of accommodation	
Own house	605 (77.0)
Relative's house	156 (19.8)
Other people's house/rented house	19 (2.4)
Other (orphanage, pagoda, shelter)	6 (0.8)
Mean number of siblings ( $\pm$ SD)	3.1 $\pm$ 1.7
Caregiver	
Parents	515 (65.5)
Grandparents	185 (23.5)
Relative	51 (6.5)
Sibling	19 (2.4)
Other	16 (2.1)
Currently in school	725 (93.2)
Having enough study material	355 (48.8)
Suspended study to work in the past 12 months	76 (10.4)
Received educational support in past 6 months	498 (68.1)
Received educational support from KHANA/IP	435 (87.2)

*Abbreviations: IP, implementing partner; OVC, orphan and vulnerable children; SD, standard deviation.*

### 3.3.2. Food security, perceived needs, and overall health condition

As shown in Table 11, 92.5% of the OVC at end line reported that their family had enough food to eat in the past six months. However, only 64.8% of them had three meals per day in the past 12 months, while 81.6% of those reporting that their family did not have enough food to eat said their family reduced times of daily meals due to the lack of food in the past 12 months. Regarding social support received since their parents died or got sick, the OVC had received different types of support including support for schooling (81.2%), financial support (79.8%), clothes or other materials for daily living (70.7%), food support (63.7%), and psychological support such as home visits and counseling (58.7%) from

NGO and other people. When asked to raise the most important needs for current family daily living, 80.9% of the children perceived school materials as the most important, followed by basic materials for daily life such as clothes (61.2%), financial support (60.3%), food support (48.3%), and psychological support such as home visits or counseling (12.6%).

A total of 160 OVC (20.4%) in this study were living with HIV. Regarding their overall health conditions, 34.1% of OVC reported that they had been sick preventing them from their daily work or study in the past three months. When asked to rate their health condition, 92.2% of the respondents reported that their overall health condition was good or very good, and 87.7% of them rated their overall quality of life as good or very good.

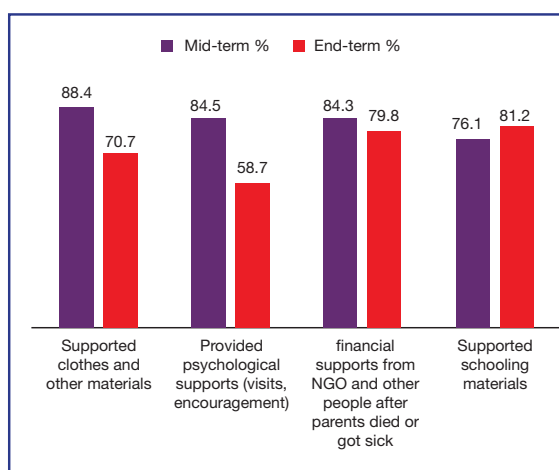


**Table 11: Food security, perceived needs, and overall health condition and among OVC**

Variables	Number (%)
Had enough food to eat in the past 12 months	725 (92.5)
Had 3 meals per day in the past 12 months	509 (64.8)
Reduced times of daily meals due to lack of food in the past 12 months	40 (81.6)
Support from NGO and other people since parent died or got sick	
Food supports (rice, noodles, canned fish)	385 (63.7)
Clothes and other materials	428 (70.7)
Psychological supports (home visits, counseling)	353 (58.7)
Financial supports	483 (79.8)
Support for schooling	492 (81.2)
Perceived most important needs for current family daily living	
Food supports (rice, noodles, canned fish)	380 (48.3)
Provide clothes and other materials	481 (61.2)
Financial supports	474 (60.3)
Support for schooling	636 (80.9)
Psychological supports (home visits, counseling)	99 (12.6)
Living with HIV	160 (20.4)
Having been sick preventing from working or studying in last 6 months	265 (34.1)
Self-rated overall health as good	724 (92.2)
Self-rated overall quality of life as good	694 (87.7)

*Abbreviations: OVC, orphans and vulnerable children; SD, standard deviation.*

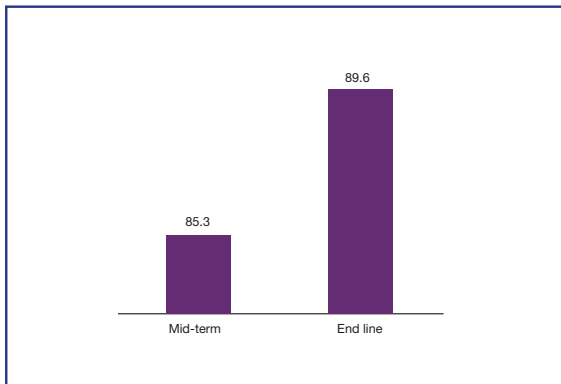
Figure 8 shows the comparisons of types of support OVC received in the past 12 months at midterm and end line. Compared to those at midterm, OVC at end line were significantly less likely to receive several types of support such as clothes and other household materials (70.7% vs. 88.4%; OR= 3.0, 95% CI= 2.3-4.0), psychological support such as home visits or counseling (58.7% vs. 84.5%; OR= 2.5, 95% CI= 1.9-3.3), and financial support from NGO and other people (79.8% vs. 84.3%; OR= 1.2, 95% CI= 0.9-1.6). However, they were more likely to receive support for education (81.2% vs. 76.1; OR= 0.9, 95% CI= 0.70-1.2).



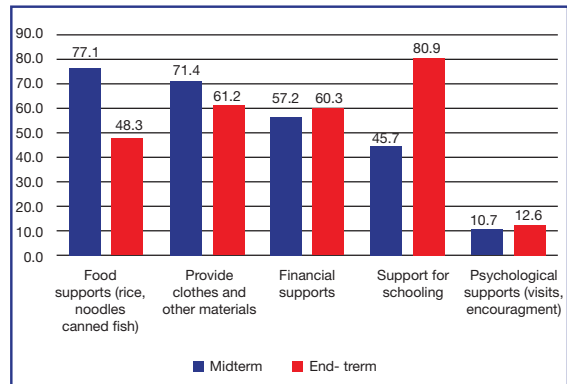
**Figure 8: Comparisons of types supports received in the past 12 months by OVC at midterm and end line**

It is important to note that, as shown in Figure 9, OVC at end line were significantly more likely to report that they attended school regularly in the past

12 months (89.6% vs. 85.3%; OR= 1.8 , 95% CI= 1.4-2.3) compared to OVC at midterm.



**Figure 9: Comparison of proportion of children who reported that they attended school regularly in the past 12 months among OVC at midterm and end line**



**Figure 10: Comparisons of type supports perceived to be the most important for current family life among OVC at midterm and end line**

Comparisons of type of supports perceived to be the most important for current family life among OVC at midterm and end line are shown in Figure 10. OVC at end line were significantly less likely to respond that food supports (48.3% vs. 77.1%; OR= 3.6, 95% CI= 2.9-4.4) and other basic needs such as clothes and other household materials (61.2% vs. 74.1%; OR= 1.6, 95% CI= 1.3-1.9) were the most important needs for their family today. However, significantly higher proportion of OVC at end line reported that supports for child education were the most important need for their family life today compared to those at midterm (80.9% vs. 45.7%; OR= 7.2, 95% CI= 5.7 – 9.1).

with a wide range from 16 to 47 years. The majority of the women were in the age range of 18 to 32 years, making up 88.2% of the sample population. The proportion of women under the age of 24 years made up 47.0% of the population. The largest sub-group within the EW sample had never been married, making up 44.0% of the sample population. Consistent with the results from the midterm survey, about 70.0% of women were never married, divorced, separated, or widowed. Also, consistent with midterm results, the average durations of schooling was approximately 6.4 years with a wide range from no schooling to 15 years of schooling. However, 7.6% had no formal education at all, and 79.5% had 3 to 10 years of schooling.

### 3.4. ENTERTAINMENT WORKERS (EW)

#### 3.4.1. Socio-demographic characteristics

Table 12 shows socio-demographic characteristics of the 667 EW included in end line survey. Mean age for the survey respondents was 25.6 years

The average monthly income was found to be approximately USD219 (SD= 206). About 34.7% reported living with family either their parents (13.6%) or another relative (21.1%), while 24.0% reported living with their spouse or sexual partner, and 17.4% lived by their self. Consistent with midterm results, the most common sub-group of respondents were karaoke workers (44.7%) and restaurant workers (30.1%). The rest of the sample reported working

at massage parlors (12.6%), beer garden (3.6%), and other (9.0%). The average duration of working at their current job was over two years, and the

average women reported working at their current place of employment for 1.5 years, with a wide range from one month to 14 years.

**Table 12: Socio-demographic characteristics of EW at end line**

Variables	Number (%)
Age (in years, $\pm$ SD)	25.6 $\pm$ 25.0
Marital Status	
Never married	294 (44.0)
Married and living together	175 (26.2)
Married and not living together	15 (2.2)
Divorced, separated, or widowed	183 (27.4)
Mean years of schooling completed ( $\pm$ SD)	6.4 $\pm$ 7
Median monthly income (in USD, $\pm$ SD)	219 $\pm$ 206
Currently living with:	
Parents	91 (13.6)
Relatives	141 (21.1)
Spouse/sexual partner	160 (24.0)
Friends	99 (14.8)
Alone	116 (17.4)
Others	60 (9.0)
Place of employment in the past 12 months	
Karaoke center	298 (44.7)
Restaurant	201 (30.1)
Massage parlor	84 (12.6)
Beer garden	24 (3.6)
Other	60 (9.0)
Mean duration of working at current place (in months, $\pm$ SD)	18.0 $\pm$ 8.0
Mean duration working in current job (in months, $\pm$ SD)	28.2 $\pm$ 14.0

*Abbreviations: EW, entertainment workers; SD, standard deviation.*

### 3.4.2. Sexual behavior and condom use

Sexual behavior and condom use among EW at end line are shown in Table 13. From the respondents, the large majority (83.5%) reported having sexual intercourse at least once in their lifetime. Consistent with midterm results, the average age of first time having sexual intercourse was 19.6 years (SD= 3.0). Similar to midterm results, the majority (60.1%)

of the women reported their husband being their first sexual partner. Sweethearts were the second largest group women had sexual intercourse with their first time (33.1%). Other women reported the person they first had sexual intercourse with being a commercial partner (4.5%) or other (1.3%), and 1.1% of the women reported being raped as their first time having sexual intercourse.

The average number of sexual partners in the past 12 months was 2.8 (SD= 6.5), with a wide range from 0 to 63 sexual partners. A little over half (54.1%) of the women reported having one sexual partner in the past 12 months. On average, women reported having 3.6 clients (SD= 3.9) in the past 12 months, 1.1 clients (SD= 1.7) in the past month, and 0.2 clients (SD= 0.6) in the past week.

Regarding commercial sexual activities, of the 124 respondents, 22.5% reported that they had sexual intercourse with clients in exchange for money or gift in the past three months. Among these, 78.7% reported always using a condom when having sex in exchange for money or gifts in the past three months, demonstrating a steady decrease from baseline (89.0%) and mid-term (85.3%), and 16.7% of them said they had at least a client who requested to not use a condom in the past three months. From

the 21 women who said a client had requested to not use a condom, 59.1% said the client did this by offering more money, while 27.8% reported the client threatening them either verbally or with a weapon with this request. Regarding condom accessibility, 76.8% of the women said they could find a condom when needed.

Regarding sexual activities with regular partner, 37.0% of the respondents reported that they had sexual intercourse with a sweetheart, and 31.4% reported always using a condom with their sweetheart in the past three months. This was slightly lower than findings from previous surveys, including midterm results in which the rate of consistent condom use with sweetheart was found to be 34.1%, demonstrating a slow and steady decline in always using a condom with regular partners.

**Table 13: Sexual behavior and condom use among EW at end line**

Variables	Number (%)
Has had sexual intercourse in lifetime	556 (83.5)
Mean age at sexual intercourse (in year, ± SD)	19.6 ± 3.0
Person who had sexual intercourse for the first time	
Husband	334 (60.1)
Sweetheart	184 (33.1)
Commercial Partner	25 (4.5)
Stranger (raped)	13 (2.4)
Other	7 (1.3)
Mean number of sexual partner in past 12 months (±SD)	2.8 ± 6.5
Had sex with sweetheart in last 3 months	205 (37.0)
Always used condom with sweetheart in the past 3 months	64 (31.4)
Used a condom the last time had sex with sweetheart	78 (38.2)
Had sex in exchange for money or gifts in the last 3 months	124 (22.5)
Mean number of clients in the past one year (± SD)	3.6 ± 3.9
Mean number of clients in the past one month (± SD)	1.1 ± 1.7
Mean number of clients in the past one week (± SD)	0.2 ± 0.6
Had a client who requested to not use a condom in the past 3 months	21 (16.7)
Always used a condom when having sexual intercourse for exchange of money or gifts in last 3 months	100 (78.7)
Able to find condom when need it	426 (76.8)

**Notes:** EW, entertainment workers; SD, standard deviation.

### 3.4.3. STI and care-seeking behavior

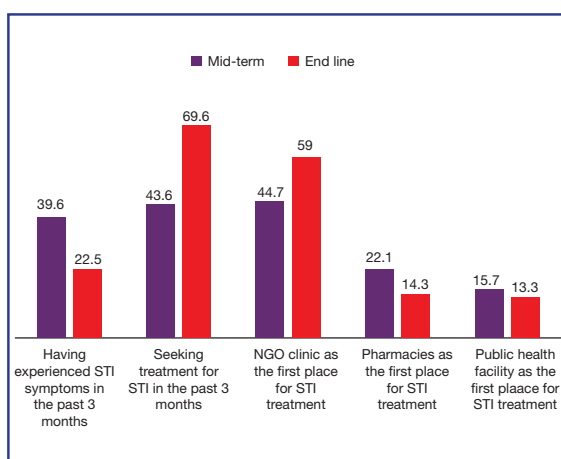
Table 14 shows STI and care-seeking behavior among EW at end line. As shown in Figure 11, compared to that at midterm, proportion of EW reporting having at least one STI symptom in the past three months was significantly lower at end line (22.5% vs. 39.6%; OR= 2.2, 95% CI= 1.8-2.9). Moreover, 69.6% of EW at end line sought for treatment for the most recent STI symptom compared to only 43.6% at midterm (OR= 4.2, 95% CI= 3.2-5.5). Regarding health facility, 59.0% of women at end line received the first care and treatment for the STI symptom at an NGO clinic, while other reported seeking care at a pharmacy (14.3%), public health center (13.3%), and private clinic (12.4%). At midterm, only 44.7% received the first care and treatment for

the STI symptom at an NGO clinic (OR= 2.1, 95% CI= 1.5-2.9), while 22.1% sought the services at a pharmacy (OR= 4.2, 95% CI= 2.3-7.5) and 15.7% at a public health center (OR= 3.1, 95% CI= 1.7-5.8) (Figure 11). Most women at end line reported that they were self-advised to seek the treatments at 37.1%, closely followed by peer educators or NGO staff at 34.3% and friends or colleagues at 20.0%. Few women reported being advised to seek the treatment by their bosses or managers (3.8%), their partners (0.9%), or relatives (3.8%). Reasons for not seeking treatment consisted of service hours not being convenient or women being too busy (33.3%), feeling shameful or afraid (25.0%), did not know where to get treatment (14.6%), and not being able to afford the service fee (10.4%).

**Table 14: STI symptoms and healthcare seeking behavior for the most recent STI symptoms among EW at end line**

Variables	Number (%)
Had STI symptoms in the past 3 months	150 (22.5)
Sought treatment for STI symptoms	103 (69.6)
Location of first care and treatment for STI symptoms	
Public health center	14 (13.3)
NGO clinic	62 (59.0)
Private clinic / pharmacy / traditional healer	29 (17.7)
Person who advised for most recent STI care and treatment	
Myself	39 (37.1)
Friends / colleagues	21 (20.0)
Peer educator / NGO staff	36 (34.3)
Other	9 (8.6)
Reasons for not seeking care or treatment for STI	
Don't know where to go	7 (14.6)
Feeling shameful / blame / afraid	12 (25.0)
Cannot afford service fee	5 (10.4)
Service hours not convenient / too busy	16 (33.3)
Other	8 (16.7)

**Notes:** EW, entertainment workers; NGO, non-governmental organization; SD, standard deviation; STI, sexually transmitted infection.



**Figure 11: STI symptoms and care seeking behavior for the symptoms among EW at midterm and end line**

### 3.4.4. Sexual and reproductive health issues

Table 15 shows SRH and healthcare seeking behavior among EW at end line. Among women who were sexually active and responded to the question regarding SRH (n= 571), only 38.1% reported currently using some types of

contraceptive methods. From this, 42.4% said they used condoms; 25.6% used pills; and 18.0% responded to other. When asked to specify 'other,' many women answered "natural way" or "spill out."

The average number of pregnancies reported was 1.5 with a range from 0-30 pregnancies. Ages 17-24 made up 86.4% of ages when women first became pregnant, with the average age reported at 21.3 years (SD= 3.3). Of total, 139 women reported becoming pregnant while working as an EW. The average number of pregnancies while working as an EW was found to be 0.7 (SD= 1.6) with a range from 0 to 20 pregnancies. Of the 139 women, 17.8% women had at least one abortion while working as an EW; of these, 46.0% had received one abortion, and 39.6% had received two abortions or more with 20 abortions being the highest number reported. When evaluating this number based on the women who became pregnant while working as an EW (n= 136), 85.6% of women had received at least one abortion when becoming pregnant while working as an EW. The majority of women reported public health center (46.3%) and pharmacy (40.5%) being the main healthcare facilities where they sought abortion services, followed by NGO clinic or hospital (9.9%) and private clinic or hospital (2.5%).

**Table 15: Sexual reproductive health and healthcare seeking behavior among EW at end line**

Variables	Number (%)
Currently using a contraceptive method and sexually active	253 (38.1)
Type of Contraception being used:	
Pills	64 (25.6)
Condom	106 (42.4)
Injection	22 (8.8)
Other (implant, IUD, calendar)	58 (23.2)
Mean number of pregnancies (± SD)	1.5 ± 2.4
Mean age when first became pregnant (± SD)	21.3 ± 3.3

Mean number of pregnancy during the time working as an EW	0.7 ± 1.6
Has had an abortion when an EW	119 (17.8)
Mean number of abortion during work as an EW (± SD)	2.1 ± 3.13
1 abortion	64 (46.0)
≥ 2 abortions	55 (39.6)
Facility where the most recent abortion was performed	
Public health center/clinic	56 (46.3)
Pharmacy	49 (40.5)
NGO clinic/hospital	12 (9.9)
Other (including private clinic/hospital)	4 (3.3)

**Abbreviations:** EW, entertainment workers; NGO, non-governmental organization; IUD, intra uterine device; SD, standard deviation.

### 3.4.5. HIV testing and counseling

As shown in Table 16, 81.7% of EW reported getting tested for HIV at least once in their lifetime, while 64.9% reported being tested in the past six months. Half of the women tested received testing through finger prick program (50.4%), followed by a private clinic or hospital (22.0%), public health center or hospital (12.8%), VCCT (8.6%), C/PITC (2.6%), and other (3.7%). Among those who had been tested, 98.4% received their test result, and 88.2% received counseling during the most recent testing. Regarding sources of referrals, 46.5% of the women reported that they were their own main source of

referral to get tested for HIV. In addition, women reported peer educators and outreach workers (32.7%), friends or colleagues (7.3%), relatives (6.1%), boss or manager (3.7%), and other (3.7%) were responsible for referring or giving advice to get tested for HIV. When asked about the reasons for not being tested, the majority (71.1%) said that they did not feel at risk for HIV. The other reasons included feeling scared of the test (11.7%), no information on where to go (5.5%), feeling scared of potential positive result (3.1%), and other (8.6%). However, 23.0% regarded themselves as being at higher HIV infection risk compared to general people.

**Table 16: HIV testing and counselling among EW at end line**

Variables	Number (%)
Has been tested for HIV at least once in lifetime	545 (81.7)
Has been tested for HIV in last 6 months	352 (64.9)
Location of last HIV test among those tested in past 6 months	
C/PITC	14 (2.6)
Finger prick	275 (50.4)
VCCT	47 (8.6)
Private hospital / clinic/ laboratory	120 (22.0)
Public health center/hospital	70 (12.8)

Other	20 (3.7)
Persons who referred you or gave advice on HIV testing	
Peer educator and outreach workers	178 (32.7)
Myself	253 (46.5)
Relatives	33 (6.1)
Friends / colleagues	40 (7.3)
Boss / manager	20 (3.7)
Other	19 (3.6)
Received last HIV test result, among those tested	537 (98.4)
Received counseling for last HIV test	473 (88.2)
Main reason for not being tested	
No information on where to go	7 (5.5)
Don't feel at risk for HIV	91 (71.1)
Scared of test and result of the test	19 (14.8)
Other	11 (8.6)
Self-regard being at higher HIV risk compared to general people	154 (23.0)

**Abbreviations:** C/PITC, community/peer initiated testing and counseling; EW, entertainment workers; SD, standard deviation; VCCT, voluntary confidential counseling and testing.

### 3.4.6. Health education for SRH and HIV/AIDS

SRH and HIV/AIDS education received by EW at end line is shown in Table 17. In the past 12 months, 65.2% of the women received some form of information. This proportion decreased from 88.0% reported in the midterm evaluation. A large proportion of respondents received SRH information from peer educators (65.1%) and at an NGO (47.8%). The third most common source of information on SRH came from mass media including TV, radio, and newspaper that accounted for 31.6% of the 647 respondents.

Of the 666 respondents, 74.3% of EW received some form of HIV/AIDS education in the past 12 months. When asked about sources of the information, 78.8% reported that they had received HIV/AIDS education from peer educators or outreach workers. This result shows that the proportion of EW receiving HIV/AIDS education in this end-line survey was lower than that found among EW at midterm (96.0%). Sources of the information they received included peer educators or outreach workers (78.8%); media such as TV, radio, or newspaper (37.4%); counseling at VCCT (7.7%); health staff at public facility (6.3%); and posters, billboards, or booklets (3.8%).



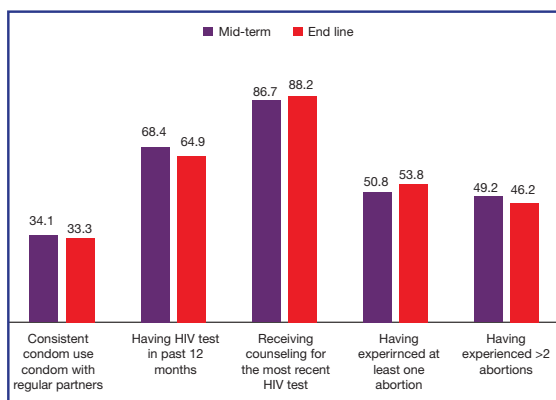
**Table 17: Sexual reproductive health and HIV/AIDS education among EW at end line**

Variables	Number (%)
Received information about SRH in past 12 months	432 (65.2)
Main source of SRH information	
Mass media (TV/radio/newspaper)	137 (31.6)
Peer educator	282 (65.1)
Public healthcare Provider	18 (4.2)
Private healthcare providers	3 (0.7)
NGO	207 (47.8)
Received HIV education in last 12 months	495 (74.3)
Main source of HIV education received	
Media (TV/radio/newspaper)	185 (37.4)
Poster/billboard/booklet	19 (3.8)
Peer educator/outreach	390 (78.8)
Counseling at VCCT	38 (7.7)
Health staff at public facility	31 (6.3)

*Abbreviations:* EW, entertainment workers; NGO, non-governmental organization; SRH, sexual reproductive health; TV, television; VCCT, voluntary confidential counseling and testing.

### 3.4.7. Comparisons of condom use, HIV testing, and abortion

Figure 12 shows that EW at end line were significantly less likely to get HIV testing in the past six months (64.9% vs. 68.4%; OR= 1.9, 95% CI= 1.5-2.4), but they were significantly more likely to have received counseling for their most recent HIV test (88.2% vs. 86.7%; OR= 1.5, 95% CI= 1.2-2.0) compared to those at midterm. EW at end line were significantly more likely to have experienced at least one abortion (53.8% vs. 50.8%; OR= 1.9, 95% CI= 1.5-2.4) but less likely to have experienced more than two abortions in their lifetime (46.2% vs. 49.2%; OR= 2.1, 95% CI= 1.5-3.0) than EW at midterm.



**Figure 12: Comparisons of condom use, HIV testing, and abortion experience among EW at midterm and end line**

## 3.5. MEN WHO HAVE SEX WITH MEN (MSM)

### 3.5.1. Socio-demographic characteristics

Socio-demographic characteristics of MSM at end line are shown in Table 18. The sample size for this survey was 394 with a mean age of 23.7 years (SD= 5.2). Participants' ages ranged from 16 to 50, but more than half (69.8%) were between the ages 18 to

25. Similar to midterm data, 90.3% of respondents were never married; 7.4% were married; and 1.8% of them were divorced. Most respondents lived with their parents (71.0%) or other relatives (9.4%). A laborer (28.6%) was the most common job reported. Other jobs reported included student (26.0%), self-employed business (18.6%), or taxi driver (15.1%). Almost all (92.1%) reported living in their current city for over 2.5 years. Regarding their sexual identity, 57.8% of the group answered that they perceived themselves as a man, 21.6% as both a man and a woman, and 20.6% as a woman.

**Table 18: Socio-demographic characteristics of MSM at end line**

Variables	Number (%)
Mean age (in years, SD)	23.7 ± 5.2
Marital status	
Never married	355 (90.3)
Married and currently living together	29 (7.4)
Divorced	7 (1.8)
Other	2 (0.5)
Mean years of schooling (in years, SD)	9.5 ± 3.2
Currently living with	
Parents	279 (71.0)
Relatives	37 (9.4)
Spouse / sexual partner	32 (8.2)
Friends	25 (6.4)
Alone	14 (3.6)
Others	6 (1.5)
Major occupation	
Students	102 (26.0)
Farmer	59 (15.1)
Unemployed	19 (4.8)
Office worker (private, NGO)	10 (2.6)
Laborer	112 (28.6)
Self-employed	73 (18.5)
Other	17 (4.4)
Duration living in this province	
≤ 30 months	31 (7.9)

> 30 months	360 (92.1)
Personal perception about their own sex identity	
Women	80 (20.6)
Men	228 (57.8)
Both sex	85 (21.6)

**Abbreviations:** MSM, men who have sex with men; NGO, non-governmental organization; SD, standard deviation.

### 3.5.2. Sexual behavior and condom use

Table 19 shows sexual behavior and condom use among MSM at end line. Out of 394 respondents, 97.5% reported having sexual intercourse before with either man or woman with the average number of sexual partners reported in the past three months of 4.0 (SD= 5.5) and a wide range from 0 to 60. The majority (82.7%) of the respondents reported having five sexual partners or less in the past three months. Of total, 60.9% of MSM reported having a boyfriend in the past 12 months, and 86.9% had sexual intercourse with their boyfriend in the past three months, from which 64.7% said that they always used a condom when having sexual intercourse with their boyfriend. Approximately half of the respondents (50.5%) reported having a girlfriend, and 59.3% said they had been sexually active with their girlfriend in the past three months, and 55.1% said that they always used a condom with their girlfriend.

In terms of transactional sex, 14.5% reported paying a woman sex worker in the past three months, and 77.2% of these respondents said that they always used a condom when having sex with a female sex worker. When asked about selling sex, 8.9% reported having sexual intercourse with a woman in exchange for money or gifts in the past three months, and 79.4% said that they always used a condom when having sex with a woman in exchange for money or gifts. Only 9.7% of the respondents reported paying a man for sex in the past three months; from these respondents, 73.0% said that they always used a condom when paying for sexual intercourse with a man. Less than one-fifth of the respondents (17.0%) reported selling sex to men in the past three months. From the 67 MSM who reported selling sex to men, 73.1% said that they always used a condom, and 64.1% always used lubricant when they sold sex to men in the past three months.

**Table 19: Sexual behavior and condom use among MSM at end line**

Variables	Number (%)
Mean number of sex partners in the past 3 months ( $\pm$ SD)	4.0 (5.5)
Always using condom with man or woman sexual partner	230 (62.7)
Paying woman for sex in the past 3 months	57 (14.5)
Always using condom when paying woman for sex	44 (77.2)
Having sex with woman in exchange for money or gifts in past 3 months	35 (8.9)
Always using condom when having sex with woman in exchange for money	27 (79.4)
Paying man for sex in the past 3 month	38 (9.7)
Always using condom when paying men for sex	27 (73.0)
Having sex with a man in exchange for money or gifts in the past 3 months	67 (17.0)
Always using condom when having sex with a man in exchange for money	49 (73.1)

Always using lubricant when having sex with a man in exchange for money	41 (64.1)
Having sex with your boyfriend in past 3 months	206 (86.9)
Always using condom when having sex with your boyfriend in past 3 months	134 (64.7)
Always using condom when having anal sex with boyfriend	126 (64.3)
Having sex with girlfriend in past 3 months	118 (59.3)
Always using condom when having sex with girlfriend	65 (55.1)

**Abbreviations:** MSM, men who have sex with men; SD, standard deviation.

### 3.5.3. Perceived risk, HIV testing, and referral services

Characteristics regarding HIV testing and referral services are shown in Table 20. When asked about their perceived risk for HIV infection compared to the general people, 18.8% felt they were at a much higher risk, 15.2% at higher risk, 17.8% at the same risk, 38.1% at lower risk, 8.6% at much lower risk, and 1.5% had no idea about this. Regarding HIV testing, 83.0% of the respondents reported getting tested for HIV at least once in their

lifetime, and 77.1% had been tested in the past six months. Among those who had been tested, 40.1% received an HIV test at a public hospital, 14.7% at a community/peer initiated testing and counseling facility, 10.1% at a private clinic/hospital, 3.4% at a voluntary counseling and testing center, and 31.8% at other locations. Most referrals to get an HIV test were done by peers or NGO staff (65.1%), followed by their own (19.6%) or by friends (10.4%). Majority (98.2%) of them received the results of their most recent HIV test, and 95.7% received counseling after getting their results.

**Table 20: HIV testing and referral services among MSM at end line**

Variables	Number (%)
Ever had HIV testing	326 (83.0)
Tested for HIV in the past 6 months	252 (77.1)
Place for your last HIV testing	
VCT	11 (3.4)
C/PITC	48 (14.7)
Public Hospital	131 (40.1)
Private clinic / Hospital	33 (10.1)
Others	104 (31.8)
People referred you to the testing place	
Peer, NGO staff	213 (65.1)
Myself	64 (19.6)
Friends	34 (10.4)
Other	2 (0.6)
Getting the last HIV test result	320 (98.2)
Getting the counseling for the last test	312 (95.7)

**Abbreviations:** C/PITC, community/peer initiated testing and counseling; MSM, men who have sex with men; NGO, non-governmental organization; VCCT, voluntary confidential counseling and testing.

### 3.5.4. Access to HIV/AIDS education and STI care-seeking behavior

As shown in Table 21, a large majority (84.7%) of the respondents reported receiving HIV/AIDS education in the past 12 months. The three most common sources of the information included peer educators or outreach workers (90.4%), and mass media (TV/radio/newspaper) (57.8%). In the midterm review,

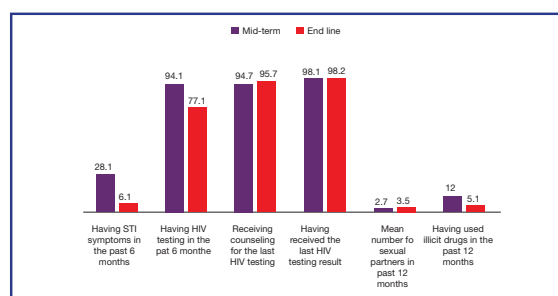
83.0% of MSM received educational information on HIV/AIDS in past 12 months, and 99.1% received information through peers and NGO staff. Regarding STI, only 6.1% said they had been diagnosed with an STI in the past six months, and from that only 20.7% sought treatment for their most recent STI at either a public health clinic (66.7%) or an NGO clinic (33.3%). In terms of drug use, about 5.0% of MSM reported using drugs in the past three months.

**Table 21: Access to health education and STI care-seeking behavior among MSM at end line**

Variables	Number (%)
Received HIV/AIDS education in the past 12 months	333 (84.7)
Sources of education information received in the past 12 months	
Mass media (TV/radio/newspaper)	193 (57.8)
Poster/ billboard	85 (25.4)
Peer educator or outreach worker	302 (90.4)
VCCT	12 (5.1)
Health staff	33 (9.9)
Other	34 (10.2)
Diagnosed with an STI in the past six months	24 (6.1)
Sought for STI treatment for the most recent STI symptom	6 (20.7)
Facility where the most recent STI was treated	
Public health center/hospital	4 (66.7)
NGO clinic/hospital	2 (33.3)

**Abbreviations:** NGO, non-governmental organization; STI, sexually transmitted infection; VCCT, voluntary confidential counseling and testing.

Figure 13 shows the comparisons of STI, HIV testing and counseling, sexual behavior, and drug use among MSM in midterm and end-line survey. Compared to that at midterm, the proportion of MSM having at least one STI symptom in the past three months was significantly lower at end line (6.1% vs. 28.1%; OR= 6.0, 95% CI= 3.8-9.7). However, MSM at end line were significantly less likely to get HIV testing in the past six months (94.1% vs. 77.1%; OR= 2.9, 95% CI= 1.8-3.6). MSM at end line were also significantly less likely to use illicit drugs in the past 12 months (5.1% vs. 12.0%; OR= 30.1, 95% CI= 18.3-49.5).



**Figure 13: Comparisons of STI, HIV testing and counselling, sexual behavior, and drug use among MSM at midterm and end line**

### 3.6. PEOPLE WHO USE DRUGS (PWUD)/PEOPLE WHO INJECT DRUGS (PWID)

#### 3.6.1. Socio-economic characteristics and general health status

In total, 170 PWUD/PWID were interviewed in the end-line survey. As shown in Table 22, mean age of this group was 31.1 years (SD= 6.3). Of total, 77.1% were male and mean year of education was 5.2 (SD= 4.1). Marital status was various with married people composing of 42.4% of the group, non-married of 38.8%, and divorced or widowed of 18.8%. Regarding employment, 13.5% of the respondents were unemployed, and the most common job at 32.4% was reported as self-employed business.

The average monthly income for PWID/PWUD was \$315 (SD= 586). This group reported that they lived with their spouse (40.0%) in a home they rent (48.2%) and had on average lived there for 19 years (SD= 12.4 years).

The respondents were asked to rate their overall health from very good to very poor. The largest portion with 45.9% stated that they felt neither good nor poor, followed by 30.6% that said they felt either good or very good. When rating their overall quality of life, 60.0% of them felt it was neither good nor poor, and 22.4% reported they felt it was good. Regarding suicide ideation, 26.5% reported that they had ever thought about ending their own life, and out of these, 15.2% attempted to end their life.

**Table 22: Socio demographics and general health status of PWUD/PWID at end line**

Variables	Number (%)
Mean age (in years, SD)	31.1 (6.3)
Sex of the participants	
Male	131 (77.1)
Female	39 (22.9)
Marital status	
Married	72 (42.4)
Divorced, widow	32 (18.8)
Non-married	66 (38.8)
Mean years of schooling completed (SD)	5.2 (4.1)
Occupation	
Unemployed	23 (13.5)
Laborer	38 (22.4)
Self-employed business	55 (32.4)
Office worker	10 (5.9)
Other	44 (25.9)
Mean monthly income (in USD, SD)	314.5 ± 585.5
With whom are you currently living?	
Parents	44 (26.5)
Spouse	68 (40.0)

Friend	18 (10.6)
Alone	18 (10.6)
Other	21 (12.3)
Mean length of residency (in months, SD)	233.05 ±148.74
Type of living accommodation	
Home owner	44 (27.6)
Rent home	82 (48.2)
Homeless	33 (19.4)
Other	8 (4.7)
Self-rated overall health	
Good/very good	52 (30.6)
Neither good or poor	78 (45.9)
Poor/very poor	40 (23.5)
Self-rated overall quality of life	
Good	38 (22.4)
Neither good or poor	102 (60.0)
Poor/very poor	30 (17.7)
Thoughts of ending own life	45 (26.5)
Attempted to end own life	25 (15.2)

**Abbreviations:** PWID, people who inject drugs; PWUD, people who use drugs; SD, standard deviation.

### 3.6.2. Illicit drug use behavior

As shown in Table 23, a large proportion (88.8%) of this group reported that they had used illicit drugs at least once in the past three months. The average duration of drug use was 8.4 years (SD= 5.7) with a mean age of using drugs for the first time at 21.3 years (SD= 6.4). Most of them (59.9%) reported using drugs every day, and the average amount spent on drugs per day was USD12.0 (SD= 11.5). The most common drugs used in the past three months were methamphetamine (64.7%) and heroin (35.9%). The last time the participants used drugs, they used it with friends (52.9%), alone (31.2%), or with sweetheart (12.4%). Only 4.8% of the people surveyed said they were forced to use illicit drugs in the past three months. When asked what led them to try illicit drugs for the first time, 28.8% said they tried it by themselves; 54.1% said they tried it with friends; 1.8% said someone gave it to them; and 1.8% said that someone forced them to take it.

Out of the 169 respondents, 34.3% reported using injectable drugs in the past three months. When asked about re-using syringes, 74.1% of the 112 participants that answered the question reported that they never re-used it. Only 16 people answered the question if they utilized a used needle the last time they injected, and 62.5% answered yes. In the midterm survey, 63.0% of the participants shared a needle within the past three months compared to 24.5% in the end-line survey. For PWID, 30% said that they could find new needles/syringes when they needed them. They either bought them themselves (63.8%) or received them from community educators (58.6%).

Regarding involvement in illegal activities in the past 12 months, 46.2% of the respondents had been arrested for drug use or trafficking. More than half (55.6%) had gone to a drug rehabilitation center at

least once in their life, and 19.5% had been to a rehabilitation center in the past 12 months. About a third of the group (31.4%) had been incarcerated

at least once. Of those incarcerated, 24.5% were incarcerated for drugs and the rest of the group said it was for other crimes.

**Table 23: Illicit drug use behavior and criminal history among PWUD/PWID at end line**

Variables	Number (%)
Used drugs in the past three months	151 (88.8)
Type of drug used in the past 3 months	
Methamphetamine	110 (64.7)
Heroin	61 (35.9)
Other	5 (3.0)
Mean duration of drug use (in months, SD)	100.7 (68.8)
Mean age at first time of illicit drug use (SD)	21.3 (6.4)
Frequency of illicit drug in the past three months	
Not used	15 (9.0)
A few times a month	28 (16.8)
A few times a week	24 (14.4)
Almost everyday	21 (12.6)
Everyday	79 (47.3)
Mean average amount spent on drugs per day (in USD, SD)	12.0 ± 11.5
People with whom you used drugs the last time	
Alone	53 (31.2)
Friend	90 (52.9)
Sexual partner /sweetheart	28 (14.8)
Other	2 (1.2)
Had been forced to use illicit drugs in the past three months	8 (4.8)
Reason to led you try illicit drugs for the first time	
I tried it by myself	49 (28.8)
Someone gave it to me or forced me to use it	6 (3.6)
Tried it with friends	94 (54.1)
Other	23 (13.5)
Used injectable drugs in the past three months	58 (34.3)
Never used syringe when injected drugs	43 (74.1)
Use a used needle when injected drugs the last time	10 (62.5)
Share needles at last drug injection	8 (38.1)
Able to find needle/syringes whenever you need	51 (30.0)



Sources of needles/syringes	
Bought by myself	37 (63.8)
NGOs	18 (31.0)
Community educators	34 (58.6)
Other	6 (13.2)
Had been arrested for drug use or trafficking	78 (46.2)
Had been to a drug rehabilitation center	94 (55.6)
Had been sent to a drug rehabilitation center in the past 12 months	33 (19.5)
Had ever been incarcerated?	53 (31.4)
Times being incarcerated	
1 time	35 (66)
2 times	12 (22.6)
3 times	6 (11.3)
Main cause of most recent incarceration	
Drug use	12 (22.6)
Drug-related crimes	1 (1.9)
Other crimes	33 (62.3)
Other	7 (13.2)

*Abbreviations: PWID, people who inject drugs; PWUD, people who use drugs; SD, standard deviation.*

### 3.6.3. HIV/AIDS and STI

The percentage of PWUD/PWID that reported having at least one STI symptom in the past six months decreased from 14.5% at midterm to 12.7% at end line. When asked if they received a HIV test in the past six month, 83.3% said they did, and 96.3% received counselling when they received their most recent HIV test.

# 4 | DISCUSSION

This end-of-project evaluation was conducted to measure the effectiveness of the SAHACOM project by comparing key indicators in different populations including PLHIV, OVC, EW, MSM, and PWUD/PWID surveyed at end line to those from baseline documentation and midterm review. In the comparisons of general key indicators, several positive changes have been observed including reduction of HIV prevalence among pregnant women attending ANC, improvement of retention to ART among PLHIV, increase of proportion of PLHIV on ART, improvement of overall health conditions and quality of life of PLHIV and OVC, better satisfaction with community- and home-based care services among PLHIV and OVC, and improvement of child care support. Regarding key populations, several key indicators had been improved from baseline to end line such as consistent condom use with regular partner among MSM and PWID. However, some negative findings should also be noted; for example, the proportion of EW reporting consistent condom use with commercial sex partners decreased steadily from baseline to midterm and to end line.

## 4.1. PEOPLE LIVING WITH HIV (PLHIV)

Among PLHIV, welfare support, such as food and other basic needs, had decreased significantly from midterm to end line. The large drop of welfare support was due to the discontinuation of food support from the WFP in December 2012. However, perceived needs on food support decreased since midterm despite the withdrawal of food support. One possible explanation is that KHANA used funding provided by USAID to support households that were assessed to be most vulnerable although food support was still reduced. An additional explanation

could be a result of the increase in PLHIV who had received training on farming and husbandry in the past 12 months allowing this population to be more sustainable in providing their own food.

Still food continued to be a high concern due to the fact that this group reported averaging 4.5 days of not having enough food, and 62.9% had to borrow rice or money from other families in the past month. Taking these facts into consideration, it seems that food support from the WFP had impacted many households who relied on the support. In addition, concern about not having enough food was very prominent in IDIs with PLHIV respondents. The livelihood program of KHANA is going to be utilized to help these households in the future, but some households still need bridging support until they can be self-reliant.

A principal note is the changes in support services that are seen as most important for family life today among PLHIV. Rank of food and money for starting up family business remained rather consistent, but there was a significant increase shown in the importance of medical care, clothes and housing materials, and support for children to be able to go to school from midterm to end line. Data collected from OWs in IDIs provide point of views that can help explain the increase in value of these things. As a result of information received from the SAHACOM and improved communication and collaboration between the community, health centers, and local authorities, there had been an increase in understanding the importance of healthcare seeking behaviors for everyone in the community (especially women who are pregnant), which helps explain the increase in value of medical care. In addition, as a result of education, awareness, and health services,

discrimination and stigma for PLHIV had decreased significantly. Both of these points demonstrate that, because of services provided, PLHIV and their families are more able to think about what is necessary to obtain a better future rather than trying to get by day to day or worrying about the stresses of being discriminated from the community.

There has been a continuous increase in PLHIV who were currently on ART from the baseline to midterm and end line. This demonstrates that more PLHIV have access to ART and can additionally help explain the increase in value for medical care. There were positive results in terms of adherence to ART where 7.3% of PLHIV reported missing an appointment to receive ART or stopping ART for a while at midterm compared to 6.5% at end line. However, it is worth-noting that the question used at end line collected information in the past three months instead of 12 months as in the midterm survey. Also of note, adherence can be seen by the increase in average CD4 count. CD4 count could be increased at end line due to the initiation of ART at 350 cells/mm<sup>3</sup> instead of the 250 cells/mm<sup>3</sup> (WHO guidelines in 2010).

Reasons for the increase in adherence for the treatment could be due to the fact that ART was distributed for three-month supply instead of one-month or bimonthly supply, which was more convenient for the patients. Additionally, there was a substantial increase in support for traveling to a health facility. It should be considered that this support for transportation may serve more as a reminder for PLHIV to get ART rather than patients are not able to pay for transportation due to the fact that a high majority of respondents said that they would have the funds for transportation to receive ART if they did not have any outside support. Furthermore, increase in adherence might be explained by the improvement of community-based and facility-based services in educating patients and KHANA's continuous efforts in a recording a tracking system to decrease loss to follow up.

There is a need to increase the retention rate among PLHIV on ART after 12 months. Only approximately 85% to 90% of PLHIV were on ART for more than 12 months. The reason for non-adherence needs to be examined and addressed. Since ART is free for all PLHIV, why are they not taking it? Are there different ARTs they can take that would not cause so many side effects? Are they taking it with food to decrease stomach upset and diarrhea? Why do we still have a 4% deficit of people who are in need of ART and who are not currently getting their medicines? Is it a problem of going to the clinic, not caring, cost, etc.?

The proportion of PLHIV who self-rated their overall health as good or very good had increased significantly since baseline, which may explain the success of the programs in ART provision that make people feel a lot better. PLHIV also reported a drastic increase in their quality of life from baseline to end line. This result may also reflect the effectiveness of several form of support that KHANA and its IPs have provided and had great positive impacts on the thousands of PLHIV and families. Support had ranged from help with costs for travelling to health clinic, starting VSL, skill trainings, health education, and self-help groups to name a few. Support for referral fees to health facilities increased significantly from midterm to end line, and this remained the biggest type of support provided. There had been a shift from people receiving support on how to start a VSL to receiving support to start income generating activities and training for farming and husbandry. This could be due to the fact that people who were interested in VSL were already enrolled and later were interested in investing in an income generating activity like farming.

Types of support perceived by PLHIV to be currently the most important for their family had also shifted. There was a small decrease in proportion of people perceiving that food was the most important. This could be because food support had been taken out of the program, and families were seeing themselves as more self-sufficient. However, food

was still important to more than two-thirds of the respondents. Financial support was important for a higher proportion of PLHIV at end line compared to those at midterm, perhaps needed for starting up family business or farming. A significant increase was seen in medical care, clothing and housing materials, and support for child education. This increase indicates that PLHIV were feeling better, their general health had improved, and now they were looking out for their and their family's future.

Sero-discordant couples are an important aspect to look at since more than one-third of HIV infections in Cambodia are transmitted between married people (NCHADS, 2013). In the SAHACOM end line, 26.9% of PLHIV reported that their spouse or partner were HIV negative. This is a high percentage of couples that are HIV sero-discordant. KHANA is working with NCHADS on the national Treatment as Prevention strategy to prevent more couples from becoming sero-concordant. Increasing the frequency of HIV test among negative partners will help with early detection of infection (NCHADS, 2013). Since there is still a gap (11.8% at end line) in communicating HIV status with partners, introducing more of this type of open discussion in self-help groups or couples groups could help decrease the stigma and/or fear between sero-discordant couples. Of the self-help groups already in place, there was a high satisfaction with them as seen in the end-line data.

## **4.2. ORPHAN AND VULNERABLE CHILDREN (OVC)**

The amount of OVC households that received free basic external support in caring for the child increased significantly from 33.0% at baseline to 84.0% at midterm. There was a decrease in basic support received from midterm (84.0%) to end line (76.8%) but still much higher than the life-project target that was set at 50%. This result shows the reality of program implementation as it reduced some activities and support to OVC in the last period of the project from fiscal year 2012 due to the

limitation of the budget. Decline in supports received in the past 12 months from midterm to end line was shown in clothes and other materials, psychological supports, and financial supports. The decrease and increase in areas of support are consistent with respondents' answers to what is most important areas of support needed demonstrating that needs assessment for this population is continuous and on-going.

OVC were similarly affected by withdrawal of food support from WFP as PLHIV. Still, 92.5% of respondents reported that their family had enough food to eat in the past 12 months. However, future surveys might need to more carefully define what "enough" food is due to the fact that only 64.8% of respondents reported having three meals a day in the past 12 months, illustrating a slight decrease compared to midterm where 71.3% of respondents reported having three meals a day. A possible explanation for the slight decrease rather than a dramatic decrease in OVC who had three meals a day could be due to KHANA's continuous efforts to provide food support to the most vulnerable OVC post closure of WFP program. These statistics are important to identify that, although almost all respondents said their family had enough food to eat in the past year, more support may be necessary. Additional support may lead to better health for OVC and increase in school attendance, since 10.4% of the respondents reported having to stop going to school in order to help feed the family.

A noteworthy accomplishment is the increase of regular school attendance reported among OVC from 85.3% at midterm to 89.6% at end line. This can be attributed to an increase and continuous support for school. Of total, 68.1% of the participants received educational support in the past six months, from this 87.2% received this support from KHANA and its IPs. Moreover, received school material support in the past 12 months increased from 76.1% at midterm to 81.2% at end line. Children's education seems to be more valued not only due to the increase in school attendance but the substantial increase shown when respondents were

asked about the most important needs for daily family living, and school support was reported at 45.7% at midterm and 80.9% at end line.

This increase value of education could be due to the fact that OVC and their family were receiving support, allowing for opportunities that were not previously available. In an IDI, a provincial AIDS program officer reported that, due to services provided, there had been a decline in people migrating in order to find money or food elsewhere. Less migration may allow families to think more about the future, especially in terms of children's education. In addition, through the SAHACOM, work was done to reduce discrimination and stigma faced by OVC and increase self-esteem in OVC, which could result in OVC enjoying school more.

### **4.3. ENTERTAINMENT WORKERS (EW)**

This study demonstrates a steady decrease in EW reporting always using a condom when having sexual intercourse in exchange for money or gifts in the past three months from baseline to midterm and to end line. A possible explanation for the decrease in condom use is that the average number of clients that an EW reported being sexually active with decreased from 5.5 to 3.6 clients from midterm to end line. In the end-line survey, nearly 80% of EW reported only having 0-2 clients in the past 12 months.

A cross tabulation was done to see if there was a trend between number of clients a woman was sexually active with and consistent level of condom use for end-line data. Women reporting "rarely" using a condom when having sexual intercourse in exchange for money reported only having one client in the past 12 months. Of the women who reported "sometimes" using a condom with clients, 64.0% had reported only being sexually active with 1 to 2 clients, and 94.1% reported having five or less clients with whom they were sexually active in the past 12 months. All of the women who answered

"frequently" to condom use with clients had three or less clients in the past 12 months. EW who reported "always" using a condom when having sexual intercourse with a client had the widest range (0-30) of number of clients in the past 12 months.

This cross tabulation demonstrates that EW who do not "always" use a condom when being sexually active with clients seem to have a low number of clients with whom they had sex with in exchange for money or gifts. Explanation of the results from the frequency of number of partners and the cross tabulation may indicate that EW are more consistently having the same clients and forming a closer relationship with their clients than previous years. As a result, both EW and their clients could feel they are less at risk for transmission of HIV and STI from one another.

In addition, there was a slight decrease in the consistency of condom use reported when being sexually active with a sweetheart compared to that in midterm data. As mentioned, 205 EW reported being sexually active with sweetheart in the past three months, and only 31.4% responded that they always used a condom with their sweetheart. This was slightly lower than previous findings where consistent condom use was reported at 34.1% in midterm survey, demonstrating a slow and steady decline in always using a condom with sweethearts. Explanation of the low condom use among sweethearts can be similar to condom use with clients where there is a trustworthy emotional bond making women feel they are at lower risk for transmission of HIV and STI.

The importance of trust to prevent transmission of HIV and STI was a reoccurring theme within the qualitative data. When asked about successful ways to prevent transmission of HIV, one EW responded, "For me, if we wanted to decrease HIV risks, we should not sleep with a partner that we do not trust," and another woman stated, "I always use condom because I am afraid of STI, and the men do not love me forever, I need to use it." In addition, women stated that when an EW is married, she

uses a condom with her clients in order to protect herself but does not use it with her husband. In IDI and FGDs, women cohesively agreed that it is important for a woman to wear a condom in order to protect herself if she does not trust the person she has sex with. These findings strengthen the theory that value of protecting oneself with a condom decreases when women feel they are able to trust the person they have sex with such as a significant other or husband.

A cross tabulation on end-line data of number of sexual partners in the past 12 months and experience of STI symptoms demonstrated that, from women who had experienced an STI symptom in the past three months, 75.6% had three or less sexual partners in the past 12 months, and 87.4% had six sexual partners or less. This finding supports the explanation of perceived risk based on number of sexual partners and lower levels of consistent condom use resulting in these women getting more frequent STI symptoms.

From midterm to end line, there was a decrease in percentage of STI symptoms reported in addition to an increase in the proportion of women who sought treatment for their STI symptoms. At end line, 22.5% of EW reported experiencing at least one STI symptom in the past three months, and from these women nearly 70.0% sought treatment for their symptoms. This is an improvement from midterm data where 39.6% of EW reported having experienced at least one STI symptom in the past 12 months, and only 43.6% of those women sought treatment for the most recent symptoms. The dramatic increase by 30% for the amount of women who reported seeking care for the symptoms from midterm to end line cannot be ignored. In addition, the end-line results demonstrate safer practices for healthcare seeking behaviors compared to previous years, where there was a noteworthy difference in the proportion of women who went to an NGO for their symptoms, a slight decrease in going to a public health facility as the first place for the symptoms, and decrease in the proportion of women seeking treatment from a pharmacy for the symptoms.

The proportion of EW who had received some form of SRH information decreased from midterm to end line. Results showed that 88.0% of respondents reported receiving SRH education at midterm compared to 65.2% at end line. It is important to note that the midterm survey represented information received in the past 12 months, while end-line survey represents data received in the past six months, which could explain the decrease in EW who had been exposed to SRH education. For the main sources of SRH information, changes in budget and program decreased the amount of peer educators and outreach workers explaining the decrease in women who had received SRH education.

In addition, there was a substantial decrease in EW who reported receiving HIV/AIDS information. At end line, 74.3% of respondents said they had received some types of HIV/AIDS education in the past 12 months, while 96.0% of respondents at midterm reported having received some types of HIV/AIDS information in the past six months. Finger prick testing and trainings to outreach workers and healthcare providers was delayed due to the shortage of finger prick testing materials such as lancet from June to July within year four posed a challenge to have more EW tested.

A cross tabulation was conducted between those who had been tested for HIV in past six months and received HIV education in the past 12 months. From the 117 EW who had not received any HIV/AIDS education in the past year, only 44.4% reported getting tested for HIV in the past six months. In comparison, from the 425 EW who received HIV/AIDS education, 71.0% had been tested for HIV in the past six months, demonstrating a correlation between HIV/AIDS education and an increase in the likelihood of getting tested.

A decrease in the number of EW who had experienced at least one abortion was shown from midterm to end line. The decrease continued for the number of women who had received two or



more abortions at midterm to end line. At midterm, private clinic was the most common place where EW sought abortion services following a large portion of EW who experienced self-abortion by taking medications from a pharmacy. End-line data demonstrated consistent findings where a health center or a public hospital was the most common facility where EW sought abortion services, closely followed by self-abortion by taking medicine from pharmacies. Among women who had an abortion while working as an EW, 63.5% had received SRH education in the past six months, and 12.0% answered “no” or “don’t know” in regards to being able to find a condom when they needed it.

There were changes within the SAHACOM project from midterm to end line that can help explain challenges faced in meeting the SAHACOM’s life project targets among EW, such as the decrease in contraception use, decline in consistent condom use with both clients and sweethearts, and decrease in amount of EW who had received some types of SRH or HIV/AIDS education. First, one of KHANA’s demonstration centers for providing comprehensive and quality health services for EW and their clients, the Purple House, closed in 2013 due to deficiency in funding support. The Purple House provided education sessions on SRH and human rights, condom negotiation, gender-based violence, dual protection, family planning, and HIV/AIDS; and linking EW to health services including HTC, STI, and SRH. When centers such as the Purple House close, overcoming these challenges becomes even more problematic as EW might be less likely to seek support some places else.

Another difficulty for targeting the SAHACOM’s life project goals is due to the frequent mobility of key populations including EW. Findings were consistent for both midterm and end-line data that many EW do not stay at the current place of work very long (under a year). A possible explanation is the possibility of finding higher-income work at another location. Little sustainability can make it difficult for follow-up and can be challenging for outreach workers

and community support volunteers to provide HIV/AIDS education, HIV testing, and referral support to healthcare services. Both the closure of drop-in centers and high mobility rates of EW demonstrate the necessity of quality work from community support volunteers and outreach workers to reach and address the needs of EW.

The percentage of women who reported using illicit drugs decreased from midterm (4.1%) to end line (1.6%). However, it is important to note that the percentage found at midterm represents the proportion of EW who reported illicit drug use in the past 12 months, while the percentage found in end-line survey represents the proportion of EW who reported drug use in the past three months.

#### **4.4. MEN WHO HAVE SEX WITH MEN (MSM)**

Comparisons of data collected at different time lines show that there was a substantial jump in the percentage of MSM who reported consistent condom use with regular partners from baseline (27.0%) to midterm (63.8%). End-line results were similar with a slight diminution at 62.7%. The large change from baseline to midterm can be related to many components of the SAHACOM project including community-based prevention, care, and support approach, where community support volunteers and outreach workers were able to better target mobile and hard-to-reach MSM. In addition, drop-in centers played an important role with outreach workers by cohesively providing peer support group discussions that increased knowledge to reduce potential risky behaviors.

A cross tabulation was conducted to see if there was a noticeable difference in consistent condom use with men or women and the number of sexual partners a person had. From MSM who reported having 10 or less sexual partners in their lifetime, 67.2% reported always using a condom when having sexual intercourse, compared to 76.0%

among MSM who reported having more than 10 sexual partners (11-60). Evaluating condom use frequencies reported with different sexual partners, slightly higher rates of consistent condom use were reported when having sexual intercourse with female commercial sex workers (77.2%) and male commercial sex workers (73.0%) or selling sex to female clients (79.4%) and male clients (73.1%) compared to the time they had sexual intercourse with girlfriends (55.1%) or boyfriends (64.7%). However, the overall percentages did not drastically differ among the various types of sexual partners. This is different from other key populations such as EW who demonstrated a significant difference in condom use with clients and sweethearts and should be noted when working to increase consistent condom use among different high-risk target populations.

A cross tabulation was also performed to evaluate condom consistency, with men or women, and whether respondents had received any HIV/AIDS education. From those who reported “always” using a condom, 86.9% also received some types of HIV/AIDS education in the past 12 months; this proportion was 59.4% among MSM who reported “never” using a condom. In addition, this association was illustrated in an IDI with an MSM who said “I also did not like using condom, but after I had more education about this, I changed my mind to like using it.” This finding demonstrates that HIV/AIDS education is an important tool in increasing consistent condom use among MSM population.

In fact, within the qualitative data collected from FGDs and IDIs for MSM many respondents discussed the fact that because of the education they had received, they now value condom more and are using them more consistently. This could be an explanation for the considerable decline in STI symptoms reported by MSM from midterm (28.1%) to end line (6.1%). It is important to note that the percentage reported at midterm represents symptoms in the past 12 months, where end-line questionnaire asked if respondents had experienced

any STI symptoms in the past six months. However, the sizeable drop should still be noted and taken into consideration.

Interestingly, there was a substantial reduction in proportion of MSM who reported being tested for HIV in the past six months from midterm (94.1%) to end line (77.1%). The decline could possibly be explained by the budget shortages in year four, which resulted in deficiency of finger-prick testing materials and decrease in the number of community support volunteers and outreach workers, who are responsible for HIV testing for MSM, educating on HIV/AIDS and SRH, and referring MSM to healthcare services as mentioned with EW.

#### **4.5. PEOPLE WHO USE DRUGS AND PEOPLE WHO INJECT DRUGS (PWUD/PWID)**

PWUD/PWID is an important population target for interventions because of the high prevalence of HIV in this group. In 2007, it was estimated that 24% of PWID are HIV positive (Chhea & Seguy, 2010), and thus PWID is considered part of the key populations. This end-line survey included PWUD/PWID to get an assessment on their condom use, presence of HIV and STI, and drug use.

The rate of correct and consistent condom use had increased from baseline (30.0%) to midterm (32.4%), and further jumped to 50.0% at end line with a life-project target of >70%. Although the goal was not reached, there has been a significant increase, particularly from baseline to end line. This correlates with KHANA Harm Reduction Demonstration Program in which education, condom, and group discussions were led by Mondul Mean Chhey (MMC) and provided to PWUD/PWID. The knowledge that has been gained on the importance of condoms was frequently mentioned in qualitative data collected from PWID. In addition, a respondent mentioned that more people used condoms because they were distributed to them where before they were



not. Continuing education, outreach, and access to condoms will aid in reaching the condom use target for PWID.

Regarding needle use, we found at end line that 34.3% of people surveyed injected illicit drugs in the past three months. There has been a significant increase in number of PWID who said they never re-used needles. Never re-using needles was reported by 66.4% of respondents in the 2012 National Size Estimation Report (Chhea et al., 2014) compared to 74.1% in this end-line survey with very similar population sample sizes. This improvement may be explained by the availability of new needles through the Needle and Syringe Program (NSP) initiated in 2012 by KHANA and its IPs – Korsang and Mondul Meanchey. However, only 30.0% of PWID said they could find new needles whenever they needed. KAHANA received license for the NSP in 2013 and has collaborated with Korsang to improve the coverage in the future. An increase in access and knowledge on where to find clean needles will help bring down HIV prevalence among this high-risk group.

However, it is important to also look at percentages found on PWUD/PWID who reported utilizing used needles the last time they injected drugs and shared needles in the past three months because this is the main mode of HIV transmission for this population. The percentage of drug users utilizing a used needle decreased from 32.8% in the 2012 National Size Estimation Report (Chhea et al., 2014) to 24.5% in

this SAHACOM end line survey. In this study, sharing needles with other people decreased three-folds from midterm (63.0%) to end line (25.5%). In an IDI, a respondent demonstrated accurate knowledge on not letting others use a needle they had already used and understood the importance of using needles separately from others as a vital intervention measures for HIV transmission. These findings demonstrate that people are becoming more aware of health risks associated to sharing needles with others, and in turn successfully decreasing number of those sharing needles. This could also explain why there is an increase in utilization of own used needles. If people do not have access or cannot afford a new needle and are trying not to share it with others, they might feel that their best option is to utilize one of their own used needles.

KHANA and its IPs have improved access to needles/syringes, condoms, and education to PWID. The NSP was started not too long ago and has already shown improvement in access to needles and syringes for PWID. The number of people positively impacted will only continue with time. Lastly, an important theme that was seen within the qualitative data is that PWID frequently mentioned that NGOs encouraged them to stop using drugs or provided education without any form of discrimination. This is a very important point, especially when working with this sub-population that is likely to be stigmatized and should be noted for an achievement in the community based approach of the SAHACOM.

# 5

## LIMITATION OF THE STUDY

This study has several limitations. First, baseline survey was not conducted, and comparisons of key indicators were made using data from desk-review documentation. This condition made the measurements of changes of key indicators from baseline to end line difficult. Second, as with any self-reported measures, there are inherent biases and potential for both underreporting and over-reporting in the variables (Le and Kato, 2006). Given the cultural norms governing sexual behaviors and illicit drug use in Cambodia, the levels of risks are likely to be underestimated, particularly among female respondents. Moreover, information from OVC aged younger than 11 years were collected through an interview with caretakers or guardians; this process may lead to potential reporting biases.

Third, findings from this study might be limited by unknown reliability and validity of tools, which were adapted from previous studies conducted in Cambodia as well as in other countries. However, the questionnaires were reviewed by experts in this area and pretested before the final versions were developed for use at the main data collection. Fourth, it is possible that recall bias was a factor as participants were asked to recall events that had taken place over the past several months or years. However, due to the type of questions that were asked and the limited response options, it is unlikely that recall bias could have significantly distorted the results. The final limitation concerns the fact that only behavioural data were collected which may not reflect the respondents' actual risks for HIV or STIs. Several measures were put into efforts for maximizing the quality and reliability of the data and minimizing biases.



# 6 | CONCLUSION AND RECOMMENDATION

## 6.1. PEOPLE LIVING WITH HIV (PLHIV)

Although perceived concern for food has decreased since midterm, it continues to be an issue for PLHIV and their families. In order to further the decline for this concern, it is important to maintain the livelihood and VSL program and invest in support for PLHIV and their families. A needs assessment is necessary to evaluate which households need the most support. In addition, future work should strive to increase PLHIV who are being trained in farming and husbandry to give households of PLHIV the opportunity to become self-reliant in the future rather than depending on external support.

To continue the trend of increase in adherence to treatment, ART should continue to be distributed in a three-month supply rather than a one-month or bi-monthly supply. In addition, future studies should collect further information to identify what the reason was for missing or stopping ART to better address PLHIV's needs in the future. This will be helpful to understand if transportation support serves as a financial assistance to receive ART or more as a type of reminder so that individuals do not forget to pick up or take their medication. It would be helpful to determine whether reminders such as text messages would work to increase adherence in treatment for this population for future programs. Lastly, findings from this study highlight the importance of outreach workers' work and a community-based approach to target PLHIV.

## 6.2. ORPHANS AND VULNERABLE CHILDREN (OVC)

Due to the low percentage of respondents who feel happy with their current living situation, it is vital to better understand why OVC feel this way and try to determine if it is an emotional support issue or a result of the decrease in program support and activities within the past year due to budget reduction.

Despite the withdrawal of food support from WFP in December 2012, food support was no longer reported as the most urgent need in OVC's daily life compared to that found at midterm. Instead, child education support was reported as the most important need for family daily living. The increase in perceived importance of school support and materials and increase in school attendance indicates the importance of sustaining this support in the future for OVC population. In order to continue the increase in value of education and school attendance by OVC, it is also important to consider factors that could potentially keep children from regular attendance including having to work to help feed the family, migration in hopes of financial opportunities elsewhere, and high quality access to health care services to prevent kids from being too sick to go to school.

A challenge that was continuously demonstrated throughout the SAHACOM project was the high

turnover of staff of the IPs. High turnover rates resulted in additional energy in recruitment and hindered capacity building and integration of services. In order to decrease the rate of turnover in the future, it is necessary to increase incentives for their work. IPs are an important component in serving these populations as they work to organize community awareness-raising and small group sessions for PLHIV, OVC, and other key populations to increase their understanding, service uptake, and address the unmet needs of the groups.

### **6.3. ENTERTAINMENT WORKERS (EW)**

Data reported from questions regarding whether respondents were using any contraceptive methods and type of method being used demonstrate a need for better understanding of effective choices for contraception among EW. It is necessary to better understand EW's knowledge on different forms of contraception and ask them which one they would prefer and why or why not they want to use contraception.

Access to condoms among EW should be further addressed. An EW might be able to find a condom but could have other preventing factors such as costs, level of comfort carrying condoms with them, or their sexual partners do not want to use it. It is worth-noting that the rate of consistent condom use when having sexual intercourse with clients was reasonably high, but this rate was very low when having sex with sweetheart. A question from end-line survey addressed how frequently clients asked to not wear condom, but it would be useful for future programs to understand how frequently sweethearts or husbands request to not use condoms. It is also important to determine whether these women feel confident in negotiating condom use between both clients and personal relationships whether it is a sweetheart or husband.

Although peer educators and outreach workers are the second highest source of referral for HIV testing, more needs to be done. End-line data demonstrated that only 3.7% of EW said their boss or manager referred them for HIV testing. Bosses and managers should be better targeted by outreach workers so that they will be more likely to encourage their employees to get tested for HIV and practice safe sex with their clients and sweethearts. This will also be helpful for other key populations including MSM. Working more with bosses or managers at EW's workplaces and hot spots for MSM can be especially beneficial to better address high mobility in these populations and be a constant reminder to reduce RSB when community support volunteers and outreach workers are not able to meet with these populations as frequently.

### **6.4. MEN WHO HAVE SEX WITH MEN (MSM)**

In order to design future programs to address risky sexual behaviors, it is necessary to better understand why respondents engage in these behaviors. Although level of consistent condom use among MSM with sweethearts is much higher compared to that among EW, it should continue to be a priority for future interventions. Future studies should include questions regarding reasons for not using a condom consistently in order to identify perceived level of importance for condoms, if there are any types of access issues with condoms and identify any other barriers preventing condom use.

Two important components of the SAHACOM project that have shown to be beneficial is HIV/AIDS education which is found to be linked to consistent condom use and partnership with MSM "hotspots." Working with and at MSM "hotspots" is important to increase access of HIV/AIDS education and HIV testing for this population. Emphasis on consistent

condom use with any sexual partner should be continued in future programs. The main source of HIV/AIDS education received by the respondents were from peer educators or outreach workers, demonstrating once again, that the SAHACOM using a community-based approach is crucial in reaching MSM with education and focused prevention. Moreover, outreach workers should continue to be utilized in order to reach hidden and mobile MSM. Outreach workers are ideal in order to work with this target population and cover areas that would otherwise be missed by health care workers such as MSM hotspots.

Continued community-based approach is vital for this population, as a common theme through FGDs and IDIs illustrated the importance of getting help that did not discriminate against them. Future programs should continue the work to decrease stigma and possible discrimination from the community and officials in order to allow for continued access to education and care that will help reduce their risk of HIV and improve their livelihood.

## **6.5. PEOPLE WHO USE DRUGS/ PEOPLE WHO INJECT DRUGS (PWUD/PWID)**

It is important to address the low levels consistent condom use among PWUD/PWID. Further questions that would determine level of consistent condom use is important to understand if low condom use is with a significant other or other various sexual partners in order to better address this issue. Regarding injection practices, it appears that more people at end line were reusing their own needle rather than sharing with others. In order to reduce risks of infections through needle sharing or re-utilizing the used needles, further efforts are needed in improving access to clean injecting materials and education.

# REFERENCES

1. Chhea C, Heng S, Tuot S. National population size estimation, HIV related risk behaviors and HIV prevalence among people who use drugs in Cambodia in 2012. National Center for HIV/AIDS, Dermatology, and STDs (NCHADS)/National Authority for Combatting Drugs (NACD); 2014.
2. Chhea C, Senguy N. HIV prevalence among drug users in Cambodia 2007. Phnom Penh, Cambodia: National Center for HIV/AIDS, Dermatology, and STDs (NCHADS)/National Authority for Combatting Drugs (NACD); 2010.
3. Heng S, Oum S, Tuot S, Leng K. Midterm review of the integrated care and prevention project in 3 provinces in Cambodia. Vienna, Austria: In AIDS–XVIII International AIDS Conference; 2011.
4. Heng S, Chhea C, Tuot S. Midterm review of the integrated care and prevention project regarding PLHIV and OVC. Phnom Penh, Cambodia: KHANA; 2010b.
5. Heng S, Chhea C, Tuot S. The Baseline survey on HIV/AIDS knowledge, attitudes, practices and related risk behaviors among MARP. Phnom Penh, Cambodia: KHANA; 2010c.
6. Heng S, Tuot S, Ung M. Baseline documentation: The sustainable action against HIV and AIDS in communities (SAHACOM). Phnom Penh, Cambodia: KHANA; 2010c.
7. Heng S, Tuot S. Mid-term review of the sustainable action against HIV and AIDS in communities (SAHACOM). Phnom Penh, Cambodia: KHANA; 2013.
8. KHANA. Annual progress report to USAIDS-Cambodia, May 2012. Phnom Penh, Cambodia. KHANA; 2012.
9. KHANA. Annual report 2013. Advancing technical excellence for better service delivery. Phnom Penh, Cambodia. KHANA; 2013.
10. Le TN, Kato T. The role of peer and culture in risky sexual behavior for Cambodian and Lao/Mien adolescents. *Journal of Adolescent Health* 2006; 38: 288-296.
11. Ministry of Education, Youth, and Sports. Most at risk young people survey in Cambodia 2010. Ministry of Education, Youth, and Sports; January 2010.
12. Ministry of Education, Youth, and Sports. Examining life experiences and HIV risks of young entertainment workers in four Cambodian cities. Phnom Penh, Cambodia: Ministry of Education, Youth, and Sports; November 2012.
13. National Center for HIV/AIDS, Dermatology, and STIs. Estimation of the HIV Prevalence among General Population in Cambodia, 2010. Phnom Penh, Cambodia: National Center for HIV, Dermatology and STIs; 2011.

14. National Center for HIV/AIDS, Dermatology, and STD (NCHADS). Annual report 2012. Phnom Penh, Cambodia: NCHADS; 2013.
15. National Institute of Public Health, National Institute of Statistics and ORC Macro. Cambodia Demographic and Health Survey 2010. Phnom Penh, Cambodia and Calverton, Maryland, USA: National Institute of Public Health, National Institute of Statistics, and ORC Macro; 2010.
16. Oxford University Press. Report on the commission on AIDS in Asia. Redefining AIDS in Asia, crafting an effective response. Oxford University Press; 2008.
17. UNAIDS, Joint United Nations Program on HIV/AIDS. Cambodia takes MDG prize for excellence in its AIDS response. Geneva, Switzerland: UNAIDS; 2010.
18. UNAIDS, Joint United Nations Program on HIV/AIDS. Annual Progress Report to USAID/ Cambodia 2012, October 1, 2011-September 30, 2012. Geneva, Switzerland: UNAIDS; 2012.







## Section 1: Socio-economic characteristics

No	Question	Code of response
SE1	Sex of respondent	Male: 1 Female: 2
SE2	How old are you?	.....years old
SE3	How many years of formal schooling have you completed?	..... Years
SE4	What is your current relationship status?	Never married: 0 Married and currently living together: 1 Married but not currently living together: 2 Not married but currently living with a partner : 3 In a relationship but not currently living together: 4 Divorced/separate/widow/widower: 5
SE5.	What is your main occupation?	Unemployment: 1 Student: 2 Motor/taxi driver: 3 Farmer: 4 Laborer: 5 Self-employed business Office: 6 Uniformed officer (policeman, soldier): 7 Worker (government, private company, NGO): 8 Entertainment worker: 9 Other (specify).....: 10
SE6	Where is your household located?	Rural area: 0 Small town: 1 Large town or city: 2
SE7	During the past 12 months, what was the average income of your household per month?	..... Riel
SE8.	With whom are you currently living?	Parents: 1 Relative: 2 Spouse: 3 Friend: 4 Sexual partner: 5 Siblings: 6 Alone: 7 In an orphanage: 8 Other (specify): 9
SE9	During the past month, how many days have your family not had enough food to eat?	.....Day
SE10	During the past month, have your family borrowed money or rice from other?	Yes: 1 No: 2

SE11	What do you think the most important thing for your family today?	Food: 1 Money: 2 Housing: 3 Health care and treatment : 4 Clothes, housing materials : 5 (mosquito net, blanket, mat, etc.) Support children for schooling: 6 Other (specify) : 7
SE12	During the past 12 months, have you or your family received any support from KHANA/IP?	No (go to section 2): 0 Yes: 1 Don't know: 2
SE13.	During the past 12 months, what were the supports you or your family have received from KHANA/IPs? (Multiple answers allowed)	Never received: 1 Financial support for business: 2 Support for travelling to health facility: 3 Technique/training for loan group and VSL: 4 Technique/training for raising animals/vegetables: 5 Materials: 6 Other (specify): 7

## Section 2. Health status and antiretroviral treatment

No	Question	Code of response
HS1	For how long have you been living with HIV?	..... Years
HS2	Is your spouse or partner HIV positive?	No spouse/partner: 0 No: 1 Yes: 2 Don't know: 3
HS3	Does your spouse or partner know your HIV status?	No: 0 Yes: 1 Don't know: 2
HS4	Does your family know your HIV status?	No: 0 Yes: 1 Don't know: 2
HS5	If you have not disclosed your HIV status to you spouse/partner or family, what was the main reason for not willing to disclose the status?	Fear of stigma: 1 Fear of rejection: 2 Feeling shameful: 3 Don't think important: 4 Other (specify) : 5
HS6	Where did you get your HIV testing?	VCCT: 1 Government clinic/HC/hospital: 2 Private laboratory/clinic/hospital: 3 NGO's facility: 4 Other (specify): 5
HS7	Did you receive counseling when you were tested for HIV?	No: 0 Yes: 1

HS8	Are you currently on antiretroviral treatment?	No (go to HS14): 0 Yes: 1
HS9	How long have you been on antiretroviral treatment?	..... Months
HS10.	During the past 3 months, have you missed an appointment with doctor to receive antiretroviral treatment or stopped using antiretroviral treatment even for a short time?	No: 0 Yes: 1 Don't know: 2
HS11	During the past month, how many times have you missed your ART medication?	..... Times
HS12	Before you started ART, what was CD4 count?	.....
HS13	How far from your home to the facility where you have received ART?	..... Km (put 0 if less than 1km)
HS14	Is antiretroviral treatment available to you for free, even if you are not currently taking it?	No: 0 Yes: 1 Don't know: 2
HS15	Are you currently on any medication to prevent or to treat opportunistic infections?	No: 0 Yes: 1 Don't know: 2
HS16	Is medication for opportunistic infections available to you for free, even if you are not currently taking it?	No: 0 Yes: 1 Don't know: 2
HS17	By whom were you referred to opportunistic infection and/or antiretroviral treatment services?	Self-help group: 1 Community-based care and support group : 2 VCCT staff: 3 NGO staff: 4 Staff at public health facility: 5 Peer educator network: 6 Staff at private health facilities: 7 Other (specify): 8
HS18	During the past 6 months, have you received blood test for CD4 count?	No: 0 Yes: 1 Don't know: 2
HS19	What was your CD4 count when you received the most recent blood test?	No: 0 Yes: 1 Don't know: 2
HS20	If there is no support, do you think you can afford for antiretroviral treatment by yourself?	No: 0 Yes: 1 Don't know: 2
HS21	Are you currently taking tuberculosis treatment?	No: 0 Yes: 1 Don't know: 2

HS22	During the past 12 months, have you been referred by an NGO to get the following services?			No: 0 Yes: 1 Don't know: 2
	HS22.1. Reproductive health	0	1	88
	HS22.2. Family planning	0	1	88
	HS22.3 Tuberculosis treatment	0	1	88
	HS22.4. Condom provision	0	1	88
	HS22.5. Other services (specify)			
HS23	Do you agree with the following statements regarding antiretroviral treatment (ART)? (Read each statement)			No: 0 Yes: 1 Don't know: 2
	HS23.1. ART prevents your sexual partner from HIV transmission from you	0	1	88
	HS23.2. ART makes your health as good as before you got HIV	0	1	88
	HS23.3. With ART, you can have sex without condom	0	1	88
	HS23.4. ART prevents your sex partner from STI transmission from you	0	1	88
HS24	In general, how would you rate your overall health?			Very good: 1 Good: 2 Neither good nor poor: 3 Poor: 4 Very poor: 5
HS25	In general, how would you rate your overall quality of life?			Very good: 1 Good: 2 Neither good nor poor: 3 Poor: 4 Very poor: 5
HS26	Have you ever thought about ending your life?			No (go to Section 3): 0 Yes: 1
HS27	Have you ever attempted to end your life?			No: 0 Yes: 1

### Section 3. Community support

No	Question	Code of response
CS1	What are your main concerns in your daily living with HIV? (More than one answer allowed)	Support for child education: 1 Food security: 2 Health care : 3 Housing: 4 Child healthcare support: 5 Other (specify): 6
CS2	In the past 12 months, from whom have you received external support? (Multiple answers allowed)	Relatives/extended family : 1 Neighbors: 2 Village chief : 3 Social workers: 4 Other NGOs: 5 Other (specify): 6
CS3	During the past 12 months, have you received any support from KHANA/IP?	No (go to CS7): 0 Yes: 1 Don't know: 2
CS4.	In the past 12 months, what supports have you or your family received from KHANA/IP? (Multiple answers allowed)	No support: 0 Referral cost for health care: 1 Psychological support: 2 Food support: 3 Support income generation activities: 4 Child education support: 5 6. Vocational training : 6 Creating self-help group: 7 Other (specify): 8
CS5	How long have you received the supports from KHANA/IP?	..... Months (0 if no support)
CS6	For the time being, what kinds of support do you think important for you and your family? (Multiple answers allowed)	No support: 0 Referral cost for health care: 1 Psychological support: 2 Food support: 3 Support for income generation activities: 4 Child education support: 5 Vocational training: 6 Creating self-help group: 7 Other (specify): 8
CS7	If there is no food support in the near future, do you think your family situation would be more difficult?	No: 0 Yes: 1 Don't know: 2

## 6. Satisfaction with health care and support services

No	Question	Code of response
SHS1	During the past 12 months, how far have you satisfied with the overall health services you received?	Very dissatisfied: 1 Dissatisfied : 2 Neither satisfied nor satisfied: 3 Satisfied: 4 Very satisfied: 5
SHS2	During the past 12 months, how far have you satisfied with the capacity of home-based care providers?	Very dissatisfied: 1 Dissatisfied : 2 Neither satisfied nor satisfied: 3 Satisfied: 4 Very satisfied: 5
SHS3	During the 12 months, how far have you satisfied with the performance self-supported group?	Very dissatisfied: 1 Dissatisfied : 2 Neither satisfied nor satisfied: 3 Satisfied: 4 Very satisfied: 5
SHS4	During the past 12 months, how far have you satisfied with the support you received from KHANA/IP?	Very dissatisfied: 1 Dissatisfied : 2 Neither satisfied nor satisfied: 3 Satisfied: 4 Very satisfied: 5

# Appendix 2: Questionnaire for Orphans and Vulnerable Children (OVC)

Questionnaire number □□□

## [Introduction: The following is to be read by the interviewer to the respondent]

My name is....., from KHANA. We are conducting a survey to evaluate the impacts of the SAHACOM Project. We would like to learn more about orphans and vulnerable children in terms of access to education, daily live, physical and mental health status, health risky behavior, and social support they have received from the community. The results from the interview will help us to evaluate what we have done in the past five years. We would like to request your cooperation for about 45 minutes to participate in an interview. Some of these questions are personal. However, you are free to refuse or discontinue the participation at any time without any consequences. All your answers will be completely confidential. I do not know your name, and there is no way that anyone can learn how you answer these questions. Please be truthful in your responses. Your participation is very important for the development of effective interventions and provision of supports for you and other children like yourself (or your children or other children like yours).

**For more information or queries, please contact Dr. Yi Siyan, Research Director, KHANA:**

**Mobile: 012-417-170 | Landline: 023-211505, Ext.303| Fax: 023-214-049**

**Mailing: No. 33, Street 71, Phnom Penh, Cambodia, P.O Box. 2311 Phnom Penh 3**

**E-mail: ysiyan@khana.org.kh**

### Note:

For OVC aged 11 and older, interview him/herself

For OVC aged younger than 11, interview his/her caregiver

Do you agree to be interviewed?                      0. No                      1. Yes

Signature of interviewer as a proof of receiving verbal consent from participant

..... Date.....

Did the interviewee abandon the interview? 0. No                      1.Yes (specify question number.....)

Supervisor's name: ..... Date: .....

Data Entry Clerk 1: ..... Date: .....

Data Entry Clerk 2: ..... Date: .....

Provincial Code: 1. Phnom Penh 2. Battambang 3. Siem Reap 4. Pailin 5. Pursat 6. Takeo

Health Center Code: ..... (in the table)

## Section 1. Socio-economic characteristics

No	Question	Code of response
SE1	Sex of respondent:	Male: 1 Female: 2 Transgender: 3
SE2	What is your father's job?	.....Years
SE3	What is your father's job?	Died: 1 Farmer: 2 Self-employed business: 3 Casual laborer : 4 Office worker: 5 Motor/taxi driver: 6 Retired/unemployed: 7 Other (Specify): 8
SE4	What is your mother's job?	Died: 1 Farmer: 2 Self-business: 3 Casual laborer: 4 Office worker: 5 House keeper: 6 Retired/unemployed: 7 Other (Specif: 8
SE5	With whom are you currently living?	Parents: 1 Relative: 2 Friend: 3 Siblings: 4 Alone: 5 In an orphanage: 6 Other (specify): 7
SE6	How many years of schooling have you completed?	.....Years
SE7	Are you currently in school?	No (go to SE12): 0 Yes: 1
SE8	Do you have enough stationary for your study?	No: 0 Yes: 1
SE9	During the past 6 months, have you ever suspended school for work to feed your family?	No: 0 Yes: 1
SE10	During the past 6 months, have you received any external support for schooling?	No (go to SE13): 0 Yes: 1
SE11	If yes, from whom have you received the support? (Multiple answers allowed)	Home-based care group: 1 School: 2 KHANA/IP: 3 Other NGO: 4 Local social workers: 5 Other (specify): 6



SE12	If you are not currently in school, what were the reasons for not being school? (Multiple answers allowed)	Studying: 0 Too young for schooling: 1 Parents died or sick : 2 Family was too poor: 3 Helping housework: 4 Taking care of sick family: 5 Too sick (child): 6 Taking care of younger siblings: 7 Worked to support family : 8 School was far from home: 9 Other (specify): 10
SE13	What type of accommodation are you currently living in?	Own house: 1 Rented house: 2 Orphanage : 3 Someone else's house: 4 Street: 5 Relative's house: 6 Others (Specify): 7
SE14	How many brothers and sisters do you have?	.....
SE15	During the past 12 months, have you regularly taken care of your siblings or relatives aged younger than five years?	No (go to SE18): 0 Yes: 1
SE16	During the past 12 months, how many younger siblings or relatives have you taken care of?	.....
SE17	During the past 12 months, on an average day, how many hours have you spent for taking care of your younger siblings or relatives?.	..... Hours
SE18	Who is your main guardian?	Both parent: 1 Single parent: 2 Older siblings : 3 Grand parents: 4 Relatives: 5 Step-parent: 6 Foster parent: 7 Orphanage staff: 8 No guardian: 9 Others (specify): 10
SE19	In general, how do you think about your main guardian's attitude toward you? (Skip if interview caregiver)	

SE19.1. Not paying attention, leaving you behind, not willing to talk with you	0. No	1. Yes
SE19.2. Not providing you sufficient food	0. No	1. Yes
SE19.3. Forcing you to work in order to live in the family	0. No	1. Yes
SE19.4. Not as supportive as s/he is to other children in the family	0. No	1. Yes
SE19.5. Not allowing you to go to school	0. No	1. Yes
SE19.6. Taking your property	0. No	1. Yes
SE19.7. Paying attention to you less than s/he does to other	0. No	1. Yes

## Section 2. Community support

No	Question	Code of response		
CS1	After your parents passed away or got sick, have you or your family received any external support?	No (go to CS4): 0 Yes: 1 Don't know (go to CS4): 2		
CS2	During the past 12 months, what kinds of supports have you or your family received?	No Yes Don't know		
	CS2.1. Psychological support /counseling	0	1	88
	CS2.2. Financial support	0	1	88
	CS2.3. Food support	0	1	88
	CS2.4. Support for child education	0	1	88
	CS2.5. Support in finding a job	0	1	88
	CS2.6. Clothes and other materials for daily life	0	1	88
	CS2.7. Support in taking care of small children	0	1	88
	CS2.8. Health care / referral for health care	0	1	88
	CS2.9. Life skill trainings	0	1	88
	CS2.10. Other (specify)	0	1	88

CS3	During the past 12 months, from whom have you or your family received the support? (Multiple answers allowed)	<p>Relatives: 1 Home-based care team: 2 Community members: 3 KHANA/IP: 4 Other NGOs: 5 Other (specify): 6</p>
CS4	What kind of support you think useful for you or your family today? (Multiple answers allowed)	<p>Psychological support: 1 Financial support: 2 Food: 3 Child education: 4 Finding a job: 5 Clothes and other materials: 6 Taking care of children: 7 Health care: 8 Life skill training: 9 Other (specify): 10</p>
CS5	During the past 6 months, has any home-based care provider visited you or your family?	<p>No (go to section 3): 0 Yes: 1 Don't know (go to section 3): 2</p>
CS6	During the past 6 months, what information have you or your family received from home-based care providers? (Multiple answers allowed)	<p>HIV/AIDS information : 1 Medicines and side effects : 2 Psychological support: 3 Health and hygiene education: 4 Other (specify): 5</p>

### Section 3. Health and nutrition

No	Question	Code of response
HN1	What is your HIV status?	<p>Positive: 1 Negative: 2 Don't know: 3</p>
HN2	In general, how would you rate your overall health?	<p>Very good: 1 Good: 2 Neither good nor poor: 3 Poor: 4 Very poor: 5</p>
HN3	In general, how would you rate your quality of life?	<p>Very good: 1 Good: 2 Neither good nor poor: 3 Poor: 4 Very poor: 5</p>
HN4	During the past 6 months, have you been very sick making you unable to work or go to school?	<p>No (Go to HN6): 0 Yes: 1</p>
HN5	During the past 6 months, how long have you been sick?	..... Days

HN6	On an average day, how many times do you have meal?	..... Times
HN7	In the past 6 months, have you had enough food to eat?	No: 0 Yes (go to Section 4): 1
HN8	What you think was the main reason that made you unable to get enough food to eat?	Family was too poor: 1 Too many children in family: 2 No one to prepare food regularly: 3 Don't know: 4 Other (specify): 5
HN9	During the past 6 months, has your family reduced the number of meal times because of not having enough food?	No: 0 Yes: 1 Don't know: 2
HN10	In general, do you think that your family has less amount of food than that of other families in your village?	No: 0 Yes: 1 Don't know: 2
HN11	Have you ever thought about ending your life?	No (go to section 5): 0 Yes: 1
HN12	Have you ever attempted to end your life?	No: 0 Yes: 1



## Section 1. Socio-economic characteristics and general health

No	Question	Code of response
SE1	How old are you?	.....Years
SE2	What is your current relationship status?	Never married: 1 Married and living together: 2 Married but not currently living together: 3 Not married but living with a partner: 4 In a relationship but not living together: 5 Divorced/separate/widow: 6
SE3	How many years of formal schooling have you completed?	.....Years
SE4	During the past 6 months, in average, how much money have you made per month?	..... Riel
SE5	With whom are you currently living?	Parents: 1 Relatives: 2 Spouse: 3 Friend: 4 Sexual partner: 5 Sibling: 6 Alone: 7 In an orphanage : 8 Other (specify): 9
SE6	How long have you worked in this career?	..... Months (1 if the answer is 1 month or less)
SE7	How long have you worked at the current place?	..... Months (1 if the answer is 1 month or less)
SE8	In general, how would you rate your overall health?	Very good : 1 Good: 2 Neither good nor poor: 3 Poor: 4 Very poor: 5
SE9	In general, how would you rate your overall quality of life?	Very good : 1 Good: 2 Neither good nor poor: 3 Poor: 4 Very poor: 5
SE10	Have you ever thought about ending your life?	No (go to section 2): 0 Yes: 1
SE11	Have you ever attempted to end your life?	No: 0 Yes: 1

## Section 2. Risky sexual behavior

No	Question	Code of response
RSB1	In your life time, have you had sexual intercourse?	No (go to section 3): 0 Yes: 1
RSB2	How old were you when you had sexual intercourse for the first time?	.....Years
RSB3	With whom did you have sex for the first time?	Husband: 1 Sweetheart: 2 Commercial partner: 3 Stranger (raped): 4 Other (specify): 5
RSB4	During the past 12 months, how many sexual partners have you had?	.....
RSB5	During the past 3 months, have you had sex with your sweetheart?	No (go to RSB8): 0 Yes: 1
RSB6	During the past 3 months, how often have you used condom when you had sex with your sweetheart?	Always: 1 Frequently: 2 Rarely: 3 Sometime: 4 Rarely: 5 Never: 6
RSB7	The last time you had sex with your sweetheart, did you use condom?	No: 0 Yes: 1
RSB8	During the past 3 months, have you had sex in exchange for money or gifts?	No (go to RSB15): 0 Yes: 1
RSB9	During the past 12 months, with how many clients have you had sex in exchange for money or gift?	.....
RSB10	During the past month, with how many people have you had sex in exchange for money or gift?	.....
RSB11	During the past week, with how many people have you had sex in exchange for money or gift?	.....
RSB12	During the past 3 months, have you had any client who requested you to not using a condom by ...?	No (Skip to RSB13): 0 Yes (Read below statement one by one): 1
	RSB12.1. Giving extra money	No                      Yes                      No answer 0                              1                              99
	RSB12.2. Threatening with a weapon	0                              1                              99
	RSB12.3. Threatening verbally	0                              1                              99
	RSB12.4. Getting you drunken with alcohol	0                              1                              99
	RSB12.5. Getting you intoxicated with illicit drugs	0                              1                              99

RSB13	During the past 3 months, how often have you used condom when you had sex in exchange for money or gifts?	Always: 1 Frequently: 2 Sometimes: 3 Rarely: 4 Never : 5
RSB14	In general, do you think you are able to find condom when you need it?	No: 0 Yes: 1 Don't know: 2

### Section 3. Sexual reproductive health and healthcare seeking behavior

No	Question	Code of response
SRH1	During the past 3 months, have you had any symptoms such as genital ulcer, swelling, or discharge with bad smell?	No (go to SRH6): 0 Yes: 1
SRH2	Did you seek for care and treatment for the symptoms?	No (go to SRH5): 0 Yes: 1
SRH3	If you sought for care and treatment, where did you receive the first care and treatment for the symptoms?	Public HC/clinic/hospital: 1 NGO clinic/hospital: 2 Private clinic/hospital: 3 Pharmacy: 4 Traditional healer: 5 Other (specify): 6
SRH4	Who advised you to seek for the most recent STI care and treatment?	Myself: 1 Friends/colleagues: 2 Peer educator/NGO's staff: 3 Boss/manger: 4 Other (specify): 5
SRH5	If you didn't seek for care and treatment for the symptoms, what was the main reason?	No idea where to go: 1 Feeling shameful: 2 Poor quality: 3 Couldn't afford the fee: 4 Service hours was not convenient: 5 Other (specify): 6
SRH6	In the past 3 months, have you received any information on SRH?	No (go to SRH8): 0 Yes: 1
SRH7	What were the main sources of the information on SRH you have received? (Multiple answers allowed)	Mass media (TV/radio/newspapers): 1 Peer educator: 2 Public healthcare providers: 3 Private healthcare providers: 4 NGOs: 5 Other (specify): 6
SRH8	Are you currently using any contraceptive method?	No (go to SRH10): 0 Yes: 1 Never have sex (Skip to SRH10): 2



SRH9	What contraceptive method are you currently using?	Pills: 1 Condom: 2 Implant : 3 Intrauterine device (IUD): 4 Injection: 5 Calendar: 6 Others (specify): 7
SRH10	In your lifetime, have you been pregnant?	No (go to section 4): 0 Yes: 1
SRH11	In your lifetime, how many time have you been pregnant?	..... Times (0 skip to section 4)
SRH12	How old were you when you became pregnant for the first time?	..... Years
SRH13	During your work as an EW, how many times have you been pregnant?	..... Times (0 skip to section 4)
SRH14	During your work as an EW, how many times have you had induced abortion?	..... Times
SRH15	How old was your most recent pregnancy when it was aborted?	..... Months
SRH16	Where did you receive the most recent abortion services?	Private clinic/hospital: 1 Pharmacy: 2 NGO clinic /hospital: 3 Public HC/clinic/hospital: 4 Traditional healer: 5 Others (specify): 6

#### Section 4. HIV/AIDS & STI

No	Question	Code of response
HIV1	Have you ever been tested for HIV?	No (go to HIV7): 0 Yes: 1
HIV2	During the past 6 months, have you been tested for HIV?	No: 0 Yes: 1
HIV3	Where did you get your most recent HIV test?	C/PITC: 1 Finger prick: 2 VCCT: 3 Private hospital/clinic/laboratory: 4 Public health center/hospital: 5 Other (specify): 6
HIV4	Who advised you to get the most recent HIV test?	By myself: 1 Boss/manager: 2 Friends/colleagues: 3 Family/relatives: 4 Peer educator/NGO's staff: 5 Other (specify): 6

HIV5	Did you receive the result of your most recent HIV test?	No: 0 Yes: 1
HIV6	Did you receive HIV counseling when you received your most recent result?	No: 0 Yes: 1
HIV7	If you have not been tested, what was the main reason for not willing to get tested?	Been tested: 0 No information about where to go: 1 Didn't think I am at risk for HIV: 2 Feeling scared of the test: 3 Feeling scared of positive result: 4 Concerned about confidentiality: 5 Concerned about stigma/discrimination: 6 Other (specify) : 7
HIV8	During the past 12 months, have you received any HIV education?	No (go to HIV10): 0 Yes: 1
HIV9	During the past 12 months, what were the main sources of HIV education you have received? (Multiple answers allowed)	Media (TV/radio/newspaper) : 1 Poster/billboard/booklet: 2 Peer educator/outreach: 3 Counseling at VCCT: 4 Health staff at public facility : 5 Other (specify): 6
HIV10	How do you regard yourself in terms of HIV infection risk compared to general people?	Much higher: 1 Higher: 2 Same: 3 Lower: 4 Much lower: 5 Don't know: 6
HIV11	During the past 6 months, have you been diagnosed with an STI?	No (go to next section): 0 Yes: 1
HIV12	Did you receive any treatment for your most recent STI?	No (go to section 5): 0 Yes: 1
HIV13	Where did you receive the treatment for your most recent STI?	Public HC/clinic/RH: 1 Pharmacy: 2 NGO clinic/hospital: 3 Private clinic/hospital: 4 Traditional healer: 5 Other (specify): 6

# Appendix 4: Questionnaire for MSM/TG

Questionnaire number □□□

## [Introduction: The following is to be read by the interviewer to the respondent]

My name is.....from KHANA. We are conducting a survey to evaluate the impacts of the SAHACOM Project. We would like to learn more about MSM/TG in regards to the results of HIV/AIDS program, their health risks, access to health care as well as their physical and mental health. The results from the survey will help us evaluate the effectiveness of what we have done in the past five years. We would like to request for your cooperation for about 30-45 minutes for an interview. Some of these questions are personal. However, you are free to refuse or discontinue the participation at any time without any consequences. All your answers will be absolutely confidential. I do not know your name, and there is no way that anyone can learn how you answered these questions. Please be truthful in your responses. Your participation is very important for the development of effective interventions and provision of supports for you and other people like yourself.

### For more information or queries, please contact Dr. Yi Siyan, Research Director, KHANA:

Mobile: 012-417-170 | Landline: 023-211505, Ext.303| Fax: 023-214-049

Mailing: No. 33, Street 71, Phnom Penh, Cambodia, P.O Box. 2311 Phnom Penh 3

E-mail: ysiyan@khana.org.kh

**Note:** For interview of MSM/TG aged 15 and older

Do you agree to be interviewed?                      0. No                      1. Yes

Signature of the interviewer as a proof of receiving verbal consent from participant

..... Date.....

Did the interviewee abandon the interview? 0. No                      Yes (Specify question number.....)

Supervisor's name..... Date: .....

Data Entry Clerk 1: ..... Date: .....

Data Entry Clerk 2: ..... Date: .....

Provincial Code:                      2. Battambang                      3. Siem Reap

## Section 1: Socio demographic characteristics and general health

No	Question	Code of response
SE1	How old are you?	.....Years
SE2	How do you regard yourself in terms of your own gender identity?	Male: 1 Female: 2 Both: 3
SE3	What is your current relationship status?	Never married: 1 Married and living together: 2 Married but not currently living together: 3 Not married but living with a partner : 4 In a relationship but not living together: 5 Divorced/separate/widow: 6 Other (specify): 7
SE4	How many years of formal schooling have you completed?	.....Years
SE5	What is your main occupation?	Unemployment: 1 Student: 2 Motor/taxi driver: 3 Farmer: 4 Laborer: 5 Self-employed business Office: 6 Worker (government, private company, NGO): 7 Uniformed officer (policeman, soldier): 8 Other (specify).....: 9
SE6	In the past 6 months, in average, how much money have you earned per month?	..... Riel
SE7	With whom are you currently living?	Parents: 1 Relative: 2 Spouse: 3 Friend: 4 Sexual partner: 5 Siblings: 6 Alone: 7 In an orphanage: 8 Other (specify): 9
SE8	How long have you lived in this city?	..... Months (1 if the answer is 1 month or less)
SE9	What type of accommodation are you currently living in?	Own home: 1 Rented home: 2 Someone's home: 3 Orphanage: 4 No home: 5 Other (specify): 6

SE10	In general, how would you rate your overall health?	Very good : 1 Good: 2 Neither good nor poor: 3 Poor: 4 Very poor: 5
SE11	In general, how would you rate your overall quality of life?	Very good : 1 Good: 2 Neither good nor poor: 3 Poor: 4 Very poor: 5
SE12	Have you ever thought about ending your life?	No: 0 Yes: 1
SE13	Have you ever attempted to end your life?	No: 0 Yes: 1

## Section 2. HIV/AIDS and STI

No	Question	Code of response
HIV1	Have you ever been tested for HIV?	No (go to HIV7): 0 Yes: 1
HIV2	Where did you get your most recent HIV test?	No: 0 Yes: 1
HIV3	Where did you get your most recent HIV test?	C/PITC: 1 Finger prick: 2 VCCT: 3 Private hospital/clinic/laboratory: 4 Public health center/hospital: 5 Other (specify): 6
HIV4	Who advised you to get the most recent HIV test?	By myself: 1 Boss/manager: 2 Friends/colleagues: 3 Family/relatives: 4 Peer educator/NGO's staff: 5 Other (specify): 6
HIV5	Did you receive the result of your most recent HIV test?	No: 0 Yes: 1
HIV6	Did you receive HIV counseling when you received your most recent result?	No: 0 Yes: 1
HIV7	If you have not been tested, what was the main reason for not willing to get tested?	Been tested: 0 No information about where to go: 1 Didn't think I am at risk for HIV: 2 Feeling scared of the test: 3 Feeling scared of positive result: 4 Concerned about confidentiality: 5 Concerned about stigma/discrimination: 6 Other (specify) : 7

HIV8	During the past 12 months, have you received any HIV education?	No (go to HIV10): 0 Yes: 1
HIV9	During the past 12 months, what were the main sources of HIV education you have received? (Multiple answers allowed)	Media (TV/radio/newspaper): 1 Poster/billboard/booklet: 2 Peer educator/outreach : 3 Counseling at VCCT: 4 Health staff at public facility: 5 Other (specify): 6
HIV10	How do you regard yourself in terms of HIV infection risk compared to general people?	Much higher: 1 Higher: 2 Same: 3 Lower: 4 Much lower: 5 Don't know: 6
HIV11	During the past 6 months, have you been diagnosed with an STI?	No (go to next section): 0 Yes: 1
HIV12	Did you receive any treatment for your most recent STI?	No (go to next section): 0 Yes: 1
HIV13	Where did you receive the treatment for your most recent STI?	Public HC/clinic/RH: 1 Pharmacy: 2 NGO clinic/hospital: 3 Private clinic/hospital: 4 Traditional healer: 5 Other (specify): 6

### Section 3. Risky sexual behavior

No	Question	Code of response
RSB1	Have you ever had sexual intercourse with a man or a woman?	No (go to RSB5): 0 Yes: 1
RSB2	During the past 3 months, with how many partners have you had sexual intercourse?	.....
RSB3	During the past 3 months, how often have you used condom when you had sexual intercourse with men or women?	Always: 1 Most of the time: 2 Sometimes: 3 Rarely: 4 Never: 5
RSB4	Did you use a condom in your most recent sexual intercourse?	No: 0 Yes: 1
RSB5	During the past 12 months, have you had a girlfriend?	No (go to RSB10): 0 Yes: 1
RSB6	During the past 3 months, have you had sex with your girlfriend?	No (go to RSB10): 0 Yes: 1
RSB7	During the past 3 months, with how many girlfriends have you had sexual intercourse?	.....

RSB8	During the past 3 months, how often have you used condom when you had sex with your girlfriends?	Always: 1 Most of the time: 2 Sometimes: 3 Rarely: 4 Never: 5
RSB9	The last time you had sex with your girlfriend, did you use condom?	No: 0 Yes: 1
RSB10	During the past 3 months, have you had a boyfriend?	No (go to RSB17): 0 Yes: 1
RSB11	During the past 3 months, have you had sex with your boyfriend?	No (go to RSB18) : 0 Yes: 1
RSB12	During the past 3 months, with how many boyfriends have you had sexual intercourse?	.....
RSB13	During the past 3 months, how often have you used condom with your boyfriend?	Always: 1 Most of the time: 2 Sometimes: 3 Rarely: 4 Never: 5
RSB14	The last time you had sex with your boyfriend, did you use condom?	No: 0 Yes: 1
RSB15	During the past 3 months, have you had anal sex with your boyfriend?	No (go to RSB17): 0 Yes: 1
RSB16	During the past 3 months, how often have you used condom when you had anal sex with your boyfriend?	Always: 1 Most of the time: 2 Sometimes: 3 Rarely: 4 Never: 5
RSB17	The last time you had anal sex with your boyfriend, did you use condom?	No: 0 Yes: 1
RSB18	During the past 3 months, have you had sex with a female commercial sex worker?	No (go to RSB22): 0 Yes: 1
RSB19	During the past 3 months, with how many female commercial sex workers have you had sex?	.....
RSB20	During the past 3 months, how often have you used condom when you had sex with female commercial sex workers?	Always: 1 Most of the time: 2 Sometimes: 3 Rarely: 4 Never: 5
RSB21	The last time you had anal sex with a female commercial sex worker, did you use condom?	No: 0 Yes: 1
RSB22	During the past 3 months, have you had sex with a male commercial sex worker?	No (go to RSB26): 0 Yes: 1

RSB23	During the past 3 months, with how many male commercial sex workers have you had sex?	.....
RSB24	During the past 3 months, how often have you used condom when you had sex with male commercial sex workers?	Always: 1 Most of the time: 2 Sometimes: 3 Rarely: 4 Never: 5
RSB25	The last time you had sex with a male commercial sex worker, did you use condom?	No: 0 Yes: 1
RSB26	During the past 3 months, have you ever had sex with a woman in exchange for money or gifts?	No (go to RSB30): 0 Yes: 1
RSB27	During the past 3 months, with how many women have you had sex in exchange for money or gifts?	.....
RSB28	During the past 3 months, how often have you used condom when you had sex with women in exchange for money or gifts?	Always: 1 Most of the time: 2 Sometimes: 3 Rarely: 4 Never: 5
RSB29	The last time you had sex with a woman in exchange for money or gifts, did you use condom?	No: 0 Yes: 1
RSB30	During the past 3 months, have you had sex with a man in exchange for money or gifts?	No (go to the next section): 0 Yes: 1
RSB31	During the past 3 months, with how many men have you had sex in exchange for money or gifts?	.....
RSB32	During the past 3 months, how often have you used condom when you had sex with men in exchange for money or gifts?	Always: 1 Most of the time: 2 Sometimes: 3 Rarely: 4 Never: 5
RSB33	The last time you had sex with a man in exchange for money or gifts, did you use condom?	No: 0 Yes: 1
RSB34	During the past 3 months, have you had anal sex with men in exchange for money or gifts?	No: 0 Yes: 1
RSB35	During the past 3 months, how often have you used condom when you had anal sex with men in exchange for money or gifts?	Always: 1 Most of the time: 2 Sometimes: 3 Rarely: 4 Never: 5
RSB36	During the past 3 months, how often have you used lubricant when you had anal sex with men in exchange for money or gifts?	Always: 1 Most of the time: 2 Sometimes: 3 Rarely: 4 Never: 5



# Appendix 5: Questionnaire for PWUD/PWID

Questionnaire number □□□

## [Introduction: The following is to be read by the interviewer to the respondent]

My name is.....from KHANA. We are conducting a survey to evaluate the impacts of the SAHACOM Project. We would like to learn more about people who use drugs (PWUD) and people who inject drugs (PWID) in regards to the results of harm reduction, HIV/AIDS program, health risk behavior, and access to health care services. The results from the survey will help us evaluate the effectiveness of what we have done in the past five years. We would like to request for your cooperation for about 30-45 minutes for an interview. Some of these questions are personal. However, you are free to refuse or discontinue the participation at any time without any consequences. All your answers are absolutely confidential. I do not know your name, and there is no way that anyone can learn how you answered these questions. Please be truthful in your responses. Your participation is very important for the development of effective interventions and provision of supports for you and other people like yourself.

### For more information or queries, please contact Dr. Yi Siyan, Research Director, KHANA:

Mobile: 012-417-170 | Landline: 023-211505, Ext.303 | Fax: 023-214-049

Mailing: No. 33, Street 71, Phnom Penh, Cambodia, P.O Box. 2311 Phnom Penh 3

E-mail: ysiyan@khana.org.kh

**Note:** For interview of PWUD/PWID aged 15 and older

Do you agree to be interviewed? 0. No 1. Yes

Signature of the interviewer as a proof of receiving verbal consent from participant

..... Date.....

Did the interviewee abandon the interview? 0. No Yes (Specify question number.....)

Supervisor's name: ..... Date: .....

Data Entry Clerk 1: ..... Date: .....

Data Entry Clerk 2: ..... Date: .....

Provincial Code: 1. Phnom Penh

## Section 1. Socio demographic characteristics and general health

No	Question	Code of response
SE1	How old are you?	.....Years
SE2	Sex of respondent?	Male: 1 Female: 2 TG: 3
SE3	How do you regard yourself in terms of your own gender identity?	Male: 1 Female: 2 Both: 3
SE4	What is your current relationship status?	Never married: 1 Married and currently living together: 2 Married but not currently living together: 3 Not married but currently living with a partner : 4 In a relationship but not currently living together: 5 Divorced/separate/widow: 6
SE5	How many years of formal schooling have you completed?	..... Years
SE6	What is your main occupation?	Unemployment: 1 Student: 2 Motor/taxi driver: 3 Farmer: 4 Uniformed officer (policeman, soldier): 5 Office worker (government, private company, NGO): 6 Laborer : 7 Self-employed business: 8 Entertainment worker: 9 Other (specify): 10
SE7	During the past 12 months, in average, how much money have you earned per month?	..... Riel
SE8	With whom are you currently living?	Parents: 1 Relative: 2 Spouse: 3 Friend: 4 Sexual partner: 5 Sibling: 6 Alone: 7 In an orphanage: 8 Other (specify): 9
SE9	How long have you lived in this city?	..... Months (1 if the answer is 1 month or less)
SE10	What type of accommodation are you currently living in?	Own home: 1 Rented home: 2 Someone's home: 3 Orphanage: 4 No home: 5 Other (specify): 6

SE11	In general, how would you rate your overall health?	Very good: 1 Good: 2 Neither good nor poor: 3 Poor: 4 Very poor: 5
SE12	In general, how would you rate your overall quality of life?	Very good: 1 Good: 2 Neither good nor poor: 3 Poor: 4 Very poor: 5
SE13	Have you ever thought about ending your life?	No: 0 Yes: 1
SE14	Have you ever attempted to end your life?	No: 0 Yes: 1

## Section 2. Illicit drug and other substance use

No	Question	Code of response
SU1	During the past 3 months, what type of drugs have you used?	Methamphetamine (Yama, Yaba, Ice): 1 Heroin: 2 Ecstasy: 3 Sniffed glue : 4 Marijuana: 5 Other (Specify): 6
SU2	How long have you used drugs?	..... Months
SU3	How old were you when you tried any kind of illicit drugs for the first time?	.....Years
SU4	In the past 3 months, how often have you used any kind of illicit drugs?	A few times per months or less: 1 A few times per week: 2 Most of the day: 3 Everyday: 4
SU5	In average, how much do you spend for drugs per day?	..... Riel
SU6	Last time you used drug, with whom did you use?	Alone: 1 Friends/colleagues: 2 Sex partner: 3 Sweetheart/spouse: 4 Other (specify): 5
SU7	During the past 3 months, has anyone forced you to use illicit drugs?	No: 0 Yes: 1
SU8	What led you to try illicit drugs for the first time?	I tried it by myself: 1 Someone gave it to me: 2 Someone forced me to take it: 3 I tried it with friends: 4 Other (specify): 5
SU9	During the past 3months, have you used injecting drugs?	No (go to H16): 0 Yes: 1

SU10	During the past 3 months, how often have you used needles/syringes that had been used by someone else?	Never (Skip to SU12): 1 Rarely: 2 Sometime: 3 Most of the time: 4 Always: 5
SU11	Last time you injected drug, did you use needles/syringes that had been used by someone else?	No: 0 Yes: 1
SU12	During the past 3 months, how often have you shared needles or syringes with someone else?	Never (Skip to SU12): 1 Rarely: 2 Sometimes: 3 Most of the time: 4 Always: 5
SU13	The last time you injected drug, did you share needles or syringes with someone else?	No: 0 Yes: 1
SU14	Do you think you can find needle/syringes whenever you need?	No: 0 Yes: 1
SU15	During the past 3 months, how have you received needles/syringes?	Bought by myself: 1 Drug dealers: 2 Other drug users: 3 Outreach workers: 4 NGOs: 5 Drop-in center: 6 Other (specify): 7
SU16	Have you been arrested by police because of your drug abuse or trafficking?	No: 0 Yes: 1
SU17	Have you ever been sent to a drug rehabilitation center?	No: 0 Yes: 1
SU18	During the past 12 months, have you ever been sent to a drug rehabilitation center?	No (skip to SU20): 0 Yes: 1
SU19	The last time you were sent to rehabilitation center, how long did you stay there?	..... Months
SU20	Have you ever been incarcerated?	No (Skip to SU 24): 0 Yes: 1
SU21	How many times have you been incarcerated?	..... Times
SU22	The last time, how long were you incarcerated?	..... Months
SU23	What was the main cause of your most recent incarceration?	Illicit drug abuse: 1 Drug trafficking: 2 Crime related to drug abuse: 3 Other crimes: 4 Other (specify): 5

SU24	During the past 3 months, have you drunk at least a full glass of any kinds of alcohol?	No (go to SU28): 0 Yes: 1
SU25	During the past month, on how many days have you been drunk?	..... Days
SU26	How do you regard yourself in terms of alcohol drinking?	Non-drinker: 0 Social drinker: 1 Heavy drinker : 2
SU27	How old were you when you drank at least a full glass of alcohol for the first time?	..... Years
SU28	In your lifetime, have you smoked at least 100 cigarettes?	No (go to next section): 0 Yes: 1
SU29	During the past 3 months, on an average day, how many cigarettes have you smoked ?	.....Cigarettes
SU30	How old were you when you smoked at least a whole cigarette for the first time?	..... Years

### Section 3. Risky sexual behavior

No	Question	Code of response
RSB1	In your lifetime, have you ever had sexual intercourse?	No (go to next section): 0 Yes: 1
RSB2	How old were you when you had sexual intercourse for the first time?	..... Years
RSB3	During the past 3 months, have you had sexual intercourse?	No (go to next section): 0 Yes: 1
RSB4.	During the past 3 months, with how many different partners have you had sexual intercourse?	.....
RSB5	The last time you had sexual intercourse, did you or your partner use a condom?	No: 0 Yes: 1
RSB6	Have you ever had sex when you or your partners were intoxicated with drugs?	No: 0 Yes: 1
RSB7	During the past 3 months, have you had sex with a sweetheart?	No (go to RSB9): 0 Yes: 1
RSB8	During the past 3 months, how often have you or your partners used condom when you had sex with your sweetheart?	Never: 1 Rarely: 2 Sometimes: 3 Most of the time: 4 Always: 5
RSB9	During the past 3 months, have you bought or sold sex?	No (go to RSB11): 0 Yes: 1

RSB10	During the past 3 months, how often have you or your partner used condom when you bought or sold sex?	Never: 1 Rarely: 2 Sometimes: 3 Most of the time: 4 Always: 5
RSB11	Have you or your partner ever experienced pregnancy?	No (go to next section): 0 Yes: 1
RSB12	How old were you or your partner when you or your partner experienced the first pregnancy?	.....
RSB13	Have you or your partner ever experienced induced abortion?	No: 0 Yes: 1
RSB14	How old were you or your partner when you or your partner experienced the first abortion?	.....
RSB15	How many times have you or partner experienced induced abortion?	.....
RSB16	The last time you or your partner had induced abortion, where did you or your partner receive the services?	Public HC/clinic/hospital: 1 Private clinic/hospital: 2 NGO clinic/hospital: 3 Pharmacy: 4 Traditional healer/TBA: 5 Other (specify): 6

#### Section 4. HIV/AIDS and STI

No	Question	Code of response
HIV1	Have you ever been tested for HIV?	No (go to HIV8): 0 Yes: 1
HIV2	In the past 6 months, have you been tested for HIV?	No (go to HIV8): 0 Yes: 1
HIV3	Where did you get your most recent HIV test?	C/PITC: 1 Finger prick: 2 VCCT: 3 Public health center/hospital: 4 Private hospital/clinic/laboratory: 5 Other (specify): 6
HIV4	Who advised you to get the most recent HIV test?	Myself: 1 Boss/manager: 2 Friends/colleagues: 3 Family/relatives: 4 Peer educator/NGO's staff: 5 Other (specify): 6
HIV5	Did you receive the result of your most recent HIV test?	No: 0 Yes: 1
HIV6	Did you receive HIV counseling when you received your most recent result?	No: 0 Yes: 1

HIV7	If you have not been tested, what was the main reason for not willing to get tested?	No information about where to go: 1 Didn't think I am at risk for HIV: 2 Feeling scared of the test: 3 Feeling scared of positive result: 4 Concerned about confidentiality: 5 Concerned about stigma: 6 Other (specify): 7
HIV8	During the past 3 months, have you received any HIV education?	No (go to HIV11): 0 Yes: 1
HIV9	What were the main sources of HIV education you have received? (Multiple answers allowed)	Media (TV/radio/newspaper): 1 Poster/billboard/booklet: 2 Trainings /AIDS campaign: 3 Peer educator/outreach worker: 4 Counseling at VCCT: 5 Other (specify) : 6
HIV10	How do you regard yourself in terms of HIV infection risk compared to general people?	Much higher: 1 Higher: 2 Same: 3 Lower: 4 Much lower: 5 DK: 6
HIV11	During the past 6 months, have you been diagnosed with an STI?	No: 0 Yes: 1
HIV12	Did you receive any treatment for your most recent STI?	No (go to next section): 0 Yes: 1
HIV13	Where did you receive the treatment for your most recent STI?	Public HC/clinic/RH: 1 Pharmacy: 2 NGO clinic/hospital: 3 Private clinic/hospital: 4 Traditional healer: 5 Other (specify): 6

# Appendix 6: Guided question for Focus Group Discussion with OVC caregivers

## Introduction:

Facilitator conducts self-introduce and objective of the discussion to the group with inform consent to stop participation if the participants need. Facilitator informs the group about possible time consuming and voice recording during the discussion.

## Information of the participants:

No	Sex	Age	Marital Status	Number of children in family	Address
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

## Status of children in the family:

No	Number of children in care	What relation to care giver	Period of Care (year)	HIV status of Children

## Providing support for OVC

1. Why do you decide to provide care support to OVC?
2. How care support to OVC affects to your living?



### Quality of care and support OVC

3. What does OVC (over 6 years old) help you for your work?
4. What kind of care support does your OVC get from you? ( please ask about health care, food, clothes, study by comparing children(not OVC) in your household)
5. How is it about your OVC health status?

### Support related to OVC

6. What support do you get for caring OVC?( please raise each program-psychological support, food, social welfare, school uniform, material for study)
7. How these supports can alleviate for caring OVC? (Compare before service and current)
8. Do you participate in SHG? What SHG can help their members? What activities should this group add more to provide more benefits to OVC?

### Quality of Service

9. Do you satisfy Home Based Care? Why?
10. How do you satisfy services that provide by SHG?
11. How do you satisfy education and information about AIDS?
12. Do you satisfy skill training of income generating activities? Why?

### Organization Activities to provide support in community

13. What do you think Khana should improve to provide more benefits to you, your family, or community?
14. Did these services respond to your real demand? Why?

### Knowledge, Attitude to PLHIV, and people in community

15. Did you used to get information to reduce discrimination and stigma to PLHIV in your village? How is it effective?
16. How do you think people in your community understand about transmission and prevention HIV?
17. Do you have anything to add more?

# Appendix 7: Guided question for In-depth Interview with OVC (age 11 years and over)

## Introduction:

Interviewer introduce identity and objective of the discussion to the group with inform consent to stop participation if the participants need. Facilitator informs the group about possible time consuming, taking photo and voice recording during the discussion and permission from care givers.

**Note:** Interviewee must be in the project at least for 2 years and age from 11 to 18 years

## Start the interviewing:

1. How old are you?
2. Who do you live with? Do you have parents?
3. How many siblings do you have?

## Living situation of OVC

4. How many members in your household? Who is the breadwinner for the whole family?
5. Who is your guardian?

## Study status

6. What grade do you study? How do you go to school? How many times do you study per day?
7. What material do you have for study? What material do you want for your study?

## Discrimination in school

8. How many friends do you have? Do you play with other classmates in your class?
9. Did you face any problem that other friends not allow you to play with?
10. Did your classmates used to look down on you by raising your parent's disease?
11. How does your teacher pay attention to your study if compare to other students in class?
12. Do you want to go to study? What reasons make you think like this?

## Discrimination in School

13. Did your classmate use to look down on you by raising your parents 'disease'?
14. How much your teacher taking care of your study if compare to other children in your class?
15. Do you want to study? Why do you want to do that?

## Discrimination in Community

16. Did you face any problem that children in village not allow you to play with them?
17. Did children in village used to look down on you by raising your parents 'disease'?

## Food and health

18. How many meals do you eat per day? What food do you eat? Do you think how you should eat to have enough food every day?
19. What do you do for housework?
20. How about your health status? What should you do to make your health better?

## Support for OVC affected by AID

21. What support do you get besides from your family? (Please raise each program-psychological support, food, clothes, social welfare, uniform, material to school, health and other happy program, etc...)
22. How these supports can help you? ( Compare your currently situation and before you got support from NGOs)
23. What SHG help you (OVC)? Do you satisfy this support?

## Quality of services that you got

24. How do you satisfy SHG service? What activities should this group add more to provide more benefits to OVC?
25. How do you satisfy psychological support? What it helps to you?
26. How do you satisfy for helping OVC?
27. How do you satisfy food support (rice, oil, and salt)?
28. How do you satisfy happy program?
29. How do you satisfy (shelter, food, clothes, and other support)?
30. Do you have anything to add more?

# Appendix 8: Guided question for Focus Group Discussion with PLHIV

## Introduction:

Facilitator introduces identity and objective of the discussion to the group with inform consent to stop participation if the participants need. Facilitator informs the group about possible time consuming (about 1.30 min), taking photo and voice recording during the discussion and permission from care givers.

**Note:** Interviewee must be in the project at least for 1 year

## Demographic information of participants:

No	Sex	Age	Marital Status	Number of children in family	Length of living with HIV
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

## HIV Status

1. Did your partner or family know that you had HIV? And do you know HIV status of your partner or family?
2. Please describe about your status when you just knew that you had HIV (health status, living, feeling, and reaction from your family and villagers when they knew that you had HIV)?

## Care Support

3. How long have you got ARV? How do you get ARV?
4. How your health change after you got ARV? Compare your health status nowadays to the last year?
5. Do you get service provide by SHG? What services they provide to PLHIV and family?

## Life quality of PLHIV (Health, living, discrimination, environment)

6. Do you satisfy for creating SHG, skill training, and HBC? What benefits do they provide to PLHIV and OVC?
7. How do you feel about your daily food and living safety?

8. How do your people in community make communication with you (PLHIV)? Comparing to last 2-3 years how this relationship changed?
9. Now how do you satisfy your health status? What make your health better?
10. Now how do you satisfy your energy for daily work?

#### **Reduce behaving that faces the risk**

11. What do you do to prevent from transmission from you to others? Does your partner have HIV? What do you think for future?

#### **NGO activities that provide services in community and sustainable in the future**

12. What do you think Khana should improve to provide more benefits to you, your family, or community?
13. What do you think about budget for referral? What will you do if there is no food support?
14. What do you think if there is no SAHACOM project anymore?
15. Do you have anything to add more?

# Appendix 9: Guided question for In-Depth Interview with PLHIV

## Introduction:

Interviewer introduces identity and objective of the discussion to the group with inform consent to stop participation if the participants need. Interviewer informs the group about possible time consuming (about 1.30 min), taking photo and voice recording during the discussion and permission from care givers.

**Note:** Interviewee must be in the project at least for 1 year

## Start the interviewing:

1. How old are you? ..... Year                      Sex: ...
2. Are you married? How many children do you live with?

## PLHIV status

3. How long did you know you had HIV?
4. Does your partner or family know that you had HIV? And do you know HIV status of your partner or family?

## Care and Treatment

5. How long have you got ARV? How do you get ARV?
6. How your health change after you got ARV? Compare your health status nowadays to the last year?
7. Do you get HBC service? What services they provide to PLHIV and family?
8. What is usefulness of HBC service to you and your family?
9. Do you join in SHG? Why? What activities this group has? What usefulness of each activity to each member?

## Quality of life of PLHIV (Health, living, discrimination, environment)

10. How do you feel about your daily food and living safety?
11. Now how do you satisfy your energy for daily work?
12. Do you satisfy for creating SHG? What benefit the group provides to PLHIV and OVC?
13. How do you satisfy skill training, budget, resource that can use to earn more income?
14. Now how do you satisfy your health status? What make your health better?
15. Now how do you satisfy health support (friend, neighbor, family health service provider, and community)?

## Reduce behaving that faces Risk

16. After you knew you had HIV, how your sexual activities change?
17. How you use condom? (With sex worker, mistress, and wife/husband)? (ask only for man)
18. After you got ARV, did you used to find sexual service?( ask only for man)

## NGOs activities that provide in your community

19. What Khana/IPs provide to you, family community?
20. What do you think Khana should improve to respond for your demand and your community?
21. Do you have anything to add more?

# Appendix 10: Guided question for Key Informant Interview with village chief, community, health center, and operational district/ provincial AIDS office staff

## Introduction

Interviewer introduces identity and objective of the discussion to the group with inform consent to stop participation if the participants need. Interviewer informs the group about possible time consuming (about 1.30 min), taking photo and voice recording during the discussion and permission from care givers.

## Relation and activities of KHANA and IPs

1. How long have you had work collaboration with Khana and IPs? Does your institution have MOU with Khana/ IPs? What is your communication mechanism?
2. Do you know what programs Khana/ IPs implement in your community?

## Benefit and getting through program

3. What do you think about programs that Khana/IPs have implemented to prevent from spreading out HIV and support PLHIV in your community? ( effectiveness and efficiency)
4. What changes do you observe if you compare before and after implementing program in your community?

## Program implementing

5. How do you think programs that implemented respond to your demand of target population and real situation in community?
6. How smooth do you think all programs of Khana and IPs to collaborate with other NGOs or public institution in location that are implementing?
7. What changes do you think quality of life of PLHIV and OVC after getting service that provide by Khana/IPs?
8. Do you think how target population satisfies service that provide by Khana/IPs?
9. Do you think the program that is implementing is sustainable if this project end? Why? What should they do to ensure the sustainability of program?

## Experience relate to implement program

10. What do you think Khana should improve to provide more benefits to you, your family, or community?
11. Do you have anything to add more?

# Appendix 11: Guided question for Focus Group Discussion and In-depth Interview with Entertainment Worker (EW)

## Introduction:

Facilitators introduce identity and objective of the discussion to the group, as well as inform them about their rights. Facilitator informs the group about possible time consuming (about 60 min). Ask them for the permission in using voice recorder and photograph during the discussion.

**Note:** Interviewee must be in the project at least for 2 years.

## General information of the group discussion participants

No	Age	Sex	Level of education

## Service quality and receiving

1. What services have you received from KHANA?
2. How do you think about the above services? Timely served, responded to the real needs/qualified?
3. In your opinion, how is the constant use of condom non-transactional partner?
4. In your opinion, What is the impacts of moving of EW to prevention program?
5. Did the outreach worker and NGO staff meet you frequently? What did they do?

## Successful behavioral change, education and discrimination

6. What do you consider as the successes in reduction of HIV/AIDS infection? (Constant use of condom/lubricant, negotiation skill, early STI treatment, HIV blood testing)
7. Do you think how is your group risking to HIV/AIDS infection? How is your group confident and capable in solving this issue?
8. How is the stigma and discrimination on the group of people who inject drug in present? (Family and community)
9. Comparing with other targets, do you think your group is at higher risk? Why?
10. Would you like to recommend anything else so as to make this program more quality and effective?



# Appendix 12: Guided question for Focus Group Discussion and In-depth Interview with Men Have Sex with Men (MSM)

## Introduction:

Facilitators introduce identity and objective of the discussion to the group, as well as inform them about their rights. Facilitator informs the group about possible time consuming (about 60 min). Ask them for the permission in using voice recorder and photograph during the discussion.

**Note:** Interviewee must be in the project at least for 2 years.

## General information of the group discussion participants

No	Age	Sex	Level of education

## Service quality and receiving

1. What services have you received from KHANA?
2. How do you think about the above services? Timely served, responded to the real needs/qualified?
3. In your opinion, how is the constant use of condom non-transactional partner?
4. In your opinion, what is the impact of moving of MSM to prevention program?
5. Did the outreach worker and NGO staff meet you frequently? What did they do?

## Successful behavioral change, education and discrimination

6. What do you consider as the successes in reduction of HIV/AIDS infection? (Constant use of condom/lubricant, negotiation skill, early STI treatment, HIV blood testing)
7. Do you think how is your group risking to HIV/AIDS infection? How is your group confident and capable in solving this issue?
8. How is the stigma and discrimination on the group of people who inject drug in present? (Family and community)
9. Comparing with other targets, do you think your group is at higher risk? Why?
10. Would you like to recommend anything else so as to make this program more quality and effective?

# Appendix 13: Guided question for Focus Group Discussion and In-depth Interview with the People Who Inject Drug (PWID)

## Introduction:

The facilitator has to introduce his/herself to the participants and the objectives of the group discussion as well as inform them about their rights. Furthermore, he/she has to tell about the time which would be spent for the discussion (about an hour). Ask them for the permission in using voice recorder and photograph during the discussion.

**Note:** select those who have participated in the program for more than 2 years.

## General information of the group discussion participants

No	Age	Sex	Level of education

## Service quality and receiving

1. How long have you used drug?
2. Do you use it alone or as group?
3. What are the drugs mostly used?
4. What services have you received from KHANA?
5. How do you think about the above services? Timely served, responded to the real needs/qualified?
6. In your opinion, how is the constant use of condom among people who inject drug?
7. Personally, how does the fear of police effect on the program of prevention?
8. Did the outreach worker and NGO staff meet you frequently? What did they do?
9. Have you ever been sent to the rehabilitation center? How? Why did you re-use the drug?

## Successful behavioral change, education and discrimination

10. What do you consider as the successes in reduction of HIV/AIDS infection? (Constant use of condom, negotiation skill, early STI treatment, HIV blood testing, needle/syringe use, stop of drug use)
11. Do you think how is your group risking to HIV/AIDS infection? How is your group confident and capable in solving this issue?
12. How is the stigma and discrimination on the group of people who inject drug in present? (Family and community)
13. Comparing with other targets, do you think your group is at higher risk? Why?
14. Would you like to recommend anything else so as to make this program more quality and effective?

**Photo credit**

**Page 5 @ KHANA, 2010**

**Page 13 & 50 @ Pheak Chhoun, 2014**

## Our Implementing Partners:



#33, Street 71, Sangkat Tonle Bassac,  
Khan Chamkarmon, Phnom Penh, P.O.Box 2311  
Phnom Penh 3, Kingdom of Cambodia  
Tel: 023 211 505 | Fax: 023 214 049  
Website: [www.khana.org.kh](http://www.khana.org.kh)



Khana is a linking organisation of the global partnership  
International HIV/AIDS Alliance  
Supporting Community Action on AIDS in Developing Countries

The International HIV/AIDS Alliance (Alliance Secretariat)  
Preece House, 91-101 Davigdor Road, Hove, BN3 1RE, UK  
Tel: +44(0) 12 7371 8900 | Fax: +44(0) 12 7371 8901  
E-mail: [mail@aidsalliance.org](mailto:mail@aidsalliance.org) | [www.aidsalliance.org](http://www.aidsalliance.org)